ORDINANCE NO. 20352

AN ORDINANCE UPDATING THE GOAL 5 INVENTORY WITHIN THE EUGENE URBAN GROWTH AREA; ADOPTING THE GOAL 5 WATER RESOURCES CONSERVATION PLAN WITHIN THE EUGENE URBAN GROWTH AREA; REPEALING ORDINANCE NO. 20295; AMENDING SECTION 9.7810 OF THE EUGENE CODE, 1971; ADOPTING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

The City Council of the City of Eugene finds that:

A. Statewide Planning Goal Five requires local governments to protect significant riparian corridors, upland wildlife habitat and wetlands. In order to conserve these resources and the biological systems they contain and support, this Ordinance adopts provisions to conserve the physical resources and also protect the water quality within the resource areas as a fundamental and essential requirement for continued survival of these biological systems.

B. Ordinance No. 20295, adopted by the Council and approved by the Mayor on July 28, 2003, adopted as Exhibit A to that Ordinance, a list of criteria for use in determining the significance of riparian corridor sites and upland wildlife habitat sites for purposes of updating the Goal 5 inventory within the Eugene Urban Growth Area. The list of criteria is now more appropriately located in the Goal 5 Water Resources Conservation Plan.

C. Exhibit B to Ordinance No. 20295 is a list and a map, both entitled "Goal 5 Riparian and Upland Wildlife Habitat Sites Within the Eugene Urban Growth Boundary." The list and map, which updated the inventory of significant riparian corridor sites and upland wildlife habitat sites based on the criteria listed in Exhibit A to Ordinance No. 20295, are now more appropriately included in the Goal 5 Water Resources Conservation Plan. Further, updates to the list and map are needed to more accurately depict the location and/or acreage of some of the riparian corridor and upland wildlife habitat sites and to remove from the inventory a portion of site E-76, which an order of the Land Conservation and Development Commission determined had not been demonstrated to meet the definition of a riparian area under Oregon Administrative Rules.

D. The City has conducted, and the Oregon Division of State Lands (DSL) has approved, a local wetlands inventory (LWI) using the standards and procedures of OAR 141-086-0110 et seq. The City has determined which wetlands on the LWI are "significant wetlands" for purposes of Statewide Planning Goal 5 using the criteria adopted by DSL for that purpose (OAR 141-086-0350). The City is required to adopt an inventory of these significant wetlands.

E. In addition to the inventories of riparian, upland wildlife habitat and wetland sites referred to above, the following inventories make up the entire inventory of significant Goal 5 resources within the City of Eugene Urban Growth Boundary: the April 12, 1978 Sand and Gravel Working Paper, the April 12, 1978 Scenic Sites Working Paper, the April 12, 1978 Willamette River Greenway Working Paper, the April 12, 1978 Archeological Sites Working Paper, the December 1, 1976 list of historic land marks, and the West Eugene Wetlands Plan.

NOW, THEREFORE,

THE CITY OF EUGENE DOES ORDAIN AS FOLLOWS:

Section 1. Ordinance No. 20295 is repealed, as of the effective date of this Ordinance as set out in Section 7. This repeal, however, does not affect the validity of any actions taken pursuant to the provisions of that Ordinance.

Section 2. The Goal 5 Water Resources Conservation Plan attached as Exhibit A hereto, is hereby adopted as a refinement of the Eugene-Springfield Area Metropolitan Area General Plan for those areas that, as of the date this Ordinance is passed by the City Council, are located outside the city limits and within the urban growth boundary of the City of Eugene ("the Eugene Urban Growth Area").

Section 3. As they pertain to the Eugene Urban Growth Area, the following Exhibits are adopted as findings in support of this Ordinance: (a) Conflicting Uses and ESEE analysis attached as Exhibit B; (b) the Eugene Local Wetland Inventory, attached as Exhibit C; and (c) the list of properties within the Urban Growth Area to which the /WR Overlay Zone should be applied upon annexation, attached hereto as Exhibit D.

Section 4. Section 9.7810 of the Eugene Code, 1971, is amended by adding a new Subsection (4), to provide:

9.7810 **Changes in Zone.** Properties annexed to the city shall be automatically changed from county zoning to the equivalent city zone, as shown in Table 9.7810 Equivalent Zones and Overlay Zones, unless one or more of the following apply.

(4) The property was identified on Exhibit D to Ordinance No. 20352 as one to which the /WR Water Resources Conservation Overlay Zone should be applied upon annexation, in which case the property's zoning will automatically be changed to include the /WR Overlay Zone.

Section 5. If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, that portion shall be deemed a separate, distinct, and independent provision and that holding shall not affect the validity of the remaining portions of this Ordinance.

Section 6. Although not part of this Ordinance, the City Council adopts the Legislative Findings set forth in the attached Exhibit E in support of this action.

Section 7. Notwithstanding the effective date of ordinances as provided in the Eugene Charter of 2002, this Ordinance shall become effective upon January 1, 2006. The City will not administer or enforce the Goal 5 protection measures adopted herein for areas outside of the City limits until Lane County has adopted the refinement plan and code amendments set out herein and in Ordinance No. 20351, and has applied the /WR Water Resources Conservation Overlay Zone to properties located within the Eugene Urban Growth Area.

Passed by the City Council this

14th day of November, 2005

City Recorder

Approved by the Mayor this

18 day of November, 2005

Mayor

Exhibit A to Ordinance No. 20352

Goal 5 Water Resources Conservation Plan

City of Eugene, Oregon

Goal 5 Water Resources Conservation Plan

Table of Contents

Goal 5 Water Resources Conservation Plan

Section I

Introduction

Background

Oregon's statewide planning goals provide the framework for land use planning within the state. Statewide Planning Goal 5 requires all Oregon cities and counties "to conserve open space and protect natural and scenic resources." The Goal itself, plus Oregon Administrative Rules establish specific procedures and criteria for Goal 5 compliance. The City of Eugene was required by the Oregon Department of Land Conservation and Development (DLCD), through the Metropolitan periodic review work program, to address Goal 5 requirements for *wetlands, riparian corridors, and wildlife habitat* sites. This Plan contains several components of the City's Goal 5 process for wetlands, riparian corridors and wildlife habitat.

Study Area

The study area includes all of the Eugene Urban Growth Boundary area, excluding sites that were previously considered for protection in the West Eugene Wetlands Plan (WEWP) area. Three stream segments within the boundaries of the WEWP were not previously considered for protection (portions of sites E87 and E88), and, therefore, are included in this Plan. All other sites addressed by this Plan are outside the boundary of the WEWP.

Use of this Plan

The criteria in Section II were used to determine which resource sites are "significant" for purposes of Goal 5. The maps and lists in Section III identify those resource sites that have been determined to be significant, based on the criteria in Section II for riparian corridors and wildlife habitat and on the criteria at OAR 141-086-0350 for wetlands. Section IV includes maps identifying these significant resource sites that, based on the analysis required by Goal 5, should be protected. The summary tables in Section IV further identify those resources as Category A, B, C, D or E streams or as Category A, B or C wetlands to differentiate between the various degrees of protection appropriate for the resource sites. The protections are to be applied through the adoption and implementation of land use code provisions in the form of the /WR Water Resources Conservation Overlay Zone. This Plan does not contain any provisions directly applicable to development. Rather, it serves as background information for use in applying the code provisions pertaining to the /WR overlay zone.

Goal 5 Water Resources Conservation Plan

Section II

Criteria for Determining the Significance of Riparian Corridor and Wildlife Habitat Resource Sites Within the Eugene Urban Growth Boundary

A riparian corridor site or an upland wildlife habitat stream corridor site shall be included on the list of significant resource sites if (in addition to consideration of the criteria at OAR 660-023-0090(4) for riparian corridor sites and to those at OAR 660-023-0110(3) for upland wildlife habitat stream corridor sites) it is described in at least one of the following Tier One Criteria and if its listing is consistent with both of the following Tier Two Criteria:

Tier One Criteria:

1. Areas mapped as wetland on the State/National Wetland Inventory (S/NWI).

2. Streams and other water bodies identified by the ODF or ODFW as fish-bearing streams.

3. Undeveloped areas that contain natural vegetation (non-cultivated, including forests, natural prairies, and meadows) and are within sites larger than one acre.

4. Undeveloped natural areas that are contiguous with a water feature.

5. Areas that are undeveloped, and which in their natural state are un-vegetated (e.g., rock outcrops, gravel bars).

6. Locations of plants listed as threatened or endangered, or considered official candidates to be listed as threatened or endangered by state or federal government.

7. Documented habitat of animals listed as threatened or endangered, or considered official candidates to be listed as threatened or endangered by state or federal government.

8. Native plant communities within the Federal Emergency Management Agency (FEMA) floodway and 100-year floodplain.

9. Ecologically significant areas identified by local experts in the natural resource sciences, such as wildlife biology, botany, fisheries, hydrology, and landscape architecture.

Tier Two Criteria:

1. At the time of inventory adoption, areas that have been filled or substantially altered to the degree that they no longer meet any of the Tier 1 criteria shall be removed from the Goal 5 inventory.

2. Sites with a Wildlife Habitat Assessment (WHA) rating of 17 or greater shall be included on the Goal 5 inventory.

Goal 5 Water Resources Conservation Plan

SECTION III

SIGNIFICANT RIPARIAN CORRIDOR, WILDLIFE HABITAT, AND WETLAND RESOURCE SITES WITHIN THE EUGENE URBAN GROWTH BOUNDARY

Goal 5 Water Resources Conservation Plan, Section III

GOAL 5 RIPARIAN AND UPLAND WILDLIFE HABITAT SITES WITHIN THE EUGENE URBAN GROWTH BOUNDARY

October 24, 2005

	Site No.	Site Name	Type*	Tier 1 Significance Criteria									Tier 2 Criteria		Acreage	
				NWI	Fish	Nat > 1 acre	Water Cont	Non-Veg	T&E Plnt	T&E Anml	Nat Flood	Eco Signif	Meets Tier 2 #1	WHA Score	Sub-total Acres	Total Acres
1	E30/31	Amazon Channel Natural/Urban	R	yes	yes	yes	yes	no	yes	no	part	no	yes	50-60		**54.9**
2	E35	West Eugene Upland Wildlife Habitat Stream Corridors	U	part	no	yes	yes	no	no	no	no	no	yes	59-61		**32.4**
	E35 A	Stream Corridor A	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	5.6	
	E35 B	Stream Corridor B	U	part	no	yes	yes	no	no	no	no	no	yes	59-61	10.8	
	E35 C	Stream Corridor C	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	2.5	
	E35 D	Stream Corridor D	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	2.0	
	E35 E	Stream Corridor E	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	5.5	
	E35 F	Stream Corridor F	U	part	no	yes	yes	no	no	no	no	no	yes	59-61	4.4	
	E35 G	Stream Corridor G	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	0.8	
	E35 H	Stream Corridor H	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	0.5	
	E35 I	Stream Corridor I	U	yes	no	yes	yes	no	no	no	no	no	yes	59-61	0.3	
3	E37	Southwest Hills Upland Wildlife Habitat Stream Corridors	U	part	part	yes	yes	no	no	no	no	no	yes	66-68		**112.5**
	E37 A	Stream Corridor A	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	2.6	
	E37 B	Stream Corridor B	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	2.3	
	E37 C	Stream Corridor C	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	3.2	
	E37 D	Stream Corridor D	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	3.0	
	E37 E	Stream Corridor E	U	part	part	yes	yes	no	no	no	no	no	yes	66-68	7.1	
	E37 F	Stream Corridor F	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	0.9	
	E37G	Stream Corridor G	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	1.2	
	E37 H	Stream Corridor H	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	11.2	
	E37 I	Stream Corridor I	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	2.5	
	E37 J	Stream Corridor J	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	15.7	
	E37 K	Stream Corridor K	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	16.9	
	E37 L	Stream Corridor L	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	16.5	
	E37 M	Stream Corridor M	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	7.6	
	E37 N	Stream Corridor N	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	1.1	
	E37 O	Stream Corridor O	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	1.7	
	E37 P	Stream Corridor P	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	3.6	
	E37 Q	Stream Corridor Q	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	9.2	
	E37 R	Stream Corridor R	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	0.7	
	E37 S	Stream Corridor S	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	5.0	
	E37 T	Stream Corridor T	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	0.6	
4	E38	Laurel Hill Upland Wildlife Habitat Stream Corridors	U	no	no	yes	yes	no	no	no	no	no	yes	59-60		**32.2**
	E38 A	Stream Corridor A	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	3.4	
	E38 B	Stream Corridor B	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	2.1	
	E38 C	Stream Corridor C	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	11.0	
	E38 D	Stream Corridor D	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	7.1	
	E38 E	Stream Corridor E	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	4.2	
	E38 F	Stream Corridor F	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	3.0	
	E38 G	Stream Corridor G	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	0.9	
	E38 H	Stream Corridor H	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	0.5	
5	E39	Glenwood Slough	R	yes	no	yes	yes	no	no	no	no	no	yes	46-47		**0.1**
6	E40	Riverfront Park	R	part	yes	yes	yes	no	no	no	part	no	yes	42		**16.9**
7	E42	Alton Baker (Riparian)	R	yes	yes	yes	yes	no	no	no	part	no	yes	60-61		**99.5**
8	E45	Ascot Park	R	yes	no	yes	yes	no	no	no	no	no	yes	22-23		**9.3**
9	E48a	Beltline Drainage Channel	R	no	yes	yes	yes	no	no	no	no	no	yes	38		**4.3**
10	E48b	Ayres Pond/Dodson Slough	R	yes	yes	yes	yes	no	no	no	part	no	yes	38		**36.0**
11	E50	Debrick Slough	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**16.5**
12	E56	River Loop No. 1	R	yes	no	yes	yes	no	no	no	yes	no	yes	38		**2.3**
13	E57	East Santa Clara Waterway	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**19.8**
14	E58	Spring Creek	R	yes	no	yes	yes	no	no	no	part	no	yes	22-23		**18.0**
15	E59a	Flat Creek	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**16.7**
16	E60	A-1 Channel	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**22.0**
	E61	Middle Flat Creek	R	yes	no	yes	yes	no	no	no	part	no	yes	33		**26.1**
	E62	NW Expressway Ponds	R	yes	no	yes	yes	no	no	no	part	no	yes	31-34		**18.8**
19	E64	Taney Waterway	R	yes	no	yes	yes	no	no	no	no	no	yes	17		**1.7**
20	E65	Empire Pond	R	yes	no	yes	yes	no	no	no	no	no	yes	32		**3.1**

#	Site No.	Site Name	Type*	Tier 1 Significance Criteria									Tier 2 Criteria		Acreage	
				NWI	Fish	Nat > 1 acre	Water Cont	Non-Veg	T&E Plnt	T&E Anml	Nat Flood	Eco Signif	Meets Tier 2 #1	WHA Score	Sub-total Acres	Total Acres
	E66	Golden Gardens (DeSoto Lake)	R	yes	no	yes	yes	no	no	no	no	no	yes	32		**5.3**
	E68	Highway 99/McDougal	R	yes	no	yes	yes	no	no	no	no	no	yes	37-38		**6.7**
23	E69	Emerald Park/South Flat Creek	R	yes	no	yes	yes	no	no	no	no	no	yes	22-23		**12.6**
24	E70	Beltline/A-2 Channel	R	yes	no	yes	yes	no	no	no	part	no	yes	22-23		**1.2**
25	E72	Marshall Ditch	R	yes	no	yes	yes	no	no	no	yes	no	yes	22-23		**14.2**
26	E73	County Farm Road	R	yes	no	yes	yes	no	no	no	part	no	yes	22-23		**4.8**
27	E75	Goodpasture Island Slough	R	yes	yes	yes	yes	no	no	no	yes	no	yes	38		**37.3**
28	E76	North Gilham	R	no	no	yes	yes	no	no	no	yes	no	yes	62		**8.9**
29	E78	Augusta Creek/Laurel Valley Creek	R	yes	no	yes	yes	no	no	no	no	no	yes	42		**8.2**
30	E81	Lorane Highway Riparian	R	no	no	yes	yes	no	no	no	no	no	yes	37		**5.8**
31	E83	Elliott Hill/Tugman Riparian Corridor	R	no	no	yes	no	no	no	no	no	no	yes	57		**3.2**
32	E86	Braeburn Riparian	R	no	no	yes	yes	no	no	no	no	no	yes	39		**11.9**
33	E87	Willow Creek Tributaries	R	yes	no	yes	yes	no	no	no	no	no	yes	51		**6.3**
34	E88	Bailey Hill Riparian	R	no	no	yes	yes	no	no	no	no	no	yes	20		**4.8**
35	WA/WB	Willamette River	R	yes	yes	yes	yes	no	no	yes	yes	no	yes	64-74		**453.5**

*Key: "R" = riparian corridor
"U" = upland wildlife habitat stream corridor

Total acres in riparian corridor sites: 950.7
Total acres in upland wildlife habitat stream corridor sites: 177.2
Total acres: 1127.8

Goal 5 Water Resources Conservation Plan, Section III

Locally Significant Wetland Sites within the Eugene Urban Growth Boundary*

August 2005

					Mandatory Locally Significant Wetland Criteria**									
					1	2	3	4	5	6	7	8		Acreage
#	Site No.	Site Name	Type*	Meets Exclusion Criteria	Wildlife Habitat	Fish Habitat	Water Quality	Hydro Control	Near 303(d) St.	Rare Plants	State/FedT &E	Salmonid	Meets Optional Criteria	Site Acres
1	AMA-3	West Eugene Uplands wetland at Skyview	W	no	no	no	yes	yes	no	no	no	no	no	0.5
2	AMA-4	West Eugene Uplands wetland at Hawkins	W	no	yes	no	no	no	no	no	no	no	no	1.4
3	AMA-5	West Eugene Uplands wetland at Videra	W	no	yes	no	no	no	no	no	no	no	no	1.2
4	AMA-6	Westmoreland wetlands	W	no	no	no	no	yes	yes	no	no	no	no	9.4
5	AMA-7	Amazon Creek wetlands	W	no	no	no	no	yes	yes	no	no	no	no	7.7
6	AMA-9	Amazon Park wetland ash grove	W	no	no	no	yes	yes	yes	no	yes	no	no	14.8
7	AMA-10	Amazon Park wetland 24th	W	no	no	no	yes	yes	yes	no	no	no	no	1.4
8	AMA-11	Amazon Park wetland pool/ballfield	W	no	no	no	yes	yes	yes	no	no	no	no	8.4
9	AMA-12	Amazon Park wetland 29th	W	no	no	no	no	no	yes	no	no	no	no	1.0
10	AMA-13	Owl Road wetland	W	no	yes	no	no	no	no	no	no	no	no	1.4
11	AMA-14	Barber wetland	W	no	no	no	yes	no	no	no	no	no	no	0.9
12	AMA-16	Amazon Park wetland prairie	W	no	no	no	yes	no	yes	no	yes	no	no	0.9
13	BD-2	Bethel-Danebo wetland at Terry	W	no	no	no	no	yes	no	no	no	no	no	5.4
14	BD-3	Royal Avenue wetlands	W	no	no	no	yes	yes	no	no	no	no	no	5.7
15	BD-4	Royal Avenue wetlands	W	no	no	no	yes	yes	yes	no	no	no	no	9.1
16	BD-5	Royal Avenue wetlands	W	no	no	no	no	no	yes	no	no	no	no	24.0
17	BD-6	Royal Avenue wetlands	W	no	no	no	no	no	yes	no	no	no	no	13.9
18	BD-7	Royal Avenue wetlands	W	no	no	no	no	yes	yes	no	no	no	no	25.7
19	BD-8	Royal Avenue wetlands	W	no	no	no	yes	yes	yes	no	no	no	no	8.8
20	BD-9	Amazon Creek wetland at Royal	W	no	no	no	no	yes	yes	no	no	no	no	61.3
21	BD-10	Royal Avenue wetlands	W	no	no	no	no	no	yes	no	no	no	no	7.4
22	BD-11	Royal Avenue wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.6
23	BD-13	Bethel-Danebo wetlands at Beltline	W	no	no	no	yes	yes	no	no	no	no	no	2.7
24	BD-15	Bethel-Danebo wetlands at Beltline	W	no	no	no	no	yes	no	no	no	no	no	0.6
25	BD-16	Bethel-Danebo wetlands at Beltline	W	no	no	no	no	yes	no	no	no	no	no	2.0
26	BD-17	Bethel-Danebo wetlands at Beltline	W	no	no	no	no	yes	no	no	no	no	no	1.0
27	BD-20	Empire Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	1.8
	BD-21	Taney Waterway wetland	W	no	no	no	no	yes	no	no	no	no	no	0.7
	BD-22	NW Expressway Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	5.3
30	RSC-1	Prairie Rd/Hwy 99 wetlands	W	no	no	no	no	yes	no	no	no	no	no	111.4
31	RSC-2	A-1 Channel wetland	W	no	no	no	no	yes	no	no	no	no	no	11.5
32	RSC-5	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	yes	no	no	no	no	no	10.4
33	RSC-6	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	2.6
34	RSC-8	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.9
35	RSC-9	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.6
36	RSC-10	Prairie Rd/Hwy 99 wetlands	W	no	no	no	no	yes	no	no	no	no	no	5.4
37	RSC-12	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	yes	no	no	no	no	no	6.1
38	RSC-15	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	1.0
39	RSC-16	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.8
40	RSC-17	Prairie Rd/Hwy 99 wetlands	W	no	no	no	no	yes	no	no	no	no	no	15.2
41	RSC-18	A-1 Side Channel	W	no	no	no	yes	no	no	no	no	no	no	2.8
42	RSC-20	Highway 99/McDougal Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	1.9
43	RSC-21	Highway 99/McDougal Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	2.4
44	RSC-22	Wetland at Lancaster	W	no	no	no	yes	no	no	no	no	no	no	1.3
45	RSC-23	North Flat Creek wetlands	W	no	yes	no	yes	yes	no	no	no	no	no	4.5
46	RSC-25	North Flat Creek wetlands	W	no	yes	no	no	yes	no	no	no	no	no	1.7
47	RSC-26	Prairie Rd/Hwy 99	W	no	no	no	yes	yes	no	no	no	no	no	0.9
48	RSC-27	Prairie Rd/Hwy 99	W	no	no	no	yes	no	no	no	no	no	no	0.6
49	RSC-28	Middle Flat Creek wetlands	W	no	no	no	yes	yes	no	no	no	no	no	6.8
50	RSC-29	Middle Flat Creek wetlands	W	no	yes	no	no	yes	no	no	no	no	no	3.5
51	RSC-30	NW Expressway Pond/Diana's Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	12.1
52	RSC-32	South Flat Creek wetland	W	no	no	no	yes	yes	no	no	no	no	no	2.7
53	RSC-33	Middle Flat Creek wetlands	W	no	no	no	yes	yes	no	no	no	no	no	2.9
54	RSC-34	Middle Flat Creek wetlands	W	no	no	no	no	yes	no	no	no	no	no	1.2
55	RSC-35	Spring Creek wetlands	W	no	no	yes	yes	yes	no	no	no	no	no	1.7
56	RSC-36	Spring Creek wetlands	W	no	no	no	no	yes	no	no	no	no	no	2.2
57	RSC-37	Spring Creek wetlands	W	no	no	no	yes	yes	no	no	no	no	no	1.1
58	RSC-38	Spring Creek wetlands	W	no	no	no	no	yes	no	no	no	yes	no	5.6
59	RSC-39	Spring Creek wetlands	W	no	no	no	no	yes	no	no	no	no	no	0.6
	RSC-40	East Santa Clara Waterway wetland	W	no	no	no	yes	yes	no	no	no	no	no	1.6
	WC-1	Willow Creek wetland	W	no	yes	no	no	no	no	no	no	no	no	1.4
62	WKZ-1	Patterson Slough wetland	W	no	yes	no	no	yes	no	no	no	no	no	4.1
63	WKZ-2	Ayres Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	0.5

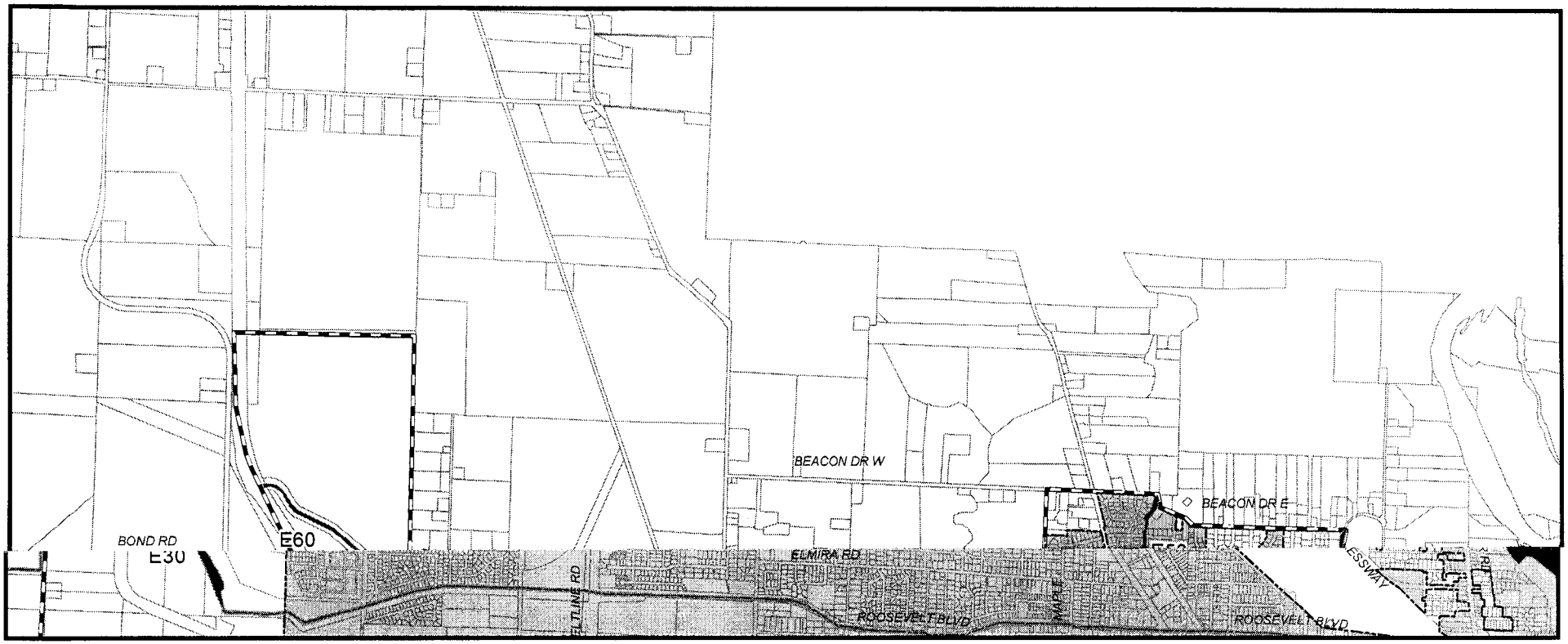
					Mandatory Locally Significant Wetland Criteria**									
					1	2	3	4	5	6	7	8		Acreage
#	Site No.	Site Name	Type*	Meets Exclusion Criteria	Wildlife Habitat	Fish Habitat	Water Quality	Hydro Control	Near 303(d) St.	Rare Plants	State/FedT &E	Salmonid	Meets Optional Criteria	Site Acres
64	WKZ-3	Green Acres wetland	W	no	no	no	no	yes	no	no	no	no	no	1.0
65	WKZ-4	Goodpasture wetlands	W	no	no	no	yes	yes	yes	no	no	no	no	6.6
66	WKZ-5	Goodpasture wetlands	W	no	no	no	yes	yes	yes	no	no	yes	no	13.7
67	WKZ-6	Delta Ponds wetlands	W	no	no	yes	no	yes	no	no	no	yes	no	19.0
68	WKZ-7	Delta Ponds wetlands	W	no	yes	no	no	yes	yes	no	no	no	no	65.5
69	WKZ-8	Willagillespie wetland	W	no	no	no	yes	yes	no	no	no	no	no	0.6
70	WKZ-9	Debrick Slough wetland	W	no	no	no	no	yes	no	no	no	no	no	10.0
71	WKZ-10	County Farm wetland	W	no	no	no	no	yes	yes	no	no	no	no	0.6
72	WKZ-13	Sorrel Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	2.7
73	WKZ-14	Alton Baker wetland	W	no	no	no	yes	yes	no	no	no	no	no	7.3
74	WR-1	Willamette River wetland	W	no	no	no	yes	yes	yes	no	no	no	no	1.9
75	WR-2	Willamette River wetland	W	no	no	no	no	no	yes	no	no	no	no	1.8
76	WR-3	Delta Ponds wetlands	W	no	yes	no	no	yes	yes	no	no	no	no	25.5
77	WR-4	Riverfront Park/Millrace wetland	W	no	no	no	no	yes	yes	no	no	no	no	6.3
78	WR-5	Willamette River wetland	W	no	no	no	yes	no	yes	no	no	no	no	1.2

"W" = Locally Significant Wetland

Total acres in Locally Significant Wetland sites: 618.6

*Does not include wetlands within the boundary of the West Eugene Wetlands Plan

**Locally Significant Wetland criteria are found in Oregon Administrative Rules at OAR 141-086-0350.



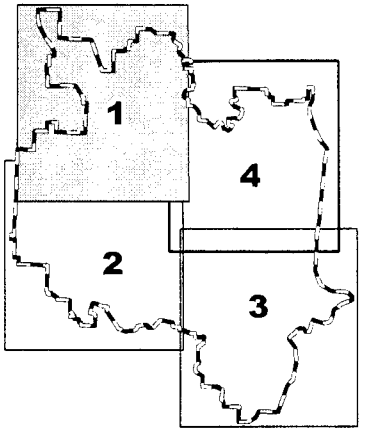
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

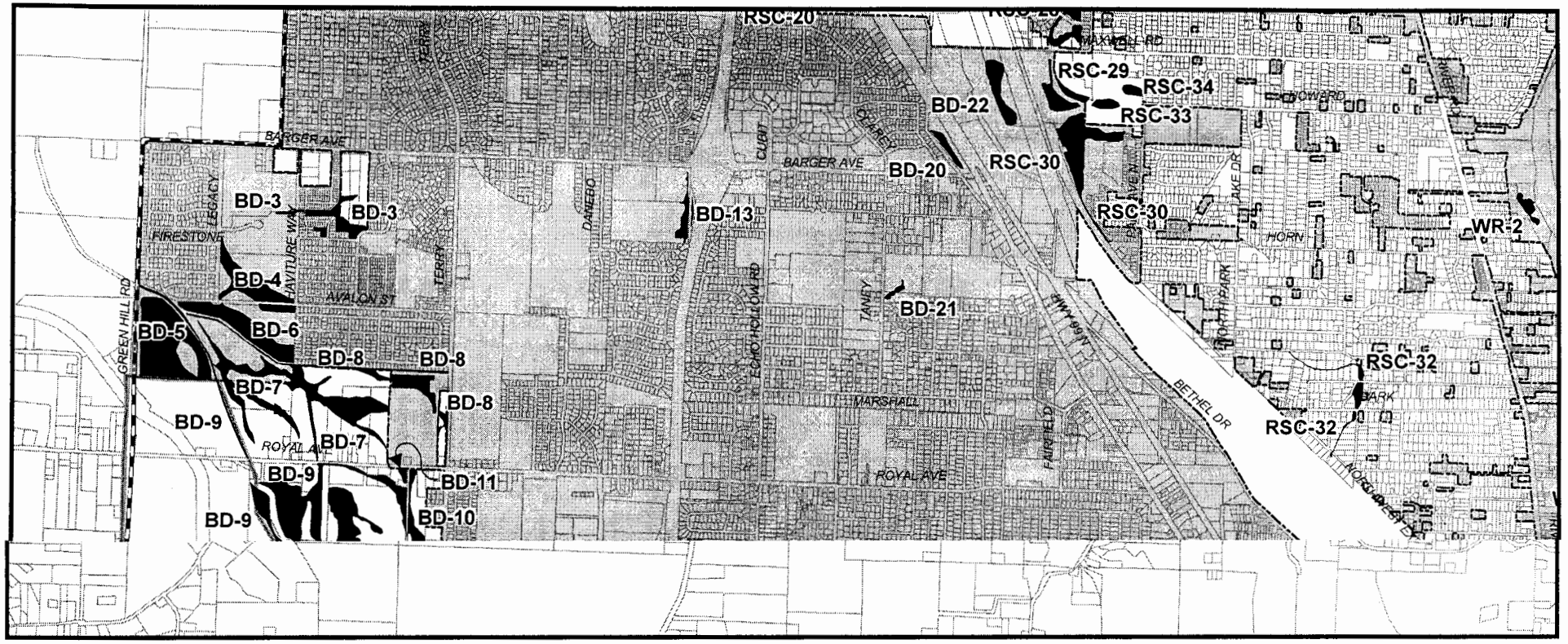
Tile 1 - Northwest Eugene
April 20, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites





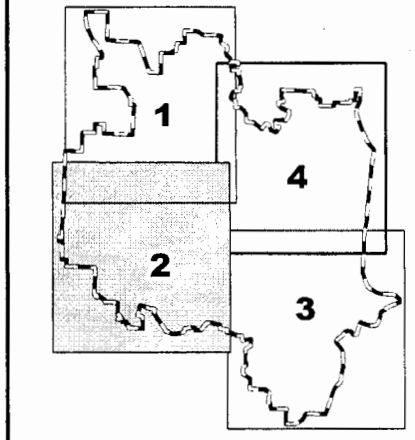
Goal 5 Water Resources Conservation Plan, Section III
Locally Significant Goal 5 Wetland Sites
within the Eugene Urban Growth Boundary

Tile 2 - Southwest Eugene
April 20, 2005

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Locally Significant Wetlands

0 0.25 0.5 1 Miles



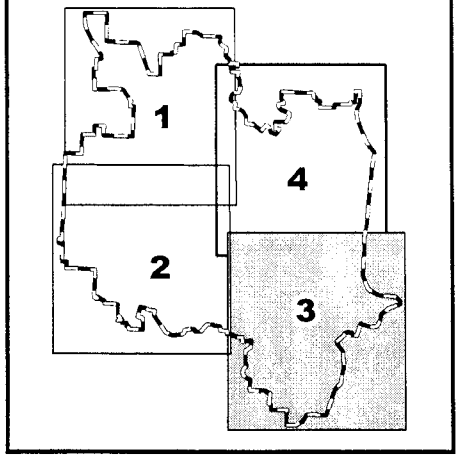
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

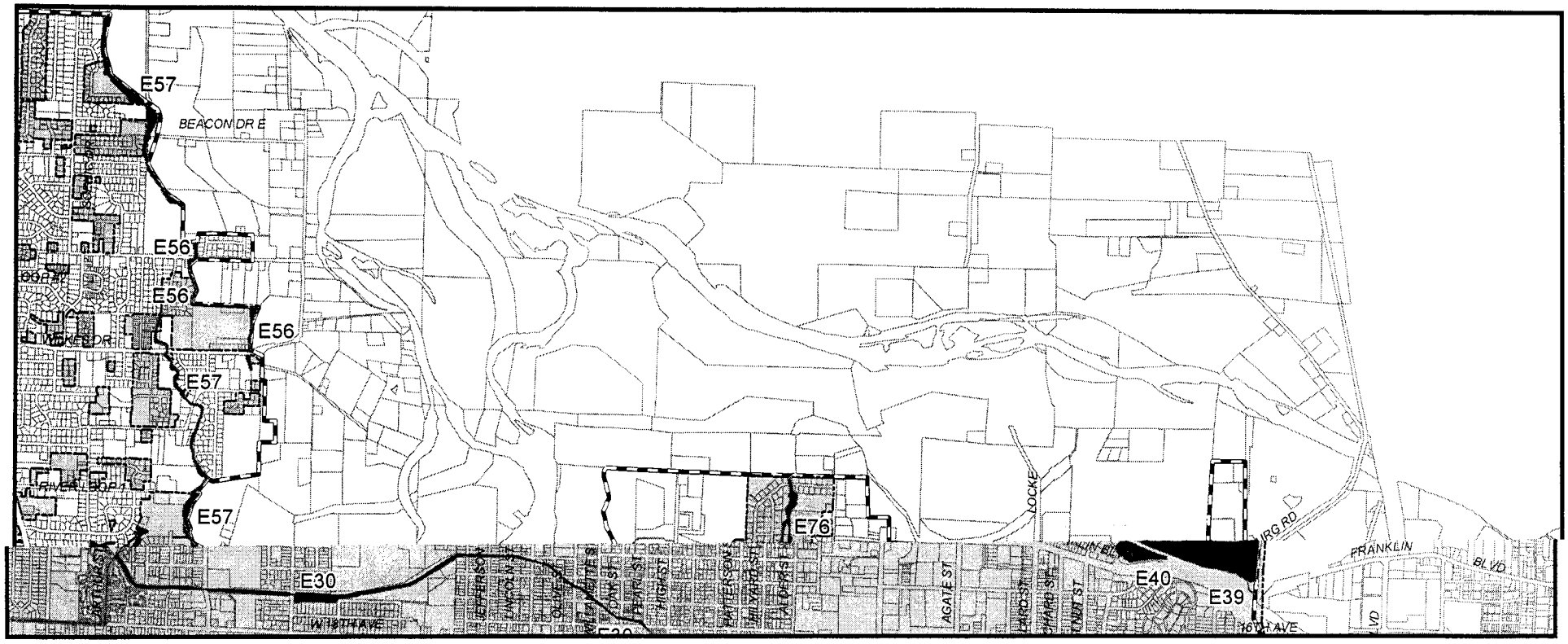
Tile 3 - Southeast Eugene
October 24, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites





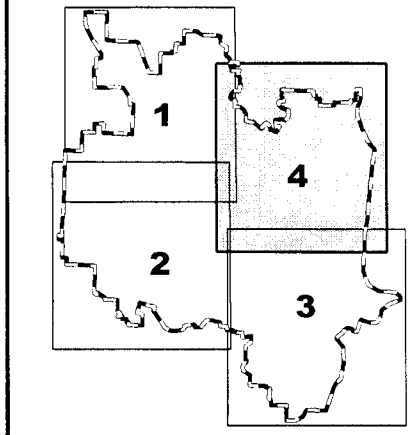
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

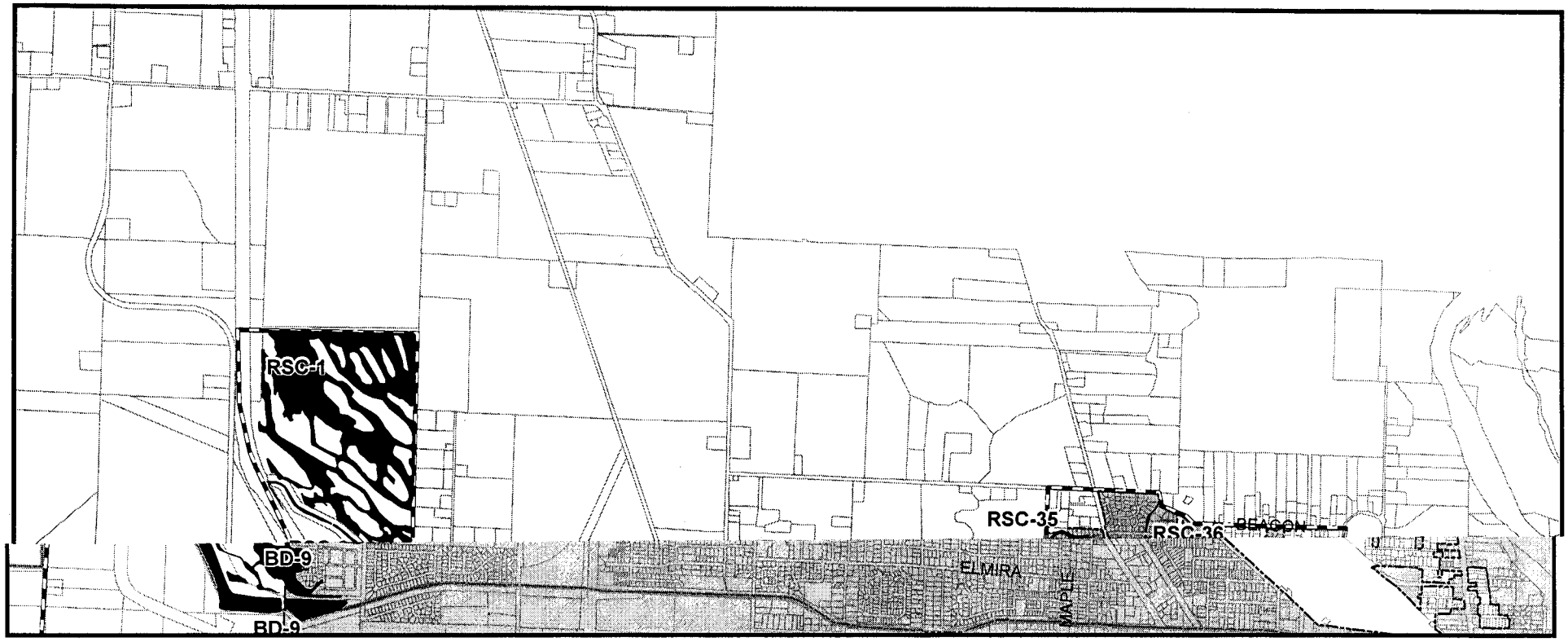
Tile 4 - Northeast Eugene
September 7, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites



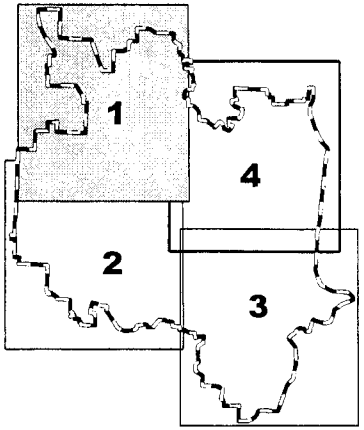


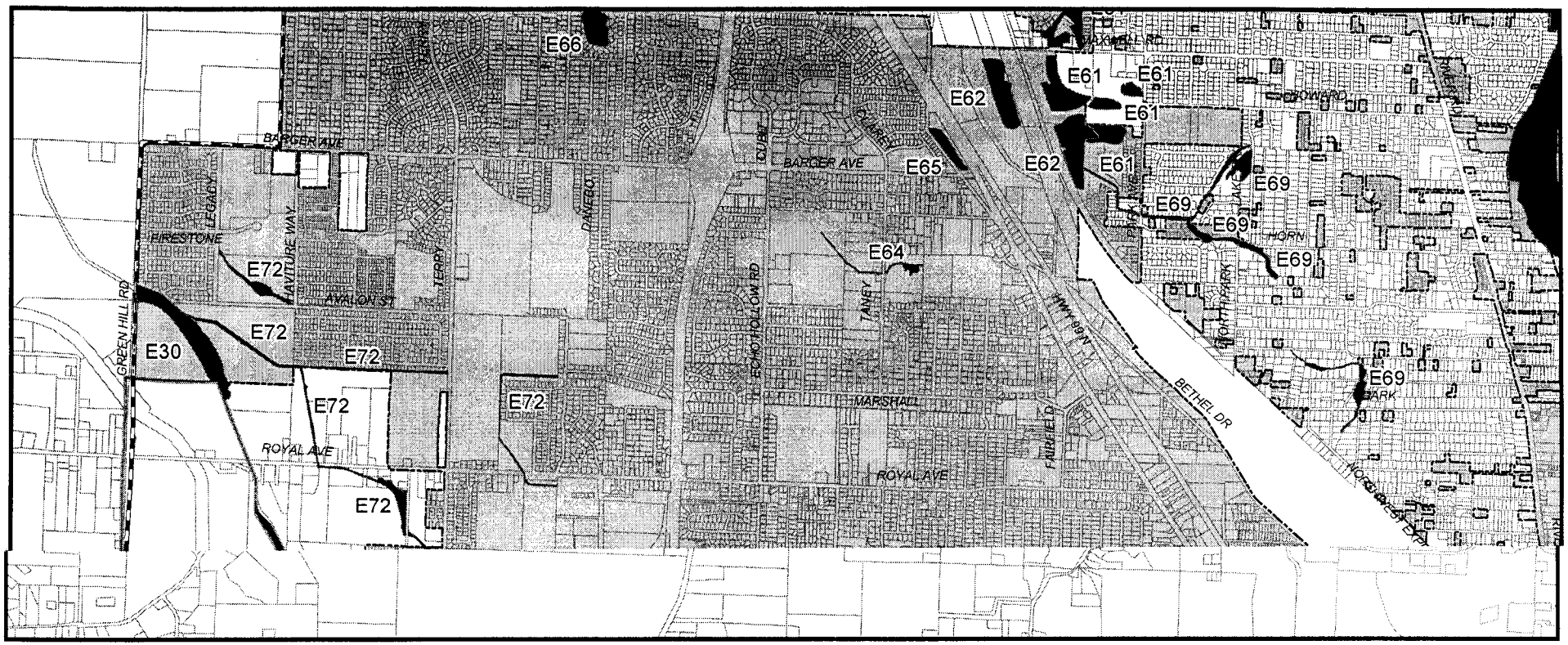
Goal 5 Water Resources Conservation Plan, Section III
Locally Significant Goal 5 Wetland Sites
within the Eugene Urban Growth Boundary
Tile 1 - Northwest Eugene
September 7, 2005

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Locally Significant Wetlands

0 0.25 0.5 1 Miles





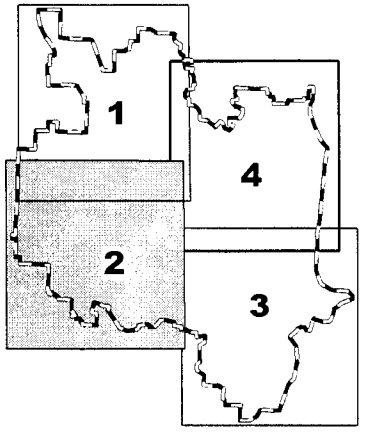
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

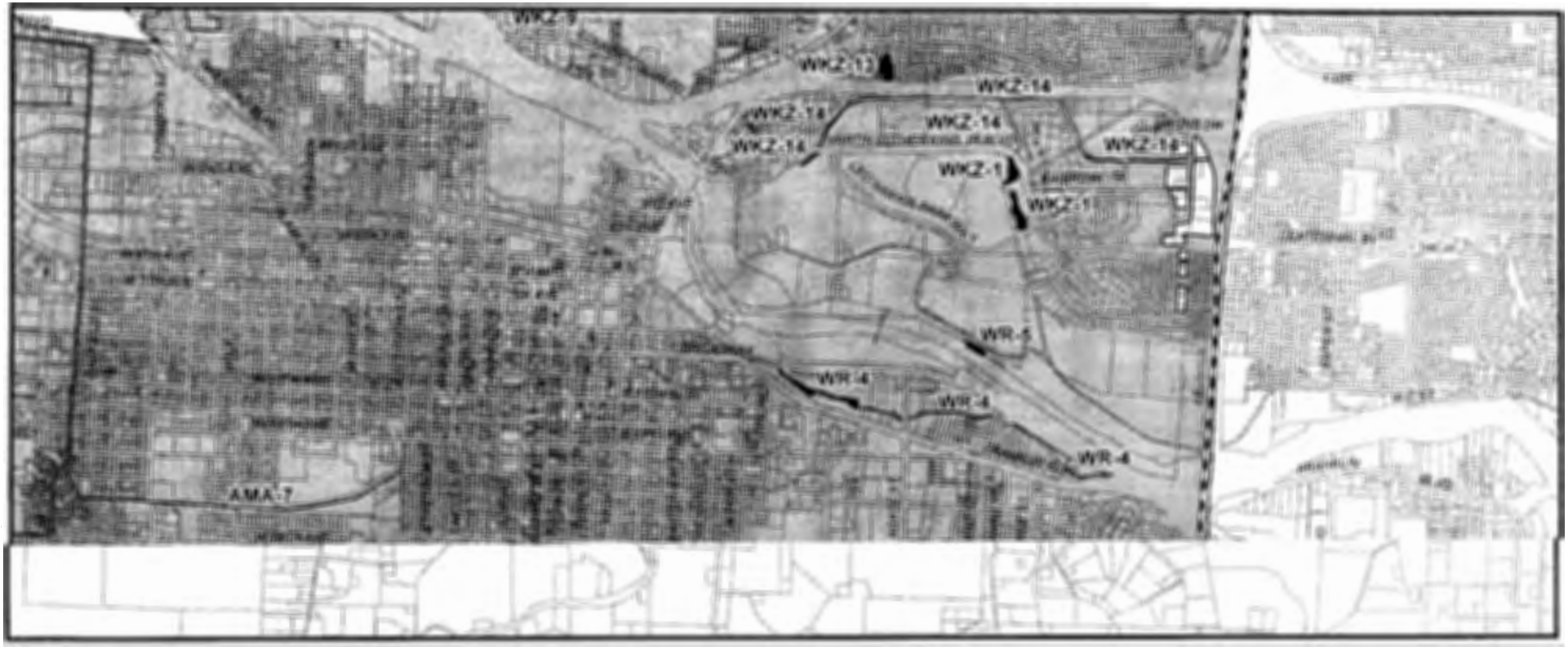
Tile 2 - Southwest Eugene
April 20, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites





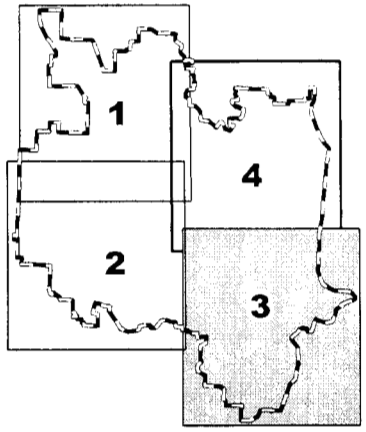
Goal 5 Water Resources Conservation Plan, Section III
Locally Significant Goal 5 Wetland Sites
within the Eugene Urban Growth Boundary

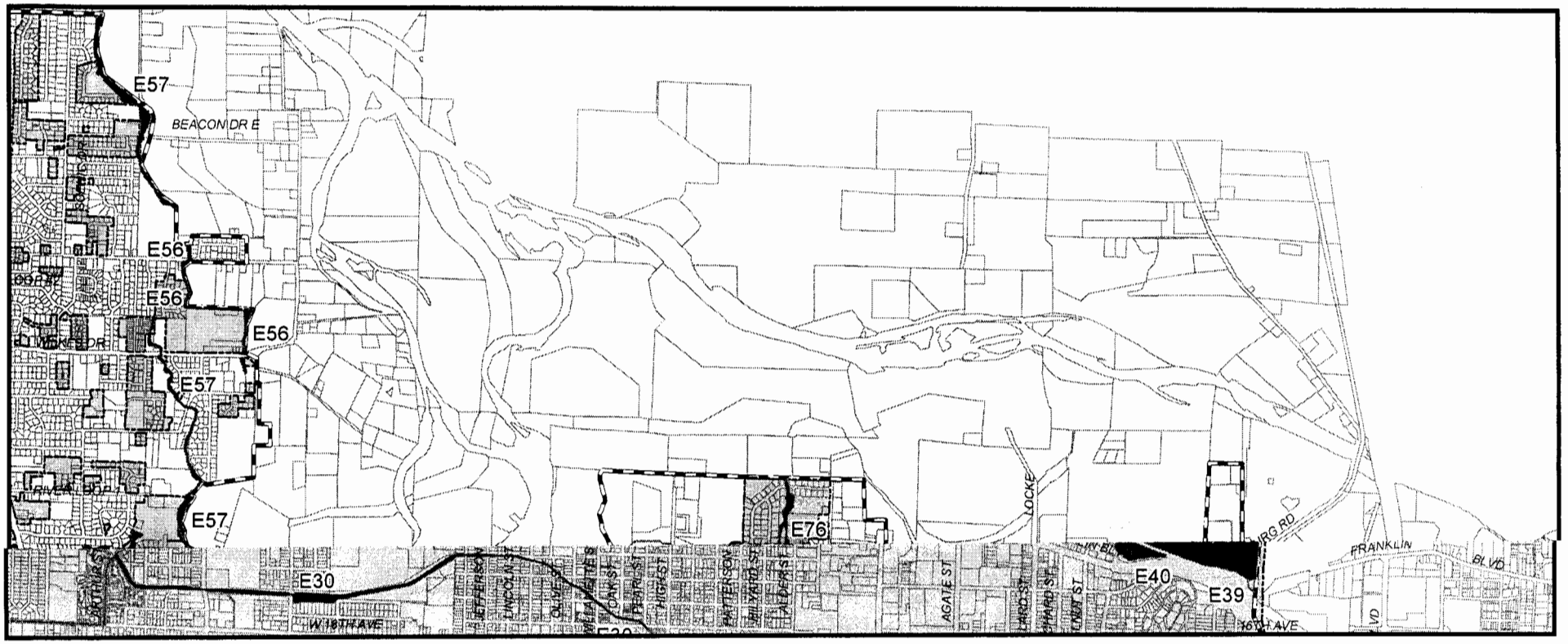
Tile 3 - Southeast Eugene
September 7, 2005

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Locally Significant Wetlands

0 0.25 0.5 1 Miles





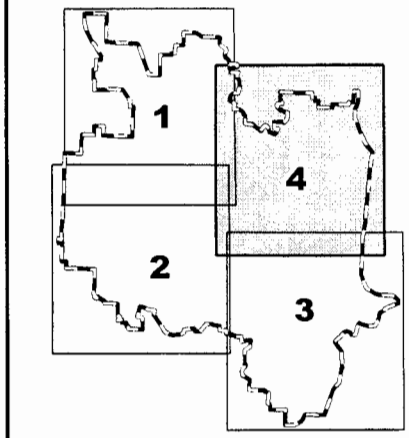
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

Tile 4 - Northeast Eugene
September 7, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites



Goal 5 Water Resources Conservation Plan

SECTION IV

DEGREE OF PROTECTION INTENDED FOR SIGNIFICANT RIPARIAN CORRIDOR, WILDLIFE HABITAT, AND WETLAND RESOURCE SITES WITHIN THE EUGENE URBAN GROWTH BOUNDARY

ESEE Conclusions Summary Table - Riparian Corridor Sites

9/1/05

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from TOB)**	ESEE CONCLUSIONS MAP NUMBER
Amazon Channel Natural/Urban	E30	E30 A	R	14.14	Limit Conflicting Uses	Stream Category B	60	5
Amazon Channel Natural/Urban	E30	E30 B	R	5.19	Limit Conflicting Uses	Stream Category B	60	5
Amazon Channel Natural/Urban	E30	E30 D	R	11.37	Limit Conflicting Uses	Stream Category B	60	10
Amazon Channel Natural/Urban	E30	E30 E	R	9.12	Limit Conflicting Uses	Stream Category B	60	10
Amazon Channel Natural/Urban	E30	E30 F	R	1.69	Limit Conflicting Uses	Stream Category E	0	10
Amazon Channel Natural/Urban	E30	E30 G	R	2.95	Limit Conflicting Uses	Stream Category E	0	10
Amazon Channel Natural/Urban	E30	E30 H	R	10.48	Limit Conflicting Uses	Stream Category B	60	10
Glenwood Slough	E39	E39	R	0.10	Fully Allow Conflicting Uses	None	0	
Riverfront Park	E40	E40	R	16.85	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-1	R	6.75	Limit Conflicting Uses	Stream Category E	0	13
Alton Baker (Riparian)	E42	E42 A-2	R	9.67	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-3	R	13.75	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-4	R	15.58	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-5	R	10.59	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 B	R	22.32	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 C-1	R	2.46	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 C-2	R	6.84	Limit Conflicting Uses	Stream Category D	20	13
Alton Baker (Riparian)	E42	E42 C-3	R	9.82	Limit Conflicting Uses	Stream Category D	20	13
Alton Baker (Riparian)	E42	E42 C-4	R	1.68	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 A	R	2.70	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 B	R	0.48	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 C	R	0.80	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 D	R	5.29	Fully Allow Conflicting Uses	None	0	
Beltline Drainage Channel	E48	E48 A1	R	0.45	Fully Allow Conflicting Uses	None	0	
Beltline Drainage Channel	E48	E48 A2	R	3.80	Fully Allow Conflicting Uses	None	0	
Ayres Pond/Dodson Slough	E48	E48 B-1	R	1.59	Limit Conflicting Uses	Stream Category C	40	15
Ayres Pond/Dodson Slough	E48	E48 B-3	R	1.05	Limit Conflicting Uses	Stream Category D	20	15
Ayres Pond/Dodson Slough	E48	E48 B-4	R	29.20	Limit Conflicting Uses	Stream Category C	40	15
Ayres Pond/Dodson Slough	E48	E48 B-5	R	3.21	Fully Allow Conflicting Uses	None	0	
Debrick Slough	E50	E50 A	R	4.28	Limit Conflicting Uses	Stream Category D	20	14
Debrick Slough	E50	E50 B	R	10.32	Limit Conflicting Uses	Stream Category D	20	14
Debrick Slough	E50	E50 C	R	1.95	Fully Allow Conflicting Uses	None	0	
River Loop No. 1	E56	E56 A-1	R	0.45	Fully Allow Conflicting Uses	None	0	
River Loop No. 1	E56	E56 A-2	R	0.84	Limit Conflicting Uses	Stream Category D	20	16
River Loop No. 1	E56	E56 B	R	0.97	Limit Conflicting Uses	Stream Category D	20	16
East Santa Clara Waterway	E57	E57 A	R	1.70	Fully Allow Conflicting Uses	None	0	
East Santa Clara Waterway	E57	E57 B	R	4.98	Fully Allow Conflicting Uses	None	0	
East Santa Clara Waterway	E57	E57 C	R	6.05	Limit Conflicting Uses	Stream Category D	20	16
East Santa Clara Waterway	E57	E57 D	R	7.01	Limit Conflicting Uses	Stream Category C	40	16
Spring Creek	E58	E58 A	R	2.49	Limit Conflicting Uses	Stream Category C	40	1
Spring Creek	E58	E58 B	R	5.30	Limit Conflicting Uses	Stream Category C	40	1
Spring Creek	E58	E58 C1-C2	R	1.19	Limit Conflicting Uses	Stream Category D	20	1
Spring Creek	E58	E58 C-3	R	0.19	Fully Allow Conflicting Uses	None	0	
Spring Creek	E58	E58 D	R	8.89	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 A	R	3.42	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 B-1	R	2.21	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 B-2	R	0.36	Limit Conflicting Uses	Stream Category E	0	1
Flat Creek	E59	E59 B-3	R	1.11	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 C	R	5.37	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 D	R	3.28	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 E	R	0.94	Fully Allow Conflicting Uses	None	0	
A-1 Channel	E60	E60 A	R	12.20	Limit Conflicting Uses	Stream Category D	20	2
A-1 Channel	E60	E60 B	R	7.65	Limit Conflicting Uses	Stream Category D	20	2
A-1 Channel	E60	E60 C	R	2.16	Fully Allow Conflicting Uses	None	0	
Middle Flat Creek	E61	E61 A	R	0.96	Limit Conflicting Uses	Stream Category C	40	3
Middle Flat Creek	E61	E61 B	R	3.80	Limit Conflicting Uses	Stream Category C	40	3
Middle Flat Creek	E61	E61 C-1	R	7.69	Limit Conflicting Uses	Stream Category C	40	3
Middle Flat Creek	E61	E61 C-2	R	2.00	Limit Conflicting Uses	Stream Category D	20	3
Middle Flat Creek	E61	E61 D	R	8.08	Limit Conflicting Uses	Stream Category D	20	3
Middle Flat Creek	E61	E61 E	R	2.08	Limit Conflicting Uses	Stream Category D	20	3
Middle Flat Creek	E61	E61 F	R	1.48	Fully Allow Conflicting Uses	None	0	
NW Expressway Ponds	E62	E62 A	R	10.32	Limit Conflicting Uses	Stream Category C	40	3
NW Expressway Ponds	E62	E62 B	R	8.47	Limit Conflicting Uses	Stream Category D	20	3
Taney Waterway	E64	E64	R	1.69	Fully Allow Conflicting Uses	None	0	
Empire Pond	E65	E65	R	3.13	Limit Conflicting Uses	Stream Category D	20	3
Golden Gardens (DeSoto Lake)	E66	E66	R	5.30	Limit Conflicting Uses	Stream Category D	20	4
Highway 99/McDougal	E68	E68	R	6.68	Limit Conflicting Uses	Stream Category D	20	3
Emerald Park/South Flat Creek	E69	E69 A	R	3.40	Fully Allow Conflicting Uses	None	0	
Emerald Park/South Flat Creek	E69	E69 B	R	4.77	Limit Conflicting Uses	Stream Category D	20	3
Emerald Park/South Flat Creek	E69	E69 C	R	4.42	Fully Allow Conflicting Uses	None	0	
Beltline/A-2 Channel	E70	E70	R	1.24	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 A	R	2.60	Fully Allow Conflicting Uses	None	0	

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from TOB)**	ESEE CONCLUSIONS MAP NUMBER
Marshall Ditch	E72	E72 B-1	R	2.32	Limit Conflicting Uses	Stream Category D	20	5
Marshall Ditch	E72	E72 B-2A	R	1.06	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-2B	R	0.73	Limit Conflicting Uses	Stream Category D	20	5
Marshall Ditch	E72	E72 B-3A	R	0.87	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-3B	R	0.07	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-3C	R	0.36	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-3D	R	0.02	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4A	R	0.25	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4B	R	0.73	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-4C	R	0.19	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4D	R	2.47	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-4E	R	0.10	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4F	R	0.44	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 C	R	1.95	Fully Allow Conflicting Uses	None	0	
County Farm Road	E73	E73 A	R	2.51	Fully Allow Conflicting Uses	None	0	
County Farm Road	E73	E73 B	R	2.26	Fully Allow Conflicting Uses	None	0	
Goodpasture Island Slough	E75	E75 A-1	R	17.07	Limit Conflicting Uses	Stream Category B	60	13
Goodpasture Island Slough	E75	E75 A-2	R	3.23	Limit Conflicting Uses	Stream Category D	20	13
Goodpasture Island Slough	E75	E75 B-1	R	3.78	Limit Conflicting Uses	Stream Category C	40	13
Goodpasture Island Slough	E75	E75 B-2	R	4.40	Limit Conflicting Uses	Stream Category C	40	13
Goodpasture Island Slough	E75	E75 B-3	R	2.26	Fully Allow Conflicting Uses	None	0	
Goodpasture Island Slough	E75	E75 B-4	R	5.14	Limit Conflicting Uses	Stream Category E	0	13
Goodpasture Island Slough	E75	E75 B-5	R	1.43	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 A-1	R	0.41	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 A-2	R	1.32	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 B-1	R	0.56	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 B-2	R	3.40	Limit Conflicting Uses	Stream Category D	20	15
North Gilham	E76	E76 B-3	R	3.20	Limit Conflicting Uses	Stream Category D	20	15
Augusta Creek/Laurel Valley Creek	E78	E78 A	R	0.64	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 B	R	0.63	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 D	R	0.40	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 E	R	0.47	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 F	R	0.05	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 G	R	1.60	Limit Conflicting Uses	Stream Category D	20	12
Augusta Creek/Laurel Valley Creek	E78	E78 H	R	3.80	Limit Conflicting Uses	Stream Category D	20	12
Augusta Creek/Laurel Valley Creek	E78	E78 I	R	0.64	Limit Conflicting Uses	Stream Category D	20	12
Lorane Highway Riparian	E81	E81	R	5.82	Limit Conflicting Uses	Stream Category C	40	10
Tugman Creek Riparian	E83	E83	R	3.18	Limit Conflicting Uses	Stream Category D	20	10
Braeburn Riparian	E86	E86 A-B	R	1.89	Fully Allow Conflicting Uses	None	0	
Braeburn Riparian	E86	E86 C	R	1.55	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 D	R	5.69	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 E	R	0.29	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 F	R	0.13	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 G	R	1.85	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 H	R	0.46	Limit Conflicting Uses	Stream Category D	20	10
Willow Creek Tributaries	E87	E87 A	R	0.48	Fully Allow Conflicting Uses	None	0	
Willow Creek Tributaries	E87	E87 B	R	5.18	Limit Conflicting Uses	Stream Category C	40	6
Willow Creek Tributaries	E87	E87 C	R	0.62	Limit Conflicting Uses	Stream Category D	20	6
Bailey Hill Riparian	E88	E88	R	4.78	Limit Conflicting Uses	Stream Category C	40	6
Willamette River	WA	WA	R	453.49	Limit Conflicting Uses	Stream Category A	100	13

*Stream categories are from the draft /WR Water Resources Conservation Overlay Zone

**Setback distances are measured from top of bank (TOB)

ESEE Conclusions Summary Table - Upland Wildlife Habitat Sites

October 24, 2005

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from TOB)**	ESEE CONCLUSIONS MAP NUMBER
West Eugene Uplands	E35	E35 A	U	5.61	Limit conflicting uses	Stream Category C	40	7
West Eugene Uplands	E35	E35 B1-B2	U	4.41	Limit conflicting uses	Stream Category C	40	7
West Eugene Uplands	E35	E35 B-3	U	4.87	Limit conflicting uses	Stream Category D	20	7
West Eugene Uplands	E35	E35 B-4	U	1.50	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 C	U	2.46	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 D	U	1.98	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 E	U	5.46	Limit conflicting uses	Stream Category C	40	6
West Eugene Uplands	E35	E35 F	U	4.38	Limit conflicting uses	Stream Category C	40	7
West Eugene Uplands	E35	E35 G	U	0.84	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 H	U	0.51	Limit conflicting uses	Stream Category C	40	6
West Eugene Uplands	E35	E35 I	U	0.33	Limit conflicting uses	Stream Category C	40	6
Southwest Hills	E37	E37 A	U	2.65	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 B-1	U	0.10	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 B-2	U	2.25	Limit conflicting uses	Stream Category D	20	8
Southwest Hills	E37	E37 C-1	U	2.01	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 C-2	U	1.19	Limit conflicting uses	Stream Category D	20	8
Southwest Hills	E37	E37 D	U	3.01	Limit conflicting uses	Stream Category D	20	8
Southwest Hills	E37	E37 E-1	U	1.40	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 E-2	U	4.69	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 E-3	U	0.99	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 F	U	0.90	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 G	U	1.18	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 H	U	11.20	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 I-1	U	1.14	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 I-2	U	0.54	Limit conflicting uses	Stream Category D	20	9
Southwest Hills	E37	E37 I-3	U	0.78	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 J-1	U	2.91	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 J-2	U	2.00	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 J-4	U	0.71	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 J-5	U	10.06	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 K	U	16.87	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 L	U	16.50	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 M-1	U	5.40	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 M-2	U	0.83	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 M-3	U	1.40	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 N	U	1.10	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 O	U	1.74	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 P	U	3.58	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-1	U	3.01	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-2	U	1.88	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-3	U	1.93	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-5	U	1.28	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 Q-6	U	1.12	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 R	U	0.69	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 S	U	5.04	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 T	U	0.56	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 A	U	3.42	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 B	U	2.06	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 C	U	11.04	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 D	U	7.09	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 E	U	4.22	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 F	U	2.98	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 G	U	0.89	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 H	U	0.51	Fully allow conflicting uses	None	0	

*Stream categories are from the draft /WR Water Resources Conservation Overlay Zone

**Setback distances are measured from top of bank (TOB)

ESEE Conclusions Summary Table - Wetland Sites

9/1/05

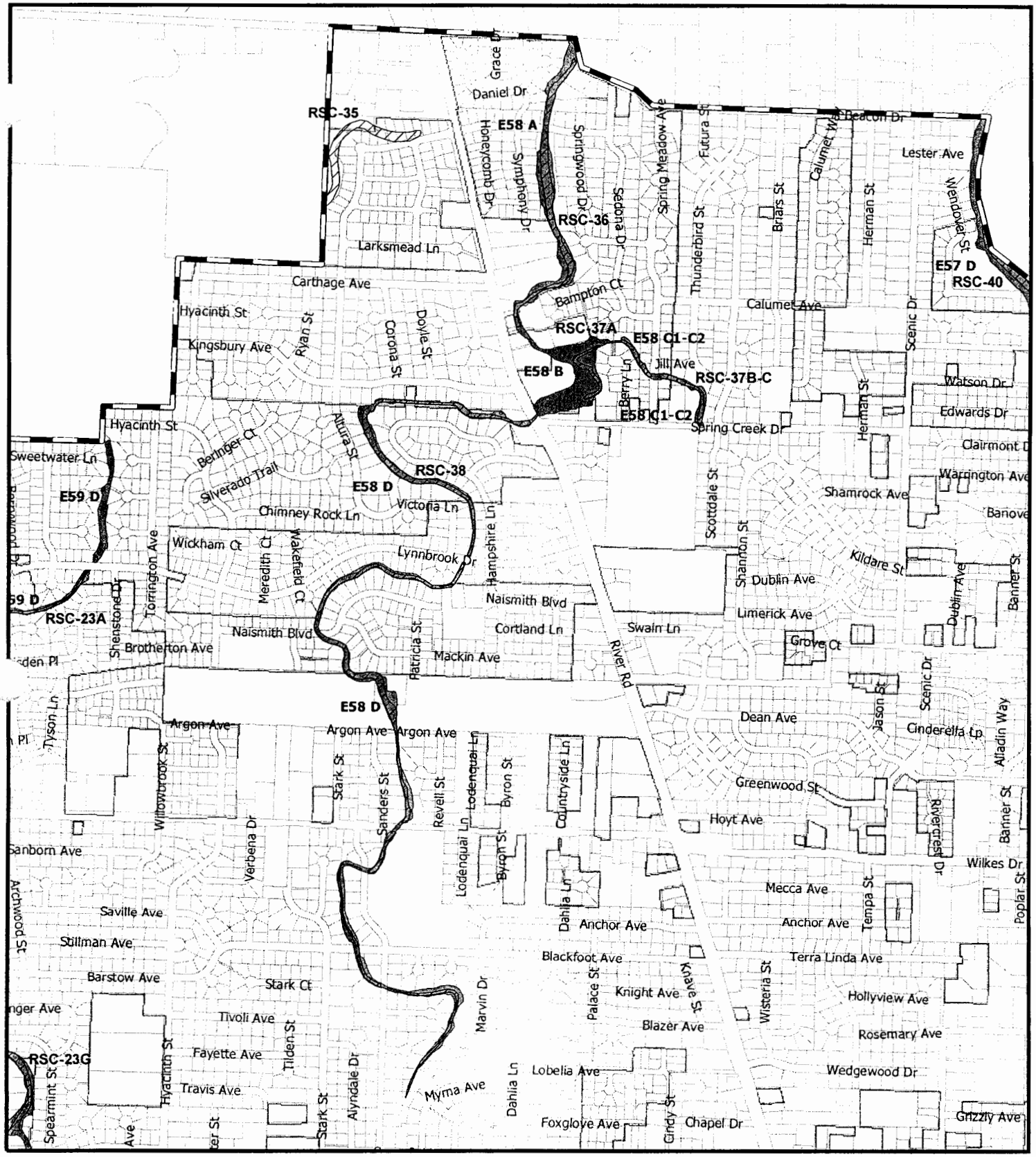
SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from JWB)**	ESEE CONCLUSIONS MAP NUMBER
West Eugene Uplands wetland at Skyview Park	AMA-3	AMA-3	W	0.53	Limit Conflicting Uses	Category B Wetland	25	7
West Eugene Uplands wetland at Hawkins	AMA-4	AMA-4	W	1.44	Fully Allow Conflicting Uses	None	0	
West Eugene Uplands wetland at Videra Ck	AMA-5	AMA-5A	W	0.16	Limit Conflicting Uses	Category B Wetland	25	7
West Eugene Uplands wetland at Videra Ck	AMA-5	AMA-5B	W	1.00	Limit Conflicting Uses	Category B Wetland	25	7
West Eugene Uplands wetland at Videra Ck	AMA-5	AMA-5C	W	0.04	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6A	W	5.65	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6B	W	2.35	Limit Conflicting Uses	Category A Wetland	50	10
Westmoreland wetlands	AMA-6	AMA-6C	W	1.23	Limit Conflicting Uses	Category A Wetland	50	10
Westmoreland wetlands	AMA-6	AMA-6D	W	0.03	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6E	W	0.04	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6F	W	0.10	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetlands	AMA-7	AMA-7A	W	3.62	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7B	W	1.62	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7C	W	0.24	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7D	W	0.18	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7E	W	0.20	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7F	W	1.83	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Park wetland ash grove	AMA-9	AMA-9	W	14.84	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Park wetland 24th	AMA-10	AMA-10	W	1.42	Limit Conflicting Uses	Category B Wetland	25	10
Amazon Park wetland pool/ballfield	AMA-11	AMA-11A	W	5.58	Fully Allow Conflicting Uses	None	0	
Amazon Park wetland pool/ballfield	AMA-11	AMA-11B	W	2.78	Limit Conflicting Uses	Category B Wetland	25	10
Amazon Park wetland 29th	AMA-12	AMA-12A	W	0.59	Limit Conflicting Uses	Category B Wetland	25	10
Amazon Park wetland 29th	AMA-12	AMA-12B	W	0.44	Limit Conflicting Uses	Category B Wetland	25	10
Owl Road wetland	AMA-13	AMA-13	W	1.43	Limit Conflicting Uses	Category B Wetland	25	9
Barber wetland	AMA-14	AMA-14	W	0.86	Limit Conflicting Uses	Category B Wetland	25	9
Amazon Park wetland prairie	AMA-16	AMA-16	W	0.89	Limit Conflicting Uses	Category A Wetland	50	10
Bethel-Danebo wetland at Terry	BD-2	BD-2	W	5.35	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-3	BD-3A	W	4.74	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-3	BD-3B	W	0.44	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-3	BD-3C	W	0.53	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-4	BD-4	W	9.06	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-5	BD-5	W	23.97	Limit Conflicting Uses	Category A Wetland	50	5
Royal Avenue wetlands	BD-6	BD-6A	W	12.19	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-6	BD-6B	W	1.68	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A1	W	0.44	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7A2	W	0.08	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A3	W	1.26	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7A4	W	0.88	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7A5	W	0.08	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A6	W	0.14	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A7	W	9.24	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7B1	W	1.50	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7B2	W	4.86	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7C1	W	1.54	Limit Conflicting Uses	Category B Wetland	25	5
Royal Avenue wetlands	BD-7	BD-7C2	W	0.63	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7C3	W	1.81	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7C4	W	1.77	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7C5	W	1.50	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-8	BD-8A1	W	0.52	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-8	BD-8A2	W	0.57	Limit Conflicting Uses	Category B Wetland	25	5
Royal Avenue wetlands	BD-8	BD-8A3	W	0.94	Limit Conflicting Uses	Category B Wetland	25	5
Royal Avenue wetlands	BD-8	BD-8A4	W	0.21	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-8	BD-8B	W	1.16	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-8	BD-8C	W	4.79	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-8	BD-8D	W	0.62	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9A	W	2.49	Limit Conflicting Uses	Category A Wetland	50	5
Amazon Creek wetland at Royal	BD-9	BD-9B1	W	12.95	Limit Conflicting Uses	Category B Wetland	25	5
Amazon Creek wetland at Royal	BD-9	BD-9B2	W	0.63	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9B3	W	0.16	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9C	W	0.83	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9D1	W	5.08	Limit Conflicting Uses	Category B Wetland	25	5
Amazon Creek wetland at Royal	BD-9	BD-9D2	W	0.93	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E1	W	0.02	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E2	W	0.65	Limit Conflicting Uses	Category C Wetland	0	5
Amazon Creek wetland at Royal	BD-9	BD-9E3	W	3.94	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E4	W	1.24	Limit Conflicting Uses	Category C Wetland	0	5
Amazon Creek wetland at Royal	BD-9	BD-9E5	W	29.17	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E6	W	2.80	Limit Conflicting Uses	Category C Wetland	0	5
Amazon Creek wetland at Royal	BD-9	BD-9E7	W	0.44	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-10	BD-10A1	W	0.30	Fully Allow Conflicting Uses	None	0	

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from JWB)**	ESEE CONCLUSIONS MAP NUMBER
Royal Avenue wetlands	BD-10	BD-10A2	W	1.13	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-10	BD-10A3	W	0.51	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-10	BD-10A4	W	2.10	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-10	BD-10B	W	3.31	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-11	BD-11	W	0.57	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-13	BD-13	W	2.66	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-15	BD-15	W	0.63	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-16	BD-16	W	1.97	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-17	BD-17	W	1.01	Fully Allow Conflicting Uses	None	0	
Empire Pond wetland	BD-20	BD-20	W	1.84	Limit Conflicting Uses	Category B Wetland	25	3
Taney Waterway wetland	BD-21	BD-21	W	0.73	Fully Allow Conflicting Uses	None	0	
NW Exp'wy Pond/Railroad wetland	BD-22	BD-22	W	5.31	Limit Conflicting Uses	Category B Wetland	25	3
Prairie Rd/Hwy 99	RSC-1	RSC-1	W	111.44	Fully Allow Conflicting Uses	None	0	
A-1 Channel wetland	RSC-2	RSC-2A	W	8.20	Limit Conflicting Uses	Category B Wetland	25	2
A-1 Channel wetland	RSC-2	RSC-2C	W	0.24	Fully Allow Conflicting Uses	None	0	
A-1 Channel wetland	RSC-2	RSC-2B	W	3.08	Limit Conflicting Uses	Category B Wetland	25	2
Prairie Rd/Hwy 99 wetlands	RSC-5	RSC-5	W	10.44	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-6	RSC-6	W	2.57	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-8	RSC-8	W	0.90	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-9	RSC-9	W	0.57	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-10	RSC-10A	W	1.72	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-10	RSC-10B	W	3.67	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-12	RSC-12	W	6.10	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-15	RSC-15	W	1.04	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-16	RSC-16	W	0.84	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-17	RSC-17	W	15.16	Fully Allow Conflicting Uses	None	0	
A-1 Side Channel	RSC-18	RSC-18	W	2.77	Fully Allow Conflicting Uses	None	0	
Highway 99/McDougal Pond wetlands	RSC-20	RSC-20	W	1.86	Limit Conflicting Uses	Category B Wetland	25	3
Highway 99/McDougal Pond wetlands	RSC-21	RSC-21	W	2.38	Limit Conflicting Uses	Category B Wetland	25	3
Wetland at Lancaster	RSC-22	RSC-22	W	1.27	Fully Allow Conflicting Uses	None	0	
North Flat Creek wetlands	RSC-23	RSC-23A	W	0.33	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23B	W	0.10	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23C	W	0.80	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23D	W	0.09	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23E	W	0.35	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23F	W	2.06	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23G	W	0.69	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23H	W	0.11	Fully Allow Conflicting Uses	None	0	
North Flat Creek wetlands	RSC-25	RSC-25	W	1.73	Limit Conflicting Uses	Category B Wetland	25	2
Prairie Rd/Hwy 99 wetlands	RSC-26	RSC-26A	W	0.04	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-26	RSC-26B	W	0.90	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-27	RSC-27	W	0.63	Fully Allow Conflicting Uses	None	0	
Middle Flat Creek wetlands	RSC-28	RSC-28A	W	0.77	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetlands	RSC-28	RSC-28B	W	3.45	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetlands	RSC-28	RSC-28C	W	2.59	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetlands	RSC-29	RSC-29	W	3.53	Limit Conflicting Uses	Category A Wetland	50	3
NW Expressway Pond/Diana's Pond wetland	RSC-30	RSC-30A	W	11.33	Limit Conflicting Uses	Category A Wetland	50	3
NW Expressway Pond/Diana's Pond wetland	RSC-30	RSC-30B	W	0.78	Fully Allow Conflicting Uses	None	0	
South Flat Creek wetland	RSC-32	RSC-32	W	2.70	Fully Allow Conflicting Uses	None	0	
Middle Flat Creek wetland	RSC-33	RSC-33A-B	W	2.89	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetland	RSC-34	RSC-34	W	1.18	Fully Allow Conflicting Uses	None	0	
Spring Creek wetlands	RSC-35	RSC-35	W	1.69	Limit Conflicting Uses	Category B Wetland	25	1
Spring Creek wetlands	RSC-36	RSC-36	W	2.20	Limit Conflicting Uses	Category A Wetland	50	1
Spring Creek wetlands	RSC-37	RSC-37A	W	0.38	Limit Conflicting Uses	Category A Wetland	50	1
Spring Creek wetlands	RSC-37	RSC-37B-C	W	0.60	Limit Conflicting Uses	Category B Wetland	25	1
Spring Creek wetlands	RSC-37	RSC-37D	W	0.12	Fully Allow Conflicting Uses	None	0	
Spring Creek wetlands	RSC-38	RSC-38	W	5.64	Limit Conflicting Uses	Category B Wetland	25	1
Spring Creek wetlands	RSC-39	RSC-39	W	0.61	Fully Allow Conflicting Uses	None	0	
East Santa Clara Waterway wetland	RSC-40	RSC-40	W	1.56	Limit Conflicting Uses	Category A Wetland	50	1, 3
Willow Creek wetland	WC-1	WC-1	W	1.38	Limit Conflicting Uses	Category A Wetland	50	6
Patterson Slough wetland	WKZ-1	WKZ-1A	W	1.71	Limit Conflicting Uses	Category A Wetland	50	13
Patterson Slough wetland	WKZ-1	WKZ-1B	W	2.40	Limit Conflicting Uses	Category A Wetland	50	13
Ayres Pond wetland	WKZ-2	WKZ-2	W	0.48	Limit Conflicting Uses	Category A Wetland	50	13
Green Acres wetland	WKZ-3	WKZ-3	W	1.00	Limit Conflicting Uses	Category B Wetland	25	13
Goodpasture wetlands	WKZ-4	WKZ-4	W	6.58	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5A	W	3.61	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5B	W	1.75	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5C	W	2.35	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5D	W	3.57	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5E	W	2.42	Limit Conflicting Uses	Category A Wetland	50	13
Delta Ponds wetlands	WKZ-6	WKZ-6	W	18.95	Limit Conflicting Uses	Category B Wetland	25	13

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from JWB)**	ESEE CONCLUSIONS MAP NUMBER
Delta Ponds wetlands	WKZ-7	WKZ-7	W	65.54	Limit Conflicting Uses	Category A Wetland	50	13
Willagillespie wetland	WKZ-8	WKZ-8	W	0.62	Fully Allow Conflicting Uses	None	0	
Debrick Slough wetland	WKZ-9	WKZ-9	W	10.03	Limit Conflicting Uses	Category B Wetland	25	13
County Farm wetland at Game Farm	WKZ-10	WKZ-10	W	0.55	Fully Allow Conflicting Uses	None	0	
Sorrel Pond wetland	WKZ-13	WKZ-13	W	2.69	Limit Conflicting Uses	Category B Wetland	25	13
Alton Baker wetland	WKZ-14	WKZ-14A	W	0.54	Limit Conflicting Uses	Category A Wetland	50	13
Alton Baker wetland	WKZ-14	WKZ-14B1	W	1.18	Limit Conflicting Uses	Category A Wetland	50	13
Alton Baker wetland	WKZ-14	WKZ-14B2	W	0.46	Limit Conflicting Uses	Category A Wetland	50	13
Alton Baker wetland	WKZ-14	WKZ-14B3	W	3.51	Limit Conflicting Uses	Category B Wetland	25	13
Alton Baker wetland	WKZ-14	WKZ-14C	W	1.27	Limit Conflicting Uses	Category B Wetland	25	13
Alton Baker wetland	WKZ-14	WKZ-14D	W	0.33	Limit Conflicting Uses	Category B Wetland	25	13
Willamette River wetlands	WR-1	WR-1	W	1.94	Limit Conflicting Uses	Category A Wetland	50	13
Willamette River wetlands	WR-2	WR-2	W	1.79	Limit Conflicting Uses	Category A Wetland	50	13
Delta Ponds wetlands	WR-3	WR-3	W	25.46	Limit Conflicting Uses	Category A Wetland	50	13
Riverfront Park/Millrace wetland	WR-4	WR-4	W	6.30	Limit Conflicting Uses	Category A Wetland	50	13
Willamette River wetlands	WR-5	WR-5A	W	1.05	Limit Conflicting Uses	Category A Wetland	50	13
Willamette River wetlands	WR-5	WR-5B	W	0.12	Limit Conflicting Uses	Category A Wetland	50	13

*Wetland categories are from the draft /WR Water Resources Conservation Overlay Zone

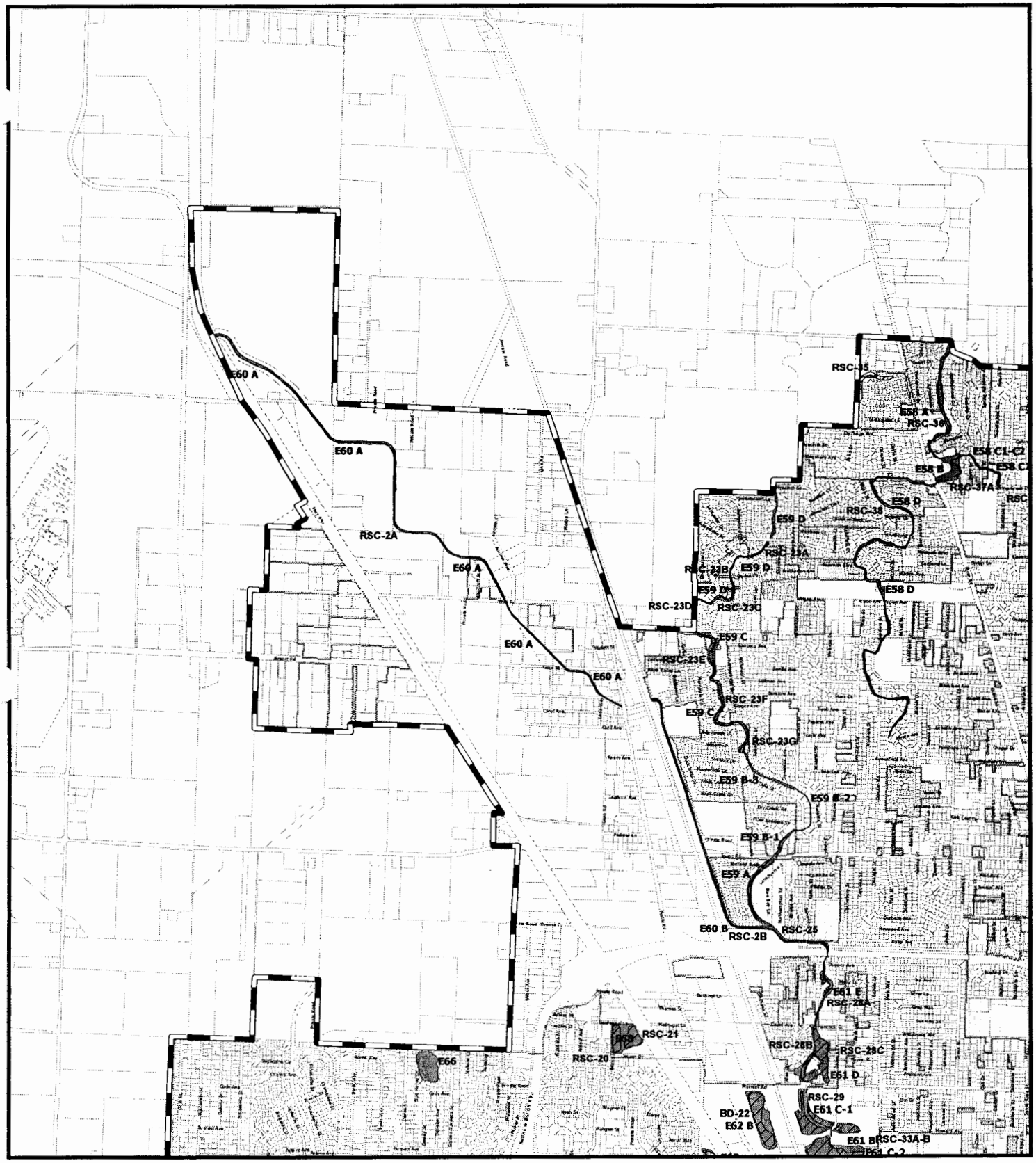
**Setback distances for wetlands are measured from the jurisdictional wetland boundary (JWB).



Goal 5 Water Resources Conservation Plan, Section IV, Map 1
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

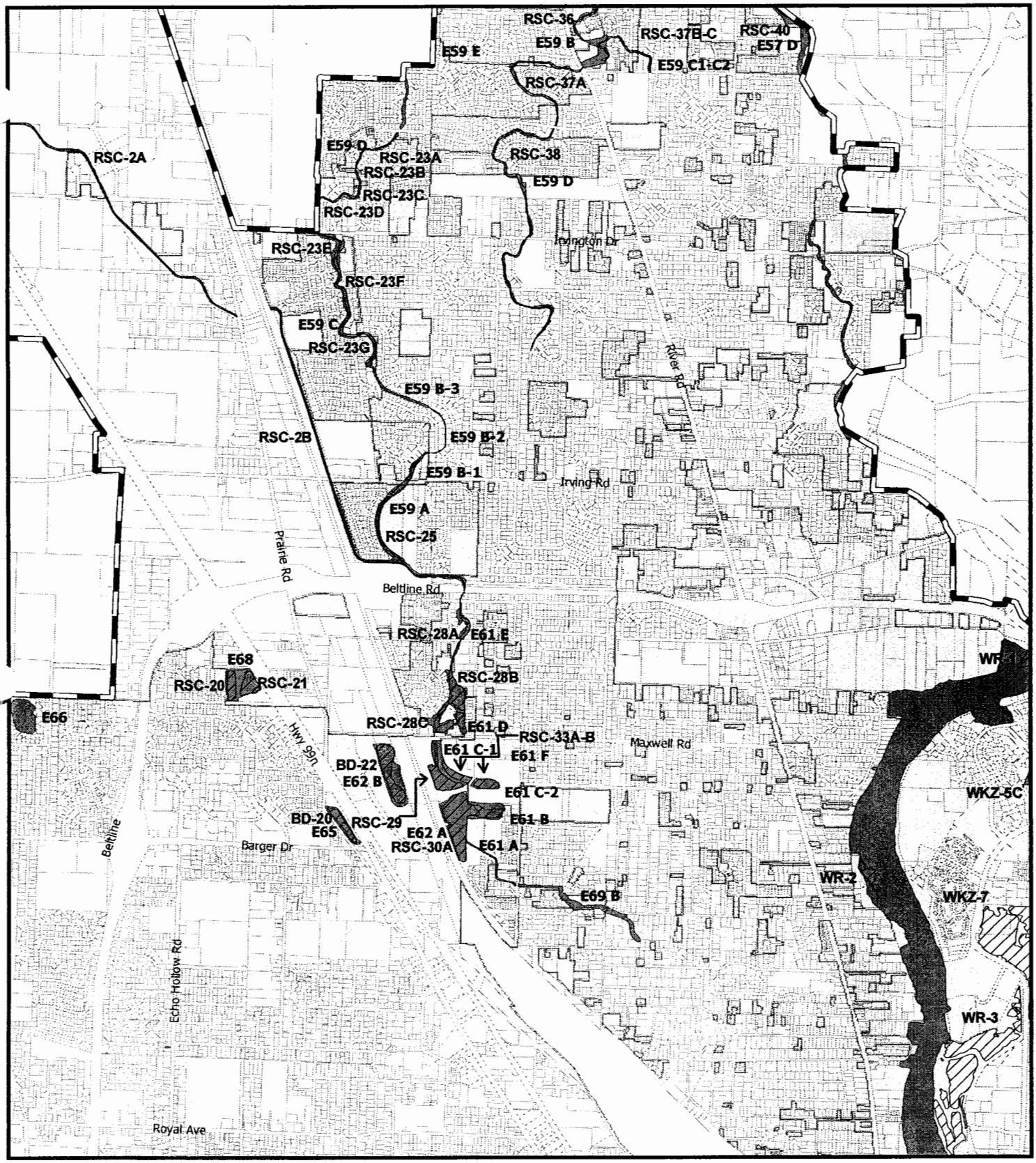
Feet
0 225 450 675



Goal 5 Water Resources Conservation Plan, Section IV, Map 2
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 730 1,4602,190



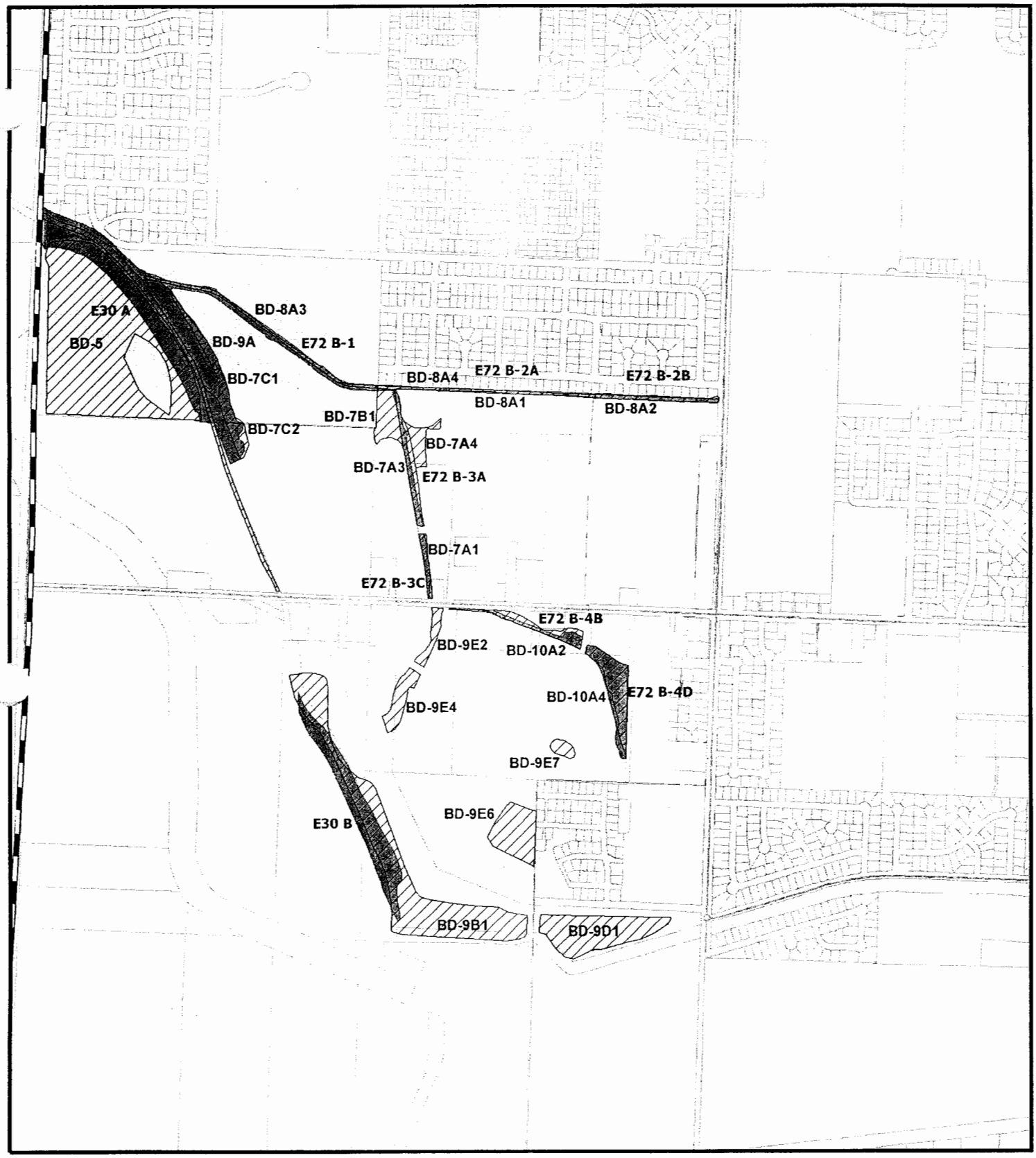
Goal 5 Water Resources Conservation Plan, Section IV, Map 3
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 890 1,780


E59 A
E60 B
RSC-25
RSC-2B
E68
RSC-20
RSC-21
E66
E62 B
BD-22
BD-20
E65
E72 B-2B
E72 B-2A
BD-8A1
BD-8A2
Federal Ln
Private Road
Irving Rd
Midland Brid
Private Road Theona Dr
Prairie Rd
Wilbur Ave
Bushnell Ln
Thomas St
Ashley Ln
Ashley Ct
Mcdougal Ln
Jessen Dr
Bear St
Elizabeth St
Arnold Ave
Rosebay
Melrose Ln
Blue Heron Ln
Cody Ave
Private Road
Primrose St
Parker Pl
Bettine W Blvd Off R Rd
Noah St
Wagner St
Clarey St
Mangan St
Aerial Way
Tenney Ln
Riviera
Quest Dr
Altimont St
Cubit St
Century Dr
Empire Park Dr
Sugarpine Cir
Coolidge Ave
North Way
Irwin Way
Devos St
Dewey St
Danebo Ave
Golden Gardens St
Burnett Ave
Leona Ct
Astove Ave
Aldabra St
Minnesota St
Lemuria St
Trevor St
Cosmopolis St
Antelope St
Antarctic St
Burke St
Port St
Laveta Ln
Regina St
Private Road
Terry St
Glenn Ellen Dr
Club Dr
Prasin St
Heitzman Way
Riley Ln
Hamlet Ln
Olympic Cir
Souza St
Souza Ct
Liberty St
Philip St
Haven St
Dota St
Avalon St
Cambon St
Concord St
Fuller Ave
Marshall Ave
Laurelhurst Dr
Candlelight Dr
Stagecoach Rd
Harriet Ave
Surrey Ln
Williams St
Leopold Dr
Heathrow Dr
Throne Dr
Hollow Way
West St
Rupp St
Frigon Ave
Redfrig Ave
Delores Ct
Dee Ct
Elman Ln
Bostoo Ln
Scandia St
Juhl St
Catalina St
Murnane St
Bettine E Blvd Off R Rd
Echo Hollow Rd
Cascade Dr
Sean St
Knoop Ave
Flagstaff St
Bethesda St
Willhi St
Withi St
Jay St
Rutledge St
Ellsworth St
Taney St
Pattison St
Nuvia
Chase St
Bemtzen Rd
Waite St
Taft St
Hughes St
Hawthorne Ave
Robin Ave
Dove Ln
Ruskin St
Private Road
Danebo Ave
Avalon
Concord St
Jay St
Fuller Ave
Marshall Ave
Hawthorne Ave
Bemtzen Rd
Waite St
Taft St
Hughes St
Avalon St
Pattison St
Nuvia
Chase St
Bemtzen Rd
Waite St
Taft St
Hughes St
Avalon
Concord St
Jay St
Fuller Ave
Rutledge St
Ellsworth St
Taney St
Willhi St
Withi St
Avalon St
Cascade Dr
Sean St
Knoop Ave
Flagstaff St
Bethesda St
Echo Hollow Rd
Bettine E Blvd Off R Rd
Scandia St
Juhl St
Catalina St
Murnane St
Bostoo Ln
Dove Ln
Ruskin St
Private Road
Robin Ave
Taft St
Waite St
Souza St
Private Road
Danebo Ave
Souza Ct
Liberty St
Philip St
Haven St
Dota St
Avalon St
Cambon St
Concord St
Fuller Ave
Marshall Ave
Laurelhurst Dr
Candlelight Dr
Stagecoach Rd
Harriet Ave
Surrey Ln
Williams St
Leopold Dr
Heathrow Dr
Throne Dr
Hollow Way
West St
Rupp St
Frigon Ave
Redfrig Ave
Delores Ct
Dee Ct
Elman Ln
Riley Ln
Hamlet Ln
Olympic Cir
Heitzman Way
Prasin St
Club Dr
Glenn Ellen Dr
Terry St
Private Road
Burke St
Port St
Laveta Ln
Regina St
Private Road
Aldabra St
Minnesota St
Lemuria St
Trevor St
Cosmopolis St
Antelope St
Antarctic St
Astove Ave
Astove Ave
Burnett Ave
Leona Ct
Private Road
Dewey St
Danebo Ave
Golden Gardens St
Devos St
Irwin Way
Irwin Way
Blue Heron Ln
Cody Ave
Private Road
Primrose St
Parker Pl
Bettine W Blvd Off R Rd
Rosebay
Melrose Ln
Elizabeth St
Arnold Ave
Ashley Ln
Ashley Ct
Mcdougal Ln
Jessen Dr
Bear St
Private Road
Wilbur Ave
Private Road Theona Dr
Prairie Rd
Private Road
Irving Rd
Midland Brid
Federal Ln
Sugarpine Cir
Coolidge Ave
North Way
Irwin Way
Devos St
Dewey St
Danebo Ave
Golden Gardens St
Burnett Ave
Leona Ct
Astove Ave
Aldabra St
Minnesota St
Lemuria St
Trevor St
Cosmopolis St
Antelope St
Antarctic St
Private Road
Private Road
Private Road
Private Road
Noah St
Wagner St
Clarey St
Mangan St
Aerial Way
Tenney Ln
Riviera
Quest Dr
Altimont St
Cubit St
Century Dr
Empire Park Dr
Bushnell Ln
Thomas St
Mcdougal Ln
Jessen Dr
Bear St
Elizabeth St
Arnold Ave
Rosebay
Melrose Ln
Blue Heron Ln
Cody Ave
Private Road
Primrose St
Parker Pl
Bettine W Blvd Off R Rd
Wilbur Ave
Private Road Theona Dr
Prairie Rd
Private Road
Irving Rd
Midland Brid
Federal Ln
Goal 5 Water Resources Conservation Plan, Section IV, Map 4
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources
Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection
N
W
E
S
Feet
0 340 680 1,020

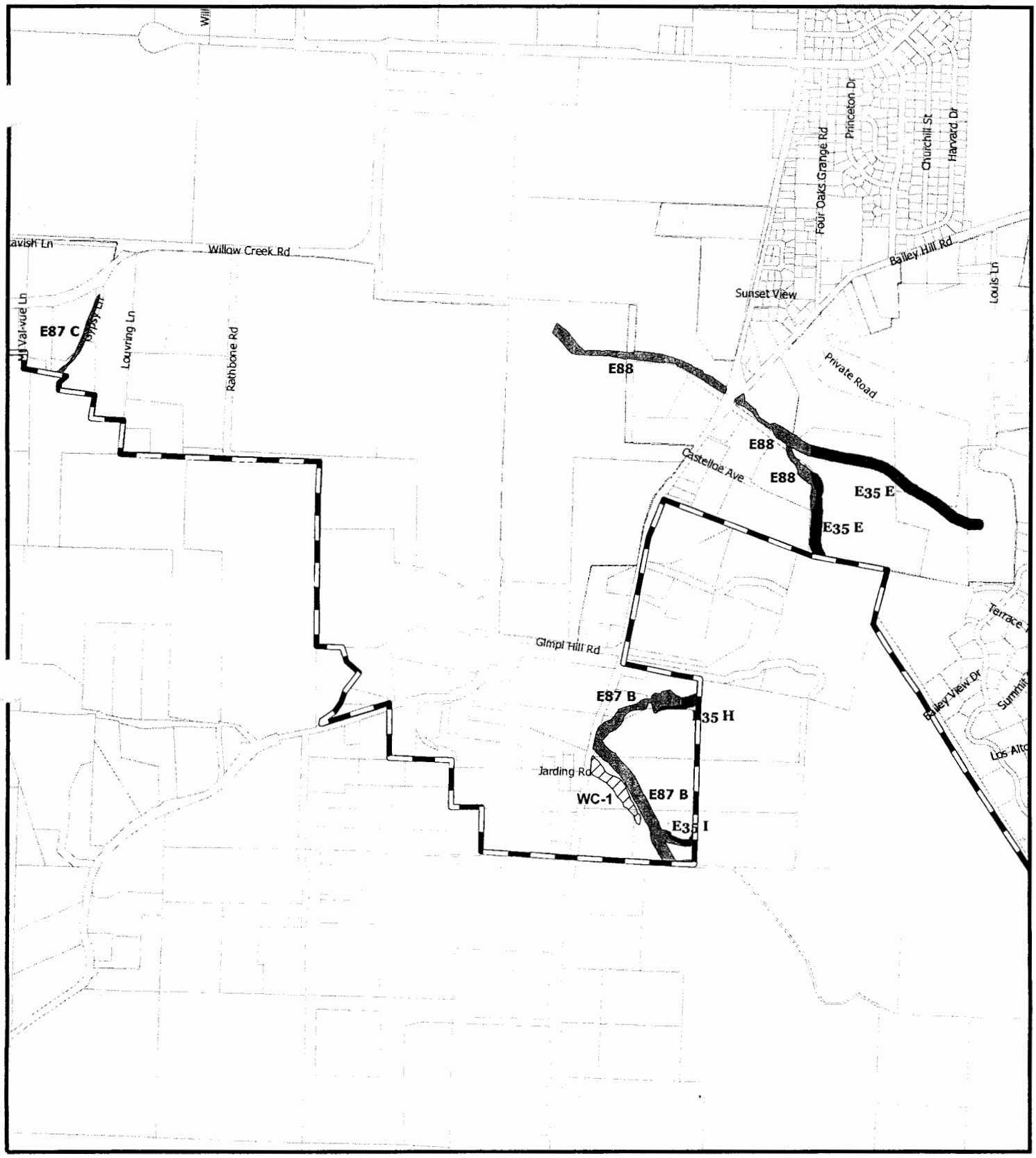


Goal 5 Water Resources Conservation Plan, Section IV, Map 5
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection

Feet
0 260 520 780



Goal 5 Water Resources Conservation Plan, Section IV, Map 6
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
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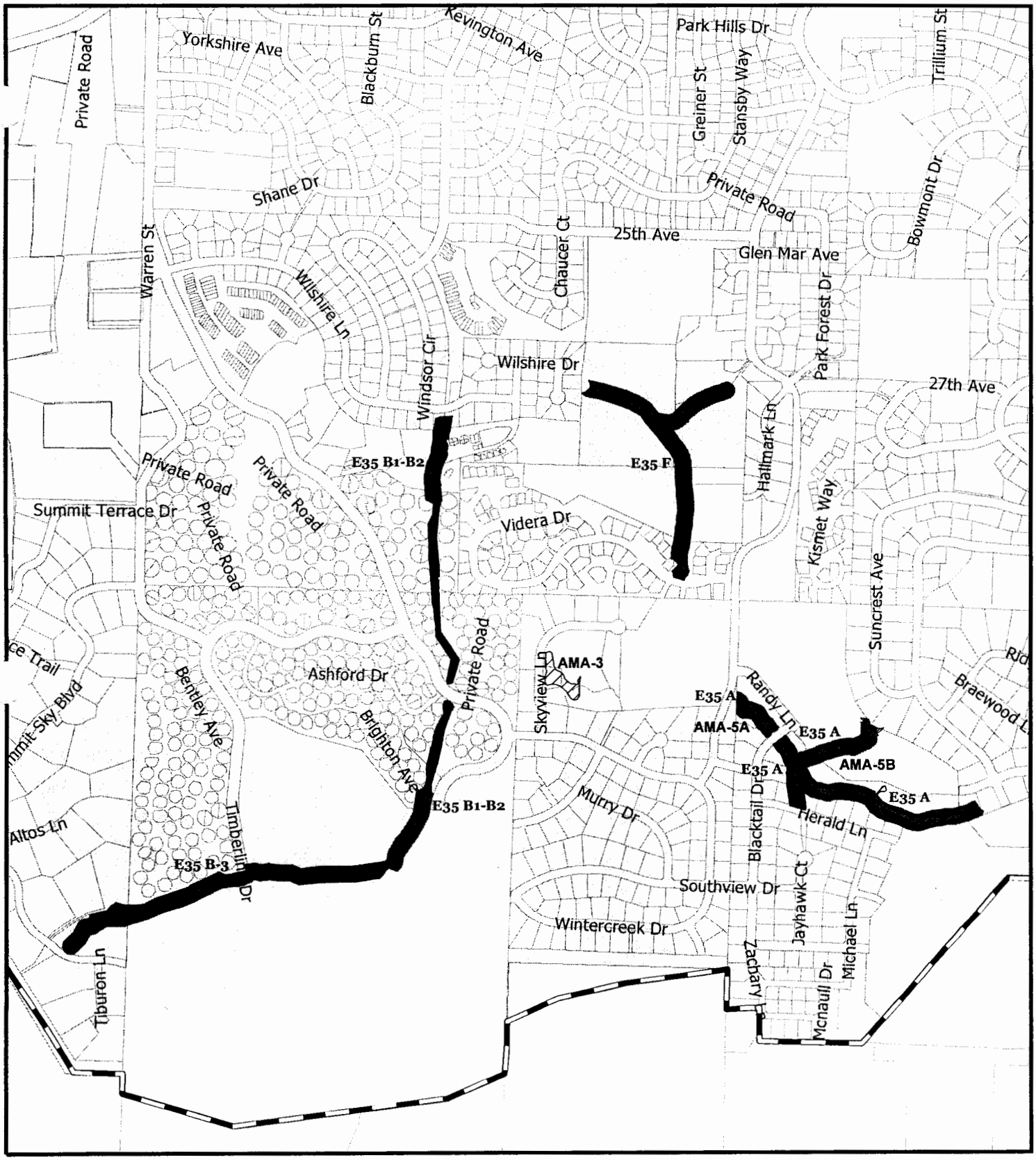
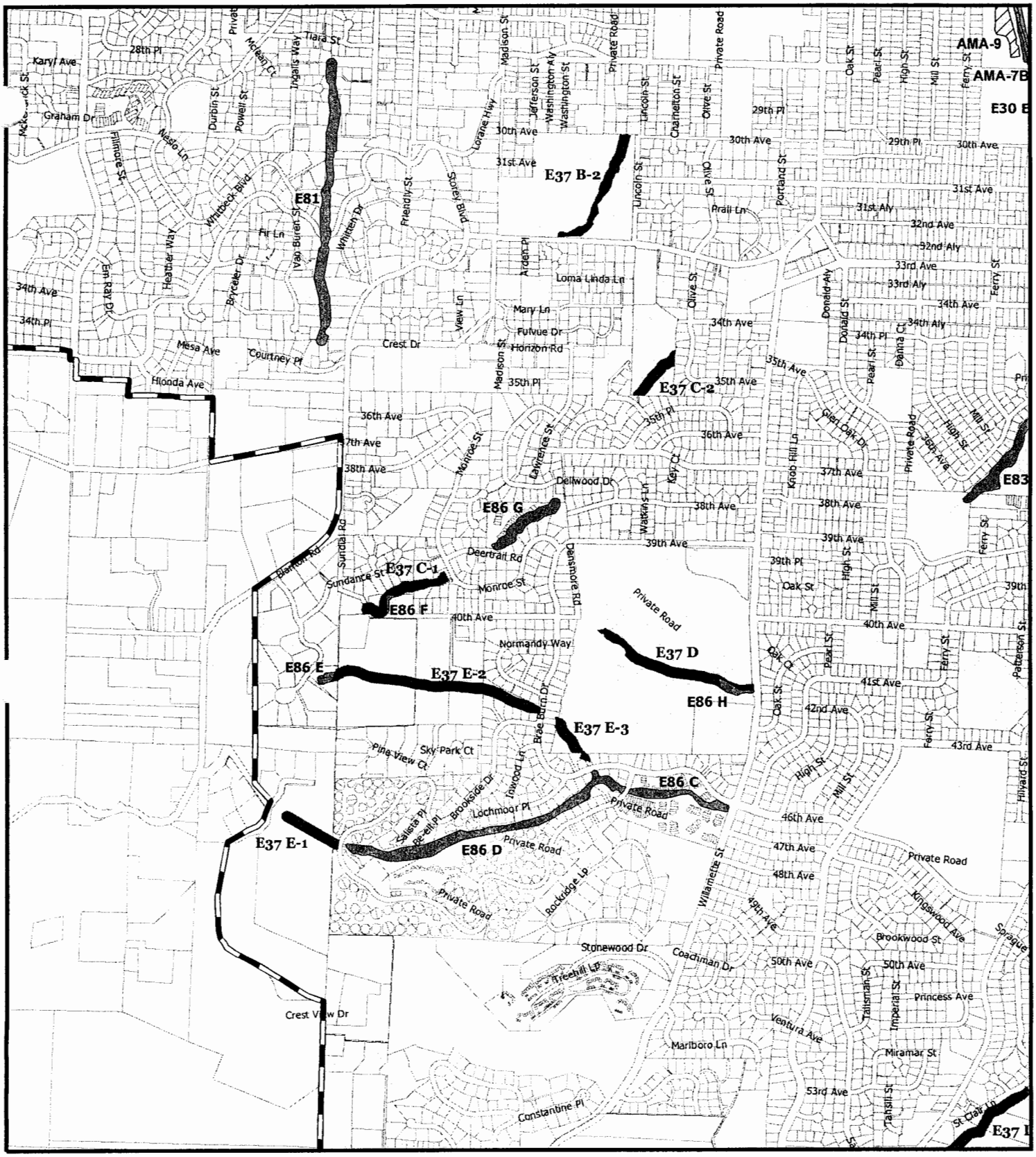


Goal 5 Water Resources Conservation Plan, Section IV, Map 7
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Fee
0 230 460 690



Goal 5 Water Resources Conservation Plan, Section IV, Map 8

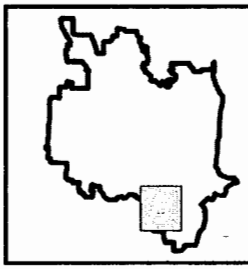
Eugene Goal 5 ESEE Conclusions

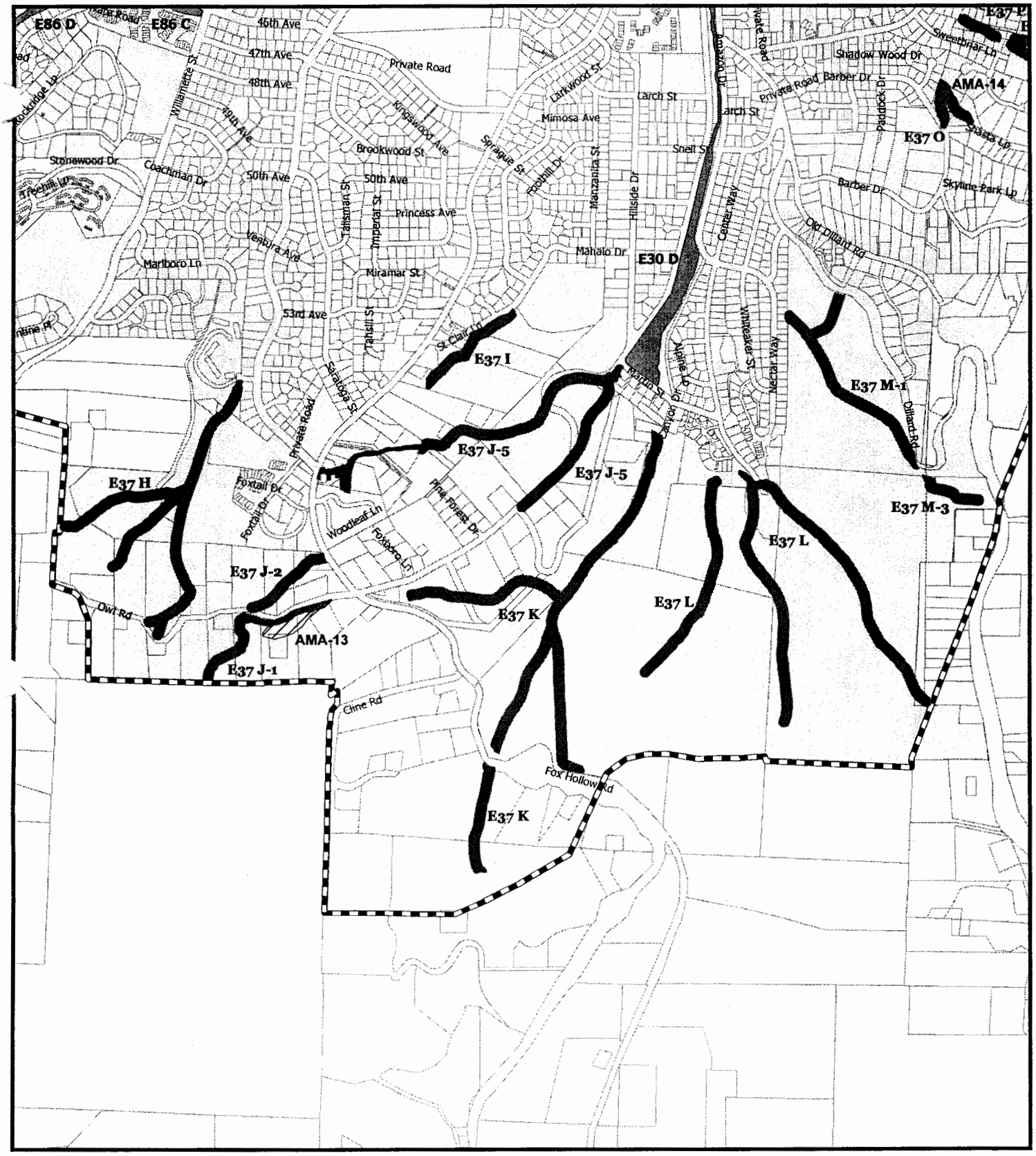
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N W E S

Feet
0 280 560 840





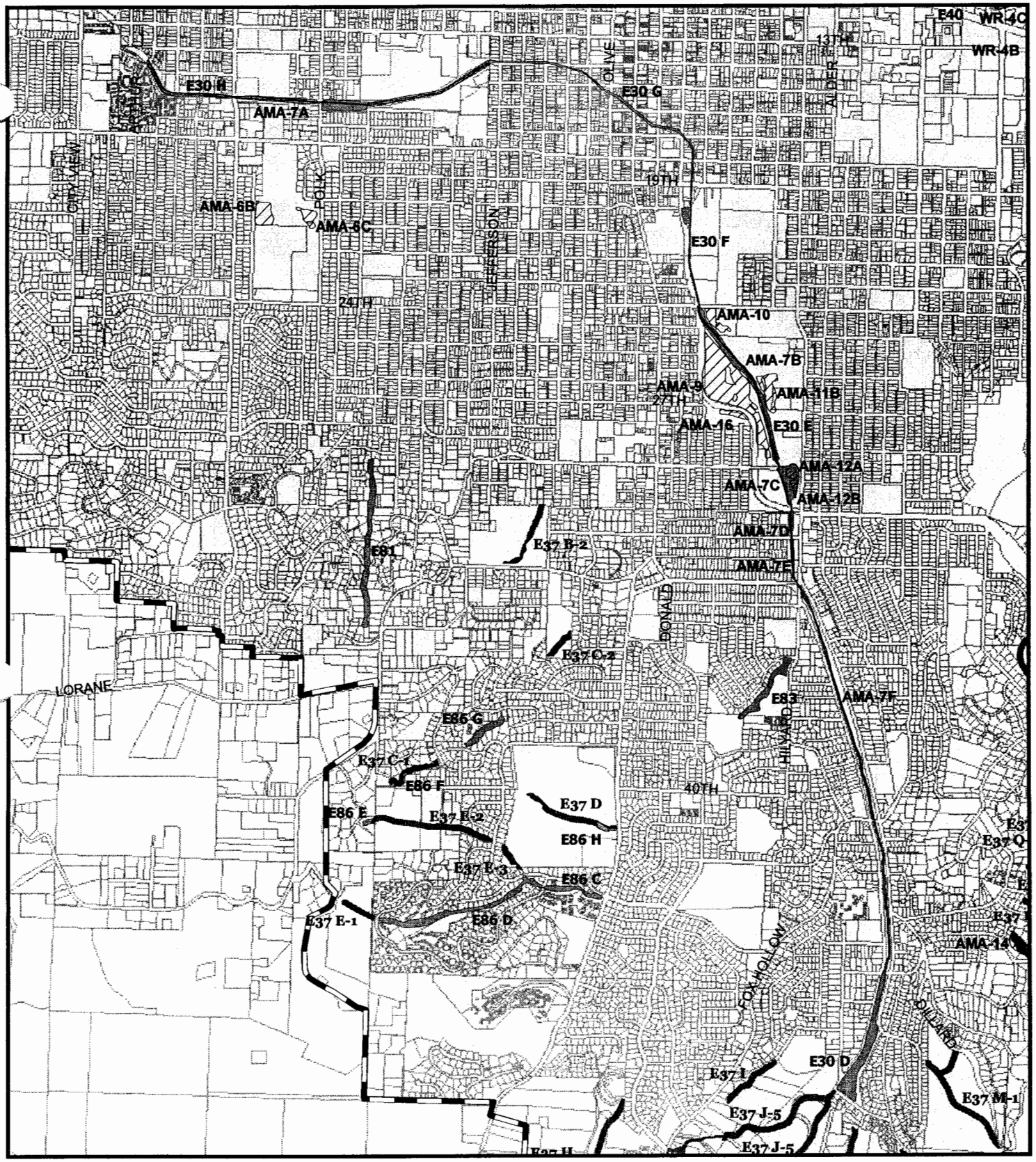
Goal 5 Water Resources Conservation Plan, Section IV, Map 9

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources October 24, 2005

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

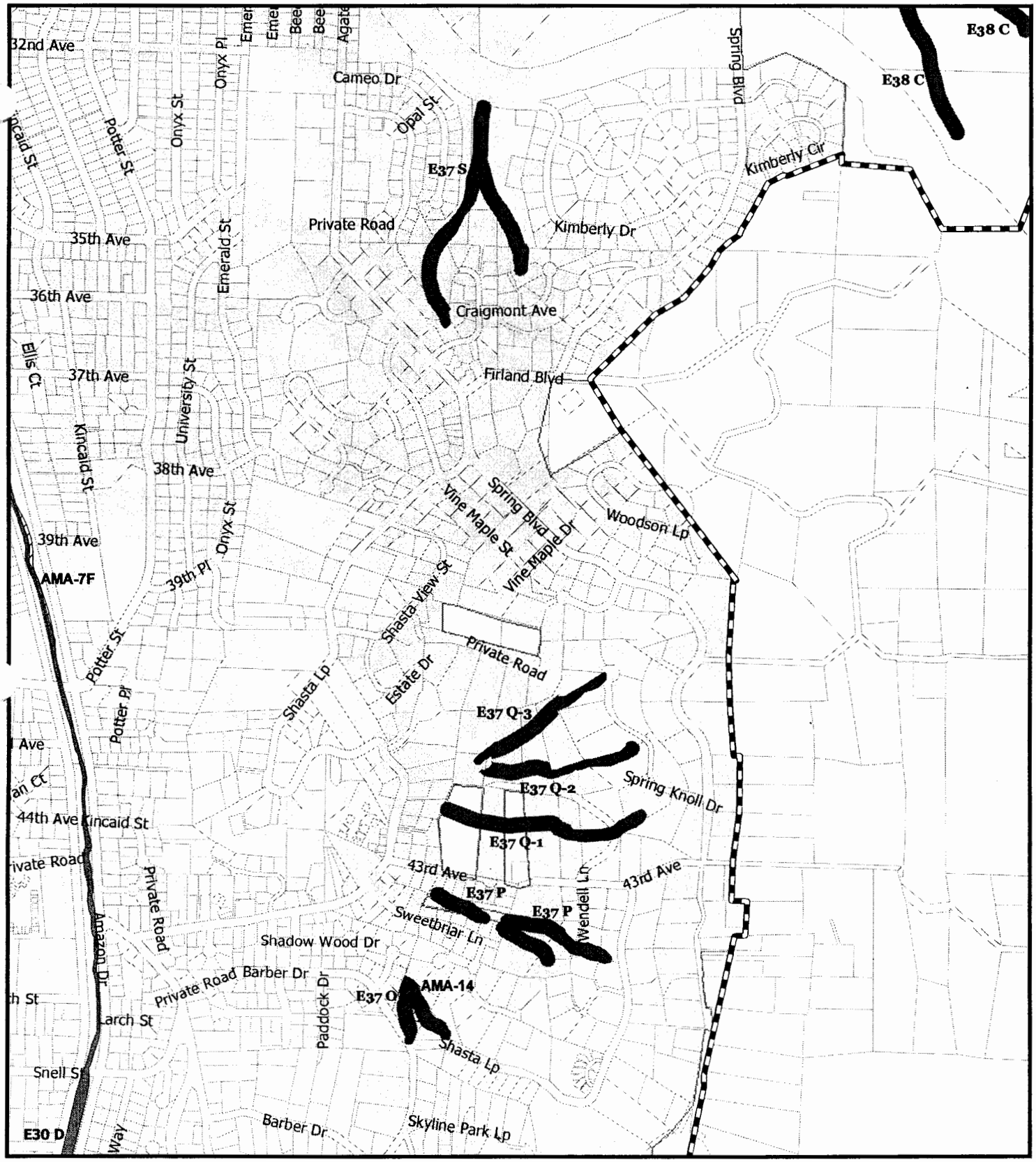
0 325 650 975 Feet



Goal 5 Water Resources Conservation Plan, Section IV, Map 10
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

0 620 1,240 1,860 Feet



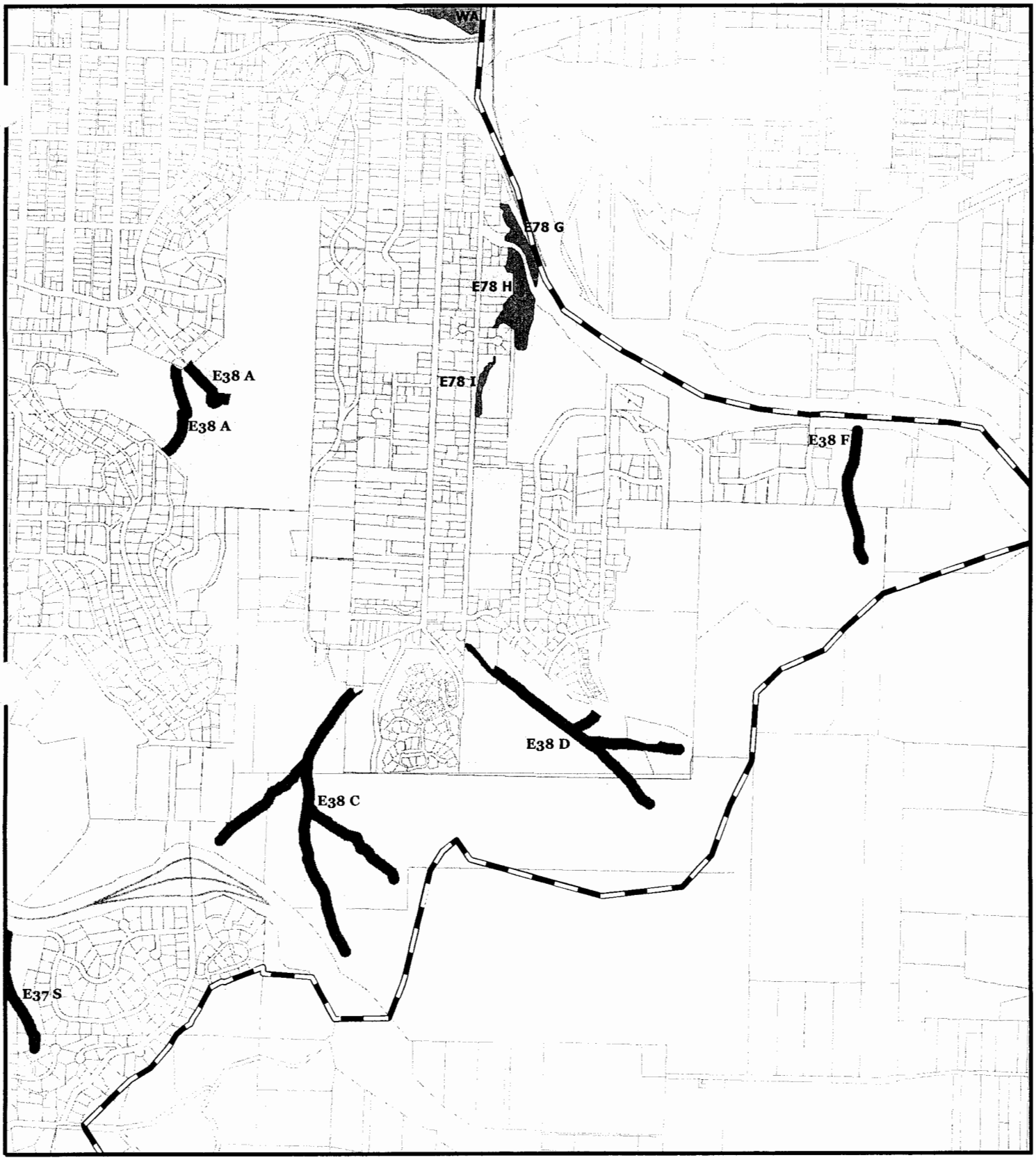
Goal 5 Water Resources Conservation Plan, Section IV, Map 11

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

0 250 500 750 Feet

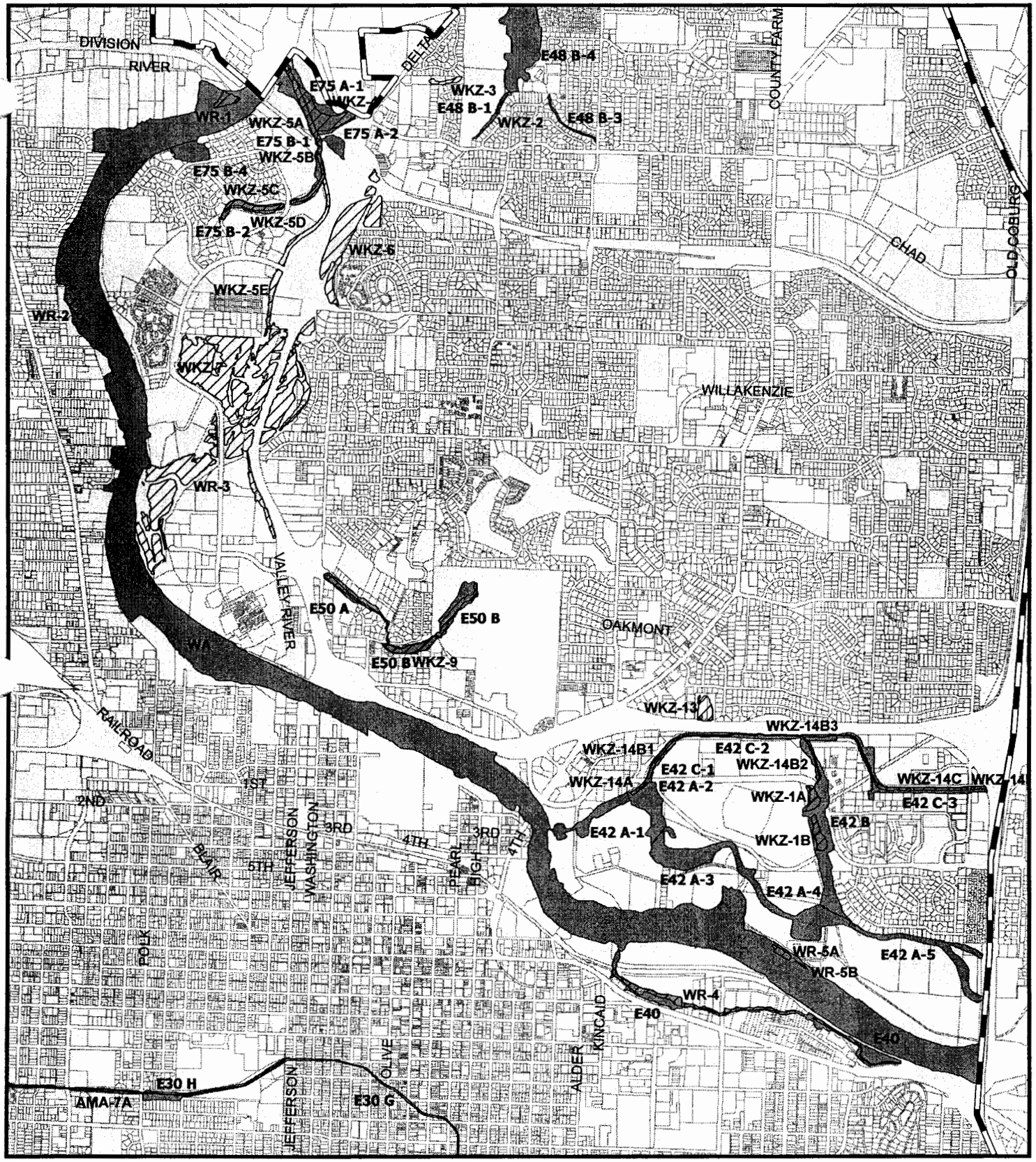


Goal 5 Water Resources Conservation Plan, Section IV, Map 12
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection

Feet
0 460 920



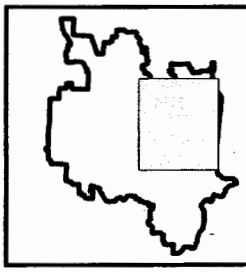
Goal 5 Water Resources Conservation Plan, Section IV, Map 13

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 780 1,560 2,340



WKZ-6
WKZ-5E
WKZ-7
Private Road
Birchwood Ave
Lemming Ave
Jeppesen Ave
Jeppesen Acres Rd
Happy Ln
Minda Dr
Sally Way
Amberland Ave
Marlow Ln
Larkspur Ave
Myers Rd
Fir Acres Dr
Lamar Ln
Delta Hwy
Bond Ln
Carmel Ave
Monterey Ln
Morningside Dr
Cal Young Rd
Sherwood Pl
Backlund Pl
Rio Glen Dr
Robin Hood Ave
Altaretta Dr
Spyglass Dr
Roland Way
Brickley Rd
Keith Way
Sharon Way
Law Ln
Hideaway Ct
Clinton Dr
Valley Butte Dr
Butte Ln
Greenview St
Lariat Mesa
Valley River Dr
River Center
Turnbull Ln
Private Road
Oakway Ter
Bedford Way
Pioneer Pike
E50 A
Oakmont Way
E50 B
Frontier Dr
Oakmont Way
WKZ-9
Oakway Center
E50 B
Westwood Ln
Rose Ct
Eastwood Ln
Sycamore Ave
Country Club Rd
WKZ-13
Lewis Ave
1105 Rd
Southwood Ln
Floral Ave
Cheshire Ave
Cedarwood Rd
WKZ-14B3
Centennial Lp
E42 C-1
E42 C-2
WKZ-14B1
Clark St
Martin Luther King Jr Blvd
WKZ-14A
1st Ave
E42 A-2
2nd Ave
E42 A-1
Skinners Butte Lp
3rd Ave
4th Ave
Day Island Rd
E42 A-3

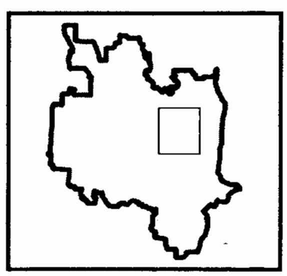
Goal 5 Water Resources Conservation Plan, Section IV, Map 14

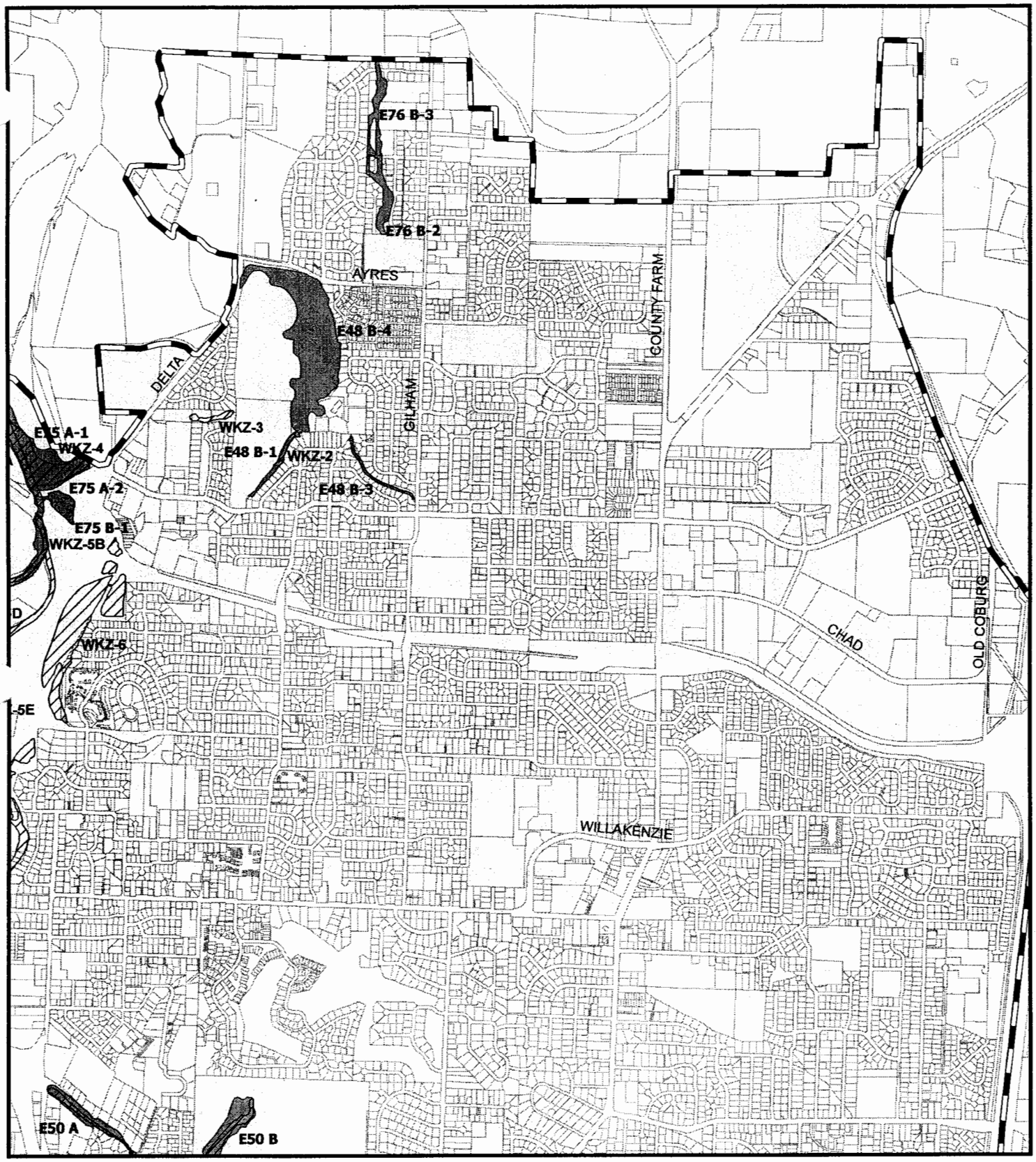
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 370 740 1,110





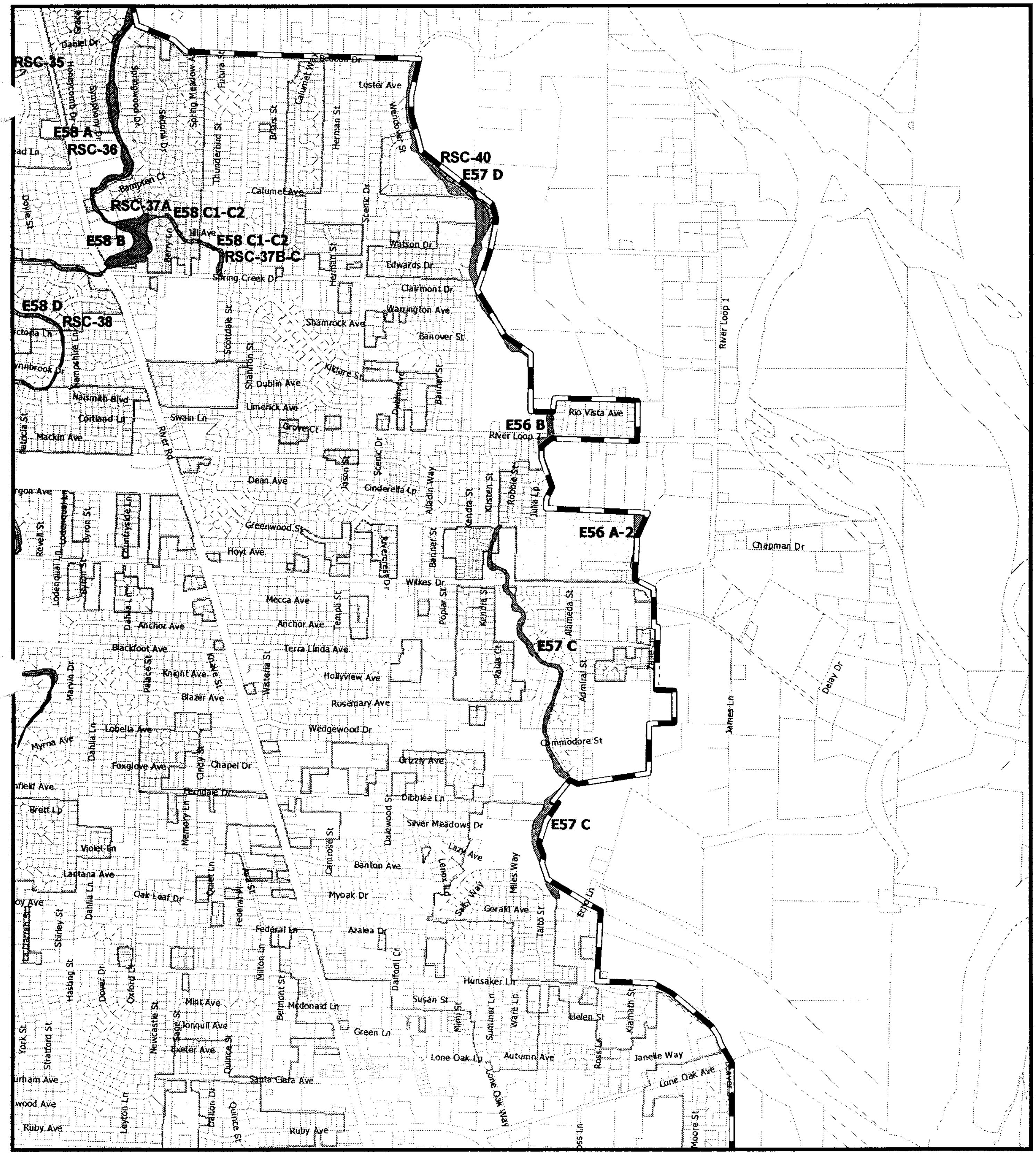
Goal 5 Water Resources Conservation Plan, Section IV, Map 15

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 540 1,080 1,620



Goal 5 Water Resources Conservation Plan, Section IV, Map 16
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Miles: 0, 0.05, 0.1, 0.2

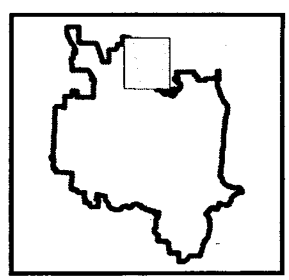


Exhibit B - Conflicting Uses and ESEE Analysis

Contents

7. **Supplemental Analysis:**

A-1 Channel and Highway 99/Prairie Road Wetlands
Sites E60 (A-1 Channel); RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

8. **Supplemental Analysis:**

Bethel-Danebo Area Riparian Corridors (Taney Waterway, Empire Pond, DeSoto Lake, Highway 99/McDougal Pond, Beltline Channel); and Bethel-Danebo Wetlands
Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

9. **Supplemental Analysis:**

Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands
Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 Hawkins, and AMA-5 at Videra (West Eugene Upland Wetlands)

10. **Supplemental Analysis:**

Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors
Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

11. **Supplemental Analysis:**

North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds
Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

12. **Supplemental Analysis:**

East Santa Clara Waterway & River Loop
Sites E57 (East Santa Clara Waterway); E56 (River Loop); RSC-40 (East Santa Clara Waterway Wetland)

13. **Supplemental Analysis:**

Spring Creek
Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

14. **Supplemental Analysis:**

North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands
Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

15. **Supplemental Analysis:**

Debrick Slough, Willagillespie wetlands
Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

16. **Supplemental Analysis:**

Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors
Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

17. **Supplemental Analysis:**

Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Portions of Upper Amazon Wetlands
Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

18. **Supplemental Analysis:**

Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands
Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

19. **Supplemental Analysis:**

Laurel Hill Upland Stream Corridors & Augusta Creek
Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78 A-B (Augusta Creek at Floral Hill); E78 D-F (Augusta Creek at Riverview); E78 G-I (August Creek at Augusta)

20. **Supplemental Analysis:**

Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough
Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

21. **Supplemental Analysis:**

Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands
Sites E75A (Goodpasture Slough at Beltline); E75B (Goodpasture Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

22. **Supplemental Analysis:**

Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands
Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

23. **Supplemental Analysis:**

Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian
Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

24. **Supplemental Analysis:**

Willamette River, Willamette River Wetlands
Sites WA/WB (Willamette River); WR-1; WR-2; WR-5 (Willamette River Wetlands)

1. Introduction

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to every Goal 5 site. **Section 6** addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. **Sections 7 through 24**, contain supplemental analyses that address groups of sites in greater detail.

2. Impact Areas

Applicable OAR Sections

> *660-023-0010 (3) "Impact area" is a geographic area within which conflicting uses could adversely affect a significant Goal 5 resource.*
>
> *660-023-0040 (3) Determine the impact area. Local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site.*

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. These impact areas are based upon: 1) uses allowed in adjacent properties; and 2) potentially adverse effects of those uses on the resource. The impact areas established for each of Eugene's Goal 5 sites encompass the entire site and include additional areas beyond the site boundary.

Impact areas are referred to below as either a "Type A," "Type B," "Type C," "Type D," or "Type E" impact area. These references are only for convenience, and will be referred to later in this document as a "shorthand" reference to each distinct type of impact area.

For riparian and upland wildlife habitat sites, the impact area consists of three components: (1) the area between the banks of the stream, (2) an area within a specified distance from the top of banks, plus (3) any riparian vegetation within the site boundary that extends beyond the specified distance from the top of bank (see sections 2.1 through 2.5 below). The total area of these three components together makes up the impact area for these sites.

For wetland sites, the impact area includes two component areas: (1) the area within the wetland boundary as delineated on the Eugene Local Wetland Inventory and the area within a specified distance measured from the wetland boundary (see sections 2.1 through 2.5 below). The total area of these two components together makes up the impact area for sites with wetlands.

For areas that contain both wetlands and riparian or upland wildlife habitat sites, the impact areas for each resource type is calculated, and the combined total area of the impact area for all the resource types is used.

Defining an impact area defines the geographic area within which conflicting uses and potential impacts to the resource are analyzed. Those areas that are recommended for protection measures are defined in Sections 7 through 24. Below is a discussion of the factors considered in establishing impact areas for different types of Goal 5 resource sites, and the extent of each type of impact area. For a list of the impact areas assigned to each site in the Inventory, see impact area tables in Sections 7 through 24 below.

2.1 "Type A" Impact Area

The Type A Impact Area is assigned to the Willamette River. The Type A Impact Area is the combined total area of these three component areas: (1) the area between the banks of the river, (2) the area within 120 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 120 feet from the top of bank. This impact area is assigned to the river due to the river's regional ecological and social significance, and surrounding conflicting uses and potential adverse effects of those uses. Potentially adverse impacts from allowed uses surrounding this site include stormwater runoff pollutants, such as agricultural, industrial or yard care chemicals, noise and light trespass, erosion and sedimentation, and removal of riparian vegetation (see Conflicting Uses Section 3). In establishing this impact area for the river, consideration was given the fact that the river: (1) is surrounded by a wide range of land uses and is subject to a broad array of adverse impacts (see Conflicting Uses Section 3); 2) is the largest stream in the region, including all of the Eugene UGB area; (3) has major economic, social and environmental importance to the community and the region; (4) contains a highly intact riparian plant community with a mature forest canopy that supports a wide range of terrestrial and aquatic wildlife species; and (5) provides habitat for the upper Willamette Spring Chinook Salmon, a federally-listed Threatened species, and (6) contains at least nineteen other native fish species. Sections 7 through 24 contain tables listing the impact areas for each site, including the Type A Impact Area for the Willamette River, based on surrounding conflicting uses and potential adverse effects of those uses.

2.2 "Type B" Impact Area

The "Type B" Impact Area for riparian and upland wildlife habitat sites is the combined total area of these three component areas: (1) the area between the banks of the stream, (2) the area within 75 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 75 feet from the top of bank. A Type B Impact Area is assigned to sites which are surrounded by primarily low density residential or agricultural uses, but with some pockets of industrial and commercial uses, and which are highly likely to be adversely affected by those surrounding uses. Potentially adverse impacts from allowed uses surrounding these sites include stormwater runoff pollutants, such as chemicals and sediment from agricultural practices, landscape maintenance at residential yards and commercial sites, and industrial operations. In addition, there is a high potential for noise and light trespass, erosion and sedimentation, and removal of riparian vegetation (see Conflicting Uses Section 3). Certain characteristics of these sites make them more vulnerable to adverse effects or increases the importance of those impacts: 1) these sites have very high connectivity to regional habitat systems, are important movement corridors for wildlife, which makes impacts to them more important; 2) w wetlands occur within the stream corridor, and wetlands can be susceptible to different types and levels of impacts from adjacent activities compared to streams—e.g., they

may be more vulnerable to impacts related to changes in hydrology (higher or lower water levels, or increased flow rates); 3) the quality of riparian plant community may vary from low to high, but the overall length of the riparian corridor elevates l its value as a habitat connecting corridor; 4) water quality impacts in the stream corridor can mean significant impacts downstream as they are either regional drainages or are connected to extensive, important drainages; or (5) some portions of these sites are fish-bearing, meaning a higher resource value and greater vulnerability to adverse impacts to water quality. Sections 7 through 24 contain tables listing the impact area for each site, including the Type B Impact Area, based on surrounding conflicting uses and potential adverse effects of those uses.

2.3 "Type C" Impact Area

The "Type C" Impact Area for riparian and upland wildlife habitat sites is the combined total area of these three component areas: (1) the area between the banks of the stream, (2) the area within 50 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 50 feet from the top of bank. A Type C Impact Area is assigned to sites which are surrounded by primarily low density residential, agricultural, or industrial uses, and are relatively vulnerable to adverse effects of surrounding uses. Potentially adverse impacts from allowed uses surrounding these sites include stormwater runoff pollutants, such as agricultural, industrial or yard care chemicals and sediment, noise and light, erosion, and removal of riparian vegetation (see Conflicting Uses Section 3). Some sites are more vulnerable to these adverse effects due to certain characteristics, such as: (1) the steep gradient of the stream channel bed and steep slopes of the surrounding topography make the stream more vulnerable (compared to streams without steep slopes) to erosion, and to activities (e.g. vegetation removal) that increase flows or impervious surfaces; (2) the site's connection to larger or more extensive habitats means it functions more as a corridor for wildlife, which increases vulnerability to impacts; 4) locally significant wetlands occur along the stream corridor, and wetlands are susceptible to different types and levels of adjacent activities than streams—e.g., they are often more vulnerable to impacts related to hydrology (higher or lower water levels, increased flow rates); 5) the riparian plant community is generally more pristine or undisturbed and therefore, disturbances such as invasion of exotic blackberry or ivy can have proportionately greater impacts. 6) water quality impacts in the stream corridor can mean significant impacts downstream where the stream is a headwater or important drainage to more extensive riparian systems; or (7) some portions of these sites contain fish or sensitive species (western pond turtle), meaning a higher resource value and greater vulnerability to adverse impacts. Sections 7 through 24 contain tables listing the impact area for each site, including the Type C Impact Area, based on surrounding conflicting uses and potential adverse effects of those uses.

2.4 "Type D" Impact Area

The "Type D" Impact Area for riparian and upland wildlife habitat sites is the combined total area of these three component areas: (1) the area between the banks of the stream, (2) the area within 25 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 25 feet from the top of bank. A Type D Impact Area is assigned to sites which are surrounded by primarily low density residential or agricultural uses, or industrial uses, and are somewhat vulnerable to adverse impacts. Potentially adverse impacts from allowed uses surrounding these sites include stormwater runoff pollutants, such as agricultural, industrial or yard care chemicals and sediment, noise and light, erosion, and

removal of riparian vegetation (see Conflicting Uses Section 3). The impact area for these sites is also based on particular environmental characteristics of the site that affect how vulnerable the site is to adverse effects from surrounding uses, such as whether surrounding topography is relatively flat (which helps slow down storm flows, allowing for better infiltration and filtration of stormwater runoff and potential pollutants), and whether the site is highly disturbed with dominant invasive species, or whether it is relatively pristine and more vulnerable to disturbance. In some portions of these sites, riparian vegetation is narrow and fragmented. At the same time, wetlands typically occur within these corridors, and wetlands are often more vulnerable to impacts related to hydrology (too much water, not enough water). Sections 7 through 24 contain tables listing the impact area for each site, including the Type D Impact Area, based on surrounding conflicting uses and potential adverse effects of those uses.

2.5 "Type E" Impact Area

The Type E Impact Area is equal to the site boundary. It is assigned to stream corridors where: 1) the adjacent land is physically separated from the hydrology of the stream and adjacent riparian vegetation (if any) is not functionally or hydrologically connected to the stream; but 2) the stream provides an essential connection between other significant riparian corridors. Physical barriers such as pavement or a concrete curb surround these sites. These streams have little or no adjacent riparian vegetation, and the site boundary does not extend beyond the channel banks. For these reasons, adjacent uses outside the resource site boundary, such as stormwater runoff or removal of riparian vegetation, are not likely to adversely impact the resource. Sections 7 through 24 contain tables listing the impact area for each site, including the Type E Impact Area.

3. Conflicting Uses

3.1 Introduction

Applicable OAR Sections

660-023-0010 (1) "Conflicting use" is a land use, or other activity reasonably and customarily subject to land use regulations, that could adversely affect a significant Goal 5 resource (except as provided in OAR 660-023-0180(1)(b)). Local governments are not required to regard agricultural practices as conflicting uses.

660-023-0040 (2) Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site. The following shall also apply in the identification of conflicting uses:

(a) If no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. The determination that there are no conflicting uses must be based on the applicable zoning rather than ownership of the site. (Therefore, public ownership of a site does not by itself support a conclusion that there are no conflicting uses.)

(b) A local government may determine that one or more significant Goal 5 resource sites are conflicting uses with another significant resource site. The local government shall determine the level of protection for each significant site using the ESEE process and/or the requirements in OAR 660-023-0090 through 660-023-0230 (see OAR 660-023-0020(1)).

660-023-0090 (7) When following the standard ESEE process in OAR 660-023-0040 and 660-023-0050, a local government shall comply with Goal 5 if it identifies at least the following activities as conflicting uses in riparian corridors:

(a) The permanent alteration of the riparian corridor by placement of structures or impervious surfaces, except for:

(A) Water-dependent or water-related uses; and

(B) Replacement of existing structures with structures in the same location that do not disturb additional riparian surface area; and

(b) Removal of vegetation in the riparian area, except:

(A) As necessary for restoration activities, such as replacement of vegetation with native riparian species;

(B) As necessary for the development of water-related or water-dependent uses; and

(C) On lands designated for agricultural or forest use outside UGBs.

Following the adoption of an inventory of significant Goal 5 resources, local governments must identify conflicting uses within inventoried significant resource sites and their designated impact areas. Conflicting uses are defined as a land use or activity that, if allowed, could negatively impact a significant natural resource site (OAR 660-023-0010(1)). To identify conflicting uses,

the rule directs local governments to examine the uses allowed within zoning districts that exist within resource sites and within their impact areas (OAR 660-023-0040(2)). For a discussion of impact areas and how they were designated for of Goal 5 riparian, wildlife habitat and wetland resources, see Section 2. This analysis addresses both outright uses and conditional uses.

This analysis includes Goal 5 wetlands sites, riparian sites and upland wildlife habitat sites within the Eugene Urban Growth Boundary and their impact areas. Those sites within the Eugene City limits are within the jurisdiction of the City of Eugene; those sites between the Eugene City limits and the Eugene Urban Growth Boundary are within the jurisdiction of Lane County.

Table 3.1. Zoning District Names*

AG	Agricultural Zone
R-1	Low-Density Residential Zone
R-2	Medium-Density Residential Zone
R-3	Limited High-Density Residential Zone
R-4	High-Density Residential Zone
C-1	Neighborhood Commercial Zone
C-2	Community Commercial Zone
GO	General Office Zone
I-2	Light-Medium Industrial Zone
I-3	Heavy Industrial Zone
PL	Public Land Zone
S-CN	Chase Node Special Area Zone
S-RN	Royal Node Special Area Zone
S-RP	Riverfront Park Special Area Zone

* Only those zones that affect Goal 5 riparian, upland wildlife habitat and wetlands sites are listed.

Table 3.2a. Zoning by Resource Site, Riparian and Upland Wildlife Habitat

No.	Site Name	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
E30/31	Amazon Channel Natural/Urban	R	X	X	X	X	X	X	X	X			X			
E35	West Eugene Upland Wildlife Habitat (Stream Corridors)	U	X	X												
E37	Southwest Hills Upland Wildlife Habitat (Stream Corridors)	U	X	X									X			
E38	Laurel Hill Upland Wildlife Habitat (Stream Corridors)	U	X	X					X	X			X			
E39	Glenwood Slough	R														
E40	Riverfront Park	R							X			X	X			X
E42	Alton Baker (Riparian)	R	X	X		X	X		X				X	X		
E45	Ascot Park	R		X	X				X				X			
E48a	Beltline Drainage Channel	R		X						X						
E48b	Ayres Pond/Dodson Slough	R		X												
E50	Debrick Slough	R		X	X	X				X						
E56	River Loop No. 1	R	X	X									X			
E57	East Santa Clara Waterway	R	X	X	X											
E58	Spring Creek	R	X	X									X			
E59a	Flat Creek	R	X	X					X							
E60	A-1 Channel	R	X	X							X	X				
E61	Middle Flat Creek	R	X	X	X											
E62	NW Expressway Ponds	R	X	X	X							X				
E64	Taney Waterway	R		X									X			
E65	Empire Pond	R											X			
E66	Golden Gardens (DeSoto Lake)	R		X												
E68	Highway 99/McDougal	R		X	X						X		X			
E69	Emerald Park/South Flat Creek	R		X									X			

No.	Site Name	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
E70	Beltline/A-2 Channel	R		X							X					
E72	Marshall Ditch	R	X	X	X											
E73	County Farm Road	R	X						X							
E75	Goodpasture Island Slough	R	X		X											
E76	North Gilham	R	X	X	X			X								
E78	Augusta Creek/Laurel Valley Creek	R		X				X								
E81	Lorane Highway Riparian	R		X												
E83	Elliott Hill/Tugman Upland Wildlife Habitat (Stream Corridor)	U		X									X			
E86	Braeburn Riparian	R		X												
E87	Willow Creek Tributaries	R	X													
E88	Bailey Hill Riparian	R		X												
WA/WB	Willamette River	R	X	X	X				X		X	X	X			X
	Number of affected sites:		18	29	11	3	2	3	8	4	4	4	14	1	0	2

* Key: "R" = riparian corridor
"U" = upland wildlife habitat stream corridor

Table 3.2b. Zoning by Resource Site, Wetlands

Site No.	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
AMA-3	W		X												
AMA-4	W		X												
AMA-5	W		X												
AMA-6	W		X									X			
AMA-7	W		X	X	X		X	X	X						
AMA-9	W		X		X							X			
AMA-10	W											X			
AMA-11	W		X									X			
AMA-12	W											X			
AMA-13	W	X	X												
AMA-14	W		X												
AMA-16	W											X			
BD-2	W		X												
BD-3	W	X	X												
BD-4	W		X												
BD-5	W	X	X												
BD-6	W		X												
BD-7	W	X	X												
BD-8	W	X	X												
BD-9	W	X	X												

Site No.	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
BD-10	W	X	X												
BD-11	W	X													
BD-13	W		X									X			
BD-15	W		X							X					
BD-16	W									X					
BD-17	W									X					
BD-20	W											X			
BD-21	W		X												
BD-22	W										X				
RSC-1	W										X				
RSC-2	W	X	X							X	X				
RSC-5	W									X					
RSC-6	W									X					
RSC-8	W									X					
RSC-9	W									X					
RSC-10	W									X					
RSC-12	W									X					
RSC-15	W										X				
RSC-16	W										X				
RSC-17	W									X					
RSC-18	W		X							X	X				
RSC-20	W											X			
RSC-21	W											X			
RSC-22	W		X												
RSC-23	W	X	X					X							
RSC-25	W		X												
RSC-26	W									X	X				
RSC-27	W									X					
RSC-28	W		X	X											
RSC-29	W		X												
RSC-30	W	X	X	X											
RSC-32	W		X												
RSC-33	W		X												
RSC-34	W		X				X								
RSC-35	W	X	X												
RSC-36	W	X	X												
RSC-37	W	X	X												
RSC-38	W	X	X									X			
RSC-39	W	X	X	X				X							
RSC-40	W	X	X												
WC-1	W	X													
WKZ-1	W					X						X			
WKZ-2	W		X												
WKZ-3	W		X	X				X							
WKZ-4	W	X													
WKZ-5	W	X		X			X	X				X			
WKZ-6	W		X					X							
WKZ-7	W		X	X								X			

Site No.	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
WKZ-8	W		X					X	X						
WKZ-9	W		X	X	X			X	X						
WKZ-10	W	X													
WKZ-13	W		X												
WKZ-14	W	X	X		X	X		X				X	X		
WR-1	W											X			
WR-2	W		X									X			
WR-3	W			X				X				X			
WR-4	W							X			X	X			X
WR-5	W		X									X			

3.2 Uses permitted by Zone

This section describes the land uses that are allowed in each zone that is affected by a site on the adopted Goal 5 inventory of riparian and upland wildlife habitat sites and their designated impact areas (see Section 2). The zones are listed in alphabetical order. The remaining base zones included in the Eugene Code are not found within any adopted resource sites, and so are not addressed here. This section also briefly examines those uses that are not assigned to a specific zone, such as temporary uses. The analysis of ESEE consequences that follows this addresses the existing and potential conflicting uses allowed within each resource site on the adopted inventory. Tables 3.3a and 3.3b below summarize the allowed and conditional uses with each of the applicable base zones.

AG Agricultural Zone

The Agricultural Zone is intended to allow agricultural uses within the urban growth boundary until the land is converted to urban development. As such, agricultural uses are considered interim uses until public services and facilities can be provided in a logical and efficient manner. OAR 660-023-0010(1) states that local governments are not required to consider agricultural uses as conflicting uses.

The primary uses allowed outright in this zone include agricultural production and extraction and accessory uses to those. Other uses allowed outright include golf courses, grange halls, libraries, equestrian trails, government services (e.g., a fire station), neighborhood transit improvements, single family dwellings, utility and communication facilities, and farm related educational activities and events. Uses allowed subject to special development standards include farm animals and pasturing, parks and non-public open space, bed and breakfasts, above ground water reservoirs, home occupations, wildlife care centers and temporary uses. Uses allowed conditionally include mineral resources mining, equestrian academies and stables, and kennels.

C-1 Neighborhood Commercial Zone

The C-1 Neighborhood Commercial zone is designed to provide commercial areas of less than 5 acres in size to serve the day-to-day needs of the surrounding neighborhood. These areas are intended to enhance neighborhood character with landscaping and safe vehicle movement.

In addition to retail establishments and commercial services and their accessory uses, this zone allows as outright uses horticultural use, performing arts studios, churches, community centers, athletic clubs, ATM stations, banks, government services, information technology service establishments, low impact smaller scale manufacturing, recycling receptacles, health clinics, neighborhood transit improvements, residences, and utility and communication facilities.

Conditional uses include taverns, amusement centers, live theaters, non-profit meal services, transit stations, larger day care centers, and veterinarian services.

C-2 Community Commercial Zone

The C-2 zone is designed to provide areas for community commercial uses that serve a larger area than a neighborhood, and which are larger than 5 acres in size. Typical uses include a wide range of retail goods, entertainment, offices, and services, as well as housing.

In addition to a wide variety of retail establishments, entertainment and indoor recreation and commercial services and their accessory uses, this zone allows as outright uses horticulture, performing arts studios, churches, community centers, libraries, museums, schools and colleges, athletic clubs, financial services, government services, information technology service establishments, lodging, low impact medium scale manufacturing, recycling receptacles, health clinics, medical facilities, assisted care and day care facilities, neighborhood transit improvements, residences, and utility and communication facilities.

Conditional uses include indoor arenas, correctional facilities, truck sales, parking structures, agricultural and heavy equipment sales, and train stations.

GO General Office Zone

The GO zone is intended to provide areas that allow a compatible mix of office and residential development. Typical development includes small to medium sized office buildings, often between residential and commercial uses, and some retail uses.

In addition to offices, residential, some retail uses and accessory uses to those, this zone also allows as outright uses horticultural use, most eating establishments, churches, organizational clubs and lodges, ATM stations, banks, government services, information technology service establishments, bed and breakfasts, recycling receptacles, blood banks, health clinics, medical labs, nursing homes, parking areas, neighborhood transit improvements, some residences, certain retail establishments, and utility and communication facilities.

Conditional uses include performing arts studios, community centers, athletic clubs, correctional facilities, hospitals, residential treatment center, parking structures, assisted care facilities, and boarding houses.

I-2 Light-Medium Industrial Zone

The I-2 Light Medium Industrial Zone is designed to provide areas for a wide variety of manufacturing and other industrial activities. These often include secondary processing of materials into components or finished products, as well as transportation, communication and utilities, wholesaling, and warehousing. Most activities are located indoors, and external impacts

are generally less than in heavy industrial. On a limited basis, supporting commercial uses and offices are permitted.

This zone allows outright a wide variety of manufacturing uses including processing, assembling packaging and repairing activities and accessory uses to those. In addition, outright uses include horticultural use, eating establishments, gallery/studio spaces, organizational clubs and lodges, libraries, schools, ATM stations, banks, government services, information technology service establishments, automatic recycling receptacles, drug treatment clinics, all auto related uses, some residences, certain retail and wholesale establishments, utility and communication facilities, certain commercial uses and train stations.

Conditional uses include performing arts studios, churches, athletic clubs, live theater, homeless shelters, correctional facilities and treatment centers, and various retail uses.

I-3 Heavy Industrial Zone

The purpose of the I-3 Heavy Industrial Zone is to provide areas for a range of manufacturing uses including those that involve processing large volumes of raw materials into refined products and industrial uses that have significant external impacts. These uses often require access to both truck and train transportation.

This zone allows outright a wide variety of manufacturing uses including processing, assembling packaging and repairing activities and accessory uses to those. In addition, outright uses include horticultural use, gallery/studio spaces, organizational clubs and lodges, libraries, schools, ATM stations, government services, automatic recycling receptacles, drug treatment clinics, most auto related uses, certain retail and wholesale establishments, utility and communication facilities, certain commercial uses and train stations.

Conditional uses include race tracks, live theater, homeless shelters, correctional facilities, and various retail uses.

PL Public Land Zone

The PL Public Land Zone is intended to accommodate public and semi-public land uses including government services and education.

Outright uses in this zone include public uses like government offices, libraries, park and recreation facilities, neighborhood and community centers, post offices, fire stations, pump stations, electrical substations, schools, reservoirs, specialized housing, and accessory uses to these. The zone also allows various privately operated uses including athletic fields, performing art studios, community gardens, day care, meal services, parks, playgrounds and schools.

Conditional uses include many uses operated by private entities including small scale retail, campus living organizations, churches, horticulture, hospitals, clinics, information technology services, certain low-impact manufacturing uses, parking structures, recycling facilities, schools, science and education centers, storage facilities, and colleges.

R-1 Low-Density Residential Zone

The purpose of the R-1 Low-Density Residential Zone is to provide areas for low-density residential use. The zone is designed for single family dwellings with some allowance for other types of dwellings, and is also intended to provide a limited range of non-residential uses to provide services for the local neighborhood.

The R-1 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-1 Zone: accessory uses, community gardens, horticultural use, agricultural product sales, government services, neighborhood transit park and ride stations, assisted care residences, and utility and communication facilities.

A number of other uses are allowed subject to special standards including parks, private open space, recycling centers, four-plex residences, manufactured dwellings, smaller day care facilities, home occupations, and wildlife care facilities.

Uses allowed conditionally include indoor athletic facilities, outdoor athletic fields, churches, community centers, schools, colleges, live theaters, bed and breakfasts, residential treatment centers, large day care or assisted care facilities, and cemeteries.

R-2 Medium-Density Residential Zone

The purpose of the R-2 Low-Density Residential Zone is to provide areas for medium-density residential use and to encourage a variety of housing types. This zone is also intended to provide for a limited range of non-residential uses to provide services for residents.

The R-2 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-2 Zone: accessory uses, community gardens, horticultural use, agricultural product sales, government services, neighborhood transit improvements, smaller assisted care residences, and utility and communication facilities.

A number of other uses are allowed subject to special standards including pasturing farm animals, multiple family dwellings, parks, private open space, recycling centers, four-plex residences, manufactured dwellings, smaller day care facilities, telecommunication towers, and home occupations.

Uses allowed conditionally include indoor athletic facilities, outdoor athletic fields, churches, community centers, schools, colleges, live theaters, bed and breakfasts, residential treatment centers, larger day care or assisted care facilities, single room occupancy housing and cemeteries.

R-3 Limited High-Density Residential Zone

The purpose of the R-3 Low-Density Residential Zone is to provide areas for limited high-density residential use that encourage attached one-family dwelling units and multiple -family dwelling units. This zone is also intended to provide a limited range of non-residential uses to provide services for residents.

The R-3 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-3 Zone: accessory uses, community gardens,

government services, neighborhood transit improvements, smaller assisted care residences, single room occupancy housing, college dormitories and utility and communication facilities.

A number of other uses are allowed subject to special standards including multiple family dwellings, four-plex residences, manufactured dwellings, pasturing farm animals, parks, private open space, recycling centers, bed and breakfasts, smaller day care facilities, telecommunication towers, home occupations.

Uses allowed conditionally or with site review approval include indoor athletic facilities, outdoor athletic fields, churches, community centers, schools, colleges, live theaters, residential treatment centers, larger day care or assisted care facilities, boarding houses.

R-4 High-Density Residential Zone

The purpose of the R-4 Low-Density Residential Zone is to provide areas for high-density residential use, and to provide opportunities for a dense living environment. As with the other residential zones, it is also intended to provide for a limited range of non-residential uses to provide services to residents.

The R-4 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-4 Zone: accessory uses, community gardens, government services, neighborhood transit improvements, minor transit stations, transit park and ride stations, smaller assisted care residences, single room occupancy housing, community centers, college dormitories and utility and communication facilities.

A number of other uses are allowed subject to special standards including multiple family dwellings, four-plex residences, manufactured dwellings, pasturing farm animals, parks, private open space, recycling centers, bed and breakfasts, smaller day care facilities, telecommunication towers, home occupations.

Uses allowed conditionally or with site review approval include indoor athletic facilities, outdoor athletic fields, major transit stations, churches, organizational lodges, schools, colleges, live theaters, residential treatment centers, larger day care or assisted care facilities, boarding houses.

S Special Area Zones

Eugene's Land Use Code includes eight special area zones, each of which is applied within a specific, limited geographic area to address unique characteristics, including distinctive buildings or important natural features. The eight special area zones are the Chase Node SAZ, the Downtown Westside SAZ, the Elmira Road SAZ, the Fifth Avenue SAZ, the Blair Boulevard Historic SAZ, the Riverfront Park SAZ, the Royal Node SAZ and the Whitaker SAZ. These special area zones are intended to require special consideration of the unique characteristics of each area, and implementation of conservation and development measures that are not included in the base zones. These special area zones allow a combination of uses that are allowed separately by other zones. For this reason, the impacts of the uses allowed in the special area districts will not be discussed separately, but, rather, will be considered in the discussion of the individual uses (e.g., residential, commercial, industrial).

Adopted Goal 5 inventory sites occur within only three of the eight special area zones: the Chase Node SAZ and the Riverfront Park SAZ and the Royal Node SAZ.

S-CN Chase Node and S-RN Royal Node Special Area Zones

These two special area zones are similar in that they are both intended to implement nodal development areas in conformance with City policy and the Oregon Transportation Planning Rule, which calls for reductions in reliance on automobiles and design support for alternative transportation modes in urban areas. Nodal development is defined as a mixed-use, pedestrian-friendly land use pattern that seeks to increase concentrations of population and employment in well-defined areas with good transit service, a mix of diverse and compatible land uses, and public and private improvements designed to be pedestrian and transit oriented.

The Chase Node SAZ and Royal Node SAZ allow similar land uses, however the Royal Node SAZ has not been applied to any properties yet. The Chase Node SAZ has been applied, and allows horticultural uses, eating and drinking establishments, educational, cultural, religious, social and fraternal institutions, entertainment and recreation facilities, some financial services, government services, information technology services, lodging, low impact manufacturing, medical and health services, motor vehicle related uses, office uses, various personal services, residential uses, assisted living and daycare facilities, retail and wholesale trade establishments, utilities and communications facilities and a variety of other commercial services. Many of these uses are subject to standards or allowed only with a conditional use permit. Both of these special area zones include open space designations for waterways that provide some level of protection.

S-RP Riverfront Park Special Area Zone

The Riverfront Park SAZ is designed to provide for activities and uses that complement the research and educational functions of the adjacent University of Oregon campus. The allowed uses include laboratories, offices and facilities for applied research and development, and manufacturing uses that are related to these uses. The Riverfront Park SAZ requires minimum setbacks of 35 feet from the south bank of the Willamette River and within 15 feet of the top of the bank of the Eugene Mill Race.

3.3 Summary of Uses by Zone

For the purpose of considering potential or existing impacts under the ESEE analysis, the allowed uses for the various zones are grouped into categories of uses and summarized in Tables 3.3A and 3.3B below. This is intended to simplify the analysis of conflicting uses within each zone, while still considering the entire range of uses and impacts within each zone.

Table 3.3a. Allowed Uses by Base Zone: Agricultural, Commercial, Industrial, and Public

Use Categories	AG	C-1	C-2	GO	I-2	I-3	PL
Residential Categories							
Household Living	x	x	x	x			x
Group Living		x	x	x			x
Commercial Categories							
Retail Sales and Service		x	x	x	x	x	
Office		x	x	x	x		x
Quick Vehicle Servicing			x		x	x	
Vehicle Repair			x		x	x	
Commercial Parking			x	x	x	x	x
Self-Service Storage			x		x	x	
Commercial Outdoor Recreation	x		x				
Major Event Entertainment		x	x				
Industrial Categories							
Low impact, small scale		x	x		x	x	x
Manufacturing and Production					x	x	
Warehouse and Freight Moving					x	x	
Wholesale Sales					x	x	
Industrial Service					x	x	
Railroad Yards					x	x	
Waste-Related					x	x	x
Institutional Categories							
Basic Utilities	x	x	x		x	x	x
Major Utilities (water reservoirs)					x	x	x
Low impact, small scale			x				
Government Services (e.g., fire	x	x	x	x	x	x	x
Community Service		x	x	x	x		x
Parks and Open Areas	x		x	x	x		x
Schools & Libraries	x		x		x	x	x
Colleges			x				x
Medical Centers		x	x	x	x		x
Religious Institutions		x	x	x	x		x
Daycare		x	x	x			x
Other Categories							
Agricultural & horticultural crops	x	x	x	x	x		x
Agricultural animals and pasture	x						
Aviation & Surface Passenger			x		x	x	x
Local transit facilities		x	x	x	x		x
Detention/Correctional Facilities					x		
Mining	x				x	x	
Radio Transmission Facilities			x		x		x
Rail Lines and Utility Corridors	x				x		

Table 3.3b. Allowed Uses by Base Zone: Residential, Special Areas

Use Categories	R-1	R-2	R-3	R-4	S-CN	S-RN	S-RP
Residential Categories							
Household Living	x	x	x	x	x	x	x
Group Living	x	x	x	x	x	x	
Commercial Categories							
Retail Sales and Service	x	x	x	x	x	x	x
Office					x	x	x
Quick Vehicle Servicing							
Vehicle Repair							
Commercial Parking						x	
Self-Service Storage							
Commercial Outdoor Recreation							
Major Event Entertainment							
Industrial Categories							
Low impact, small scale					x		x
Manufacturing and Production							
Warehouse and Freight Moving							
Wholesale Sales							
Industrial Service							
Railroad Yards							
Waste-Related							
Institutional Categories							
Basic Utilities	x	x	x	x	x	x	x
Major Utilities (water reservoirs)					x		
Government Services (e.g., fire	x	x	x	x	x	x	
Community Service	x	x	x	x	x	x	
Parks and Open Areas	x	x	x	x	x	x	
Schools & Libraries	x	x	x	x	x		
Colleges	x	x	x	x			
Medical Centers			x	x	x	x	
Religious Institutions	x	x	x	x	x	x	
Daycare					x	x	x
Other Categories							
Agricultural & Horticultural Crops	x				x	x	
Agricultural animals and pasture	x	x	x	x			
Aviation and Surface Passenger							
Local Transit Facilities	x		x	x	x	x	
Detention/Correctional Facilities		x	x	x			
Mining							
Radio Transmission Facilities					x		
Rail Lines and Utility Corridors							

3.4 Conflicting Use Impacts

This section describes the land uses that conflict with Goal 5 riparian corridors, upland wildlife habitat and wetlands as allowed in the existing zoning districts that are applied to the various sites on the adopted Goal 5 inventory and within their impact areas (as shown in Table 3.3a and 3.3b above). Zoning districts that do not affect any of these Goal 5 resources are not listed. The discussion is organized to separately address impacts within five broad groups of land uses: residential, commercial, industrial, agricultural, and public uses. Most of these broad uses are allowed in several individual zoning districts as shown in Table 3.4 below. As noted above, the individual uses that are allowed in combination in special area districts are addressed individually below.

Table 3.4. Land Use Categories and Zoning Districts That Allow Them

Use Category	Zoning Districts
Residential	Agricultural (AG), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4), Chase Node Special Area Zone (S-CN), Royal Node Special Area Zone (S-RN)
Commercial	Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4), Riverfront Park Special Area Zone (S-RP), Chase Node Special Area Zone (S-CN), Royal Node Special Area Zone (S-RN)
Industrial	Light-Medium Industrial (I-2), Heavy Industrial (I-3), Neighborhood Commercial (C-1), Chase Node Special Area Zone (S-CN), and Public Lands (PL)
Agricultural	Agricultural (AG)
Public Uses	Public Land (PL), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), and Riverfront Park Special Area Zone (S-RP)

Residential Uses

The uses allowed under the various zones in the Eugene Land Use Code include both individual household living and group living. For the purposes of this analysis, it is important only to note that both household and group living uses require construction of or occupancy in residential structures. In addition to single and multiple unit residential structures, household and group living uses may include construction of driveways, garages, patios, decks, other accessory buildings, landscaped areas, utility construction and repair and related activities. The construction and maintenance of these structures has numerous adverse impacts on Goal 5 natural resource areas as detailed below.

Household and/or group living uses are allowed in the following zones: Agricultural (AG), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4). General categories of residential uses are also listed in Tables 3.3a and 3.3b.

1. Loss of vegetation, including riparian vegetation: A common precursor to any development including residential use is the removal of some or all of the natural vegetation on the site. At least temporarily, this leaves bare soil, which is vulnerable to erosion and its damaging effects (see "erosion," below). The loss of native vegetation has multiple, far-reaching impacts for wildlife. Vegetated natural areas provide habitat for mammals, birds, mollusks, reptiles, amphibians, and insects. The affected species include not only mammals and birds that depend on native fruits, nuts and vegetation for food, but also insects like butterflies, many of which have very limited plant species that can serve as larval host plants.

Potential lost habitat functions include: (1) food sources, nesting, perching and roosting places for birds and insects, (2) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (3) loss of food source, shade and cover for aquatic insects and fish. The natural vegetation, including trees, may provide important structural elements including snags, fallen trees, and on some sites, multiple levels of vegetation (forbs, shrubs, trees) that provide for a variety of habitat niches that can support a broader diversity of wildlife species. In the residential environment, these are typically replaced by greatly simplified landscape plantings, usually of exotic species and lawns, which often provide little or no habitat function or value.

In some settings, where susceptible soils occur on steep slopes, removal of trees and other vegetation can cause mass wasting, slumps or landslides during high rainfall events. These events can damage large habitat areas, cause additional loss of vegetation, deposit large volumes of sediment in streams and kill wildlife in the immediate area.

Loss of riparian vegetation, in addition to impacts described above, further affects streams and aquatic habitat in a number of ways. Riparian vegetation protects channel banks from erosion, while supporting insects and other invertebrates that fall into or live part of their life cycle in water, and provide food for fish and other aquatic life. Leaf litter that naturally drops into waterways provides organic matter that supports various macro- and micro-invertebrates, which in turn provide food for fish and other aquatic species. Riparian vegetation also can provide shade that helps keep water temperatures lower during low flow, warm weather periods. High water temperatures lead to growth of algae that deplete available oxygen. All of these functions can be lost when riparian vegetation is removed in preparation for development, with significant adverse impacts on fish and other aquatic wildlife.

2. Soil disturbance and compaction: Site preparation is often conducted with heavy machinery, which can cause unnatural compaction of soils. This compaction can reduce infiltration of precipitation and may prevent native plants from surviving or reestablishing themselves on the site. Mechanical scraping of surface soils to remove vegetation can also remove components of the native soil that are important to native plants adapted to those soils, including the topsoil, which is rich in organic matter. Loss of this layer along with native plants, can lead to infestations of weedy plant species that are well-adapted to such disturbed areas.

3. Erosion: Vegetation protects land from erosion in several ways. First, the foliage intercepts falling precipitation and prevents it from hitting soil directly. Hard rain falling on bare soil can

move a substantial amount of soil downhill. Second, the roots of the vegetation bind the soil together, and make it much more difficult for moving water to move soil particles. Removal of vegetation removes these protective functions, and leaves the soil vulnerable to erosion, primarily during the construction process. Erosion can take many forms, such as formation of gullies, or movement of soil downhill. Either way, erosion removes valuable topsoil, and deposits that soil in receiving waterways. This soil, or sediment, becomes suspended in the stream, which blocks light and interferes with many life functions of aquatic organisms, including evading predators and finding food. The reduced light within the waterway can lead to significant reductions in aquatic plants (phytoplankton) that provide food for aquatic insects and crustaceans. Suspended sediments can also mechanically disrupt proper functioning of fish gills. Eventually, sediments are deposited on the bed of the waterway and cause further impacts there. These deposited sediments are referred to as "siltation" of the stream. Siltation fills the spaces between rocks on the bottom of the stream, thus removing spaces for aquatic insects and small fish to hide or lay eggs.

4. Impervious surfaces: Residential development generally leads to creation of impervious surfaces (those that don't allow water to pass through into the soil), such as buildings, sidewalks, patios, decks, etc. In many cases, precipitation that falls on these structures is quickly carried away into stormwater pipes or channels, rather than infiltrating and moving slowly underground towards the nearest channel. This change has a number of impacts. Generally, the magnitude and frequency of peak flows are increased, while the magnitude of summer flows in smaller waterways can be greatly reduced. These effects are all the result of stormwater moving much more quickly through the landscape than in a naturally vegetated system. Increased peak flows are more likely to cause channel and bank erosion, leading to adverse impact described above under "erosion." Decreased summer flows are likely to lead to increased water temperatures and in some cases inadequate flow to support aquatic species in smaller waterways. These impacts are magnified by engineered stormwater conveyance systems in which the pipes and channels are designed primarily to move stormwater as quickly as possible to receiving waters in order to prevent floods and flood damage.

5. Habitat fragmentation: As areas of contiguous habitat are separated from one another by intervening development, their value and attractiveness to certain wildlife species decreases. Species that require larger patches of habitat will no longer use the smaller, isolated patches. Such fragmentation can create barriers to wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover. For species that are unable to travel to other habitat areas, this isolation can lead to in-breeding and subsequent weakening of the genetic stock of the population. Isolation can also increase susceptibility to disease, and greater vulnerability to predation and, potentially, extinction of local populations. The way in which residential development is designed to fit a given site can reduce, to some extent, habitat fragmentation (see "design impacts" discussion below).

6. Introduction or spread of invasive plants: After native vegetation is cleared, exotic plants may become established intentionally or accidentally. A number of exotic species have been identified as environmentally damaging, because they "escape" from landscaped areas into natural areas and out-compete the native plants. Other invasive species simply spread by effectively dispersing their seed into suitable areas. This displacement of native plant species leads to a decrease in plant diversity, and is directly damaging to wildlife species that depend on specific native plant species for food or nesting (e.g., Fender's blue butterfly, which can only feed on certain species of lupine; if those are lost, the butterfly cannot survive).

7. On-going disturbing activities: Human activities associated with inhabited residential areas can have a number of negative impacts on natural areas. Bright lights, loud noises, constant movement, and other activities that occur in residential areas can disrupt wildlife survival activities. The noise and movement level of residential activities can be 10 to 100 times greater than in an undeveloped natural area. These disturbances can interfere with communication, mating, hunting and competition among some wildlife species.

8. Predation by domestic animals: Domestic dog and cats not only harass, but also injure or kill small mammals and birds in significant numbers in residential areas. Harassment by domestic animals can interfere with critical functions such as hunting, mating, nesting and finding mates.

9. Artificial irrigation: Most landscaped areas feature exotic plant species that require special care, including irrigation, to survive. Regular irrigation in the dry summer months can weaken the roots of nearby native trees, making them more susceptible to wind-throw and disease. Irrigation can also change local hydrology from precipitation-driven to irrigation-driven, which can favor non-native plants in adjacent areas receiving irrigation runoff.

10. Introduction of toxic chemicals: Those living in residential areas often use various chemicals in managing their homes and yards. These include insecticides, herbicides, rodenticides, and fungicides used to eliminate unwanted insects, plants, rodents and fungi. The majority of such chemicals are used outdoors as part of landscape maintenance activities. These chemicals are washed off plants and soil during rainfall and ultimately are deposited in local waterways. These chemicals have direct and indirect, lethal and sub-lethal effects on plants, animals, insects, fish, birds, and amphibians. Sub-lethal effects are those that, while not directly fatal to an animal, sufficiently interfere with its life functions so as to reduce its ability to survive. Sub-lethal effects of pesticides that have been documented in fish include impaired swimming and navigation ability, which can lead to inability to evade predators. Other sub-lethal effects include damage to gill structure, respiratory distress, lethargy, aggressiveness, muscle spasms and skeletal deformations. Pesticides which are documented to break down quickly may degrade into by-products that are as toxic as or more toxic than the original pesticide. Such processes are not well documented. In residential areas, these chemicals are typically applied by untrained homeowners, who may not understand the importance of following application instructions or disposal warnings. On public and commercial lands, such chemicals are more often applied by trained and licensed professionals. This difference leaves some uncertainty about the relative use of pesticides in residential areas compared to other land use types.

11. Stormwater pollution: In addition to the toxic chemicals described above, other forms of pollutants may be washed off residential lands by rainfall. These may include paints, cleaners, fluids that leak from parked cars or be deposited during maintenance activities (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.), and fertilizers. These substances collect and are stored on plants, soil and particularly on impervious surfaces until rain washes them into the stormwater system, which ultimately deposits them in local waterways.

12. Design impacts: In addition to the direct impacts of individual and collective residential developments, the arrangement of residential development on the landscape can also affect the degree of its negative impacts. Clustered residential units may have lower impacts than scattered single family residences, because larger open spaces can be maintained around the buildings. Such clustering may also allow preservation of the most valuable habitat on a given site, including wetlands, streams, riparian areas or important plant species or plant communities.

Although all of the above impacts do not occur on every residentially developed site, in total, the above impacts are more than sufficient to distinguish household and group residential living as uses that clearly conflict with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Commercial Uses

Commercial uses are allowed to varying degrees in the following zones: Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4). The construction and maintenance of commercial structures has numerous adverse impacts on Goal 5 natural resource areas, which are greater than those for residential uses, as described below. Tables 3.3a and 3.3b list broad categories of commercial uses. The types of impacts described for residential uses will be referred to below, but not repeated in detail, to simplify this document.

1. Loss of vegetation, including riparian vegetation: These impacts are similar to those for residential uses, except that commercial uses have less vegetated area and more impervious surface than residential uses on the whole.

2. Soil disturbance and compaction: These impacts are the same as for residential uses, except that larger buildings and parking areas require higher levels of soil disturbance.

3. Erosion: These impacts are the same as for residential uses, except that because commercial development sites are typically larger than residential ones, the potential exposure of bare soil to erosion is greater than on residential development sites.

4. Impervious surfaces: These impacts are the same as for residential uses, except that commercial uses typically cover more of a development site with buildings and other impervious surfaces like parking lots. Therefore, the impacts to peak flows and low flows are much greater.

5. Habitat fragmentation: These impacts are the same as for residential uses, except that commercially developed areas typically require large areas of parking or other impervious surfaces, leaving little or no habitat at all. Therefore the potential for fragmentation of habitat is generally greater with commercial uses than with residential uses.

6. Introduction or spread of invasive plants: These impacts are the same as for residential uses, except that since vegetated areas make up a relatively small portion of developed commercial sites, and since those are typically surrounded by buildings and parking lots, these areas generally have lower incidences of introducing or spreading invasive plant species.

7. On-going disturbing activities: These impacts are the same as for residential uses, except that movement, noise and light impacts can be much greater and more constant for many commercial uses. For some commercial uses, such as certain types of office uses, on-going disturbing activities may be less intense, and of more limited duration than activities associated with 24-hour commercial uses or active multi-unit residential areas.

8. Predation by domestic animals: Domestic animals are relatively uncommon in commercial areas, so this impact is relatively insignificant in commercial areas.

9. Artificial irrigation: These impacts are similar to those for residential uses, except that landscaped areas make up a much smaller proportion of commercial areas and consequently these impacts are less than in residential areas.

10. Introduction of toxic chemicals: These impacts are similar to those for residential uses, except that commercial properties are often maintained by professional landscapers or other licensed pesticide applicators who are licensed to use stronger chemicals than are allowed otherwise. This is balanced by the fact that commercial areas typically have much smaller landscaped areas than residential areas.

11. Stormwater pollution: With large parking areas, and heavy automobile traffic, commercial areas contribute much higher levels of auto-related pollutants than do residential areas.

12. Design impacts: Since commercial uses typically require relatively large parking areas, and have relatively small landscaped areas, opportunities to reduce impacts through design are more limited than in residential uses. Commercial development can be designed to minimize light, noise and movement impacts to adjacent areas.

Although all of the above impacts do not occur on every commercially-developed site, in total, the above impacts are more than sufficient to distinguish commercial development as a use that clearly conflicts with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Industrial Uses

Industrial uses are allowed to varying degrees in the following zones: Light-Medium Industrial (I-2), Heavy Industrial (I-3), Neighborhood Commercial (C-1), Chase Node Special Area Zone (S-CN), and Public Lands (PL). The construction and maintenance of industrial structures has numerous adverse impacts on Goal 5 natural resource areas, which are greater than those for residential uses, as described below. The types of impacts described for residential uses will be referred to below, but not repeated in detail, to simplify this document. Categories of industrial uses are shown in Tables 3.3a and 3.3b above.

1. Loss of vegetation, including riparian vegetation: These impacts are the same as for residential uses, except that industrial uses typically have less vegetated area and more impervious surface than residential uses on the whole.

2. Soil disturbance and compaction: These impacts are the same as for residential uses, except that larger buildings and parking areas in industrial development require higher levels of soil disturbance.

3. Erosion: These impacts are the same as for residential uses, except that because industrial development sites are typically larger than residential ones, the potential exposure of bare soil to erosion during construction is greater than on residential development sites.

4. Impervious surfaces: These impacts are the same as for residential uses, except that industrial uses typically cover more of a development site with buildings and other impervious surfaces like parking lots. Therefore, the impacts to peak flows and low flows are typically much greater.

5. Habitat fragmentation: These impacts are similar to those for residential uses, except that industrially developed areas are generally larger and have more intensive uses. However, industrial sites can also have large areas that are temporarily undeveloped, or that have relatively low impact uses, or that include log ponds or other features that have some habitat value.

6. Introduction or spread of invasive plants: These impacts are similar to those for residential uses, except that vegetated areas of industrial sites typically have a lower level of maintenance than in commercial or residential sites, which can lead to the growth of weedy, invasive plant species in areas that are not maintained.

7. On-going disturbing activities: These impacts are the same as for residential uses, except that movement, noise and light impacts can be much greater for industrial uses.

8. Predation by domestic animals: Domestic animals are less common in industrial areas, except for feral animals, so this impact is typically lower in industrial areas than in residential areas.

9. Artificial irrigation: These impacts are the same as for residential uses, except that landscaped areas make up a very small proportion of industrial areas and consequently these impacts are less than in residential or commercial areas.

10. Introduction of toxic chemicals: These impacts are similar to those in residential areas, but can be much greater in industrial areas, where manufacturing and other processes can use large volumes of toxic chemicals. While many industrial uses are designed and operated to follow stringent chemical handling and storage practices, toxic chemicals may enter local waterways through accidental spills, cumulative minor leakage, or licensed discharges into the air or local waterways. Such chemicals may be stored on site, and may be transported on and off site by truck.

11. Stormwater pollution: With large impervious areas, equipment and materials storage, cumulative leaks of auto and truck fluids and other chemicals used in processing or maintenance, industrial areas typically contribute much higher levels of stormwater pollutants than do residential areas. These pollutants may include toxic materials or by-products like heavy metals, or PCBs that increasingly find their way into local waterways.

12. Design impacts: Opportunities to reduce the impacts of industrial uses on Goal 5 natural resources are very limited. Industrial development may be designed to minimize the potential for chemical spills, or to reduce light, glare and noise impacts to adjacent areas.

Although all of the above impacts do not occur on every industrially-developed site, in total, the above impacts are more than sufficient to distinguish industrial development as a use that clearly conflicts with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Agricultural Uses

Impacts from agricultural uses are much different than those from more typical urban uses, in that there is relatively little development or impervious surface. OAR 660-023-0010(1) states that local governments are not required to consider agricultural uses as uses that conflict with Goal 5 resources. However, native vegetation is typically removed in order to plant cultivated crops and chemical use can be high.

1. Loss of vegetation, including riparian vegetation: These impacts are similar to those for residential uses, except that agricultural uses often leave natural vegetation around wet depressions and streams that can't be actively farmed.

2. Soil disturbance and compaction: Farming practices that involve frequent plowing and removal of crops expose soil to erosion repeatedly. Although farming necessitates that these areas not become compacted, the natural soil structure is altered to support single species plantations.

3. Erosion: These impacts are similar to those for residential uses, except that agricultural sites expose bare soils on a recurring basis. Extended use of riparian areas by livestock can result in the loss of vegetation along stream banks, exposed soils, and increased erosion and sedimentation, as well as introduce bacteria into the waterway.

4. Impervious surfaces: These impacts are significantly less than those for residential uses, since most of the land in agricultural uses is in cultivated fields that allow infiltration of precipitation. Therefore, the impacts to peak flows and low flows are much lower.

5. Habitat fragmentation: These impacts are similar to those for residential uses, except that agricultural fields can be used by a number of wildlife species and birds for foraging and resting areas. Therefore the potential for fragmentation is less for agricultural uses than with residential uses.

6. Introduction or spread of invasive plants: These impacts are the same as for residential uses, except that field margins and larger agricultural fields can support a high incidence of invasive or "weedy" plant species.

7. On-going disturbing activities: These impacts are somewhat less than for residential uses, as activity levels are lower, and activities typically occur at longer intervals.

8. Predation by domestic animals: Domestic animals occur in much lower densities in agricultural areas than in residential areas, since dwellings are much less dense. Therefore this impact is less significant in agricultural areas.

9. Artificial irrigation: These impacts are similar to but higher than those for residential uses, because many types of agricultural uses require significant irrigation over large areas during dry periods. Some agricultural uses, such as animal pasture, do not require significant irrigation.

10. Introduction of toxic chemicals: These impacts are similar to those for residential uses. Studies have shown that the number of water samples containing pesticides is as high as or higher in urban area waterways as they are in agricultural area waterways. The types of pesticides used are different in agricultural areas, and they may be used in higher quantities and over larger areas than in urban, residential areas.

11. Stormwater pollution: Other than run-off of pesticides and fertilizers, these impacts are typically less than in residential, commercial or industrial areas, since stormwater can infiltrate into soils before moving into local waterways due to relatively little impervious surface. Areas of natural vegetation left un-farmed, especially adjacent to waterways, can reduce runoff of pollutants entering waterways. Agricultural areas typically also have lower levels of vehicular traffic than urban residential areas.

12. Design impacts: Not applicable.

Although all of the above impacts do not occur on every site with agricultural uses, in total, the above impacts are more than sufficient to distinguish agricultural development as a use that clearly conflicts with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Public Uses

Public uses include a very wide range of uses, from natural open space to relatively intensive office or commercial development. These uses are allowed in several zones: Public Land (PL), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), and Riverfront Park Special Area Zone (S-RP). Broad categories of public land uses are shown in Tables 3.3a and 3.3b, above. The analysis below considers primarily the most intensive uses allowed. Therefore, the types of potential impacts are similar to those found in commercial zones, and may include complete or partial removal of vegetation within habitat areas, and construction of structures that remove all habitat values.

1. Loss of vegetation, including riparian vegetation: These impacts are the same as for residential uses, although some uses may have less vegetated area and more impervious surface than residential uses on the whole. Certain public uses, such as parks, may preserve areas of native and riparian vegetation.

2. Soil disturbance and compaction: These impacts are the same as for residential uses, except that some public uses with larger buildings and parking areas require higher levels of soil disturbance.

3. Erosion: These impacts are the same as for residential uses, except that because public use sites can be larger than residential ones, the potential exposure of bare soil to erosion is greater than on residential development sites.

4. Impervious surfaces: These impacts are the same as for residential uses, except that public uses typically can cover more of a development site with buildings and other impervious surfaces like parking lots. Therefore, the impacts to peak flows and low flows can be much greater.

5. Habitat fragmentation: These impacts are the same as for residential uses, except that some public land uses require large parking areas or other impervious surfaces, leaving little or no habitat remaining. Therefore, the potential for fragmentation is greater with public uses than with residential uses.

6. Introduction or spread of invasive plants: These impacts are the same as for residential uses.

7. On-going disturbing activities: These impacts are the same as for residential uses, except that movement, noise and light impacts can be much greater for certain public uses.

8. Predation by domestic animals: Domestic animals are relatively uncommon in public uses, so this impact is relatively insignificant in these areas.

9. Artificial irrigation: These impacts are the same as for residential uses, except that landscaped areas may make up a much smaller proportion of a development site for certain public uses and

consequently these impacts may be less than in residential areas. For other public uses, such as intensive, active recreation sites, impacts of artificial irrigation can be much greater.

10. Introduction of toxic chemicals: These impacts are similar as for residential uses, with variations depending upon the particular type of public use and the policy of the managing agency regarding use of toxic chemicals.

11. Stormwater pollution: With large parking areas, and potentially heavy automobile traffic, some public land uses can contribute much higher levels of auto-related pollutants than do typical residential areas.

12. Design impacts: Similarly to residential development, public use development may lend itself to creative site design to minimize impacts to habitat values.

Although all of the above impacts do not occur on every public use development, in total, the above impacts are more than sufficient to distinguish public use development as a use that clearly has the potential to conflict with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

4. Economic, Social, Environmental, and Energy (ESEE) Consequences Analysis

Applicable OAR Sections

660-023-0040(2) "ESEE consequences" are the positive and negative economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use.

660-023-0040(4) Analyze the ESEE consequences. Local governments shall analyze the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The analysis may address each of the identified conflicting uses, or it may address a group of similar conflicting uses. A local government may conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning. The local government may establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis. A local government may conduct a single analysis for a site containing more than one significant Goal 5 resource. The ESEE analysis must consider any applicable statewide goal or acknowledged plan requirements, including the requirements of Goal 5 recommendation. The analyses of the ESEE consequences shall be adopted either as part of the plan or as a land use regulation.

The following analysis addresses ESEE consequences from the perspective of the community as a whole, rather than from the perspective of each individual landowner separately.

Natural resource sites have multiple functions that provide benefits to people (e.g. moderation of downstream flooding, fish habitat). Allowing conflicting uses within resource sites and their impact areas will typically have adverse impacts on the resource (see Section 3, Conflicting Uses). However, prohibiting or limiting uses also has negative consequences, because these "conflicting" land uses provide benefits to both property owners and to the larger community (e.g. housing sites, production of manufactured goods). This section explores in more detail the negative and positive consequences of allowing, limiting or prohibiting conflicting uses as required by OAR 660-023-0040. The consequences are described for each of the four ESEE categories: economic, social, environmental, and energy consequences.

Many of the consequences of allowing, limiting or prohibiting uses are common to all resources in the Inventory, whether the resources are zoned for residential, commercial or industrial uses. The common consequences are grouped together in the text discussion below. Unique consequences due to unusual land uses or unique site characteristics are discussed separately. For reference purposes, each group of consequences discussed in the text is labeled with a paragraph number. The tables for each site in Sections 7 through 24 list the paragraph number that applies to each site (see Tables 7.4.2 through 24.4.2 in Sections 7 through 24.)
For the purposes of this discussion, the terms "consequences" and "impacts" may be used interchangeably. The term "residential" means both single family residential and multi-family residential uses; "commercial" includes both commercial and office uses; the term "industrial" includes light, medium, and heavy industrial uses. (For a detailed description of these uses, see Section 3, Conflicting Uses.)

4.1 Key Resource Characteristics

The conflicting use analysis in Section 3 describes the potentially adverse impacts of conflicting uses on a resource site. Resource sites provide a variety of ecological functions, such as water quality improvement, wildlife habitat, reduced downstream flooding and erosion, and microclimate moderation. To the extent that conflicting uses impact or impair these ecological functions, there are not only environmental consequences, but economic, social, and energy consequences as well. For example, the loss of the stormwater storage capacity of wetland areas has potential economic consequences in terms of public costs for flood control. The loss of open space areas along stream corridors has potential social consequences related to the loss of recreational opportunities. Further, the magnitude or severity of the ESEE consequences of allowing, limiting or prohibiting conflicting uses varies depending in part on the relative quality of the resource site. Generally, *higher quality resource sites* provide multiple ecological functions, while *relatively low quality resource sites* provide fewer functions or diminished functions. Sites that provide more ecological functions also tend to be the sites that provide more economic, social and energy benefits. For example, a large stream with extensive riparian areas, wetlands and mature tree canopy is more likely to increase adjacent property values, and to provide more social benefits such as passive recreation opportunities. A small stream with highly modified banks and very little wetland or riparian vegetation generally provides fewer benefits such as flood storage capacity. Sites that are already fairly disturbed (e.g., vegetation has been removed by human activity) are considered less likely to be adversely affected by impacts such as invasion of exotic species, compared to more pristine sites. Thus, the magnitude of ESEE consequences will be greater for *higher quality sites* than for more disturbed, relatively *lower quality sites*.

The sites discussed in this analysis have already been determined to be "significant" Goal 5 resources in the adopted Inventory. However, these resources range in quality from relatively pristine, higher quality sites to sites with varying degrees of disturbance. Relative resource quality among the various Goal 5 sites can be described, in part, by describing "key resource characteristics" of these sites. These are characteristics typical of stream corridors and wetlands that indicate in part the presence and quality of the ecological functions provided by the site. Key resource characteristics used in this analysis are: (1) presence of threatened or endangered species; (2) presence of fish; (3) level of connectivity (site connects to a large habitat area or links an extensive stream system, or is itself large in area or length); (4) quality of the riparian or wetland plant community (relatively continuous, presence of trees and shrubs, ratio of native/exotic plants, etc.); (5) presence of significant wetlands; (6) wildlife habitat within wetlands, (7) fish habitat within wetlands, (8) water quality function within wetlands, (9) flood storage within wetlands, (10) presence of open water habitat; and (11) steep slopes (steep surrounding slopes or stream has a steep channel gradient). These key resource characteristics are important factors in determining the consequences of allowing, limiting, or prohibiting conflicting uses, and are considered in the analysis of ESEE consequences below.

Key resource characteristics for each resource site are listed in Tables 7.4.1 through 24.4.1 in Sections 7 through 24. Some of these characteristics are further described in individual Site Descriptions in Sections 7.1 through 24.1. In general, sites with a relatively high-quality, intact, native-dominated riparian plant community and with relatively high connectivity to other habitat areas are considered higher quality sites. Sites where riparian vegetation may be more disturbed,

partially reduced or replaced by non-native species, but where there is a high level of habitat connectivity, are considered relatively high or moderate quality sites. Where the stream channel gradient and/or surrounding topography is steep, the site is more susceptible to channel degradation, erosion and sedimentation of downstream reaches. Additional characteristics, such as the presence of wetlands or open water increase the value of otherwise lower value sites.

4.2 Fully Allowing Conflicting Uses - ESEE Consequences

4.2.1 Economic Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.1A All sites: Fully allowing conflicting uses would provide economic benefits by accommodating a larger buildable area for a given site which, in some cases, could result in a greater number of residential units or industrial/commercial floor area within a given development site, or by providing greater flexibility in the layout of development sites. There would also be positive economic consequences for agricultural uses, where site acreage remains available for agriculture and pasturing, and for industrial uses that require large areas for heavy equipment movement and outdoor storage. Fully allowing conflicting uses within the impact area of stream corridors and wetlands may also provide minor economic benefits from the removal and sale of trees. There are no Goal 5 sites within the Eugene UGB where extractive industries (e.g. commercial forest production, sand and gravel mining) are permitted, so economic consequences for resource extraction would typically not be significant enough to provide community economic benefits. Where a larger buildable area provides more flexibility in locating and designing public facilities and utilities, a positive consequence may be a reduction in costs for these facilities, benefiting the public. Construction of more residential units or industrial/commercial floor area will temporarily sustain or create somewhat greater employment opportunities within the construction industry in the local economy. To the extent that a greater number of units and floor area can be constructed, the tax base for the community would increase, thus supporting local government services.

4.2.1B All sites: The positive consequences of fully allowing conflicting uses within these Goal 5 sites are reduced by the fact that portions of these Goal 5 sites are waterways and wetlands that are regulated by state and federal wetland agencies. Conflicting uses may already be restricted under those state and federal programs, or costs may be added for preparing additional studies, for state or federal permit applications, and for carrying out wetland mitigation requirements. In addition, due in part to these kinds of environmental constraints, some portions of these Goal 5 streams and wetland sites are already dedicated to public open space, private open space, or stormwater uses. For these reasons, in many cases, there may be only a minor, incremental economic benefit in fully allowing uses in these areas.

4.2.1C Sites with Prior Development or Prior Land Use Approval: For many of these sites, the positive economic consequences of fully allowing conflicting uses will be reduced by these factors: 1) most of the tax lots and development sites affected by a Goal 5 site are already partially or fully developed; and 2) many parcels have a prior land use approval that could supersede future Goal 5 regulations. Most of the Goal 5 riparian corridors are within built-out residential subdivisions. There is little capacity for further subdivision of these parcels, and the resource corridor often contains structures, so, on the whole, there is relatively little *additional* economic benefit in fully allowing development in the Goal 5 portion of these parcels. Certain Goal 5 sites, such as the Alton Baker Park stream corridor and Delta Ponds, are surrounded primarily by land that is already dedicated as public park land that is not available for development.

Under state law, local governments must apply the rules in place at the time a land use application is submitted. For some sites, the owner will submit an application for development prior to the effective date of the new Goal 5 regulations, so that the new regulations will not apply. Once an application is approved, the applicant is given certain development rights through that land use approval. Development rights conferred by prior land use approvals must be evaluated on a case by case basis to determine consistency with established case law. However, in many cases, new Goal 5 protections would be applied only if prior land use approvals have expired or if development is proposed that is not consistent with the prior approval. Such cases will reduce the area within which Goal 5 protection measures would apply, and therefore would reduce the positive economic consequences of a decision to fully allow conflicting uses. City records show that 74 significant Goal 5 resource sites (24 riparian sites, 16 upland wildlife habitat sites and 34 wetland sites) are at least partially affected by prior land use approvals that may prevail over new Goal 5 regulations.

4.2.1D All sites: Positive economic consequences of fully allowing conflicting uses will also be limited by the fact that the impact areas of these Goal 5 sites are generally narrow and linear in nature, and typically represent a relatively small portion of a parcel. The largest portion of a development or use on a given parcel will occur primarily *outside* of these resource corridors. Therefore, the economic benefits discussed in this analysis would accrue only from uses within the impact area, and *would not be generated from land or uses outside of the impact area.*

4.2.1E All sites: For resource sites with relatively *lower-quality habitat*, fully allowing conflicting uses may provide positive economic consequences by avoiding or reducing the need to develop *higher quality* Goal 5 resource sites. Development in *higher quality* resource sites is likely to have more adverse economic consequences, as these higher quality sites tend to provide more of the ecological functions with economic value (e.g. scenic value/increased property values, flood control). For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

Negative consequences

4.2.1F All sites: Streams and wetlands provide multiple functions and values (e.g. habitat for birds, moderation of downstream flooding, recreation). Many of these functions have economic value. Fully allowing conflicting uses will reduce the economic contribution of the resource to the immediate area and to the larger community. Table 4.2.1 below lists some of the economic benefits provided by resource sites. (Not all resource sites provide all functions or provide the same quality of functions.)

Table 4.2.1 Functions with economic value provided by resource sites

RESOURCE FUNCTION	ECONOMIC BENEFIT OR AVOIDED COSTS
Increased property values	Increased tax base
Air pollutant removal	Reduced health care costs
Wildlife habitat	Recreation/tourism industries
Fish and aquatic habitat	Fisheries, federal regulatory compliance
Flood management	Reduced flood insurance costs, reduced costs for stormwater treatment
Water quality improvement	Improved fisheries, increased recreational values, reduced costs for infrastructure

Thermal moderation	Reduced heating/cooling, energy costs
Soil stabilization	Improved water quality, reduced property damage
Groundwater/drinking water quality	Reduced treatment costs, improved fisheries

4.2.1G All sites: In residential and commercial areas, negative economic consequences would result from the loss of aesthetic, open space and recreational features that typically increase adjacent property values. For example, the loss of large, mature trees and woodlands in residential areas is a directly measurable value often used in market appraisals and property damage claims. A number of commercial and multi-family residential uses adjacent to Goal 5 sites reflect the amenity value of the resource in the way these enterprises are designed and oriented toward the resource (e.g., restaurants and apartment complexes situated to take advantage of the view of the resource area). Many residential developments capitalize on the presence of an adjacent stream corridor in their name, market identity and promotional strategy. Fully allowing conflicting uses within the impact area of Goal 5 stream corridors and wetlands would also result in the loss of features that contribute positively to perceptions of quality of life in the surrounding neighborhood and that help attract new residents and businesses to the community. For properties with industrial uses, the aesthetic or recreational value of a natural resource may be minimal; however, these properties share in the economic benefits that natural resource sites bring to the larger community, such as contributing to positive perceptions of quality of life, which helps attract new employees, businesses, and local markets to the community. In addition, the loss of stream corridors can lead to increased soil erosion and flooding, which can result in significant economic losses to adjacent property owners.

4.2.1H All sites: Negative economic consequences would also result from allowing conflicting uses that may impact water quality in adjacent streams. Uses that remove vegetation adjacent to streams and wetlands can contribute to increased water pollution, by reducing the filtration effect of vegetation on stormwater that runs off adjacent land and into adjacent waters. This can lead to increased stream bank erosion, turbidity of the streams, and the number of pollutants entering the stream system. Degradation in water quality can cause significant economic losses to downstream fisheries (e.g. salmon), recreation/tourist industries, and associated industries (e.g. driftboat manufacturers), particularly in communities that create market identities associated with the outdoors. In addition, poor water quality can directly affect public health where people swim or consume fish caught in polluted waters. This translates into increased public health costs, water treatment costs, and costs to clean up polluted waters. To fully allow conflicting uses in riparian corridors could also result in increased costs of restoring these habitats in the future, and in increased costs of complying with state and federal regulations (e.g. Clean Water Act, Endangered Species Act).

4.2.1I All sites: Stream corridors and wetlands provide natural storage and infiltration of stormwater runoff. Loss or a reduction in these functions can result in significant negative economic consequences. Where impervious surfaces replace natural vegetation in these corridors, the magnitude and frequency of peak flows are increased, resulting in stormwater moving much more quickly through the landscape than in a naturally vegetated system. Increased peak flows are more likely to cause channel and bank erosion, and downstream flooding. These impacts are magnified by engineered stormwater conveyance systems in which pipes and channels are designed to move stormwater as quickly as possible to receiving waters in order to prevent floods in the immediate vicinity. However, this can result in flooding down stream, and increased erosion and landslides, property/infrastructure damage, increased flood

insurance costs, and increased costs to a community to construct and maintain stormwater treatment and conveyance facilities.

4.2.1J All sites: A majority of Goal 5 resource sites evaluated here occur on land that is already developed or partially developed with allowed uses, and many of these resource sites are already dedicated to public open space or stormwater uses. Many of the *higher quality* resource sites exhibit environmental characteristics that already constrain conflicting uses because of their intrinsic characteristics, such as steep slopes, flood ways, and wetlands that may not be filled without meeting state and/or federal requirements. (For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.) In addition, the impact areas of riparian corridors and upland stream sites are generally narrow and linear in nature. In most cases, there is land outside of the impact area that remains available for allowed uses, and a far greater proportion of the conflicting uses discussed in this analysis would typically occur *outside* of these narrow corridors than within them. Therefore, most of the negative economic consequences discussed in this analysis are limited to these narrow corridors, and *do not extend to lands outside of the impact area.* For these reasons, the magnitude of negative economic consequences associated with protecting a resource site is reduced to the extent that the impact area is narrow and linear in character, is already built out or is already constrained by other environmental factors.

4.2.1K Sites with public facilities, institutional and parks uses: Like other developments, institutional and public uses often realize economic benefits from the aesthetic, recreational and open space functions provided by adjacent natural resource areas. These amenities can increase the appeal and status of a facility which attract users such as patients, students, and employees; loss of these amenities can reduce the appeal of the facility. Where parks and recreation are the primary uses, the loss of a stream corridor could diminish the attractiveness of the area to potential users, fee users and concessionaires. In addition, natural resource areas within parks often provide buffers between more intensely used public areas and adjacent residential areas. The loss of these buffers can have a direct economic consequence for adjacent properties.

Conclusion

4.2.1L All sites: For sites with *relatively low habitat quality* the economic consequences of fully allowing conflicting uses tend to be more positive than for higher quality sites. *Lower quality sites* have diminished ecological functions or fewer of the ecological functions and, therefore, provide fewer economic benefits (see Functions/Economic Benefits, Table 4.2.1 above). As a result, the loss of these sites by fully allowing conflicting uses would result in fewer economic losses, and fewer negative consequences. *Higher-quality sites* provide greater economic benefits to property owners and the community as a whole. For those sites, the negative economic consequences of fully allowing conflicting uses are more severe, outweighing the positive consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.2.2 Social Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.2A Sites with residential uses: Fully allowing conflicting uses within the impact area of a stream corridor or wetland may yield minor positive social impacts by slightly increasing the number of housing units within a housing site affected by a Goal 5 protection measures, or by lowering the cost of housing in some cases. Whether this would be a positive consequence would depend on its effect on the overall supply and cost of housing in various price ranges in the community. If it results in greater availability of housing due to more units and/or lower costs, this would have a positive social impact.

Negative consequences

4.2.2B All sites: Green open spaces with pedestrian access have been shown to have a positive impact on physical and mental well-being for residents and employees with easy access to those areas. The Human-Environment Research Laboratory (HERL) at the University of Chicago has conducted numerous studies on the social effects of natural green spaces in developed urban areas. These studies have documented numerous beneficial effects including: (1) lower crime rates, (2) higher rates of concentration and self-discipline in school-age girls, (3) relief from attention deficit disorder in children, (4) greater mutual caring and support among neighbors, and (5) lower levels of aggression against domestic partners. In most cases, these effects were shown to increase as the amount of natural green space in the neighborhood increased. A separate study conducted by researchers at Cornell University showed that interaction with nature in and around the home protected children against the effects of stress. Other studies have shown that patients recovering from surgery recuperate more quickly if they are exposed to natural open spaces. In summary, the loss of green natural spaces in neighborhoods where people live and work would have negative impacts on physical and mental health of its residents, especially over the long term, as the density of urban development increases.

4.2.2C All sites: Negative social consequences would also occur due to conflicting uses causing degradation of water quality. The introduction of urban uses and impervious surfaces next to a stream can increase water temperatures, erosion and turbidity, and the number of pollutants entering the stream. Degradation in water quality can directly affect public health where people swim, play or when humans consume fish caught in polluted waters.

4.2.2D All sites: The loss of riparian areas and wetlands that provide natural storage and conveyance of stormwater results in stormwater moving much more quickly through the landscape, which is more likely to cause channel and bank erosion, landslides, and downstream flooding. This can result in minor to severe impacts to public health and safety.

4.2.2E Sites with parks and open space uses: In areas where parks and recreation are the primary uses, fully allowing conflicting uses could reduce the diversity of recreational experiences available to users of the area. Active and high-intensity recreational activities (e.g., a soccer field) developed within a resource site would result in the loss natural vegetation and wildlife habitat and, therefore a loss of some passive recreation opportunities that might not be readily available elsewhere. Where natural resource areas within parks act as buffers between intense recreation (particularly intensely lighted areas) and adjacent residential areas, the loss of those buffers can create conflicts between uses, and diminish the sense of well-being and comfort of adjacent residents.

4.2.2F Sites with residential, public facilities and institutional uses: Fully allowing conflicting uses within the impact area of stream corridors or wetlands would reduce green space and natural areas in and around residential neighborhoods and lower the aesthetic quality of the

neighborhood. In some cases, the potential for recreational opportunities may be decreased, where potential for recreational access is precluded. For low-income residents, or persons with disabilities, natural areas near their homes may be the only ones they can afford to visit, so that conservation of natural areas in residential areas provides a valuable social service. Fully allowing conflicting uses would reduce these benefits.

Conclusion

4.2.2G All sites: For sites with diminished habitat quality, the social consequences of fully allowing conflicting uses are minimal or neutral. The positive social consequences realized in the greater availability of buildable area and housing units are approximately the same for higher quality and lower quality sites. *Lower quality sites* provide fewer ecological functions/benefits and, therefore, provide fewer of the social benefits described above. Therefore, the negative social consequences for these lower quality sites will be less severe or negligible, compared to the positive social consequences. For *sites with relatively high habitat quality*, the social consequences of fully allowing conflicting uses tend to be more negative than positive, as these sites provide a number of social benefits described above that would be lost or diminished. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.2.3 Environmental Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.3A All sites: Fully allowing conflicting uses within the impact area of a stream corridor or wetland would rarely have any positive environmental consequences. For certain low-impact uses, allowing the use may have minor positive effects. For example, a recreational trail or viewing area, sensitively designed, might bring people to the resource area, fostering public awareness of and interest in protecting a resource site. For resource sites with relatively *lower-quality habitat*, fully allowing conflicting uses may result in positive environmental consequences by avoiding or reducing development in *higher quality sites*, where negative environmental consequences may be greater. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1., Key Resource Characteristics.

Negative consequences

4.2.3B All sites: Fully allowing conflicting uses within the impact area of these stream corridors and wetlands would have multiple negative environmental consequences. Development and expansion of conflicting uses typically results in removal or reduction of the ecological functions provided by stream corridors and wetlands. Some of these functions are described further in Section 4.1., Key Resource Characteristics. In addition to the adverse impacts listed in Section 3, Conflicting Uses, the negative consequences of fully allowing conflicting uses include the following:

Fully allowing conflicting uses would allow removal of vegetation that covers the soil along stream banks, wetlands and adjacent lands, exposing soil to increased erosion. Erosion of soil in areas that drain to streams causes a number of water quality problems, including an increase in sediments, and in some cases chemicals, entering the stream and impairment or death of aquatic

plants and animals. In addition, the grading and preparation of a site for development can lead to a temporary increase in erosion.

Fully allowing conflicting uses would remove riparian vegetation that shades streams and helps keep water temperatures lower during warm weather periods with low flows. An increase in water temperature has direct water quality impacts, as it causes depletion of available oxygen in the waterway and destruction of aquatic life.

Fully allowing the development and expansion of conflicting uses generally removes vegetation and leads to creation of impervious surfaces such as buildings, parking lots, sidewalks, patios, etc. An increase in impervious surfaces can cause a number of water quality problems. Rain that falls on impervious surfaces moves more quickly into streams, increasing the rate and magnitude of peak flows. This can lead to increased channel and bank erosion, and increased sedimentation of receiving waters. Due to the loss of the natural infiltration and storage capacity of vegetated areas, summer flows are likely to decrease, increasing water temperatures and, in some cases, leading to inadequate flow to support aquatic species in smaller waterways. Fully allowing conflicting uses would also allow the use of heavy machinery during construction within stream and wetland areas. This can cause compaction of soils, which has effects similar to the creation of impervious surfaces, in that it reduces infiltration of rainfall and can increase stormwater runoff and erosion.

Fully allowing conflicting uses would increase the potential for toxic chemicals to enter streams and habitat areas, by reducing or eliminating the "buffer" of riparian vegetation between developed uses, where such chemicals are used, and streams and wetlands. The use of various chemicals in managing homes and landscaping areas can be very high in residential, agricultural and commercial areas. These chemicals include insecticides, herbicides, rodenticides, fungicides, fertilizers, paints, cleaners, and products associated with cars (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.). These chemicals are carried by rainfall into local waterways and can have both direct and indirect, lethal and debilitating effects on plants, animals, insects, birds, and amphibians, and on fish in downstream receiving waters.

Fully allowing conflicting uses within Goal 5 stream corridors would replace natural vegetation that is structurally complex and diverse with ornamental landscaping which has greatly simplified diversity, and limited, or in some cases, no habitat value. In agricultural areas, the repeated use of riparian areas by livestock can result in the loss of vegetation along stream banks. The loss of existing native vegetation has multiple, far-reaching impacts for native wildlife including loss of: (a) food sources, nesting, perching and roosting places for birds and insects, (b) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (c) loss of food source, shade and cover for aquatic insects.

Fully allowing conflicting uses would increase fragmentation of wildlife habitat. As areas of contiguous habitat are separated from one another by intervening development, their value and usefulness to certain wildlife species decreases. Species that require larger areas of contiguous habitat will no longer use the smaller, isolated patches. This fragmentation can create barriers to wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover.

Fully allowing conflicting uses can introduce into habitat areas intense human activities that directly impact wildlife. Many of the activities associated with residential and commercial uses have a number of negative impacts on natural areas, such as bright lights, loud noises, constant

movement, and similar activities. Such activities within or adjacent to areas used by wildlife can interfere with communication, mating, hunting and competition among some wildlife species.

Fully allowing conflicting uses would allow, at least temporarily, removal of vegetation in preparation for development, leaving bare soil which is vulnerable to erosion and its damaging effects, (including increased sedimentation of adjacent streams). In addition, earth-moving activities remove topsoil and expose soil to exotic plant seeds, often brought in on truck tires, which increases invasive, non-native plants in adjacent undeveloped areas.

4.2.3C All sites: The magnitude or severity of these potentially negative environmental consequences depends on the quality and vulnerability of the resource site. Sites that are relatively pristine and intact (higher quality sites) are more vulnerable to negative environmental consequences because there are more ecological functions and values present that can be disrupted or lost. Where the resource is more modified or disturbed, the consequences of allowing or limiting conflicting uses are less severe. Relative resource quality for each Goal 5 site is indicated in part through "key resource characteristics." For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

Conclusion

4.2.3D All sites: For sites with *lower habitat quality*, the negative environmental consequences of fully allowing conflicting uses are less severe than for higher quality sites. Lower quality sites provide diminished or fewer ecological functions and, therefore, the loss of these sites would mean the loss of relatively few environmental benefits to a property and the community at large. For sites with *relatively high habitat quality*, the environmental consequences of fully allowing conflicting uses will be much more negative than positive, as these sites provide a number of environmental benefits described above that would be lost or diminished. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.2.4 Energy Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.4A All sites: Fully allowing conflicting uses within the impact area of these stream corridors and wetlands has negligible positive consequences for energy consumption.

Negative consequences

4.2.4B All sites: Fully allowing conflicting uses within the impact area of these stream corridors and wetlands has minor negative consequences for energy consumption. Areas of vegetation can shade the surface of the ground, reducing heat absorption and radiation, and providing a cooling effect to the immediate vicinity, and reducing energy costs. These beneficial effects can be provided by both natural areas and ornamental landscaping. To the extent that stream corridors and wetlands are replaced by impervious surfaces, these energy-conserving functions would be lost.

Conclusion

4.2.4C All sites: Positive energy consequences of fully allowing conflicting uses within the impact area of resource sites are approximately equal to the negative consequences of fully allowing conflicting uses. The relative quality of habitat in the resource site has no discernible effect on energy consequences.

4.2.5 Summary ESEE consequences of fully allowing conflicting uses

All sites: Based on the above analysis, the combined negative economic, social, environmental and energy consequences of fully allowing conflicting uses within the impact area of *higher quality Goal 5 resource sites* outweigh the positive consequences. For some sites, however, the negative environmental and social consequences are minimal. This is the case for sites that provide lower-quality habitat. As a result, for *lower-quality sites,* the positive consequences of fully allowing conflicting uses are equal to or outweigh the negative. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above. Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

4.3 Limiting Conflicting Uses - ESEE Consequences

4.3.0 All sites: The OARs consider "limiting" conflicting uses as a means of protecting a resource site (OAR 660-023-0040 (5)). However, there is a wide range of possible consequences of limiting conflicting uses, as "limiting" uses can range from prohibiting nearly all conflicting uses to limiting conflicting uses only slightly. Uses may be "limited" by allowing conflicting uses within a smaller portion of the impact area, at a specified distance from the resource (e.g. a setback). Limiting uses may also mean restricting the type and number of uses allowed in the impact area, or requiring special permits. If most uses are fully allowed in the impact area, with only a few restrictions, the consequences of limiting conflicting uses will be similar to the consequences for fully allowing conflicting uses. If most conflicting uses are prohibited or restricted in some way, and only a few lower impact uses are allowed or allowed with special permits, the consequences of limiting uses will be very similar to the consequences of prohibiting conflicting uses.

4.3.1 Economic Consequences of Limiting Conflicting Uses

Positive consequences

4.3.1A All sites: Limiting conflicting uses would result in positive economic consequences in that it would preserve much of the aesthetic, open space and recreational features associated with resource sites. These features help attract new residents, employees, and businesses to the area, and help expand local markets for products and services. In residential areas, natural resource features typically increase adjacent property values, and contribute positively to perceptions of quality of life in the surrounding neighborhood. For commercial uses, particularly retail or entertainment establishments, the amenity value of natural resource sites can translate into increased visibility and patronage. Ready access to natural areas and recreational facilities for employees in some office or industrial sites, such as a large corporate office or business park, can also attract employees and tenants, and contribute to higher lease rates. In addition, protection of adjacent stream corridors, which provide areas for stormwater infiltration and conveyance, can minimize soil erosion, flooding, and property damage for all uses.

4.3.1B All sites: Natural resource sites have multiple ecological functions that also have economic value (see Table 4.2.1). Limiting conflicting uses will maintain most of these economic contributions of the resource site to the immediate area and to the larger community.

4.3.1C All sites: Limiting conflicting uses in stream and wetland areas would minimize clearing of vegetation, grading, and similar development activities that can cause degradation of water quality in streams. Vegetation adjacent to streams and wetlands helps filter stormwater that runs off adjacent land, which helps minimize erosion of stream banks, turbidity of the water, and pollutants entering streams. This results in positive economic consequences through lowering public and private costs of maintaining clean water and remediation of poor water quality. Clean water can mean significant economic benefits to a community by increasing the health of downstream fisheries (e.g. salmon), supporting recreation/tourism activities that rely on high water quality, and lowering public health care costs associated with public contact with polluted waters.

4.3.1D All sites: Limiting conflicting uses within the impact area of stream corridors and wetlands helps maintain the stormwater storage and conveyance capacity of these areas. When these natural areas are developed with impervious surfaces and piped systems, their natural infiltration and storage functions are lost, and the magnitude and frequency of peak storm flows increases. This increases the potential for surges in floodwaters downstream, and potential downstream erosion and flooding. Limiting conflicting uses would help maintain the flood control functions of stream corridors and wetlands, by protecting property and infrastructure from flooding, and minimizing costs for flood insurance and stormwater conveyance facilities, resulting in positive economic consequences for private property owners and the public.

4.3.1E All sites: Positive economic consequences would result from limiting conflicting uses where uses could occur that would not be possible if all conflicting uses were prohibited. If almost all uses are otherwise prohibited, allowing some limited uses within the impact area could mitigate negative economic consequences. In addition, some accessory uses, such as trails or access roads, might be allowed in a limited way, which may not add to the buildable area of a development site, but could add amenity value to development outside of the area where uses are restricted or facilitate development where other access options are not available.

4.3.1F Sites with public facilities, institutional and parks uses: Institutional and public uses often realize an economic advantage in a location adjacent to the aesthetic, recreational and open space amenities provided by natural resource areas. These amenities can contribute to the appeal and status of a facility, attracting potential patients, students, and employees. Ready access to natural areas and recreational facilities is often a factor influencing the choice of an institution of higher learning or alternative school. For many people, natural areas have a calming and restorative effect, offering passive outdoor activities such as bird-watching, relief from heat, glare and noise, and a sense of safety from urban activities. The presence of these restorative qualities can shape perceptions of the quality of care provided by, and selection of, health care or long-term care facilities. Schools and churches may benefit from opportunities for educational and interpretive programs that are nearby, and do not involve transportation costs or entry fees. For parks and recreational uses, the presence of a stream corridor can increase the diversity of recreational opportunities, making the area more attractive to potential users, fee users, and concessionaires. Limiting conflicting uses would help protect these aesthetic, recreational and open space amenities and the economic benefits they provide.

Negative consequences

4.3.1G All sites: Reducing the floor area or number of units that might otherwise be allowed on a given development site by limiting conflicting uses would have negative economic consequences. There would be direct economic impacts to owners of a development site and those involved in developing land and the construction industry. In addition to a reduction in units or floor area, other economic impacts of limiting uses would include reduced flexibility in the layout of a development, which could affect the ability to accommodate, and the cost of accommodating, heavy equipment movement, outdoor storage, street layout, etc. Restricting uses such as roads, utilities and other public infrastructure could result in decreased or suppressed property values for areas not adequately served or in increased costs for alternative approaches. Where restrictions on developable area increase the cost of public facilities and utilities, these costs are partially borne by the larger public. Limiting conflicting uses also may produce minor economic impacts to a property owner by limiting the removal and sale of trees in resource sites. As there are no commercial forest lands within Goal 5 streams or wetlands within the Eugene UGB, such tree removal would typically be on a relatively small scale, or occur as

one part of site development, and the economic consequences would be relatively minor. Limiting conflicting uses also results in indirect, secondary economic consequences for the community as a whole. Limiting the construction of new residential units or floor area would sustain or create fewer, employment opportunities within the construction industry in the local economy. Limiting the area available for development may also reduce the availability of housing units and commercial/industrial sites that attract new residents, employees and businesses to the local economy. To the extent that a smaller number of residential units or floor area could be constructed, the tax base for the community would decrease, thus decreasing support for local government services, such as police, fire, and library service.

4.3.1H All sites: The magnitude of potentially negative outcomes of limiting conflicting uses is mitigated somewhat by the fact that many of these Goal 5 sites include waterways and wetlands that are regulated by state and federal wetland agencies. Conflicting uses may already be restricted under those state and federal programs, or costs may be added for preparing additional studies, for state or federal permit applications, and for carrying out wetland mitigation requirements. In many cases, streams and wetlands have other environmental characteristics, such as steep slopes or unstable soils, that may already constrain conflicting uses by adding costs to development for engineering studies or engineered structures, or restricting the extent of development. In addition, due in part to these kinds of environmental constraints, some portions of these Goal 5 streams and wetland sites are already dedicated to public open space, private open space, or stormwater uses.

4.3.1I Sites with Prior Development or Prior Land Use Approval: For many of these sites, the economic consequences of limiting conflicting uses will be reduced or neutral, due to the fact that: (1) most of the tax lots and development sites affected by a Goal 5 site are already fully developed; or (2) the parcel has a prior land use approval. For example, Flat Creek (E59), Spring Creek (E58), East Santa Clara Waterway (E57, most of the streams in the southeast hills (E35, E37), and a large portion of the Willamette River (WA) are lined with built-out residential subdivisions. At R-1 low density residential zoning, few of these areas have the capacity for further subdivision or additional residential construction. Sites such as the Alton Baker Park stream corridor and Delta Ponds are surrounded primarily by dedicated public park land.

Under state law, local governments must apply the rules in place at the time a land use application is submitted, and once an application is approved, the applicant is given certain vested development rights through that land use approval. This results in a situation where previous land use approvals on sites with Goal 5 resources have conferred vested development rights that must be honored. In most cases, only if those approvals expire or if development is proposed that is not consistent with the approval would new Goal 5 protections be applied. City records show that 74 significant Goal 5 resource sites (24 riparian sites, 16 upland wildlife habitat sites and 34 wetland sites) are at least partially affected by prior land use approvals that may prevail over new Goal 5 regulations.

4.3.1J All sites: The severity of the negative economic consequences described in this analysis will be limited by the fact that the impact areas of most of these Goal 5 sites are generally narrow and linear in nature. First, on most sites, conflicting uses will be only partially affected, as the largest portion of the development or use will occur primarily on the areas of a parcel located *outside* of resource corridors. The negative economic consequences discussed in this analysis apply only to the impact area, and *do not extend to land and uses outside of the impact area* (i.e., do not affect the entire development site). Second, portions of conflicting uses that might occur within a Goal 5 corridor can, in many instances, be located in non-Goal 5 areas. For example,

units in a new residential subdivision or accessory uses in existing areas can often be located on a given property in a manner that preserves the resource (e.g., clustering housing units) while allowing for similar densities and uses. In other cases, construction of those extra residential units may shift to other properties, with no net loss to the local economy. Other uses are more location-dependent (e.g. manufacturers dependent on rail transportation or proximity to input suppliers), or restricted to large, single story buildings (e.g. assembly plants), and are more constrained when adding floor area. For these reasons, conflicting uses within a resource site would be minimally affected in proportion to all other uses, and the negative economic consequences associated with limiting uses are only slightly greater than fully allowing conflicting uses.

4.3.1K Sites with public facilities, institutional and parks uses: Public ownership of a resource site to some degree mitigates negative economic consequences, because other goals, such environmental or social goals, are often of equal or higher importance to the public in determining how or if a site or use is developed.

Conclusion

4.3.1L All sites: Limiting conflicting uses (as opposed to prohibiting conflicting uses) would allow more flexibility for development near protected resource sites, and would allow for some uses that support adjacent development to occur within otherwise protected areas. For this reason, economic consequences are more positive for limiting conflicting uses, than for prohibiting conflicting uses.

Sites with *relatively low habitat quality* provide fewer ecological functions and values, which means they provide less of an economic benefit to property owners and the community as a whole. Therefore, there are fewer positive economic consequences of protecting these sites. For these sites, the negative economic consequences of limiting conflicting uses outweigh the positive consequences. *Higher quality sites* provide better habitat, water quality protection, aesthetic values, and other economic benefits. As a result, the positive economic consequences of protecting the site through limiting conflicting uses are much greater, and outweigh the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.2 Social Consequences of Limiting Conflicting Uses

Positive consequences

4.3.2A All sites: In some instances, allowing certain, low impact uses within the impact area of a riparian corridor or wetland can provide positive social consequences. For example, a recreational trail or viewing area, sensitively designed, can increase the visibility and accessibility of the natural area, and the positive influence of urban green spaces on the physical and mental well-being of residents and employees.

4.3.2B Sites with residential, commercial and institutional uses: Limiting conflicting uses within the impact area of Goal 5 stream corridors or wetlands would increase green open space and natural areas in and around residential and commercial neighborhoods. The presence of natural areas in a neighborhood can enhance the mental and physical well-being of people who

live and work there. Natural areas provide mental and visual relief from urban glare, heat and noise, and, in some cases, provide both passive and active recreational opportunities. Views of trees and wildlife, and green open spaces with trails have been shown to have a positive impact on the physical and mental well-being for residents and employees that have easy access to these features. The Human-Environment Research Laboratory (HERL) at the University of Chicago has conducted numerous studies on the social effects of natural green spaces in developed urban areas. These studies documented numerous beneficial effects including: (1) lower crime rates, (2) higher rates of concentration and self-discipline in school-age girls, (3) relief from attention deficit disorder in children, (4) greater mutual caring and support among neighbors, and (4) lower levels of aggression against domestic partners. In most cases, these effects were shown to increase as the amount of natural green space in the neighborhood increased. A study conducted by researchers at Cornell University showed that interaction with nature in and around the home protected children against the effects of stress. Other studies have shown that patients recovering from surgery recuperate more quickly if they are exposed to natural open spaces. For low-income residents or people with decreased mobility, natural areas near their homes may be the only areas they can afford to visit or that are accessible, so conservation of natural areas in residential areas provides a valuable service. Natural resource areas near schools and churches can also provide opportunities for nearby educational and interpretive programs that benefit school-age children. In summary, the conservation of green natural spaces in neighborhoods where people live and work would have positive impacts on physical and mental health, especially over the long term, as the density of urban development increases.

4.3.2C All sites: Areas of riparian vegetation and wetland areas help filter and slow the rate of stormwater runoff, which helps minimize the potential for sediments, chemicals and other pollutants to enter adjacent streams. This helps maintain water quality not only in adjacent streams, but in downstream areas as well. Limiting conflicting uses that would remove vegetation in these resource sites helps protect water quality throughout the community. This is an important social benefit, in that poor water quality can have serious effects on public health, where people consume fish from polluted waters or come in contact with (swimming, boating) polluted water.

4.3.2D All sites: As stream corridors and wetlands provide storage and infiltration of stormwater runoff, limiting impervious surfaces in these areas will help maintain these functions, with positive social consequences. As the area of impervious surfaces is increased, stormwater moves much more quickly through the landscape, and the magnitude and frequency of peak storm flows are increased. Increased peak flows are more likely to cause erosion and downstream flooding. This can result in increased hazards to the public, due to downstream flooding, landslides, and property/infrastructure damage, and increased costs to maintain public health and safety.

Negative consequences

4.3.2E All sites: Limiting conflicting uses within the impact area of these stream corridors and wetlands could result in minor negative social impacts by potentially decreasing the number of housing units that would otherwise be allowed within a stream corridor or wetland. This could slightly reduce the supply of housing in the community or slightly increase the cost of housing units. The degree to which this would affect housing supply and costs would depend on a number of factors, such as the design and location of a particular development, whether the same number of units are accommodated elsewhere on a development site through clustering, whether the housing is designed for special markets, such as affordable housing, and the current supply

and cost of housing in various price ranges in the community. If limiting conflicting uses results in fewer housing units and/or higher costs, this would have a negative social impact.

Conclusion

4.3.2F All sites: Limiting conflicting uses within sites with *relatively low habitat quality* will have minor social consequences. These sites have fewer ecological functions or poorer-quality habitat, which means they provide fewer of the social benefits described above, such as open space, passive recreation, and educational opportunities. Therefore, the positive consequences of protecting these sites are about equal to the negative consequences of protecting them. For *higher-quality sites*, the positive social consequences of limiting conflicting uses will be much greater, and will outweigh the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.3 Environmental Consequences of Limiting Conflicting Uses

Positive consequences

4.3.3A All sites: Streams and wetlands provide a number of ecological functions (many of which are described further in Section 4.1, Key Resource Characteristics). As discussed in Section 3, Conflicting Uses, most of the conflicting uses that could occur within the impact area of these Goal 5 sites would remove or diminish these ecological functions. Moderately limiting conflicting uses would maintain many of these ecological functions; greatly limiting uses would preserve most of these functions. Both would result in a number of positive environmental consequences. Those positive consequences include the following:

Limiting conflicting uses would maintain the vegetation that protects stream banks and adjacent soils, reducing the potential for erosion. Erosion of soils along stream banks and adjacent lands that drain to streams is a direct cause of water quality damage, and leads to, among other things, excessive sediments and chemical compounds entering the stream, increased turbidity of the water, impairment of respiration and growth of aquatic plants and animals, and degradation of gravel substrates used for salmon spawning.

Limiting conflicting uses would maintain the role of riparian vegetation in shading streams corridors, which helps maintain normal water temperatures. An increase in water temperature can cause severe water quality damage, particularly during low flow, warm weather periods, as it leads to depletion of available oxygen for aquatic life in the waterway. Lack of available oxygen not only interferes with the normal biological processes of aquatic life, it can be lethal to many organisms, including fish.

Limiting conflicting uses would minimize the creation of impervious surfaces and compacted soils. An increase in impervious surfaces (such as buildings, sidewalks, patios, etc) and compacted soils adjacent to stream corridors and wetlands can have multiple detrimental effects on water quality. These vegetated areas have a natural infiltration and storage capacity that helps maintain adequate summer flows, which helps moderate summer water temperatures and oxygen levels (especially important for aquatic species in smaller waterways). These functions are lost when streams and wetlands are replaced with impervious surfaces. In addition, the loss of these areas increases the rate and magnitude of stormwater runoff from adjacent lands. This

contributes to scouring of stream banks, erosion, and heavy sediment loads in the water. Effects similar to this occur when soils are scraped and compacted during the development process. Heavy machinery traffic moving over native soil during construction, and the removal and grading of looser soil layers, leads to compaction of soils and collapses soil structure, which impairs infiltration of rainfall.

Limiting uses to areas further away from a stream or wetland helps protect water quality from various chemicals commonly used by homeowners and renters in managing their homes and yards. Commonly-used substances that can damage water quality include insecticides, herbicides, rodenticides, fungicides, fertilizers, paints, cleaners, and fluids or other products associated with cars (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.) These chemicals are carried by rainfall into local waterways and can have both direct and indirect, lethal and non-lethal, but debilitating effects on plants, animals, insects, birds, and amphibians, and on fish in downstream receiving waters. Keeping these commonly-used products further from waterways will reduce the potential for their entering adjacent waterways.

Limiting conflicting uses would benefit wildlife by conserving areas of native vegetation that provide essential habitat functions, including: (a) food sources, nesting, perching and roosting places for birds and insects, (b) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (c) a food source, shade and cover for aquatic insects, which are in turn a food source for fish and wildlife.

Limiting conflicting uses would benefit wildlife by minimizing intervening development that separates contiguous habitat areas from one another, thus maintaining the value and attractiveness of these areas to wildlife. Contiguous habitat areas facilitate wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover, where all of these essential functions may not be available in isolated habitat areas. This connectivity is particularly important for certain wildlife species that require larger, connected areas of habitat.

Limiting conflicting uses would benefit wildlife by minimizing human activities associated with residential and commercial uses that can have a number of negative impacts on wildlife, such as the introduction of bright lights, loud noises, constant movement, and similar activities. Such activities can interfere with communication, mating, hunting and competition among some wildlife species.

Limiting conflicting uses minimizes the areas open to disturbance from vehicles and machinery during construction. This helps prevent compression and damage to the roots of adjacent riparian plants, and compaction of soils. It also reduces the exposure of soil to exotic plant seeds and, therefore, the likelihood of invasion of non-native plants in adjacent undeveloped areas.

4.3.3B All sites: The extent to which limiting conflicting uses results in positive environmental consequences depends on the quality and vulnerability of the resource site. For resource sites where habitat value has been greatly diminished or altered, and that provide fewer ecological benefits, limiting conflicting uses may result in relatively minor positive environmental consequences. Limiting conflicting uses within the impact area of sites with relatively *high quality* habitat will result in greater environmental benefits to the property and to the community as a whole. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.3C Sites within Parks: Within publicly accessible parks, public access and use is a primary purpose. Where there are significant Goal 5 natural resources within these parks, public access and resource protection can be conflicting goals. In order to minimize habitat damage from public access, in some situations facilities must be constructed within a resource or impact area, in order to control where people can go, and deter them from entering more sensitive areas. In such instances, limiting conflicting uses can allow some of these facilities that control public access while preserving the integrity of the resource. In such cases, limiting conflicting uses can have a more positive environmental consequence than prohibiting conflicting uses, by allowing facilities that manage access to the resource. Without such facilities, people will often damage a resource through their desire to see it more closely.

Negative consequences

4.3.3D All sites: Limiting conflicting uses within the impact area of these stream corridors and wetlands would have negative environmental consequences because, while some uses would be restricted or prohibited, other uses would be allowed. The degree to which this impacts the resource site depends on the quality of the resource, and to what degree uses are restricted. Limiting most uses or greatly restricting them will protect more of the resource, with fewer negative environmental consequences. Placing minimal limits on conflicting uses will result in greater negative environmental consequences.

Conclusion

4.3.3E All sites: Protecting a resource site through limiting conflicting uses results in primarily positive environmental consequences. For *higher quality sites*, the positive environmental consequences would be significant. These sites provide multiple ecological functions, such as contiguous wildlife habitat, filtration and storage of stormwater runoff, and water quality protection, that would be maintained if uses are restricted. For sites with *relatively low habitat quality*, there are fewer ecological functions to maintain, so limiting conflicting uses results in fewer positive consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.4 Energy Consequences of Limiting Conflicting Uses

Positive consequences:

4.3.4A All sites: Limiting conflicting uses within the impact area of these Goal 5 sites could have minor positive consequences for energy consumption. These areas of vegetation shade the surface of the ground, reducing heat absorption and radiation, and reducing energy costs. Limiting conflicting uses such as limiting the level of vegetation removal, or restricting where impervious surfaces can occur, would maintain these energy-conserving functions.

Negative consequences:

4.3.4B All sites: Limiting conflicting uses within some or most of the impact area of these Goal 5 sites would have minor negative consequences for energy consumption. However, if conflicting uses are only slightly limited, such that vegetation removal may occur in most of the impact area, the energy-moderation effects of vegetation would be reduced, resulting in increased energy costs, and slightly greater negative energy consequences.

Conclusion:

4.3.4C All sites: Generally, the positive energy consequences of limiting conflicting uses within the impact area of resource sites are slightly greater than the negative energy consequences of limiting conflicting uses. To the extent that uses are more limited, the energy consequences become more positive; to the extent that uses are less limited, the energy consequences become more negative.

4.3.5 Summary ESEE consequences of limiting conflicting uses

4.3.5A All sites: Limiting conflicting uses (as opposed to prohibiting conflicting uses) would allow more flexibility for development near protected resource sites, and would allow for some uses that support adjacent development to occur within otherwise protected areas. For this reason, economic consequences are more positive for limiting conflicting uses, than for prohibiting conflicting uses. The type and magnitude of the consequences of limiting conflicting uses can vary depending on the quality and vulnerability of the resource. For several sites in the adopted Inventory, where ecological functions and *habitat value are greatly diminished* by human activity, the combined positive consequences of protecting the site by limiting uses are not great enough to outweigh the negative consequences. These sites provide fewer ecological functions than higher quality sites, which means they provide fewer economic, social and energy benefits to an individual property and the community as a whole. For these sites, conflicting uses are of greater importance than the resource. Limiting conflicting uses would provide relatively few positive consequences; yet prohibiting conflicting uses would have too many negative economic consequences. *Higher-quality* sites, however, provide multiple ecological functions with economic, social and energy value. For the community as a whole, the positive consequences of protecting these higher quality sites outweigh the negative. For these reasons, the combined positive economic, social, environmental and energy consequences of protecting higher quality sites by limiting most conflicting uses largely outweigh the combined negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above. Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

4.4 Prohibiting Conflicting Uses - ESEE Consequences

4.4.1 Economic Consequences of Prohibiting Conflicting Uses

Positive consequences

4.4.1A All sites: Some positive economic consequences would result from the conservation of aesthetic, open space and recreational features associated with resource sites. These features can attract new residents, employees, businesses, and potential customers to the area. In residential areas, the presence of natural resource features often increases the attractiveness of a neighborhood and adjacent property values. For commercial, office and some industrial uses, the amenity value of a nearby natural resource site can increase visibility and patronage by customers, and access to aesthetic and recreational amenities can attract employees and tenants. Uses that are not located adjacent to a natural resource also share in the community-wide economic benefits provided by stream corridors and wetlands, which provide stormwater infiltration and conveyance, minimizing soil erosion, flooding, and property damage for all uses.

4.4.1B All sites: Natural resource sites have multiple ecological functions that also have economic value (see Table 4.2.1). Prohibiting conflicting uses will maintain the economic contribution of the resource to the immediate area and to the larger community

4.4.1C All sites: Positive economic consequences would result from minimizing or preventing conflicting uses that cause degradation of water quality in stream corridors, minimizing or avoiding the public and private costs of remediation of these impacts. Prohibiting conflicting uses that remove vegetation adjacent to streams and wetlands helps minimize erosion of stream banks, turbidity of the streams, and pollutants entering the stream, and helps lower public and private costs for maintaining clean water. Positive economic consequences also result from clean water and its contribution to the health of downstream fisheries (e.g. salmon), recreation/tourism activities that rely on high water quality, and lower costs from public health impacts from swimming and other water contact recreation.

4.4.1D All sites: Prohibiting impervious surfaces within the impact area of stream corridors and wetlands helps maintain the stormwater storage and conveyance capacity of these areas, which reduces the potential for downstream erosion and flooding. This would result in positive economic consequences for private property owners and the public, including minimizing costs for flood insurance and stormwater conveyance facilities.

4.4.1E Sites with public facilities, institutional and parks uses: Institutional and public uses also may benefit from the aesthetic, recreational and open space amenities provided by natural resources. Ready access to natural areas and recreational facilities is often a factor in choosing an institution of higher learning or alternative school. The presence of these amenities can influence the selection of health care or long-term care facilities. Schools and churches may benefit from reduced costs for educational and interpretive programs when natural areas are located nearby, and do not involve transportation costs or entry fees. For parks and recreational uses, the presence of a stream corridor or wetland can increase the diversity of recreational opportunities, making the area more attractive to potential users, fee users, and concessionaires.

Negative consequences

4.4.1F All sites: Prohibiting conflicting uses would have negative economic consequences in some cases by limiting the floor area or number of residential units or other development within a given development site, or by providing less flexibility in the layout of a development. This would be especially true for small lots or narrow lots where the impact area would occupy a greater portion of the developable area of the site. This can result in increased per unit costs, and increased costs for access, utilities, and other infrastructure. For industrial and commercial areas, this may also impact the ability to accommodate heavy equipment movement and outdoor storage. Prohibiting uses such as roads, utilities and other public infrastructure could result in decreased or suppressed property values for areas not adequately served or in increased costs for alternative approaches. Prohibiting conflicting uses may also produce minor economic losses by preventing the removal and sale of trees along streams and wetlands. These economic consequences would affect the owners of development sites, and those involved in land development and construction. Prohibiting conflicting uses in the impact areas of these streams and wetlands would also have economic consequences for the larger community. Construction of fewer residential units or floor area would mean fewer employment opportunities within the local construction industry, and fewer units or commercial/industrial space available to potential residents and businesses. To the extent that a smaller number of residential units or floor area could be constructed, the tax base for the community would also decrease.

4.4.1G All sites: Prohibiting conflicting uses would have negative economic consequences by limiting access to some otherwise developable sites, and by eliminating the possibility of allowing low-impact uses that support primary uses outside the protected area. In addition, prohibiting all conflicting uses would preclude development flexibility on small sites, sites with unusual configurations or sites where other unforeseen circumstances caused by prohibiting conflicting uses within the impact area would limit or preclude development outside the impact area.

4.4.1H All sites: The negative economic consequences of prohibiting conflicting uses are somewhat limited due to the fact that portions of these Goal 5 sites are waterways and wetlands that are regulated by state and federal wetland agencies. Conflicting uses may already be restricted under state and federal programs, or costs may be added for additional studies, state and federal permit applications, or for wetland mitigation (e.g. replacement). Also, streams and wetlands often have other characteristics, such as steep slopes or unstable soils, that may constrain or add costs to development. These natural resource areas are also the areas that are most often dedicated in developments for public open space or stormwater uses.

4.4.1I All sites: Negative consequences of prohibiting conflicting uses are also limited by the fact that the impact areas of riparian corridors and upland stream sites are generally narrow and linear in nature. In most cases, the largest portion of a parcel or development site occurs *outside* of these narrow corridors. Most of the negative economic consequences discussed in this analysis are limited to these narrow areas, and *do not extend to lands and uses outside of the impact area* (i.e., do not affect the entire development site). Further, many of the affected uses that do occur within a resource site can often be designed and constructed in non-Goal 5 areas. As a result, the magnitude of negative economic consequences associated with prohibiting conflicting uses is small in proportion to the negative consequences of allowing uses

4.4.1J Sites with public facilities, institutional and parks uses: Public ownership of a resource site to some degree mitigates negative economic consequences of prohibiting

conflicting uses, because other goals, such environmental or social goals, are often of equal or higher importance to the public in determining how or if a site or use is developed.

Conclusion

4.4.1K All sites: For sites with *relatively low habitat quality*, the negative economic consequences of prohibiting conflicting uses outweigh the positive consequences. Lower quality sites perform fewer of the ecological functions that provide economic benefits. Therefore, there are fewer positive consequences of protecting these sites. For *higher-quality sites*, the positive economic consequences of prohibiting conflicting uses are greater, and are comparable to the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.4.2 Social Consequences of Prohibiting Conflicting Uses

Positive consequences

4.4.2A Sites with residential, commercial and institutional uses: Prohibiting conflicting uses would increase green open space and natural areas in and around residential and commercial neighborhoods. Visual access to green open spaces, and easy access to natural areas with trails have been shown to have a positive impact on the physical and mental well-being of residents and employees. Some of these positive impacts include: greater mutual support amongst neighbors, lower crime rates, reduced stress in children, and faster recovery of surgery patients. For low-income residents or less-mobile people, the only readily accessible areas that provide these kinds of benefits are often natural areas near their homes. Natural resource areas near schools and churches can also provide opportunities for nearby educational and interpretive programs that benefit school-age children. The protection of green natural areas would have long term, positive impacts on physical and mental health in neighborhoods where people live and work

4.4.2B All sites: One of the most important functions of riparian vegetation and wetland areas is water quality protection. Areas of vegetation help slow the rate of stormwater flow from adjacent land to receiving waters, and help filter out pollutants that would otherwise enter the stream system. Polluted water can have serious public health implications if people consume fish from polluted water or come in contact with polluted water. Prohibiting conflicting uses in these natural areas would minimize the removal of vegetation, would minimize pollutants entering streams, and would help protect water quality throughout the community. In this respect, prohibiting conflicting uses would result in positive social consequences by helping to protect public health.

4.4.2C All sites: Prohibiting conflicting uses in riparian and wetland areas will help maintain the stormwater storage and flood control functions of these areas. Where conflicting uses are allowed, development replaces vegetated areas with impervious surfaces, and stormwater moves much more quickly through the landscape. This can increase erosion and downstream flooding, landslides, and property damage. By minimizing impervious surface area, prohibiting conflicting uses within resource sites would have positive social consequences for public health and safety.

Negative consequences

4.4.2D All sites: Prohibiting conflicting uses within the impact area of these stream corridors and wetlands may result in minor negative social impacts if it reduces the number of housing units that would otherwise be allowed within a stream corridor or wetland, or if it increases the cost of housing. To what degree this would be a negative social consequence would depend on such factors as: the design of a particular housing development, the type of housing, and the current supply and cost of housing in various price ranges in the community.

Conclusion

4.4.2E All sites: Sites with *relatively low habitat quality* provide fewer social benefits, such as open space, passive recreation, and educational opportunities. Therefore, there are fewer positive consequences of protecting these sites through prohibiting conflicting uses. For *higher-quality sites*, the positive social consequences of prohibiting conflicting uses will be much greater, and will outweigh the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.4.3 Environmental Consequences of Prohibiting Conflicting Uses

Positive consequences

4.4.3A All sites: Streams and wetlands provide a number of ecological functions (see also Section 4.1., Key Resource Characteristics). Most types of development and conflicting uses within the impact area of these Goal 5 sites remove or diminish these ecological functions (see Section 3, Conflicting Uses). Prohibiting conflicting uses would maintain most of a site's ecological functions, resulting in a number of positive environmental consequences, including the following:

Prohibiting conflicting uses would maintain the vegetation that protects stream banks and adjacent soils, reducing the potential for erosion. Erosion of soils along stream banks and adjacent lands that drain to streams is a direct cause of water quality damage, and leads to, among other things, excessive sediments and chemical compounds entering the stream, increased turbidity of the water, impairment of respiration and growth of aquatic plants and animals, and degradation of gravel substrates used for salmon spawning.

Prohibiting conflicting uses would maintain the role of riparian vegetation in shading streams corridors, which helps maintain normal water temperatures. An increase in water temperature can cause severe water quality damage, particularly during low flow, warm weather periods, as it leads to depletion of available oxygen for aquatic life in the waterway. Lack of available oxygen not only interferes with the normal biological processes of aquatic life, it can be lethal to many organisms, including fish.

Prohibiting conflicting uses would minimize the creation of impervious surfaces and compacted soils. An increase in impervious surfaces (such as buildings, sidewalks, patios, etc) and compacted soils adjacent to stream corridors and wetlands can have multiple detrimental effects on water quality. These vegetated areas have a natural infiltration and storage capacity that helps maintain adequate summer flows, which helps moderate summer water temperatures and oxygen

levels (especially important for aquatic species in smaller waterways). These functions are lost when streams and wetlands are replaced with impervious surfaces. In addition, the loss of these areas increases the rate and magnitude of stormwater runoff from adjacent lands. This contributes to scouring of stream banks, erosion, and heavy sediment loads in the water. Effects similar to this occur when soils are scraped and compacted during the development process. Heavy machinery traffic moving over native soil during construction, and the removal and grading of looser soil layers, leads to compaction of soils and collapses soil structure, which impairs infiltration of rainfall.

Prohibiting uses near a stream or wetland helps protect water quality from various chemicals commonly used by homeowners and renters in managing their homes and yards. Commonly-used substances that can damage water quality include insecticides, herbicides, rodenticides, fungicides, fertilizers, paints, cleaners, and fluids or other products associated with cars (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.) These chemicals are carried by rainfall into local waterways and can have both direct and indirect, lethal and non-lethal, but debilitating effects on plants, animals, insects, birds, and amphibians, and on fish in downstream receiving waters. Keeping these commonly-used products further from waterways will reduce the potential for their entering adjacent waterways.

Prohibiting conflicting uses would benefit wildlife by conserving areas of native vegetation that provide essential habitat functions, including: (a) food sources, nesting, perching and roosting places for birds and insects, (b) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (c) a food source, shade and cover for aquatic insects, which are in turn a food source for fish and wildlife.

Prohibiting conflicting uses would benefit wildlife by minimizing intervening development that separates contiguous habitat areas from one another, thus maintaining the value and attractiveness of these areas to wildlife. Contiguous habitat areas facilitate wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover, where all of these essential functions may not be available in isolated habitat areas. This connectivity is particularly important for certain wildlife species that require larger, connected areas of habitat.

Prohibiting conflicting uses would benefit wildlife by minimizing human activities associated with residential and commercial uses that can have a number of negative impacts on wildlife, such as the introduction of bright lights, loud noises, constant movement, and similar activities. Such activities can interfere with communication, mating, hunting and competition among some wildlife species.

Prohibiting conflicting uses minimizes the areas open to disturbance from vehicles and machinery during construction. This helps prevent compression and damage to the roots of adjacent riparian plants, and compaction of soils. It also reduces the exposure of soil to exotic plant seeds and, therefore, the likelihood of invasion of non-native plants in adjacent undeveloped areas.

4.4.3B All sites: The magnitude of positive environmental consequences of prohibiting conflicting uses depends on the quality and vulnerability of the resource site. For *lower quality* resource sites, prohibiting conflicting uses would result in preserving fewer ecological functions and benefits, and in relatively minor positive environmental consequences. Prohibiting conflicting uses within the impact area of sites with *relatively high quality* habitat would result in greater environmental benefits to the property and to the community as a whole. For a

discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

Negative consequences

4.4.3FC All sites: Prohibiting conflicting uses within the impact area of these stream corridors and wetlands would rarely have any negative environmental consequences.

Conclusion

4.4.3D All sites: For sites with *relatively low habitat quality*, the environmental benefits of prohibiting conflicting uses are relatively minor. Lower quality sites provide fewer of the ecological functions and benefits described above. Therefore, there are fewer positive consequences of protecting these sites. For *higher-quality sites*, sites that provide valuable habitat and multiple ecological functions, the positive environmental consequences of prohibiting conflicting uses will be much greater. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.4.4 Energy Consequences of Prohibiting Conflicting Uses

Positive consequences:

4.4.4A All sites: Prohibiting conflicting uses within the impact area of these Goal 5 sites could have minor positive consequences for energy consumption. Areas of riparian and wetland vegetation shade the surface of the ground, reducing heat absorption and radiation, and reducing energy costs. Prohibiting conflicting uses, such as impervious surfaces, would maintain these energy-conserving functions.

Negative consequences:

4.4.4B All sites: Prohibiting conflicting uses within the impact area of streams and wetlands has negligible negative consequences for energy consumption.

Conclusion:

4.4.4C All sites: The positive energy consequences of prohibiting conflicting uses within the impact area of resource sites are slightly greater than the negative energy consequences of prohibiting conflicting uses.

4.4.5 Summary ESEE consequences of prohibiting conflicting uses

4.4.5A All sites: Based on the above analysis, prohibiting conflicting uses within the impact area would have negative economic consequences, particularly on small, irregular or narrow development sites. The positive consequences of protecting a *higher quality resource* site are greater than for lower quality resource sites, because these higher quality sites provide significant social, environmental and energy benefits. For these sites, the combined positive consequences of prohibiting conflicting uses are comparable to the combined negative

consequences. However, for sites with *lower-quality habitat value*, as indicated by certain key resource characteristics, there are fewer positive environmental and social consequences. As a result, the negative consequences of prohibiting conflicting uses for lower quality sites outweigh the positive. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above. Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

4.5 Summary of ESEE Consequences

In the ESEE analysis, the consequences of allowing, limiting, or prohibiting conflicting uses were evaluated. Consequences were evaluated in terms of the economic, social, environmental and energy functions provided by resource sites and land within their impact areas. Relative habitat quality among sites, based in part on key environmental characteristics, was considered. Consideration was also given to zoning districts and allowed uses in those zones as indicators of the potential consequences of allowing, limiting, or prohibiting conflicting uses within the impact area of resource sites.

Land within resource sites and their impact areas provide benefits to both property owners and the larger community. The consequences of prohibiting or limiting conflicting uses within the impact area of these resource sites are generally a reduction in the economic and social benefits provided by land uses (e.g. available housing units, development sites and jobs) that would otherwise occur within the impact area of the site. Public ownership of a resource site to some degree mitigates negative economic consequences, due to the precedence of broader or more long-germ environmental or social goals. The presence of other features, such as steep slopes, wetlands, or listed species may also limit economic consequences from Goal 5 regulations, as areas with these features are already constrained to some degree by field conditions or existing state or federal regulations. Likewise, natural resource sites provide multiple ecological functions and social benefits (e.g. fish habitat, health benefits, and recreational opportunities). The consequences of fully allowing conflicting uses, or slightly limiting uses, within the impact area of these resource sites will generally be a loss of the ecological and social functions provided to a given property and to the larger community. There are also negative economic consequences, as resource sites have functions with economic value (e.g. increased property values, flood control). Prohibiting uses or limiting most uses within the impact area will generally sustain the environmental benefits and social benefits (positive consequences) provided by the resource.

Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

5. Conclusions and Recommendations

5.1 Conclusions and Recommendations to Fully Allow, Prohibit, or Limit Uses

Applicable OAR sections

> *660-023-0040 (5) Develop a program to achieve Goal 5. Local governments shall determine whether to allow, limit, or prohibit identified conflicting uses for significant resource sites. This decision shall be based upon and supported by the ESEE analysis. A decision to prohibit or limit conflicting uses protects a resource site. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5, provided it is supported by the ESEE analysis. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:*
> *(a) A local government may decide that a significant resource site is of such importance compared to the conflicting uses, and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be prohibited.*
> *(b) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.*
> *(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.*

The Goal 5 sites discussed in this analysis have already been evaluated during the Goal 5 Inventory process, and determined to be "significant" natural resources. However, the resource value within these sites ranges from relatively pristine, high quality sites to more disturbed, lower-quality sites. The relative quality of the sites discussed in this analysis can be evaluated in part using "key resource characteristics." These are characteristics of riparian corridors, upland wildlife habitat sites and wetlands that indicate in part the presence, quality or susceptibility to degradation of some of the stream's ecological functions (see Section 4.1., Key Resource Characteristics). Sites with multiple ecological functions or high quality functions are determined to be higher value, more important resources. For example, sites that provide salmon habitat or are regionally significant drainages or wildlife corridors are considered the most important sites. Sites that are more fragmented, disturbed, and that have fewer key resource characteristics are relatively lower-value sites. The greater the value of the resource site, the more severe the potential adverse effects and consequences of allowing conflicting uses.

As discussed in the Conflicting Use Analysis (Section 3), and the ESEE Consequences Analysis (Section 4), fully allowing conflicting uses will typically diminish or eliminate resource values, resulting in primarily negative environmental and social consequences, but also positive economic consequences. Limiting conflicting uses within the impact area can sustain some or most of the environmental and social benefits provided by the resource, mainly resulting in positive environmental and social consequences and, for many sites, positive economic consequences. Prohibiting conflicting uses will typically preserve resource functions, with positive environmental consequences, but greater negative economic consequences. For *higher quality sites*, fully allowing conflicting uses within the impact area would be severely

detrimental to the resource. For these sites, the resource is of greater importance than the conflicting uses. Given the relative importance and quality of these resources, the negative ESEE consequences of fully allowing conflicting uses outweigh the positive consequences, and the positive ESEE consequences of limiting most conflicting uses outweigh the negative ESEE consequences. Therefore, it is recommended that *higher quality sites* be protected by limiting conflicting uses according to the protection levels specified in the supplemental analyses below, and as described in the draft regulations for conservation of Goal 5 resources. For more disturbed or isolated sites, the importance of the resource is much lower, and potential adverse effects from conflicting uses are less severe. For these *lower quality* sites, the negative economic consequences of protecting the site outweigh all other consequences. Although there are some adverse effects from allowing conflicting uses, with ecological values being fairly low, there are fewer benefits from protecting the site. As a result, conflicting uses in these sites are slightly or significantly more important than the resource. For these sites, the negative ESEE consequences of prohibiting or limiting conflicting uses outweigh the positive, and the positive ESEE consequences of fully allowing conflicting uses outweigh the negative consequences. Therefore, fully allowing conflicting uses is recommended for *lower quality* sites.

Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

5.2 Recommendations on Conservation Measures (Goal 5 Program)

Applicable OAR Sections

> *660-023-0010(6) "Program" or "program to achieve the goal" is a plan or course of proceedings and action either to prohibit, limit, or allow uses that conflict with significant Goal 5 resources, adopted as part of the comprehensive plan and land use regulations (e.g., zoning standards, easements, cluster developments, preferential assessments, or acquisition of land or development rights).*

The conservation mechanism proposed for the riparian corridors, upland wildlife habitat sites, and wetlands recommended for protection is the application of the land use regulations contained in the draft /WR Water Resources Conservation Overlay Zone. Under those proposed provisions, riparian corridors, upland wildlife habitat sites, and wetlands recommended for protection are classified as Category A, B, C, D, or E streams, or as Category A, B, or C wetlands. Each category specifies a conservation area that, for riparian and upland wildlife habitat sites includes the area within the resource site boundary, plus the area within a conservation setback measured from the top of bank of the stream. For wetland sites, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

Tables 7.5.2, 8.5.2, 9.5.2, 10.5.2, 11.5.2, 12.5.2, 13.5.2, 14.5.2, 15.5.2, 16.5.2, 17.5.2, 18.5.2, 19.5.2, 20.5.2, 21.5.2, 22.5.2, 23.5.2, and 24.5.2 summarize the ESEE consequences for each site, and list the recommended protection measures for each site.

6. Consistency with Statewide Goals and Acknowledged Plan Requirements

Applicable OAR Sections

660-023-0040(4) ... The ESEE analysis must consider any applicable statewide goal or acknowledg plan requirements, including the requirements of Goal 5.

For a discussion of, and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

7. Supplemental Analysis

A-1 Channel and Highway 99/Prairie Road Wetlands

Sites E60 (A-1 Channel); RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

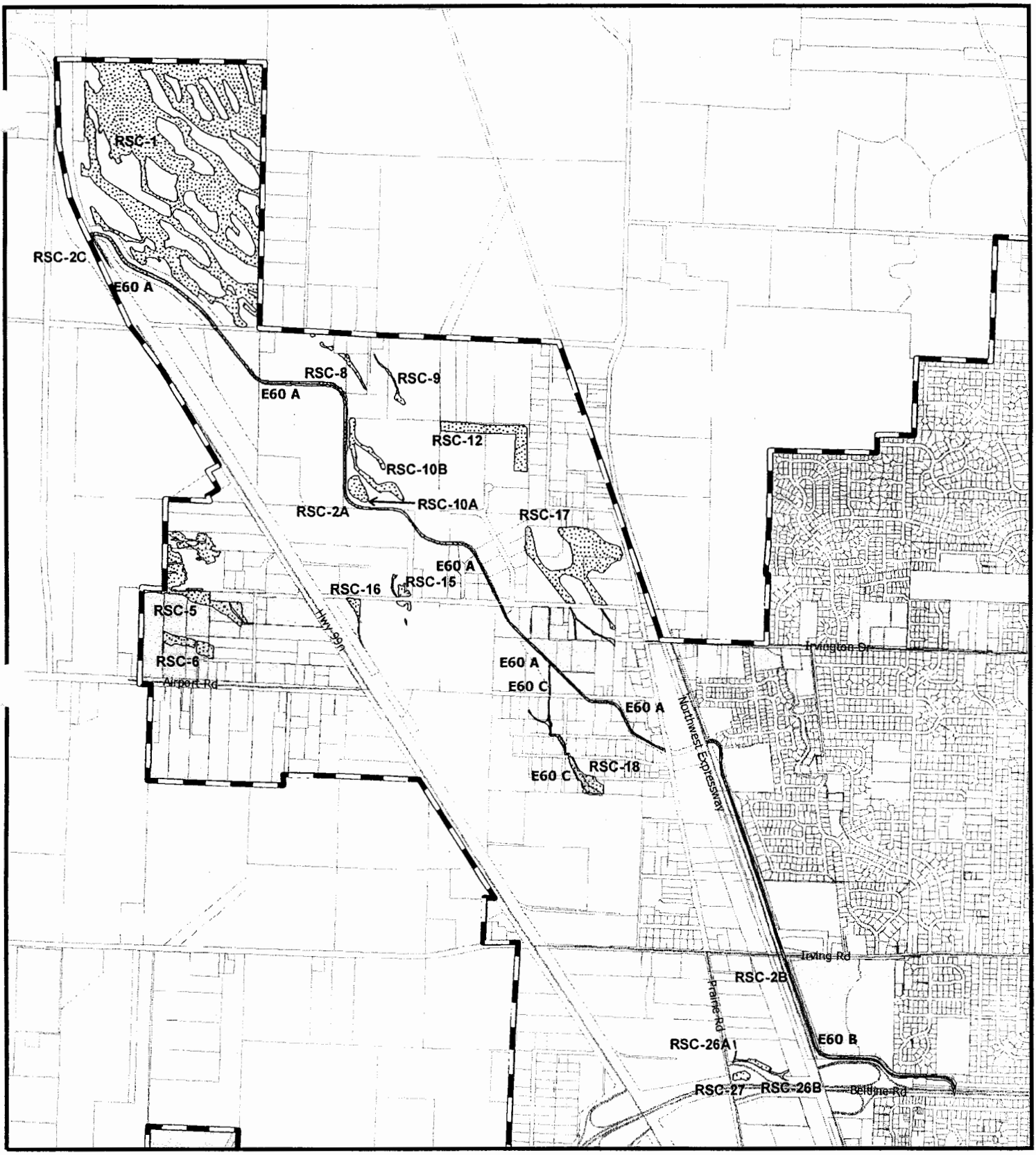
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 7.1 below lists the sites in this analysis group, their resource category and acreage. Map 7.A below shows the site(s) described in this analysis group.

Table 7.1 ESEE analysis group: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
E60 at Highway 99 industrial triangle; RSC-2A; E60 at NW Expressway; RSC-2B:				
E60 A	A-1 Channel at Highway 99	R	12.20	1/5
RSC-2A	A-1 Channel wetland at Highway 99	W	8.20	1/5
E60 B	A-1 Channel at NW Expressway	R	7.65	None
RSC-2B	A-1 Channel wetland at NW Expressway	W	3.32	None
E60 southwest (at Kelso/Carol/Cecil); RSC-:				
E60 C	A-1 Channel (southwest)	R	2.16	None
RSC-18	A-1 Channel wetland (southwest)	R	15.16	None
Hwy 99/Prairie Road wetlands:				
RSC-1	Prairie Rd/Hwy 99	W	111.44	None
RSC-5	Prairie Rd/Hwy 99	W	10.44	None
RSC-6	Prairie Rd/Hwy 99	W	2.57	None
RSC-8	Prairie Rd/Hwy 99	W	0.90	None
RSC-9	Prairie Rd/Hwy 99	W	0.57	None
RSC-10	Prairie Rd/Hwy 99	W	5.39	None
RSC-12	Prairie Rd/Hwy 99	W	6.10	None
RSC-15	Prairie Rd/Hwy 99	W	1.04	None
RSC-16	Prairie Rd/Hwy 99	W	0.84	None
RSC-17	Prairie Rd/Hwy 99	W	15.2	None
RSC-26	Prairie Rd/Hwy 99	W	0.94	None
RSC-27	Prairie Rd/Hwy 99	W	0.63	None

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Eugene Goal 5 ESEE Analysis Group 7

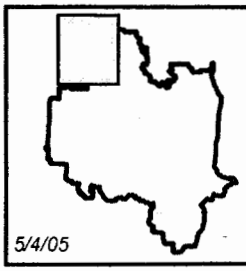
Significant Goal 5 Site Boundaries for A-1 Channel & Highway 99/Prairie Road Wetlands

Map 7A

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Locally Significant Wetland
Riparian Corridor
Upland Wildlife Habitat

N

Feet
0 490 980 1,470



5/4/05

7.1 Site Description(s)

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

These sites are part of the A-1 Channel habitat complex. The A-1 Channel (Site E60) is part of the Amazon Creek drainage system. It begins near the Beltline Highway and flows northwesterly along NW Expressway, across Prairie Road, and then through the Highway 99 industrial corridor and past the UGB limits at Awbrey Lane. This area is characterized by current or former agricultural lands with hydric soils, and a number of Locally Significant Wetlands occur in the area (Sites RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27). The majority of these wetlands occur in areas heavily disturbed by agricultural uses as well as urban land uses, and little of the native wetland plant communities remains. Consequently, habitat values in these wetlands are generally low. Wetlands also occur within the A-1 Channel itself.

(1) E60 at Highway 99 industrial triangle (north & west of Kelso St.); RSC-2A; and E60 at NW Expressway; RSC-2B:

The southern segment of the A-1 Channel (E60B) starts at the Beltline Highway, flows west along the Beltline, and then north along the Northwest Expressway for approximately 1 mile to Prairie Road. The northern portion of the corridor (E60A) continues through the "industrial triangle" to the city limits at Awbrey Lane. The stream as a whole has a low gradient (i.e., minimal elevation change from one end to the other) and is surrounded by relatively flat terrain characteristic of the valley floor. The original stream banks have been greatly altered by human activity, and channel banks are steep and engineered for flood conveyance. Water levels vary throughout the year, but water is often present throughout the year. There is little native riparian vegetation along much of this stream. There are pockets of native vegetation (primarily willow), but most areas lack both the overstory (tree) and herbaceous components of a healthy riparian plant community. Channel banks are typically dominated by invasive species such as reed canarygrass or Armenian blackberry. The segment of the A-1 Channel between Prairie Road and Kelso has been cleared of riparian vegetation. However, this segment provides an important connector between approximately 1 mile of riparian habitat to the south and approximately 2 miles of habitat to the north.

Despite the relatively lower quality of the riparian plant community, the site has relatively high natural resource value due to the presence of wetlands and its high connectivity value. Wetlands (RSC-2A, RSC-2B) occur within the A-1 Channel along the entire length of the site. Within the Eugene UGB, this stream corridor and wetlands within the corridor comprise a habitat complex over 3.5 miles long, which ultimately connects to extensive wildlife habitat areas along the Long Tom River. In addition, this system provides a link between nearly 5 miles of habitat in the Flat Creek system east of Northwest Expressway and the extensive Amazon Creek system to the west.

(2) E60 C southwest (at Kelso/Carol/Cecil); RSC-18:

This riparian corridor (E60C) is a small tributary to the A-1 Channel, in the vicinity of Kelso Street, Carol Avenue, and Cecil Avenue, and is approximately 2100 feet long. It has a much different character than the main stem of the A-1 Channel described above. Here the channel is much narrower, or consists of a wide drainage swale with no well-defined channel. Most of this segment has no native riparian vegetation, and is dominated by invasive reed canarygrass or mowed or grazed pasture. What little habitat remains is located in the wetland area south of Carol Avenue (RSC-18), which is a remnant of a former log pond. The wetland area is considered a Locally Significant Wetland in the state-adopted Eugene Local Wetland Inventory. Most of the wetland is located within the drainage channel, with a small area of willows and other wetland vegetation (approximately 1/3-acre) extending beyond the channel. While this wetland has some habitat value, most of it is located within channel, and so does not provide a significant additional area of habitat. Also, as this portion of the riparian corridor is highly disturbed, there is very little habitat remaining to link this wetland fragment to the rest of the A-1 Channel habitat complex. For these reasons, this southwest segment of E60 and RSC-18 has relatively lower habitat value than habitat along the main stem of the A-1 Channel.

(3) Highway 99/Prairie Road Wetlands RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC- 27:

The wetlands in this analysis group are not associated with any Goal 5 riparian or upland stream corridors (i.e., they are located entirely or almost entirely outside of stream channels). These wetlands occur within old agricultural fields, with minimal native wetland vegetation, except for site RSC-8, which has some areas with native sedge. However, site RSC-8 is isolated and relatively small (less than 1 acre). Based on these characteristics, the wetland sites in this group have relatively low habitat value. Wetland RSC-1 consists of approximately 111 acres of agricultural wetlands that are now part of the cottonwood plantation owned and operated by the Metro Wastewater treatment facility.

Most of the stream corridors and wetlands in this analysis group are located outside of Eugene city limits, within the UGB. Land uses and zoning within this analysis group are primarily industrial, with one or two pockets of low-density residential zoning. Along NW Expressway and the Beltline, approximately half of Site E60B and RSC-2B are zoned Residential, while portions outside of city limits are zoned Agricultural. Land uses here are primarily low-density residential. Site E60 at the Highway 99 industrial corridor and RSC-2A are primarily industrial. Sites E60C and RSC-18 at Kelso/Cleo/Carol/Cecil streets are zoned Residential, but contain both low-density residential and industrial uses. All of the wetland sites not associated with a riparian corridor (i.e. do not significantly overlap a riparian site) (RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27) are zoned Industrial. Within this analysis group there are a few parcels with public facilities uses (e.g. EWEB substation, wastewater treatment plant property) and institutions (e.g. Eagles Lodge).

7.2 Impact Area

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 7.2 below lists the impact areas assigned to these Goal 5 sites.

Table 7.2 Impact Area Summary: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
E60 at Highway 99 industrial triangle & E60 at NW Expressway:			
E60 A	A-1 Channel (Highway 99)		Type D - 25' + mapped riparian vegetation
RSC-2A	A-1 Channel wetland		Type D - 25'
E60 B	A-1 Channel (NW Expressway)		Type D - 25' + mapped riparian vegetation
RSC-2B	A-1 Channel wetland		Type D - 25'
E60 southwest (at Kelso/Carol/Cecil):			
E60 C	A-1 Channel (southwest)		Type D - 25' + mapped riparian vegetation
RSC-18	A-1 Channel wetland		Type D - 25'
Hwy 99/Prairie Road Wetlands:			
RSC-1	Prairie Rd/Hwy 99		Type D - 25'
RSC-5	Prairie Rd/Hwy 99		Type D - 25'
RSC-6	Prairie Rd/Hwy 99		Type D - 25'
RSC-8	Prairie Rd/Hwy 99		Type D - 25'
RSC-9	Prairie Rd/Hwy 99		Type D - 25'
RSC-10	Prairie Rd/Hwy 99		Type D - 25'
RSC-12	Prairie Rd/Hwy 99		Type D - 25'
RSC-15	Prairie Rd/Hwy 99		Type D - 25'
RSC-16	Prairie Rd/Hwy 99		Type D - 25'
RSC-17	Prairie Rd/Hwy 99		Type D - 25'
RSC-26	Prairie Rd/Hwy 99		Type D - 25'
RSC-27	Prairie Rd/Hwy 99		Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

7.3 Conflicting uses

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Industrial (I) with some Low Density Residential (LDR). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential and Agricultural uses are determined to be conflicting uses for riparian corridors and wetlands. Table 7.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 7.3 Zoning within Impact Areas: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
E60 at Highway 99 industrial triangle & E60 at NW Expressway:				
E60 A	A-1 Channel (Highway 99)	I	LDR	Private, public
RSC-2A	A-1 Channel wetland	I	LDR	Private, public
E60 B	A-1 Channel (NW Expressway)	LDR	AG	Public, private
RSC-2B	A-1 Channel wetland	LDR	AG	Public, private
E60 southwest (at Kelso/Carol/Cecil):				
E60 C	A-1 Channel (southwest)	I/LDR	---	Private
RSC-18	A-1 Channel wetland	I/LDR	---	Private
Hwy 99/Prairie Road Wetlands:				
RSC-1	Prairie Rd/Hwy 99	I	---	Public
RSC-5	Prairie Rd/Hwy 99	I	---	Private
RSC-6	Prairie Rd/Hwy 99	I	---	Private
RSC-8	Prairie Rd/Hwy 99	I	---	Private
RSC-9	Prairie Rd/Hwy 99	I	---	Private
RSC-10	Prairie Rd/Hwy 99	I	---	Private
RSC-12	Prairie Rd/Hwy 99	I	---	Private
RSC-15	Prairie Rd/Hwy 99	I	---	Private
RSC-16	Prairie Rd/Hwy 99	I	---	Private
RSC-17	Prairie Rd/Hwy 99	I	---	Private, public
RSC-26	Prairie Rd/Hwy 99	I	---	Private
RSC-27	Prairie Rd/Hwy 99	I	---	Public (R.O.W)

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

7.4 ESEE Consequences Analysis

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 7.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

7.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 7.4.1 below. Some of these characteristics are further discussed below and in Section 7.1, Site Descriptions.

Table 7.4.1 Key resource characteristics: A-1 Channel and Highway 99/Prairie Road Wetlands (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E60 at Highway 99 industrial triangle & E60 at NW Expressway:												
E60 A	A-1 Channel (Highway 99)	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
RSC-2A	A-1 Channel wetland	NO	NO	HI	LO-MED	YES	SOME	DEGR	DEGR	INTACT	NO	NO
E60 B	A-1 Channel (NW Expressway)	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
RSC-2B	A-1 Channel wetland	NO	NO	HI	LO-MED	YES	SOME	DEGR	DEGR	INTACT	NO	NO
E60 southwest (at Kelso/Carol/Cecil):												
E60 C	A-1 Channel (southwest)	NO	NO	LO	LO	YES	---	---	---	---	NO	NO
RSC-18	A-1 Channel wetland	NO	NO	LO	MED	YES	SOME	DEGR	INTACT	DEGR	NO	NO
Hwy 99/Prairie Road Wetlands:												
RSC-1	Prairie Rd/Hwy 99	NO	NO	MED	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
RSC-5	Prairie Rd/Hwy 99	NO	NO	LO	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
RSC-6	Prairie Rd/Hwy 99	NO	NO	LO	MED	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-8	Prairie Rd/Hwy 99	NO	NO	LO	MED	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-9	Prairie Rd/Hwy 99	NO	NO	LO	LO	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-10	Prairie Rd/Hwy 99	NO	NO	MED	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
RSC-12	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	INTACT	NO	NO
RSC-15	Prairie Rd/Hwy 99	NO	NO	LO	LO	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-16	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-17	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
RSC-26	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	INTACT	NO	NO
RSC-27	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	DEGR	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

7.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 7.4.2 below list the paragraph number of applicable ESEE consequences.

Table 7.4.2 Summary of ESEE Consequences: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E60 at Highway 99 Industrial triangle & E60 at NW Expressway:				
	FULLY ALLOWING CONFLICTING USES			
E60A A-1 Channel at Hwy 99 E60B A-1 Channel at NWExp RSC-2A A-1 Channel wetland RSC-2B A-1 Channel wetland	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
Note: References to higher quality sites apply.	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E60 southwest (at Kelso/Carol/Cecil):				
	FULLY ALLOWING CONFLICTING USES			
E60C A-1 Channel southwest RSC-18 A-1 Channel wetland	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
Highway 99/Prairie Road Wetlands:				
	FULLY ALLOWING CONFLICTING USES			
RSC-1 RSC-5 RSC-6 RSC-8, RSC-9 RSC-10 RSC-12 RSC-15 RSC-16 RSC-17 RSC-26 RSC-27	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

7.5 ESEE Conclusions and Recommendations

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

7.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) E60 at Highway 99 industrial triangle (north & west of Kelso St.); RSC-2A; E60 at NW Expressway; RSC 2B:

Limiting conflicting uses recommended. As indicated by key resource characteristics, Site E60A at Highway 99 industrial triangle, E60B at NW Expressway, and their associated wetlands, Sites RSC-2A and RSC-2B, fall in the range of *medium- to higher-quality* sites. Although these sites generally have lower quality riparian plant communities and modified stream banks, the sites have high connectivity, making them valuable wildlife corridors. Based on these resource characteristics and on the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The regional significance of this group of sites as a habitat connecting corridor between the Flat Creek system and the Amazon Creek system, make the resource more important than the conflicting uses that would be allowed within this narrow corridor. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweigh the negative economic consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) E60 southwest (at Kelso/Carol/Cecil) and RSC-18:

Fully allowing conflicting uses recommended. Sites E60 southwest (E60C) (at Kelso/Carol/Cecil) and its associated wetland, RSC-18, are *lower-quality sites*, where riparian vegetation is sparse or non-existent, and relatively little habitat value is present. This corridor is primarily a drainage swale with no well-defined channel in most areas. Based on these key resource characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively *lower quality* sites,

conflicting uses are more important than the resource values. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(3) Highway 99/Prairie Road Wetlands RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27:

Fully allowing conflicting uses recommended. Other wetlands in the Highway 99/Prairie Road area (RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27) are not connected stream corridors, but are either agriculturally disturbed wetlands or small, isolated wetlands. As such, they provide few habitat functions other than flood storage. As indicated by these resource characteristics, these are relatively *lower quality* sites that are not as important as the conflicting uses that would be allowed there. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively lower quality sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

7.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 7.5.2 below and Map 7.B summarize the recommendations for these sites.

(1) E60 at Highway 99 industrial triangle (north & west of Kelso St.); RSC-2A; E60 at NW Expressway; RSC-2B:

Conservation setback of 20/25 feet recommended. As discussed above, these portions of the A-1 Channel and their associated wetlands (E60A, E60B, RSC-2A, RSC-2B) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. These recommendations are based on the ESEE analysis above and these factors: (1) these are *medium- to higher-quality* sites, (2) the sites have high connectivity value, making them important wildlife corridors. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(2) E60 southwest (at Kelso/Carol/Cecil); RSC-18:

No protection measures are recommended for these sites (E60C, RSC-18), as discussed in the analysis above.

(3) Highway 99/Prairie Road Wetlands RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27:

No protection measures are recommended for these sites, as discussed in the analysis above.

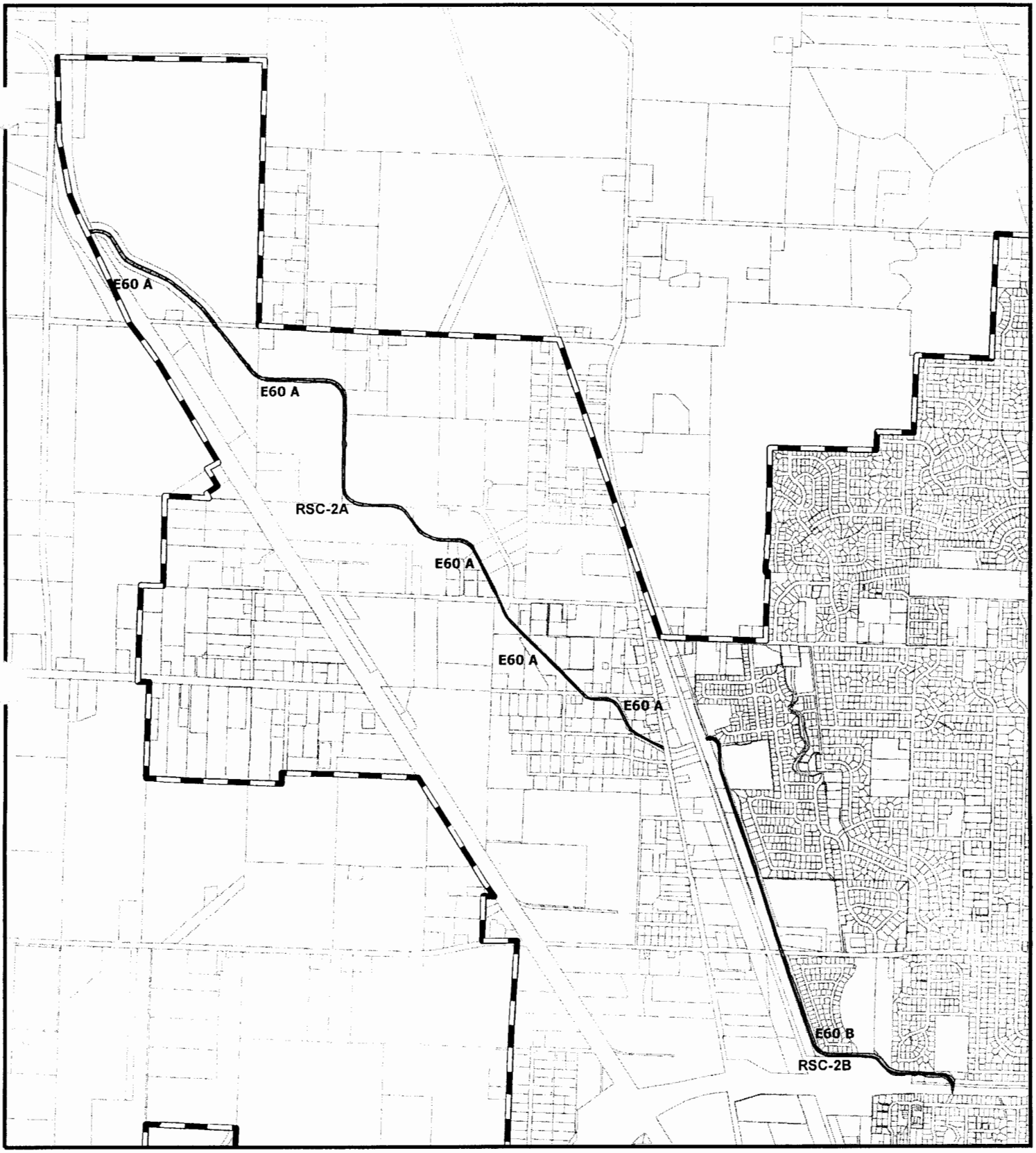
Table 7.5.2 Recommendations summary: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	City Limits***
E60 at Highway 99 industrial triangle & E60 at NW Expressway:						
E60A	A-1 Channel (Highway 99)	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private, public	1/5
RSC-2A	A-1 Channel wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private, public	1/5
E60B	A-1 Channel (NW Expressway)	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public, private	None
RSC-2B	A-1 Channel wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public, private	None
E60 southwest (at Kelso/Carol/Cecil):						
E60C	A-1 Channel (southwest)	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-18	A-1 Channel	Fully allow conflicting uses	n/a	n/a	Private	None
Highway 99/Prairie Road Wetlands:						
RSC-1	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Public	None
RSC-5	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-6	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-8	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-9	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-10	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-12	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-15	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-16	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-17	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private, public	None
RSC-26	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-27	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Public (R.O.W)	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Eugene Goal 5 ESEE Analysis Group 7
Goal 5 Protection Designations for A-1 Channel & Highway 99/Prairie Road Wetlands

Map 7B

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection

N

Feet
0 520 1,040 1,560

4/22/05

7.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

8. Supplemental Analysis

Bethel-Danebo Area Riparian Corridors (Taney Waterway, Empire Pond, DeSoto Lake, Highway 99/McDougal Pond, Beltline Channel); and Bethel-Danebo Wetlands

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

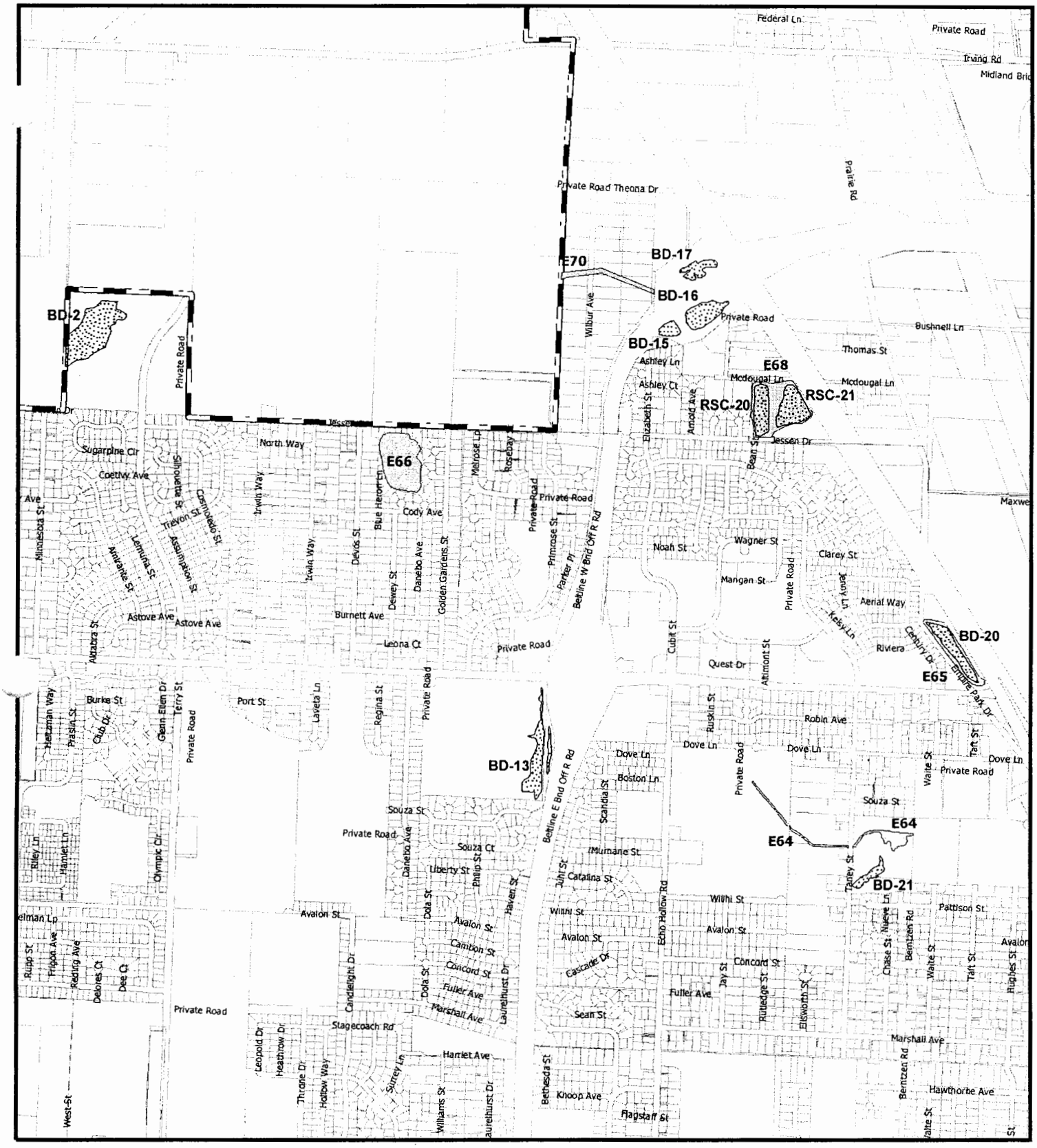
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 8.1 below lists the sites in this analysis group, their resource category and acreage. Map 8.A below shows the site(s) described in this analysis group.

Table 8.1 ESEE analysis group: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Site Acres	Inside City Limits**
Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):				
E64	Taney Waterway	R	1.69	All
BD-21	Taney Waterway wetland	W	0.73	All
E70	Beltline/A-2 Channel	R	1.24	None
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:				
E65	Empire Pond	R	3.13	All
BD-20	Empire Pond wetland	W	1.84	All
E66	DeSoto Lake/Mallard Lake	R	5.30	All
E68	Highway 99/McDougal Pond	R	6.68	None
RSC-20	Highway 99/McDougal Pond wetland	W	1.86	None
RSC-21	Highway 99/McDougal Pond wetland	W	2.38	None
BD-2; BD-13; BD-15; BD-16; BD-17 (Bethel-Danebo Wetlands):				
BD-2	Bethel-Danebo wetland at Terry	W	5.35	All
BD-13	Bethel-Danebo wetland at Beltline	W	2.66	All
BD-15	Bethel-Danebo wetland at Beltline	W	0.63	None
BD-16	Bethel-Danebo wetland at Beltline	W	1.97	None
BD-17	Bethel-Danebo wetland at Beltline	W	1.01	None

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 8

Map 8A

Significant Goal 5 Site Boundaries for Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 330 660 990

4/22/05

8.1 Site Description(s)

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

These sites are scattered throughout the Bethel Danebo area west of Highway 99. This area is characterized by former agricultural lands and hydric soils, and a number of Locally Significant Wetlands occur in the area.

(1) Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):

Two stream corridors in this analysis group (E64/Taney Waterway with adjacent wetland BD-21, and E70/Beltline/A-2 Channel), are remnants of channels that used to flow through undeveloped agricultural land. Over the years, major portions of these streams have been piped and filled to accommodate residential subdivisions or, in the case of E70, altered to facilitate to highway construction. As a result, these sites are disconnected from other habitat systems. Taney Waterway is a four-foot wide, steep-sided ditch surrounded by residential development, a school, and a church. Water quality within the waterway appears to be greatly influenced by maintenance of the adjacent school fields. There is little native riparian vegetation in the channel; vegetation consists primarily of the non-native, invasive species reed canarygrass. Site E70, located at the juncture of the Beltline Highway and Highway 99, is the only portion of the Beltline/A-2 Channel in the adopted Goal 5 Inventory. It is a short segment of the longer Beltline Floodway (the constructed drainage for the highway), which runs north along the Beltline Highway up to Highway 99, joins the A-2 Channel, and then flows west to the urban growth boundary. This segment contains virtually no riparian vegetation, and is essentially a grassy swale that accommodates seasonal flow.

(2) E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:

Two of the sites in the analysis group are ponds in old borrow pits (E66 and E68). Site E66 (known as DeSoto Lake, Mallard Lake, or Golden Gardens Pond) is located in northwest Eugene next to the UGB. A community of single family homes surrounds the pond, and it has recieved heavy recreational use (fishing and bicycling). With the exception of an occasional native willow or black cottonwood, the entire pond perimeter has been cleared of riparian vegetation. Despite the lack of riparian vegetation, the pond is heavily used by wintering waterfowl and some wading birds, particularly due to a small island within the pond that provides refuge from predators and humans. Site E68, McDougal Pond, is located next to Highway 99 near Beltline Road. It is owned by the Oregon Department of Fish and Wildlife and is used by neighbors as a neighborhood park. The site includes two ponds and the wooded area between them. The two ponds are also mapped as wetland sites RSC-20 and RSC-21. The riparian area here has high structural (trees/shrubs/groundcover layers) diversity and species diversity, and includes willow, black cottonwood, big-leaf maple, and Oregon ash. The open water and adjacent vegetation in this site provide valuable habitat for waterfowl, wading birds, heron (great blue, green) and songbird

species. The third pond in this group (E65 Empire Pond) is located next to Highway 99 at Barger Drive. The pond is also mapped as wetland BD-20. The site is surrounded by residential development on the west and Highway 99 on the east. There is a fringe of riparian vegetation, including primarily willow and a variety of non-native grass species. The pond provides a habitat for wintering waterfowl.

(3) BD-2, BD-13, BD-15, BD-16, BD-17 (Bethel-Danebo Wetlands):

These locally significant wetland sites are located in the Bethel-Danebo area in west Eugene between Highway 99 and Greenhill Road. Site BD-2 is a 5.3-acre forested wetland located west of Terry Street adjacent to the UGB, within a fully developed residential subdivision. Four wetlands are located along the Beltline Highway (BD-13, BD-15, BD-16 and BD-17). Sites BD-15, BD-16 and BD-17 were likely created by water impoundments associated with the construction of the highway ramps. BD-13 is located mostly on the Shasta Middle School grounds, and partly in Beltline Highway right-of-way. These wetlands are not associated with any Goal 5 stream corridors (i.e., they are located entirely or almost entirely outside of stream channels), and are isolated from other habitat areas. There use by wildlife is limited by, their isolation, surrounding land uses and their proximity to a major highway.

Land uses within these sites are primarily single family residential, with most other uses being public (schools), followed by public right-of-way. Taney Waterway, for example, runs through a school site zoned as Low Density Residential; Highway 99/McDougal Pond is located on a site zoned Public Land and owned by ODFW; Empire Pond is located on State Department of Transportation land zoned as Public Land.

8.2 Impact Area

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 8.2 below lists the impact areas assigned to these Goal 5 sites.

Table 8.2 Impact Area Summary: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):			
E64	Taney Waterway		Type D - 25' + mapped riparian vegetation
BD-21	Taney Waterway wetland		Type D - 25'
E70	Beltline/A-2 Channel		Type D - 25' + mapped riparian vegetation
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:			
E65	Empire Pond		Type D - 25' + mapped riparian vegetation
BD-20	Empire Pond wetland		Type D - 25'
E66	DeSoto Lake/Mallard Lake		Type D - 25' + mapped riparian vegetation
E68	Highway 99/McDougal Pond		Type D - 25' + mapped riparian vegetation
RSC-20	Highway 99/McDougal Pond wetland		Type D - 25'
RSC-21	Highway 99/McDougal Pond wetland		Type D - 25'
BD-2, BD-13, BD-15, BD-16, BD-17:			
BD-2	Bethel-Danebo wetland at Terry		Type D - 25'
BD-13	Bethel-Danebo wetland at Beltline		Type D - 25'
BD-15	Bethel-Danebo wetland at Beltline		Type D - 25'
BD-16	Bethel-Danebo wetland at Beltline		Type D - 25'
BD-17	Bethel-Danebo wetland at Beltline		Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

8.3 Conflicting uses

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Public Land (PL), with some Industrial (I) zoning (although land uses are primarily

residential, schools, and public right-of-way). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land and Industrial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 8.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 8.3 Zoning within Impact Areas: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel)				
E64	Taney Waterway	PL, LDR	—	Public, private
BD-21	Taney Waterway wetland	LDR	—	Private
E70	Beltline/A-2 Channel	LDR	—	Private, public (R.O.W.)
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21				
E65	Empire Pond	PL	—	Public
BD-20	Empire Pond wetland	PL	—	Public
E66	DeSoto Lake/Mallard Lake	LDR	—	Private
E68	Highway 99/McDougal Pond	PL	LDR	Public
RSC-20	Highway 99/McDougal Pond wetland	PL	LDR	Public
RSC-21	Highway 99/McDougal Pond wetland	PL	LDR	Public
BD-2, BD-13, BD-15, BD-16, BD-17				
BD-2	Bethel-Danebo wetland at Terry	LDR	—	Private, public
BD-13	Bethel-Danebo wetland at Beltline	PL	LDR	Public (R.O.W.)
BD-15	Bethel-Danebo wetland at Beltline	I	—	Public (R.O.W.)
BD-16	Bethel-Danebo wetland at Beltline	I	—	Public (R.O.W.)
BD-17	Bethel-Danebo wetland at Beltline	I	—	Public (R.O.W.)

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first

8.4 ESEE Consequences Analysis

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 8.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

8.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 8.4.1 below. Some of these characteristics are further discussed below and in Section 8.1, Site Descriptions.

Table 8.4.1 Key resource characteristics: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands
(See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):												
E64	Taney Waterway	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
BD-21	Taney Waterway wetland	NO	NO	LO	N/A	NO	SOME	N/A	DEGR	INTACT	NO	NO
E70	Beltline/A-2 Channel	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:												
E65	Empire Pond	NO	NO	LO	MED	YES	---	---	---	---	HI	NO
BD-20	Empire Pond wetland	NO	NO	LO	MED	YES	SOME	DEGR	DEGR	INTACT	HI	NO
E66	DeSoto Lake/Mallard Lake	NO	NO	LO	LO	NO	---	---	---	---	HI	NO
E68	Highway 99/McDougal Pond	NO	NO	LO	HI	YES	---	---	---	---	HI	NO
RSC-20	Highway 99/McDougal Pond wetland	NO	NO	LO	N/A	YES	SOME	DEGR	DEGR	INTACT	HI	NO
RSC-21	Highway 99/McDougal Pond wetland	NO	NO	LO	N/A	YES	SOME	DEGR	DEGR	INTACT	HI	NO
BD-2, BD-13, BD-15, BD-16, BD-17:												
BD-2	Bethel-Danebo wetland at Terry	NO	NO	LO	N/A	YES	SOME	NOT PRE-SENT	DEGR	INTACT	NO	NO
BD-13	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	INTACT	NO	NO
BD-15	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
BD-16	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
BD-17	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

8.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 8.4.2 below list the paragraph number of applicable ESEE consequences.

Table 8.4.2 Summary of ESEE Consequences: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):				
	FULLY ALLOWING CONFLICTING USES			
E64 Taney Waterway	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
BD-21 Taney Waterway wetland E70 Beltline/A-2 Channel	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21;				
E65 Empire Pond BD-20 Empire Pond wetland E66 DeSoto Lake/Mallard Lake E68 Highway 99/McDougal Pond RSC-20 Highway 99/McDougal Pond wetland RSC-21 Highway 99/McDougal Pond wetland *Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
BD-2; BD-13; BD-15; BD-16; BD-17;				
B-2 Bethel-Danebo wetland at Terry BD-13 Bethel-Danebo wetland at Beltline BD-15 Bethel-Danebo wetland at Beltline BD-16 Bethel-Danebo wetland at Beltline BD-17 Bethel-Danebo wetland at Beltline *Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

8.5 ESEE Conclusions and Recommendations

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

8.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in **Section 5**, Conclusions and Recommendations.

(1) Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):

Fully allowing conflicting uses recommended. Based on key resource characteristics, these two stream corridors and wetland are relatively *lower quality* sites. The sites have little or no riparian vegetation, and are relatively isolated from other habitats. Based on these characteristics, and the ESEE analysis discussed above, fully allowing conflicting uses is recommended for these sites. The importance of conflicting uses that would be allowed within the impact areas is greater than the resource value of these sites. For these sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(2) E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:

Limiting conflicting uses recommended. Based on key resource characteristics, these ponds and their associated wetlands are *medium- to higher-quality* sites. Empire Pond (E65) and McDougal Pond (E68) have relatively intact, high quality riparian plant communities. In addition, they provide open water habitat for waterfowl and shorebirds. Mallard Lake (E66), by comparison, has very little riparian vegetation, but provides valuable open water and island habitat. Based on these resource characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The resources in these sites are more important to the broader community than the conflicting uses that would be allowed within the impact area. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource.

Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) BD-2, BD-13, BD-15, BD-16, BD-17 (Bethel-Danebo Wetlands):

Fully allowing conflicting uses recommended. Based on key resource characteristics, these wetland sites are **lower-quality** sites, with relatively low value wetland functions, and relatively little habitat value. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these sites, the conflicting uses that would be allowed within the impact area are more important than the lower value resource. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

8.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 8.5.2 below and Map 8.B summarize the recommendations for these sites.

(1) Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):

No protection measures are recommended for these sites (E64, BD-21, E70), as discussed in the analysis above.

(2) E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:

Conservation setback of 20/25 feet recommended. As discussed above, these ponds and their associated wetlands (E65, BD-20, E66, E68, RSC-20, RSC-21) are *higher quality* sites and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. These recommendations are based on the ESEE analysis above and these factors: (1) the sites have relatively intact, high quality riparian plant communities, (2) they provide open water habitat for waterfowl and wading birds. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of

riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(3) BD-2, BD-13, BD-15, BD-16, BD-17 (Bethel-Danebo Wetlands):

No protection measures are recommended for these sites (BD-2, BD-13, BD-15, BD-16, BD-17), as discussed in the analysis above.

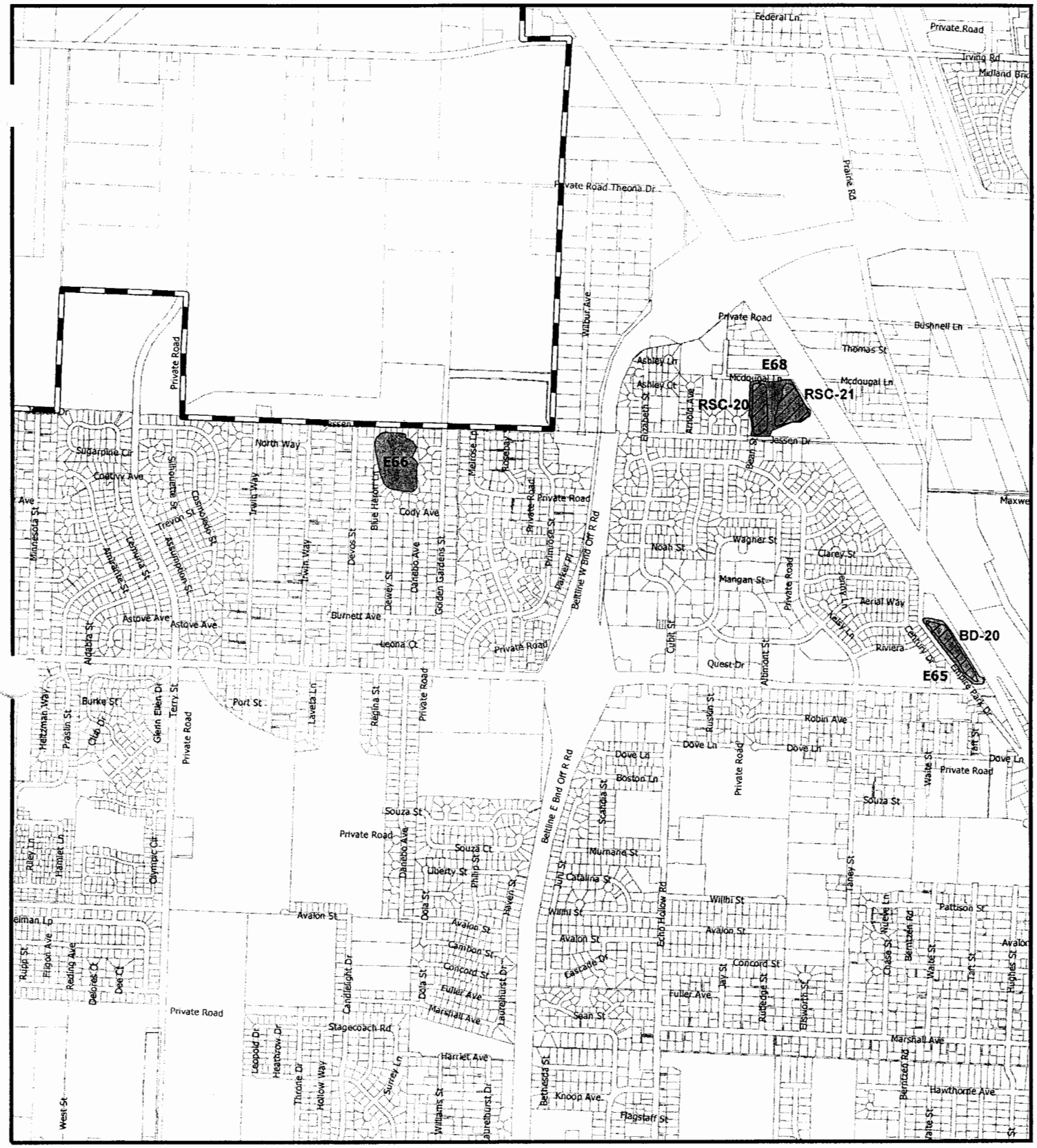
Table 8.5.2 Recommendations summary: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):						
E64	Taney Waterway	Fully allow conflicting uses	n/a	n/a	Public/private	All
BD-21	Taney Waterway wetland	Fully allow conflicting uses	n/a	n/a	Private	All
E70	Beltline/A-2 Channel	Fully allow conflicting uses	n/a	n/a	Private	None
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:						
E65	Empire Pond	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	All
BD-20	Empire Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
E66	DeSoto Lake/Mallard Lake	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private	All
E68	Highway 99/McDougal Pond	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	None
RSC-20	Highway 99/McDougal Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	None
RSC-21	Highway 99/McDougal Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	None
BD-2, BD-13, BD-15, BD-16, BD-17:						
BD-2	Bethel-Danebo wetland at Terry	Fully allow conflicting uses	n/a	n/a	Private/public	All
BD-13	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	All
BD-15	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	None
BD-16	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	None
BD-17	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 8

Goal 5 Protection Designations for Bethel-Danebo Area
Riparian Corridors and Bethel-Danebo Wetlands

Map 8B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 330 660 990 Feet

4/22/05

8.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

9. Supplemental Analysis

Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 Hawkins, and AMA-5 at Videra (West Eugene Upland Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

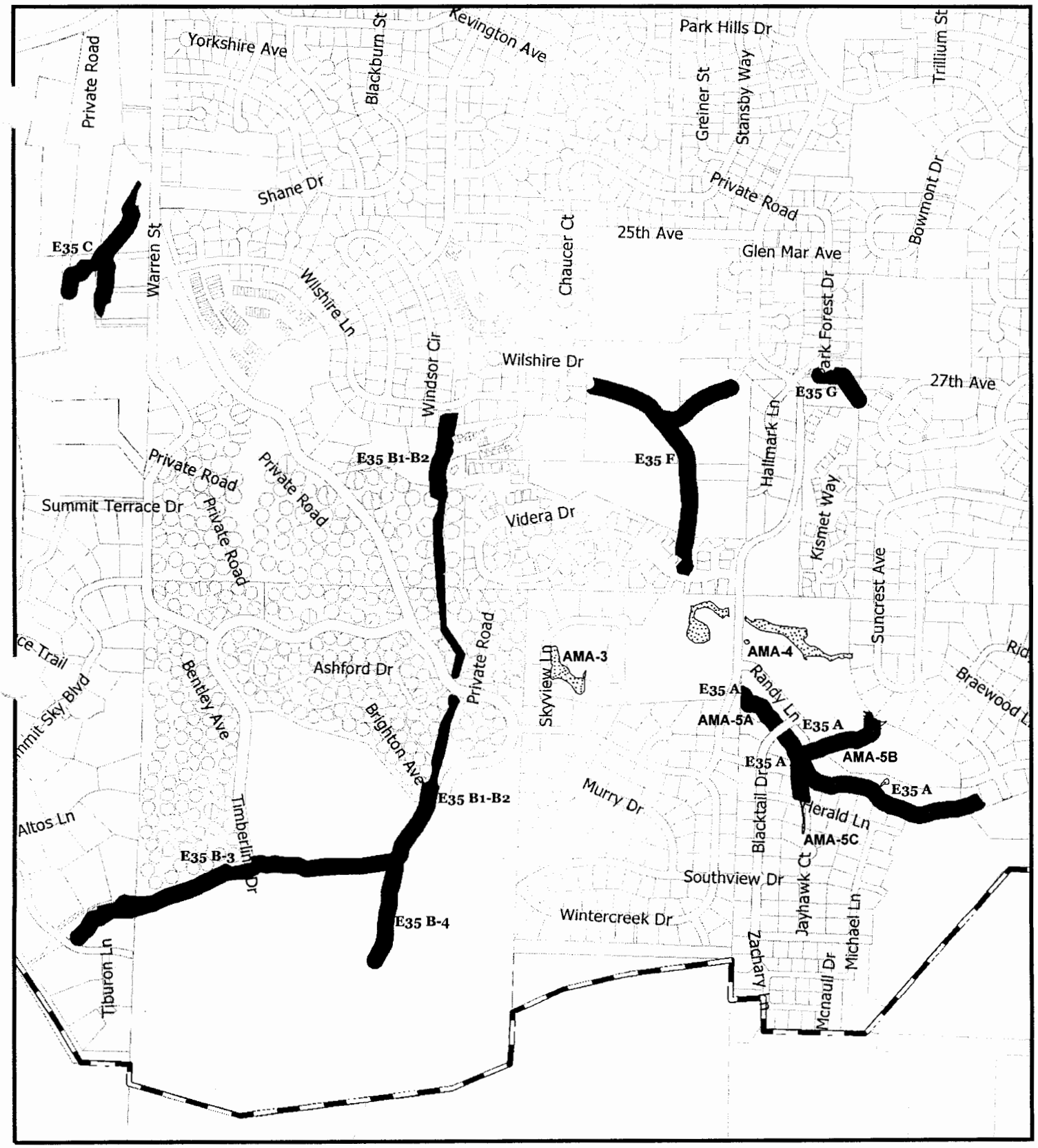
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 9.1 below lists the sites in this analysis group, their resource category and acreage. Map 9.A below shows the site(s) described in this analysis group.

Table 9.1 ESEE analysis group: Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Site/ Sub-Site #	Site Name		Resource Type*	Sub-Site Acres	Inside City Limits**
E35A at Videra Ck; AMA-5 at Videra Ck; E35F at Videra Ck; AMA-4 at Hawkins:					
E35 A	West Eugene Uplands at Videra Ck		U	5.61	All
AMA-5	West Eugene Uplands wetland at Videra Ck		W	0.16	All
E35 F	West Eugene Uplands at Videra Ck		U	4.38	All
AMA-5C	West Eugene Uplands wetland at Videra/Herald		W	0.04	All
AMA-4	West Eugene Uplands wetland at Hawkins		W	1.44	All
E35B at Timberline Ck north; Timberline Ck west; Timberline Ck southeast:					
E35 B-1, B-2	West Eugene Uplands at Timberline Ck north		U	4.41	All
E35 B-3	West Eugene Uplands at Timberline Ck west		U	4.87	All
E35 B-4	West Eugene Uplands at Timberline Ck southeast		U	1.50	All
E35C at Warren; E35G at Hawkins:					
E35 C	West Eugene Uplands at Warren		U	2.46	All
E35 G	West Eugene Uplands at Hawkins		U	0.84	All
AMA-3 at Skyview Park:					
AMA-3	West Eugene Uplands wetland at Skyview Park		W	0.53	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 9

Significant Goal 5 Site Boundaries for Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Map 9A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 225 450 675 Feet

4/25/05

9.1 Site Description(s)

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 at Hawkins, AMA-5 at Videra, and AMA-5C at Herald (West Eugene Upland Wetlands)

The sites in this analysis group comprise the Videra Creek and Timberline Creek stream systems in the Southwest Hills. Stream corridors this group are remnants of a mixed coniferous/deciduous forest that once covered more extensive areas of the Southwest Hills. They are located at some of the highest elevations within Eugene city limits, and are generally surrounded by steep topography characteristic of the Southwest Hills.

(1) Videra Creek:
Videra Creek (E35A); Videra wetland (AMA-5); Lower Videra Creek (E35F); Hawkins wetland (AMA-4):

Videra Creek and its associated wetlands (E35A, AMA-5, E35F) are dominated by riparian forest, including Oregon ash, black cottonwood, big leaf maple and, in wetland areas, willow. The structural diversity of the plant community is relatively high (i.e., multiple layers of trees/shrubs/groundcover present), and plant species diversity is relatively high, providing habitat for a variety of wildlife species. The sites have moderately high connectivity, in that they form connected habitat areas of significant length. Segments of Videra Creek (E35A, E35F) form a riparian system more than 3,300 feet long, connected via a piped segment approximately 1,000 feet in length. These stream corridors are moderately steep, that is, they have relatively steep stream gradients, and/or are surrounded by steep terrain. This makes these sites relatively vulnerable to potential erosion from adjacent development, and makes them important for protecting downstream water quality from sedimentation. Wetland site AMA-5, most of which is located within the Videra Creek channel, provides emergent wetland habitat and water quality functions to the riparian corridor. Wetland AMA-5C is a fragment of the wetland at Videra Creek that occurs in the drainage swale south of Herald Lane. It is disconnected from the creek, and provides minimal habitat value. North of Randy Lane, on both sides of Hawkins Lane, is a wetland site (AMA-4) on a slope, with lower habitat value.

(2) Timberline Creek:
Timberline Creek north (E35B-1, E35 B-2); Timberline Creek west (E35 B-3) Timberline Creek southeast (E35 B-4)

The Timberline Creek corridor (E35B-1, E35B-2, E35B-3) is also primarily a riparian forest, dominated by native species such as Oregon ash, black cottonwood, and big leaf maple. Portions of the corridor include riparian species, but have a higher proportion of upland species, such as Douglas-fir. The structural diversity of the plant community is relatively high, and plant species diversity is relatively high, providing for a variety of wildlife species. The site has moderately high connectivity. Timberline Creek forms a

connected stream corridor more than 5,000 feet in length. With the exception of the westernmost portion of Timberline Creek (E35B-3), most portions of these stream corridors are moderately steep, that is, have relatively steep stream gradients, and/or are surrounded by steep terrain. This makes these sites relatively vulnerable to potential erosion from adjacent development. No locally significant wetlands occur within the creek. The southernmost segment of Timberline Creek (E35B-4) provides relatively low habitat value in comparison to the rest of the creek. While, it may contribute somewhat to the hydrology of lower Timberline Creek, it does not have a defined channel, and contains very little riparian vegetation.

(3) E35C at Warren; E35G at Hawkins:

Another corridor within the vicinity is a small stream corridor at Warren Street (E35C at Warren Street). This corridor has a moderately high quality riparian plant community along part of its length, including mature cottonwood, ash and willow. However, it covers less than 1,200 linear feet and is isloated from other habitat areas, so the habitat value of this stream is relatively low. A small stream corridor located below Melvin Miller Park (E35G at Hawkins Lane), is a remnant of E35 that is now piped for most of its length, with approximately 300 feet of open channel. The lower portion of the site contains very little riparian vegetation.

(4) AMA-3 at Skyview Park:

AMA-3 within the publicly-owned Skyview Park has been disturbed by human activity, but provides water quality functions to downstream corridors, and is being managed by the City to protect and improve its wetland functions.

All of the sites within this analysis group are within land zoned primarily for low density residential development. The residential development adjacent to these sites varies from large acreage lots with single family homes, to more dense single family residential subdivisions. Much of the Timberline Creek site is located within the shared common area of the Somerset subdivision. The southwest end at The Summit development is owned by the City of Eugene. One wetland site (AMA-3) is located within a public park (that is zoned low density residential).

9.2 Impact Area

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 at Hawkins, AMA-5 at Videra, and AMA-5C at Herald (West Eugene Upland Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian and upland wildlife habitat sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 9.2 below lists the impact areas assigned to these Goal 5 sites.

Table 9.2 Impact Area Summary: Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Site/ Sub-Site #	Site Name	Impact Area*
E35A at Videra Ck; AMA-5 at Videra Ck; E35F at Videra Ck; AMA-4 at Hawkins:		
E35 A	West Eugene Uplands at Videra Ck	Type C - 50' + mapped riparian vegetation
AMA-5	West Eugene Uplands wetland at Videra Ck	Type D - 25'
E35 F	West Eugene Uplands at Videra Ck	Type C - 50' + mapped riparian vegetation
AMA-5C	West Eugene Uplands wetland at Videra/Herald	Type D - 25'
AMA-4	West Eugene Uplands wetland at Hawkins	Type D - 25'
E35B at Timberline Ck north; Timberline Ck west; Timberline Ck southeast:		
E35 B-1, B-2	West Eugene Uplands at Timberline Ck north	Type C - 50' + mapped riparian vegetation
E35 B-3	West Eugene Uplands at Timberline Ck west	Type C - 50' + mapped riparian vegetation
E35 B-4	West Eugene Uplands at Timberline Ck southeast	Type C - 50' + mapped riparian vegetation
E35C at Warren; E35G at Hawkins:		
E35 C	West Eugene Uplands at Warren	Type C - 50' + mapped riparian vegetation
E35 G	West Eugene Uplands at Hawkins	Type C - 50' + mapped riparian vegetation
AMA-3 at Skyview Park:		
AMA-3	West Eugene Uplands wetland at Skyview Park	Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

9.3 Conflicting Uses

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 at Hawkins, AMA-5 at Videra, and AMA-5C at Herald (West Eugene Upland Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR), and Agricultural (AG) (although land uses in AG are primarily residential). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential and Agricultural uses are determined to be conflicting uses for riparian corridors and wetlands. Table 9.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 9.3 Zoning within Impact Areas: Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
E35A at Videra Ck; AMA-5 at Videra Ck; E35F at Videra Ck; AMA-4 at Hawkins:				
E35 A	West Eugene Uplands at Videra Ck	LDR	---	public/private
AMA-5	West Eugene Uplands wetland at Videra Ck	LDR	---	public/private
E35 F	West Eugene Uplands at Videra Ck	LDR	---	private
AMA-5C	West Eugene Uplands wetland at Videra/Herald	LDR	---	private
AMA-4	West Eugene Uplands wetland at Hawkins	LDR	---	private
E35B at Timberline Ck north; Timberline Ck west; Timberline Ck southeast:				
E35 B-1, B-2	West Eugene Uplands atTimberline Ck north	LDR	---	public/private/ private common
E35 B-3	West Eugene Uplands atTimberline Ck west	LDR	---	public/private
E35 B-4	West Eugene Uplands at Timberline Ck southeast	LDR	---	private
E35C at Warren; E35G at Hawkins:				
E35 C	West Eugene Uplands at Warren	LDR	---	private
E35 G	West Eugene Uplands at Hawkins	LDR	---	private
AMA-3 at Skyview Park:				
AMA-3	West Eugene Uplands wetland at Skyview Park	LDR	---	public/private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first

9.4 ESEE Consequences Analysis

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 at Hawkins, AMA-5 at Videra, and AMA-5C at Herald (West Eugene Upland Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 9.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

9.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 9.4.1 below. Some of these characteristics are further discussed below and in Section 9.1, Site Descriptions.

Table 9.4.1 Key resource characteristics: Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
E35A at Videra Ck; AMA-5 at Videra Ck; E35F at Videra Ck; AMA-4 at Hawkins:							**WL HAB**	**Fish**	**WQ**	**Flood**		
E35 A	West Eugene Uplands at Videra Ck south	NO	NO	MED	MED	YES	---	---	---	---	NO	YES
AMA-5	West Eugene Uplands wetland at Videra	NO	NO	MED	MED	YES	DIV	N/A	DEGR	DEGR	NO	YES
E35 F	West Eugene Uplands at Videra Ck north	NO	NO	MED	MED-HI	YES	---	---	---	---	NO	YES
AMA-5C	West Eugene Uplands wetland at Videra/Herald	NO	NO	LO	N/A	YES	DIV	N/A	DEGR	DEGR	NO	YES
AMA-4	West Eugene Uplands wetland at Hawkins	NO	NO	LO	N/A	YES	DIV	N/A	DEGR	DEGR	NO	YES
E35B at Timberline Ck north; Timberline Ck west; at Timberline Ck southeast:												
E35 B-1, B-2	West Eugene Uplands at Timberline Ck north	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E35 B-3	West Eugene Uplands at Timberline Ck west	NO	NO	MED	LO-MED	NO	---	---	---	---	NO	YES
E35B-4	West Eugene Uplands at Timberline Ck southeast	NO	NO	MED	LO	NO	---	---	---	---	NO	YES
E35C at Warren; E35G at Hawkins:												
E35 C	West Eugene Uplands at Warren	NO	NO	LO	MED-HI	NO	---	---	---	---	NO	YES
E35 G	West Eugene Uplands at Hawkins	NO	NO	LO	LO	NO	---	---	---	---	NO	YES
AMA-3 at Skyview Park:												
AMA-3	West Eugene Uplands wetland at Skyview Park	NO	NO	MED	HI	YES	DIV	N/A	INTACT	INTACT	NO	YES

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

9.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 9.4.2 below list the paragraph number of applicable ESEE consequences.

Table 9.4.2 Summary of ESEE Consequences: Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E35A at Videra Ck; AMA-5 at Videra Ck; E35F at Videra Ck; AMA-4 at Hawkins:				
	FULLY ALLOWING CONFLICTING USES			
E35A West Eugene Uplands at Videra Ck*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
AMA-5 West Eugene Uplands wetland at Videra Ck*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E35F West Eugene Uplands at Videra Ck*	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
AMA-5C West Eugene Uplands wetland at Videra/Herald**	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
AMA-4 West Eugene Uplands wetland at Hawkins**	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
**Note: References to higher quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
***Note: References to lower quality sites apply.*				

E35B at Timberline Ck north; Timberline Ck west; Timberline Ck southeast:				
	FULLY ALLOWING CONFLICTING USES			
E35B-1, B-2 West Eugene Uplands at Timberline Ck north*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E35B-3 West Eugene Uplands at Timberline Ck west*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E35 B-4 West Eugene Uplands at Timberline Creek southeast**	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
**Note: References to higher quality sites apply.*	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
***Note: References to lower quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E35C at Warren; E35G at Hawkins:				
	FULLY ALLOWING CONFLICTING USES			
E35 C West Eugene Uplands at Warren**	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E35G West Eugene Uplands at Hawkins**	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
**Note: References to higher quality sites apply.*	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
***Note: References to lower quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

AMA-3 at Skyview Park:				
AMA-3 West Eugene Uplands wetland at Skyview Park*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
**Note: References to higher quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

9.5 ESEE Conclusions and Recommendations

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 at Hawkins, AMA-5 at Videra, and AMA-5C at Herald (West Eugene Upland Wetlands)

9.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

1) **Videra Creek:**

(a) Videra Creek (E35A); Lower Videra Creek (E35F);
(b) Videra wetland (AMA-5):
Limiting conflicting uses recommended. Based on key resource characteristics, these are *relatively higher quality* sites (E35A, E35F, AMA-5). Along most portions of these stream corridors, the riparian plant community is relatively intact, with a high component of native vegetation. Stream banks are generally not highly modified. The steep stream gradient and surrounding slopes also make these sites more susceptible to channel erosion and degradation, and therefore more valuable for protecting downstream water quality from sedimentation. In addition, these sites have medium- to-high connectivity, making them valuable wildlife corridors. Based on these key characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. While there are negative consequences to protecting these sites, the ecological functions that these sites contribute to the community are more important than the conflicting uses that would be allowed here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would

result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Videra/Herald wetland (AMA-5C);
(d) Hawkins wetland (AMA-4):
Fully allowing conflicting uses recommended. These sites (AMA-5C, AMA-4) are relatively *lower-quality* sites, because they are relatively isolated or fragmented, with low connectivity to other habitat areas, reducing their habitat value. Wetland AMA-5C is a very small, isolated wetland located in a drainage swale, separated from Videra Creek by a road. It provides few wetland values to the Videra Creek system. Wetland AMA-4 is a relatively isolated wetland, and exhibits low wetland functions and values. Based on these characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. While these sites have some habitat value, the importance of the resource is lower than the importance of conflicting uses that would be allowed here. For these relatively lower quality sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting conflicting uses.

(2) Timberline Creek:

(a) Timberline Creek north (E35 B-1, E35 B-2);
(b) Timberline Creek west (E35 B-3):
Limiting conflicting uses recommended. Based on key resource characteristics, these are *relatively higher quality* sites (E35B-1, E35B-2, E35B-3). Along most of Timberline Creek in these areas, the riparian plant community is relatively intact, with a high component of native vegetation. The steep stream gradient and surrounding slopes also make these sites more susceptible to channel erosion and degradation, and therefore more valuable for protecting downstream water quality from sedimentation. The creek is also relatively extensive, with medium- to high connectivity, making this a valuable wildlife corridor. Based on these key characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. While there are negative consequences to protecting these sites, the ecological functions that these sites contribute to the community are more important than the conflicting uses that would be allowed here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) Timberline Creek southeast (E35 B-4):
Fully allowing conflicting uses recommended. This portion of Timberline Creek (E35B-4) is a relatively *lower quality* site. This area has little riparian vegetation or hydrology,

and is functionally disconnected from the rest of the stream corridor. The result is low connectivity to other habitat areas, and diminished habitat value. Based on these key characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for this site. While the site has some habitat value, the importance of the resource value is lower than the importance of conflicting uses that would be allowed here. For this site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting conflicting uses.

(3) E35C at Warren; E35G at Hawkins:

Fully allowing conflicting uses recommended. These sites are *lower-quality* sites (E35C, E35G). They are relatively fragmented, with low connectivity to other habitat areas, reducing their habitat value. Although site E35C at Warren has some areas of relatively intact riparian vegetation, it is a relatively short, isolated corridor, and so ranks lower than many other sites in connectivity value. Based on these characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. While these sites have some habitat value, the importance of the resource value is lower than the importance of conflicting uses that would be allowed here. For these sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting conflicting uses.

(4) AMA-3 at Skyview Park:

Limiting conflicting uses recommended. Based on key resource characteristics, this is a ***medium- to higher quality*** site (AMA-3). While this site does not provide resource values as high resource as other sites, it provides water quality protection functions for downstream areas. In addition, it is contained within a City-owned park, and is managed for natural resource values. Based on these characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended for this site. The ecological functions that this site contributes to the community are more important than the conflicting uses that would be allowed here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within the site outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within the site outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

9.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 9.5.2 below and Map 9.B summarize the recommendations for these sites.

(1) Videra Creek:

(a) Videra Creek (E35A); Lower Videra Creek (E35F);
Conservation setback of 40 feet recommended. As discussed above, these sites (E35A, E35F) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category C Streams. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which makes these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Videra wetland (AMA-5):
Conservation setback of 25 feet recommended. As discussed above, this site (AMA-5) is recommended for protection. The majority of this wetland is contained within the creek system in site E35A, and is therefore largely protected by the protective measures recommended for that riparian site. However, a small area of wetland extends beyond the riparian site boundary, and it is for this small area that this recommendation is intended. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This wetland site is recommended to be designated a Category B Wetland. For wetland sites designated Category B Wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 25 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Videra/Herald wetland (AMA-5C);
(d) Hawkins wetland (AMA-4):

No protection measures are recommended for these sites (AMA-5C, AMA-4), as discussed in the analysis above

(2) Timberline Creek:

(a) Timberline Creek north (E35 B-1, E35 B-2):
Conservation setback of 40 feet recommended. As discussed above, these sites (E35B1, B2) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category C Streams. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Timberline Creek west (E35 B-3):
Conservation setback of 20 feet recommended. As discussed above, this site (E35B3) is recommended for protection. However, this site is not characterized by steep slopes with associated channel erosion and sedimentation concerns, so a 25' setback is deemed adequate. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated Category D Streams. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Timberline Creek southeast (E35 B-4):
No protection measures are recommended for this site (E35 B-4), as discussed in the analysis above.

(3) E35C at Warren; E35G at Hawkins:
No protection measures are recommended for these sites (E35C, E35G), as discussed in the analysis above.

(4) AMA-3 at Skyview Park:
Conservation setback of 25 feet recommended. As discussed above, this wetland sites (AMA-4) is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This wetland site is recommended to be designated a Category B Wetland. This recommendation is based on the ESEE analysis above. For wetland sites designated Category B Wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 25 feet measured from the top of

bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

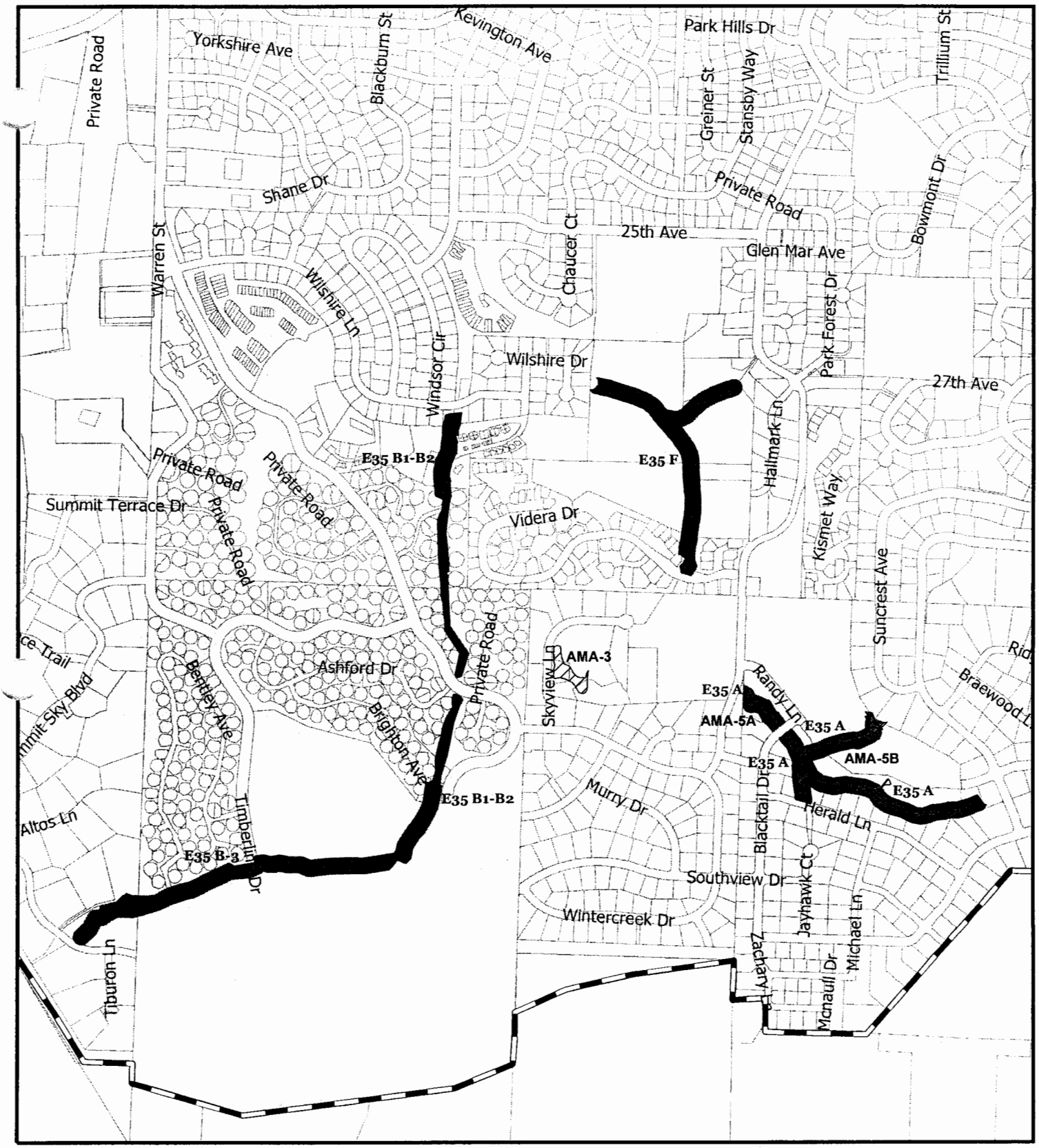
Table 9.5.2 Recommendations summary: Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
E35A at Videra Ck; AMA-5 at Videra Ck; E35F at Videra CkAMA-3 at Skyview Park:						
E35 A	West Eugene Uplands at Videra Ck	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	public/private	All
AMA-5	West Eugene Uplands wetland at Videra Ck	Limit Conflicting Uses	/WR Overlay Zone, Wetland Category B	25'	public/private	All
E35 F	West Eugene Uplands at Videra Ck	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	private	All
AMA-5C	West Eugene Uplands wetland at Videra/Herald	Fully Allow Conflicting Uses	n/a	n/a	public/private	All
AMA-4	West Eugene Uplands wetland at Hawkins	Fully Allow Conflicting Uses	n/a	n/a	private	All
E35B at Timberline Ck north; Timberline Ck west; Timberline Ck southeast;						
E35 B-1, B-2	West Eugene Uplands at Timberline Ck north	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	public/private/ private common	All
E35 B-3	West Eugene Uplands at Timberline Ck west	Limit Conflicting Uses	/WR Overlay Zone, Category D	25'	public/private	All
E35 B-4	West Eugene Uplands at Timberline Ck southeast	Fully Allow Conflicting Uses	n/a	n/a	private	All
E35C at Warren; E35G at Hawkins; AMA-5C at Videra/Herald; AMA-4 at Hawkins:						
E35 C	West Eugene Uplands at Warren	Fully Allow Conflicting Uses	n/a	n/a	private	All
E35 G	West Eugene Uplands at Hawkins	Fully Allow Conflicting Uses	n/a	n/a	private	All
AMA-3 at Skyview Park:						
AMA-3	West Eugene Uplands wetland at Skyview Park	Limit Conflicting Uses	/WR Overlay Zone, Wetland Category B	25'	public/private	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection

Significant Goal 5 ESEE Analysis Group 9

Goal 5 Protection Designations for Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands

Map 9B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 225 450 675 Feet

4/25/05

9.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 at Hawkins, AMA-5 at Videra, and AMA-5C at Herald (West Eugene Upland Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

10. Supplemental Analysis

Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

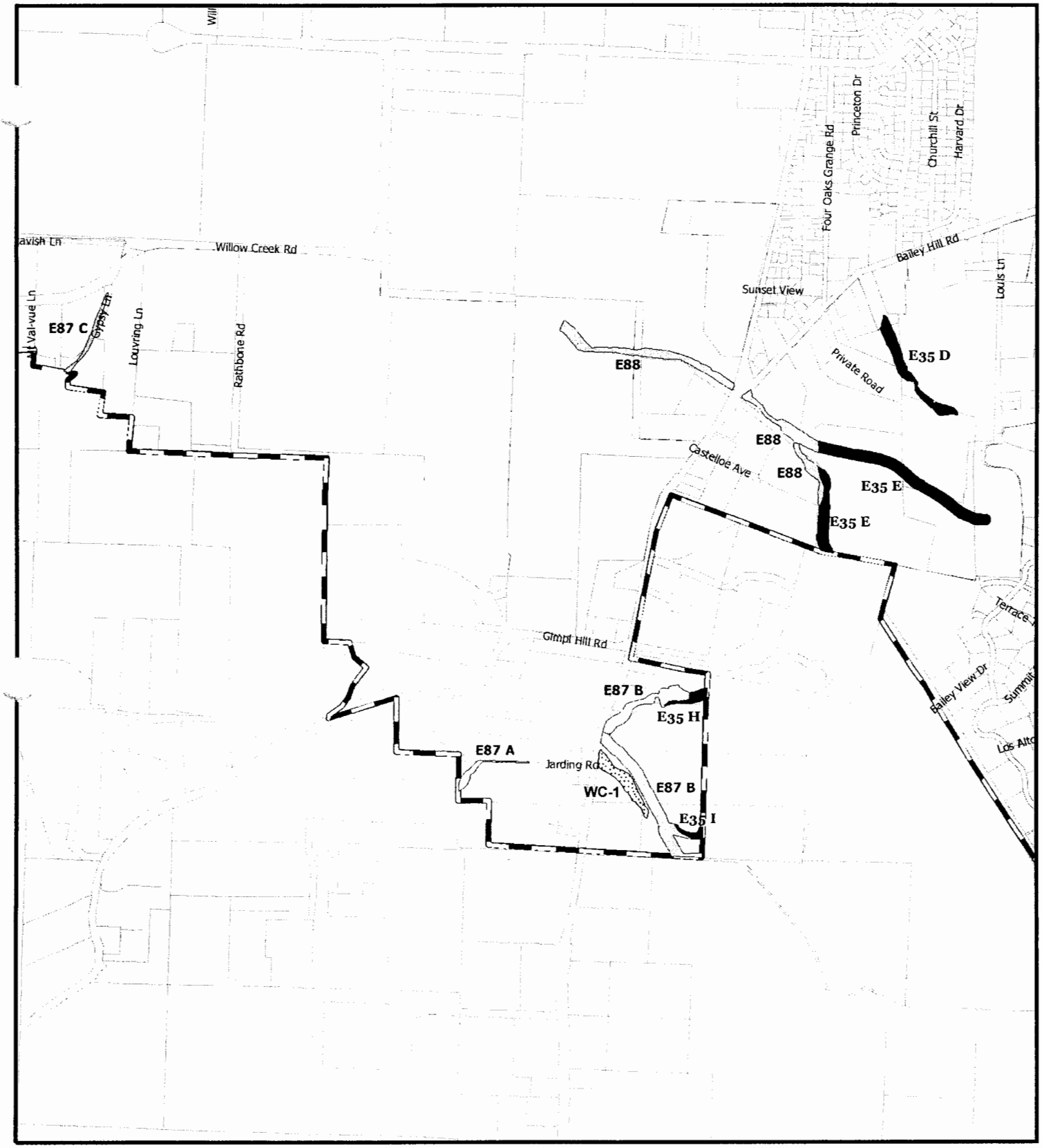
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 10.1 below lists the sites in this analysis group, their resource category and acreage. Map 10.A below shows the site(s) described in this analysis group.

Table 10.1 ESEE analysis group: Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Site/ Sub-Site #	Site Name	Resource Type*	Site Acres	Inside City Limits**
E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:				
E88	Bailey Hill Riparian at Bailey Hill	R	4.78	None
E35 E	West Eugene Uplands at Bailey Hill	U	5.46	None
E87 B	Bailey Hill Riparian at Bailey Hill	R	5.18	None
E35 H	West Eugene Uplands at Bailey Hill	U	0.51	None
E35 I	West Eugene Uplands at Bailey Hill	U	0.33	None
WC-1	Willow Creek wetland at Bailey Hill	W	1.38	None
E87 C	Bailey Hill Riparian at Gypsy Lane	R	0.62	None
E87A at Gimpl Hill; E35D at Louis Lane:				
E87 A	Bailey Hill Riparian at Gimpl Hill	R	0.48	None
E35 D	West Eugene Uplands at Louis Lane	U	1.98	None

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 10

Significant Goal 5 Site Boundaries for Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Map 10A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet
0 260 520 780

5/3/05

10.1 Site Description(s)

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

The streams and wetlands within this analysis group form a complex of tributaries that flow out of the Southwest Hills near Bailey Hill Road and Willow Creek Road, and into Willow Creek, a network of perennial and seasonal waterways and wetlands in the western area of Eugene's UGB. A large portion of the Willow Creek drainage connected to these sites is within the protected Willow Creek Natural Area (an area protected under the West Eugene Wetlands Plan (WEWP) and managed by TNC for conservation).

(1) (a) Site E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill;
(b) Site E88 at Bailey Hill; E35E at Bailey Hill;
(c) Site E87C at Gypsy Lane:

Site E87 is comprised of six tributaries of Willow Creek, which flow from the Southwest Hills northward through prairie and pasture land into Willow Creek. One locally significant wetland, WC-1, occurs within this group and is located adjacent to the riparian corridor of Site E87 at Bailey Hill Road. This wetland contributes valuable forested wetland habitat to the Willow Creek system. Site E88, the Bailey Hill Tributary, starts in the oak woodland near Summit Terrace and flows along a steep gradient through prairie and pasture land, crossing Bailey Hill Road and joining a tributary of Willow Creek. At their upper ends, these same stream corridors are identified as portions of the West Eugene Uplands Stream Corridor, Sites E35E, E35H, and E35I. Most portions of Sites E87 and E88 are dominated by riparian forest, including Oregon ash, big leaf maple, native hawthorn and willow. At somewhat higher elevations in the Southwest Hills, within Site E35, these streams contain a greater mix of riparian species and upland species, such as Douglas-fir. The structural diversity of the plant community in these corridors is relatively high (i.e., multiple layers of trees/shrubs/groundcover present), and plant species diversity is relatively high, providing for a variety of wildlife species and movement between habitat types. As the streams reach lower elevations at Willow Creek, many portions of the corridors have been heavily grazed and are vegetated with non-native pasture grasses. However, vegetative structure is similar to the historic native prairie in the Willow Creek Natural Area, and these areas provide many similar wildlife habitat functions and values. As a network of tributaries, these small waterways are valuable for their habitat linkage between the southwest hills and the regionally-important Willow Creek Natural Area, and for their function of helping to maintain water quality in Willow Creek. Although portions of these sites are within the West Eugene Wetlands Plan area, they were not considered for protection during the development of that Plan.

(2) Site E87A at Gimpl Hill; E35D at Louis Lane:

The segment of the Bailey Hill Tributary between Gimpl Hill and Bailey Hill, E87A, is a short section of a tributary to Willow Creek. This segment is a narrow drainage that has been altered by grazing, and now exhibits relatively little riparian habitat. Upstream, most of this tributary is located outside of the UGB; downstream, the remainder is located within the West Eugene Wetlands Plan Area, but was not considered for protection during that Plan adoption. Site E35D is a relatively short corridor that runs from the forest above Louis Lane northwest through pasture land to Bailey Hill Road. While the site contains native vegetation, it has relatively lower quality riparian vegetation and structure. Unlike the other upland stream segments in this analysis group, this one does not connect to the Willow Creek habitat network, as the lower portion of the stream is pipe to Bailey Hill Road.

These sites are located outside city limits within the UGB. Zoning within these sites is primarily Agricultural and Low Density Residential, with a small portion of E88 (within the Willow Creek Natural Area) zoned for protection with the Natural Resource zone (portions within the West Eugene Wetlands Plan Area). Land uses are primarily agricultural and residential; residential development adjacent to the waterways varies from sparse to fully built out at low residential densities.

10.2 Impact Area

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian and upland wildlife habitat sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 10.2 below lists the impact areas assigned to these Goal 5 sites.

Table 10.2 Impact Area Summary: Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Site/ Sub-Site #	Site Name	Impact Area*
E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:		
E88	Bailey Hill Riparian at Bailey Hill	Type C - 50' + mapped riparian vegetation
E35 E	West Eugene Uplands at Bailey Hill	Type C - 50' + mapped riparian vegetation
E87 B	Bailey Hill Riparian at Bailey Hill	Type C - 50' + mapped riparian vegetation
E35 H	West Eugene Uplands at Bailey Hill	Type C - 50'
E35 I	West Eugene Uplands at Bailey Hill	Type C - 50' + mapped riparian vegetation
WC-1	Willow Creek wetland at Bailey Hill	Type C - 50' + mapped riparian vegetation
E87 C	Bailey Hill Riparian at Gypsy Lane	Type D - 25' + mapped riparian vegetation
E87A at Gimpl Hill; E35D at Louis Lane:		
E87 A	Bailey Hill Riparian at Gimpl Hill	Type D - 25' + mapped riparian vegetation
E35 D	West Eugene Uplands at Louis Lane	Type D - 25' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

10.3 Conflicting Uses

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR), and Agricultural (AG) (although land uses in AG are primarily residential). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential and Agricultural uses are determined to be conflicting uses for riparian corridors and wetlands.

Table 10.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 10.3 Zoning within Impact Areas: Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H; E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:					
E88	Bailey Hill Riparian at Bailey Hill		LDR	same	public/private
E35 E	West Eugene Uplands at Bailey Hill		LDR	same	private
E87 B	Bailey Hill Riparian at Bailey Hill		LDR	same	public/private
E35 H	West Eugene Uplands at Bailey Hill		LDR	same	private
E35 I	West Eugene Uplands at Bailey Hill		LDR	same	private
WC-1	Willow Creek wetland at Bailey Hill		LDR	same	private
E87 C	Bailey Hill Riparian at Gypsy Lane		LDR	same	public/private
Site E87A at Gimpl Hill; E35D at Louis Lane:					
E87 A	Bailey Hill Riparian at Gimpl Hill		AG	same	private
E35 D	West Eugene Uplands at Louis Lane		AG	same	private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

10.4 ESEE Consequences

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 10.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

10.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 10.4.1 below. Some of these characteristics are further discussed below and in Section 10.1, Site Descriptions.

Table 10.4.1 Key resource characteristics: Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland Functions				Open	Steep
							WLHAB	Fish	WQ	Flood		
E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:												
E88	Bailey Hill Riparian at Bailey Hill	NO	NO	VHI	MED-HI	NO	---	---	---	---	NO	NO
E35 E	West Eugene Uplands at Bailey Hill	NO	NO	VHI	MED	NO	---	---	---	---	NO	YES
E87 B	Bailey Hill Riparian at Bailey Hill	NO	NO	VHI	MED	NO	---	---	---	---	NO	NO
E35 H	West Eugene Uplands at Bailey Hill	NO	NO	VHI	MED	NO	---	---	---	---	NO	YES
E35 I	West Eugene Uplands at Bailey Hill	NO	NO	VHI	MED	NO	---	---	---	---	NO	YES
WC-1	Willow Creek wetland at Bailey Hill	NO	NO	HI	N/A	YES	DIV	N/A	DEGR	DEGR	NO	NO
E87 C	Bailey Hill Riparian at Gypsy Lane	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	NO
E87A at Gimpl Hill; E35D at Louis Lane:												
E87 A	Bailey Hill Riparian at Gimpl Hill	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO
E35 D	West Eugene Uplands at Louis Lane	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	YES

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

10.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 10.4.2 below list the paragraph number of applicable ESEE consequences.

Table 10.4.2 Summary of ESEE Consequences: Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:				
	FULLY ALLOWING CONFLICTING USES			
E88 Bailey Hill Riparian at Bailey Hill	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E35 E West Eugene Uplands at Bailey Hill E87 B Bailey Hill Riparian at Bailey Hill	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
E35 H West Eugene Uplands at Bailey Hill	*Economic* (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
E35 I West Eugene Uplands at Bailey Hill WC-1 Willow Creek wetland at Bailey Hill	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
E87 C Bailey Hill Riparian at Gypsy Lane	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
Note: References to higher quality sites apply.	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Site E87A at Gimpl Hill; E35D at Louis Lane:				
E87 A Bailey Hill Riparian/Wills Rd E35 D West Eugene Uplands/Louis Ln *Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

10.5 ESEE Conclusions and Recommendations

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

10.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:

Limiting conflicting uses recommended. Key resource characteristics indicate that these sites provide *relatively high quality* wildlife habitat. The riparian plant community is relatively intact, with a relatively high ratio of native vegetation. The steep stream gradient and surrounding slopes along most of these sites also make these sites more vulnerable to channel erosion, and therefore these reaches are valuable for protecting downstream water quality from sedimentation. Taken by themselves, these stream corridor segments are not very extensive; however, as tributaries to the regionally important Willow Creek system, the sites have very high connectivity, which makes them very valuable wildlife corridors. Based on these key resource characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The resource values that these sites contribute to the broader community are more important than the conflicting uses that would be allowed here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) **Site E87A at Gimpl Hill; E35D at Louis Lane:**

Fully allowing conflicting uses recommended. Based on key resource characteristics, these two sites fall in the range of *lower- to medium quality* sites. While riparian vegetation as well as upland vegetation is present, the riparian corridor is not extensive or well-connected to other habitat areas. There are no wetlands present within these sites. For these reasons, these sites are not as valuable as many other sites in the Goal 5 Inventory. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively *lower quality* sites, the importance of the resource is low compared to the importance of conflicting uses. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

10.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 10.5.2 below and Map 10.B summarize the recommendations for these sites.

(1) (a) **E88 at Bailey Hill; E35E at Bailey Hill; and**

(b) **E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill: Conservation setback of 40/50 feet recommended.** As discussed above, these sites are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. This recommendation is based upon the ESEE analysis above and these factors: (1) the riparian plant community is relatively intact, with a relatively high ratio of native vegetation, (2) the steep stream gradient and surrounding slopes along most of these sites make these sites more vulnerable to channel erosion, and therefore these reaches are valuable for protecting downstream water quality from sedimentation, (3) as tributaries that flow into the regionally important Willow Creek Natural Area, the sites have very high connectivity value. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) **E87C at Gypsy Lane:**
Conservation setback of 25 feet recommended. As discussed above, this site and is recommended for protection. However, this site is not characterized by steep slopes and, therefore, is not as vulnerable as the sites discussed above to channel erosion. In addition, this site has a very narrow channel and a narrow, but high quality, riparian corridor. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Site E87A at Gimpl Hill; E35D at Louis Lane:

No protection measures are recommended for these sites, as discussed in the analysis above.

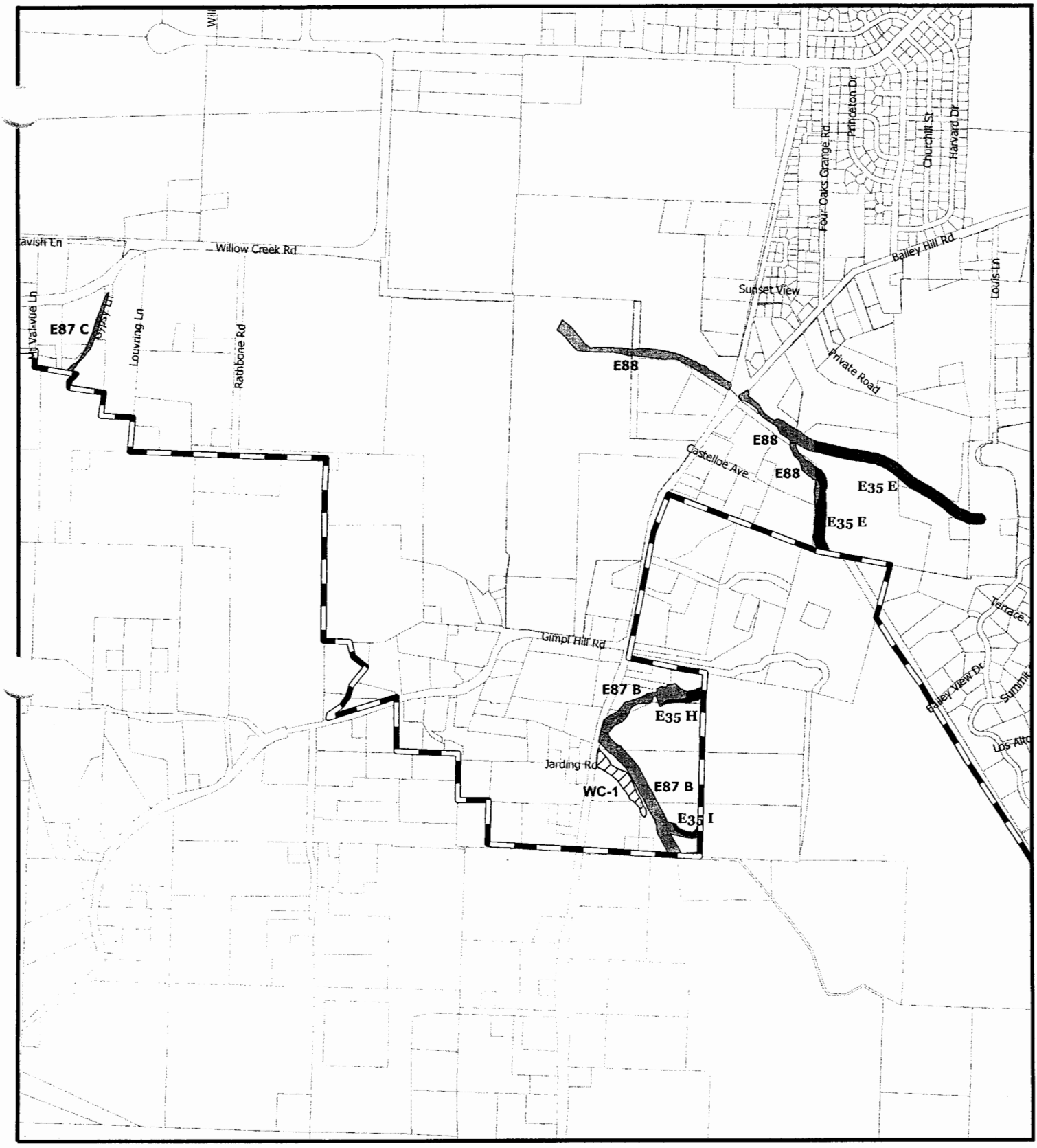
Table 10.5.2 Recommendations Summary: Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
E88 at Bailey Hill; E35E at Bailey Hill; E87B at Bailey Hill; E35H, E35I at Bailey Hill; WC-1 at Bailey Hill; E87C at Gypsy Lane:						
E88	Bailey Hill Riparian at Bailey Hill	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	public/private	None
E35 E	West Eugene Uplands at Bailey Hill	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	private	None
E87 B	Bailey Hill Riparian at Bailey Hill	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	public/private	None
E35 H	West Eugene Uplands at Bailey Hill	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	private	None
E35 I	West Eugene Uplands at Bailey Hill	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	private	None
WC-1	Willow Creek wetland at Bailey Hill	Limit Conflicting Uses	/WR Overlay Zone, Wetland Category A	50'	private	None
E87 C	Bailey Hill Riparian at Gypsy Lane	Limit Conflicting Uses	/WR Overlay Zone, Category D	20	public/private	None
Site E87A at Gimpl Hill; E35D at Louis Lane:						
E87 A	Bailey Hill Riparian at Gimpl Hill	Fully Allow Conflicting Uses	n/a	n/a	private	None
E35 D	West Eugene Uplands at Louis Lane	Fully Allow Conflicting Uses	n/a	n/a	private	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 10

Map 10B

Goal 5 Protection Designations for Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Recommended for Protection
- Riparian Corridor Recommended for Protection
- Upland Wildlife Habitat Recommended for Protection

N

0 260 520 780 Feet

5/3/05

10.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

11. Supplemental Analysis

North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

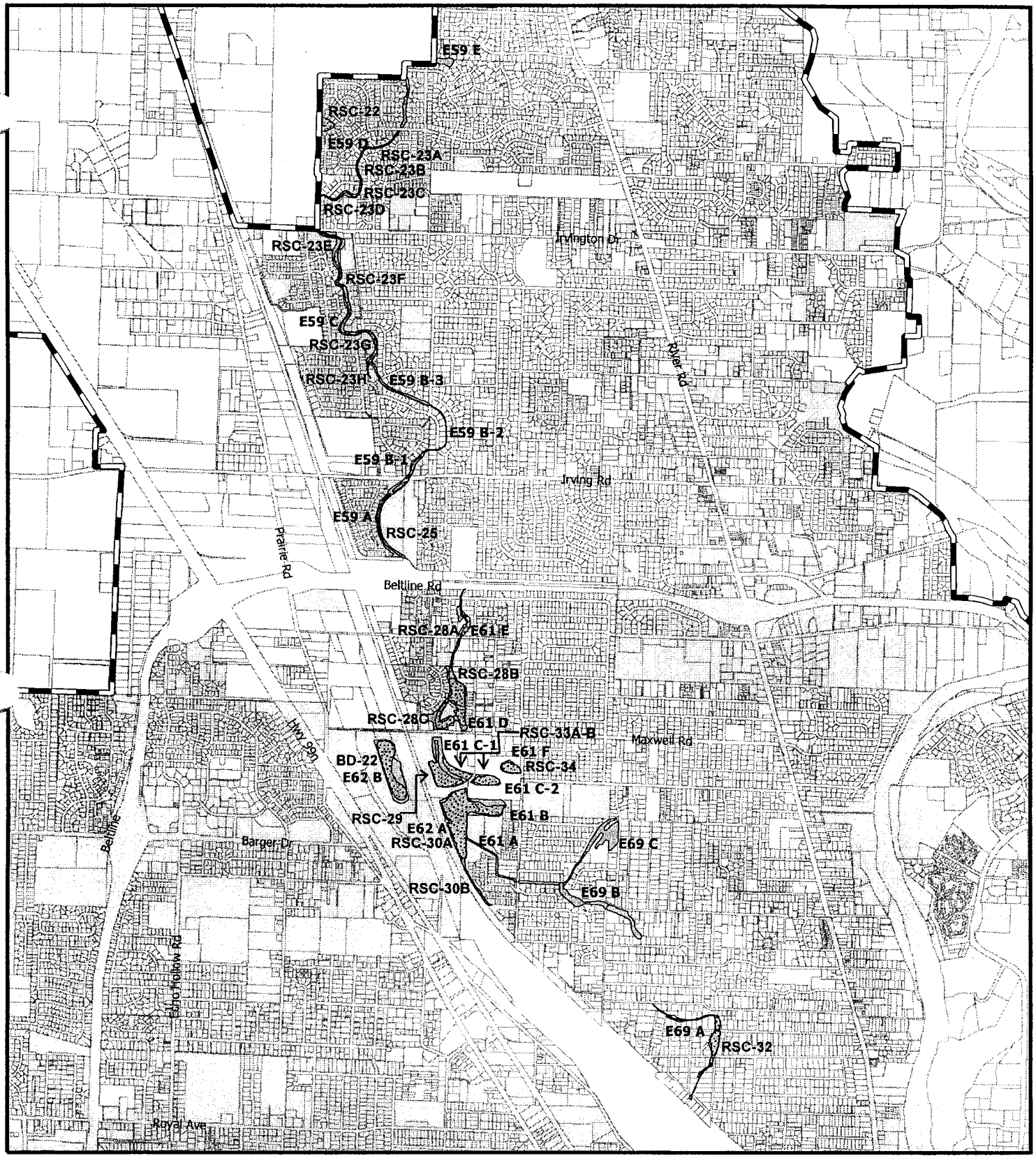
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 11.1 below lists the sites in this analysis group, their resource type and acreage. Map 11.A below shows the site(s) described in this analysis group.

Table 11.1 ESEE analysis group: North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
E59 North Flat Creek:				
E59A, B-1, B-3, C, D	North Flat Creek south of Hyacinth	R	12.11	1/2
E59B-2	North Flat Creek betw. Kalmia & Hyacinth	R	.36	none
RSC-23	North Flat Creek wetland (north)	W	3.62	2/3
RSC-23H	North Flat Creek wetland at Cinnamon	W	0.11	all
RSC-25	North Flat Creek wetland (south)	W	1.73	all
E59E	North Flat Creek at Hyacinth	R	0.94	all
RSC-22	Wetland at Lancaster	W	1.27	all
E61 Middle Flat Creek:				
	Maxwell ponds:			
E61A	Middle Flat Creek at Maxwell (slough)	R	0.96	2/3
E61B	Middle Flat Creek at Maxwell (pond)	R	3.80	all
E61C-1	Middle Flat Creek at Maxwell (pond)	R	7.69	all
RSC-29	Middle Flat Creek wetland at Maxwell (pond)	W	3.53	all
E61C-2	Middle Flat Creek at Maxwell (pond)	R	2.00	none
RSC-33A/B	Middle Flat Creek wetland at Maxwell	W	2.89	none
	Bramblewood:			
E61D	Middle Flat Creek at Bramblewood	R	8.08	all
RSC-28B/C	Middle Flat Creek wetland at Bramblewood	W	6.04	all
	Beltline:			
E61E	Middle Flat Creek at Beltline	R	2.08	none
RSC-28A	Middle Flat Creek wetland at Beltline	W	0.77	none
	Howard:			
E61F	Middle Flat Creek at Howard ash grove	R	1.48	none
RSC-34	Howard ash grove wetland	W	1.18	none
E62 NW Expressway Ponds:				
E62A	NW Expresswayy Pond/Diana's Pond	R	10.32	all
RSC-30A	NW Expressway Pond/Diana's Pond wetland	W	11.33	all
E62B	NW Expressway Pond/Railroad	R	8.47	all
BD-22	NW Expressway Pond/Railroad wetland	W	5.31	all
RSC-30B	NW Expressway Pond/Diana's Pond wetland	W	0.78	all
E69 South Flat Creek:				
E69A	South Flat Creek at Elkay	R	3.40	none
RSC-32	South Flat Creek wetland at Elkay	W	2.70	none
E69B	South Flat Creek at Horn Lane	R	4.77	1/3
E69C	South Flat Creek at Emerald Park	R	4.42	1/6

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits.



Sites Boundaries

Eugene Goal 5 ESEE Analysis Group 11

Map 11A

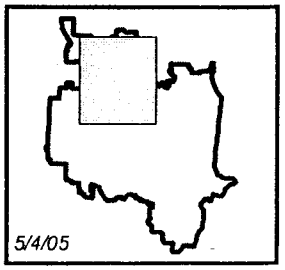
Significant Goal 5 Site Boundaries for North Flat Creek, Middle Flat Creek, South Flat Creek, & NW Expressway Ponds

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 890 1,780



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11.1 Site Description(s)

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

Sites E59, E61, E62 and E69 and their associated wetlands comprise the Flat Creek drainage system. The Flat Creek drainage system is located west of River Road and east of Highway 99. Flat Creek starts at approximately Park Avenue (South Flat Creek), runs northwesterly through the large ponds at Maxwell Road (Middle Flat Creek), and up to the Beltline Highway. The northern part of the creek (North Flat Creek) extends from the Beltline, past Irvington, past the UGB, and continues north to connect to the Willamette River. The stream segments and wetlands that make up the Flat Creek drainage system comprise a habitat complex over 5 miles long.

(1) E59 North Flat Creek:

(a) E59A thru D (North Flat Creek south of Hyacinth); RSC-23; RSC-25:
North Flat Creek (E59A thru D, and its wetlands RSC-23, RSC-25) extends from the Beltline Highway northward to the UGB, through residential subdivisions and agricultural land. The stream used to be a permanently-flowing stream, but major alterations in its hydrology have rendered it seasonal (intermittent). The stream corridor is relatively intact, but quite variable in habitat quality. While some portions consist of primarily native vegetation, other portions (such as E59B-2 between Kalmia and Hyacinth Streets) have a highly disturbed riparian area that may only be 10 feet wide on either side. Invasive species, such as Armenian (Himalayan) blackberry are prominent, and in places vegetation in the corridor has been removed, leaving a mowed grass swale. However, many sections of the corridor are dominated by native shrubs, such as willow, with an overstory of native trees, including Oregon ash, black cottonwood and big-leaf maple. Two wetlands, RSC-23 and RSC-25, are mapped within this portions of the Flat Creek stream channel. These wetlands are portions of the stream bed that meet the state's definition of wetland. The primary feature that distinguishes them as wetland is emergent vegetation in the stream channel, which provides a different type of habitat than the deeper water portions of similar stream channels and adds habitat complexity to the system. Wetland RSC-23H is a side channel off wetland RSC-23 near Cinnamon Avenue. Wetland RSC-23H contributes little environmental value to the creek system, and has virtually no riparian vegetation. As a whole, north Flat Creek forms a continuous riparian corridor approximately 3 miles long, providing habitat for both terrestrial (e.g., birds, mammals, and reptiles) and aquatic (e.g., amphibians, macroinvertebrates) animals.

(b) North Flat Creek at Hyacinth (E59E):
This site is a remnant riparian corridor at the north end of the Flat Creek drainage. It extends across the back of 4 residential lots. At one time this portion of Site E59 may have been physically connected to Flat Creek; however, there is no longer any stream here, and no evidence of a hydrological connection to Flat Creek. While there are some native plants

located here, they are primarily upland species located in the backyards of surrounding single family homes.

(c) Lancaster wetland (RSC-22):

Wetland RSC-22 is located several blocks to the west of Flat Creek, and is not actually connected to the creek. While it is a locally significant wetland, it ranks relatively low in the OFWAM assessment of wetland functions. It provides some wetland functions, such as flood control, and has a high ratio of native plant species. However, it is not hydrologically connected to other waterways or wetlands, and is isolated from other habitat areas.

(2) Middle Flat Creek (E61):

(a) Middle Flat Creek at Maxwell (E61A, E61B, E61C-1, RSC-29):
These sites (E61A, E61B, E61C-1, RSC-29), combined with Site E62, comprise the large complex of ponds, riparian areas and wetlands located near Maxwell Road and NW Expressway. The complex serves as an island of habitat surrounded by railroad tracks, roads, and industrial and commercial development. Native plants are predominant, primarily willow, black cottonwood, rushes, and sedges. The complex provides habitat for various waterfowl, shorebirds, heron, and some warbler and other songbird species. Two locally significant wetlands, RSC-29 (and a portion of RSC-30), occur within these riparian sites, and provide valuable wetland functions, such as flood storage and emergent wetland habitat. Wetland and riparian areas adjacent to the ponds (E61B, portion of RSC-30), and the slough draining into the ponds (E61A), also support western pond turtles, and fish (E61C).

(b) Middle Flat Creek at east Maxwell (E61C-2; RSC-33A/B):
These sites (E61C-2, RSC-33 A&B) are also part of the large complex of ponds, riparian areas and wetlands located near Maxwell Road and NW Expressway. However, these sites are not documented to support fish or turtles. Site E61C-2 is separated from the main pond (E61C-1) by the Maxwell connector. Wetland RSC-33 A/B is adjacent to the main pond, but appears to be hydrologically isolated from it by a low ridge. Both of these sites have a high quality riparian plant community dominated by native species. The wetland portion of the site contributes valuable wetland functions to the pond complex, including flood storage, water quality benefits and emergent wetland habitat.

(c) Middle Flat Creek at Bramblewood (E61D, RSC-28B/C):
North of the Maxwell pond complex, Flat Creek (E61D) enters Bramblewood Park. Wetlands RSC-28 B&C are mapped within the riparian area. Although Armenian blackberry is prevalent, as in other corridors, the park has one of the more intact forested riparian corridors in the Goal 5 Inventory. The wetland portion of the site contributes valuable wetland functions to the habitat complex, including flood storage, water quality benefits and emergent wetland habitat.. Fish and western pond turtle have not been documented in this portion of the creek. However, because of their location, these sites provide diversity in habitat types and additional habitat area, making them valuable components of the pond complex.

(d) Middle Flat Creek at Beltline (E61E; RSC-28A):

This portion of E61 (E61E, RSC-28A) extends from north of Bramblewood Park up to the Beltline Highway. The quality of the riparian plant community here is similar to that elsewhere along Flat Creek. In places it is highly disturbed and has a high proportion of non-native species, such as blackberry, or ornamental landscape plants, but also has sections with a relatively high proportion of native riparian species, such as Oregon ash and big leaf maple. A locally significant wetland site (RSC-28A) is mapped within the riparian area in this upper portion of the creek. This portion of Flat Creek has not been documented to support western pond turtles or fish.

(e) Howard ash grove (E61F; RSC-34):
To the east of the large ponds at Maxwell Road, is an ash grove (E61F) that appears to be a remnant of a riparian area. Although there is a locally significant wetland site here (RSC-34), there is no stream, and the site appears to have no surface hydrological connection to the rest of the Flat Creek system.

(3) NW Expressway Ponds (E62):

This site (E62) consists of two ponds, one to the east and one to the west, of the Northwest Expressway, just south of Maxwell Road. Both ponds are human-made borrow pits that have gradually reverted to riparian areas. Like Site E61, Site E62 is an island of habitat surrounded by railroad tracks, roads, and industrial and commercial development. In combination, they provide a valuable habitat complex.

(a) NW Expressway Pond/Diana's Pond (E62A and RSC-30A): The easternmost NW Expressway Pond (E62A, RSC-30A) has been called by various names, including NW Expressway Pond, Maxwell Pond and Diana's Pond. It has a relatively intact and extensive riparian plant community, and provides valuable open water habitat. Wetland RSC-30 is mapped within the riparian site. Willow, black cottonwood, and Oregon ash, reed canarygrass, rush and sedge are the dominant plant species. This complex provides habitat for western pond turtles, waterfowl, shorebirds, heron (blue and green), and some warbler and songbird species.

(b) NW Expressway Pond at railroad (E62B and BD-22): The NW Expressway Pond at the railroad tracks (E62B, BD-22) contains one of the higher quality riparian plant communities in the Flat Creek basin, including willow, black cottonwood, and Oregon ash. Vegetative structure (trees/shrubs/groundcover layers) and species diversity are relatively high. Wetland BD-22 is mapped within the riparian site.. There are no turtles or fish documented in this site, and there is no evidence of flow between this site and main stem of Flat Creek or the other ponds. However, the riparian fringe, open water, and close proximity of this pond to the others makes this site very valuable for wildlife.

(c) NW Expressway Pond south (RSC-30B):
This wetland (RSC-30B) is a drainage channel that forms a long, narrow extension of the NW Expressway Pond wetland (RSC-30A). It extends from the south end of NW Expressway/Diana's Pond along, along the NW Expressway south to Park Avenue. It is bounded by the NW Expressway embankment on the west and a fence running its length on the east. While it is considered a locally significant wetland as part of the larger

pond/wetland system to the north, in and of itself, this portion adds little habitat value and no other significant wetland functions or values to the pond system.

(4) South Flat Creek (E69):

(a) Elkay Drive to Filbert (E69A; RSC-32):
This segment is the southernmost end of Flat Creek (E69A, RSC-32). It runs from close to the NW Expressway north for approximately 3,000 feet to Elkay Drive. Over the years, the corridor here has been greatly modified, with many sections incorporated into the backyard landscaping of the adjacent single family residences, leaving little of the original riparian vegetation. There are locally significant wetlands mapped along the length of the corridor, which provide water quality and flood storage benefits. At Park Avenue there are two large ponds that have been excavated from the original channel. Water levels in the ponds are artificially maintained with water pumped from an adjacent well. The ponds are lined with concrete along extensive sections, and virtually all of the native vegetation has been cleared and replaced by lawn or other exotic landscaping.

(b) South Flat Creek at Horn Lane (E69B): The portion of South Flat Creek at Horn Lane (E69B) has a relatively wide, intact riparian corridor, with high structural diversity and high plant species diversity. While other portions of E69 have been greatly disturbed, the stream here is surrounded by primarily native vegetation, with an overstory of Oregon ash, black cottonwood, and big-leaf maple. Due to major alterations in its hydrology over the years, Flat Creek is now a seasonal stream. Nonetheless, the site provides habitat for birds, mammals, reptiles and amphibians.

(c) Emerald Park to Kelly Lane (E69C):
This portion of Flat Creek (E69C) extends approximately 1600 feet from Hatton Avenue south through Emerald Park to approximately Kelly Lane. Through the park, there is a line of ash trees that mark where the original riparian corridor has been replaced with a swale of mowed lawn. From the park down to Kelly Lane, the corridor remains essentially a mowed swale through backyards.

Land uses within these sites are primarily single family residential, with several parks. The City of Eugene owns some portions of these Flat Creek sites, including E59 and RSC-23 within Arrowhead Park, E61D and RSC-28 within Bramblewood Park, and E61A, E61B and E62A at Maxwell/NW Expressway Ponds. Most of Site E61C, the north pond at Maxwell/NW Expressway, is under the ownership of Lane County. The River Road Parks District owns a portion of this site at Emerald Park (E69C). Approximately two-thirds of the Flat Creek system is located outside of city limits within unincorporated areas of the UGB.

11.2 Impact Area

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 11.2 below lists the impact areas assigned to these Goal 5 sites.

Table 11.2 Impact Area Summary: North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds

Site/ Sub-Site #	Site Name	Impact Area*
E69 North Flat Creek:		
E59A thru D	North Flat Creek south of Hyacinth	Type D - 25' + mapped riparian vegetation
RSC-23	North Flat Creek wetland (north)	Type D - 25'
RSC-23H	North Flat Creek wetland at Cinnamon	Type D - 25'
RSC-25	North Flat Creek wetland (south)	Type D - 25'
E59E	North Flat Creek at Hyacinth	Type D - 25' + mapped riparian vegetation
RSC-22	Wetland at Lancaster	Type D - 25'
E61 Middle Flat Creek:		
	Maxwell ponds:	
E61A	Middle Flat Creek at Maxwell (slough)	Type C - 50' + mapped riparian vegetation
E61B	Middle Flat Creek at Maxwell (pond)	Type C - 50' + mapped riparian vegetation
E61C-1	Middle Flat Creek at Maxwell (pond)	Type C - 50' + mapped riparian vegetation
RSC-29	Middle Flat Creek wetland at Maxwell (pond)	Type C - 50'
E61C-2	Middle Flat Creek at Maxwell (pond)	Type D - 25' + mapped riparian vegetation
RSC-33A/B	Middle Flat Creek wetland at Maxwell	Type D - 25'
	Bramblewood:	
E61D	Middle Flat Creek at Bramblewood	Type D - 25' + mapped riparian vegetation
RSC-28B/C	Middle Flat Creek wetland at Bramblewood	Type D - 25'
	Beltline:	
E61E	Middle Flat Creek at Beltline	Type D - 25' + mapped riparian vegetation
RSC-28A	Middle Flat Creek wetland at Beltline	Type D - 25'
	Howard:	
E61F	Middle Flat Creek at Howard ash grove	Type D - 25' + mapped riparian vegetation
E61F	Middle Flat Creek at Howard ash grove	Type D - 25'

E62 NW Expressway Ponds:		
E62A	NW Expressway Pond/Diana's Pond	Type C - 50' + mapped riparian vegetation
RSC-30A	NW Expressway Pond/Diana's Pond wetland (north)	Type C - 50'
E62B	NW Expressway Pond/Railroad	Type D - 25' + mapped riparian vegetation
BD-22	NW Expressway Pond/Railroad wetland	Type D - 25'
RSC-30B	NW Expressway Pond/Diana's Pond wetland (south)	Type D - 25'
E69 South Flat Creek:		
E69A	South Flat Creek at Elkay	Type D - 25' + mapped riparian vegetation
RSC-32	South Flat Creek wetland at Elkay	Type D - 25'
E69B	South Flat Creek at Horn Lane	Type D - 25' + mapped riparian vegetation
E69C	South Flat Creek at Emerald Park	Type D - 25' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

11.3 Conflicting uses

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and within its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that occur within the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is primarily zoned Low Density Residential, with two smaller areas zoned Agricultural within the unincorporated UGB area (but already developed as residential subdivisions). There are two small areas of Commercial zoning, at Irvington and at Howard Ave/Maxwell. There are several parks within these sites; most are zoned Low Density Residential. Emerald Park, however, is zoned Public Land. The west NW Expressway Pond (E62 B), is zoned for Industrial uses. In the conflicting use analysis in Section 3.0, Conflicting Uses, Low Density Residential (LDR), Agricultural (AG), Commercial (C), Industrial (I), Public Land (PL) uses are determined to be conflicting uses for riparian corridors and wetlands. Table 11.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 11.3 Conflicting Uses within Impact Areas for North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds

Site / Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
E59 North Flat Creek:				
E59A thru D	North Flat Creek south of Hyacinth	LDR	AG, C	private
RSC-23	North Flat Creek wetland (north)	LDR	AG	private/public
RSC-23H	North Flat Creek wetland at Cinnamon	LDR	---	private
RSC-25	North Flat Creek wetland (south)	LDR	---	private
E59E	North Flat Creek at Hyacinth	LDR	---	private
RSC-22	Wetland at Lancaster	LDR	---	private
E61 Middle Flat Creek:				
E61A	Middle Flat Creek at Maxwell (slough)	LDR	AG	private/public
E61B	Middle Flat Creek at Maxwell (pond)	LDR	---	public/private
E61C-1	Middle Flat Creek at Maxwell (pond)	LDR	---	public/private
RSC-29	Middle Flat Creek wetland at Maxwell (pond)	LDR	---	public
E61C-2	Middle Flat Creek at Maxwell (pond)	LDR	---	private
RSC-33A/B	Middle Flat Creek wetland at Maxwell	LDR	---	private/public
E61D	Middle Flat Creek at Bramblewood	LDR	---	public
RSC-28B/C	Middle Flat Creek wetland at Bramblewood	LDR	---	public
E61E	Middle Flat Creek at Beltline	LDR	---	private
RSC-28A	Middle Flat Creek wetland at Beltline	LDR	---	private
E61F	Middle Flat Creek at Howard ash grove	C	LDR	private
RSC-34	Howard ash grove wetland	C	LDR	private
E62 NW Expressway Ponds:				
E62A	NW Expressway Pond/Diana's Pond	LDR	AG	public
RSC-30A	NW Expressway Pond/Diana's Pond wetland (north)	LDR	AG	public
E62B	NW Expressway Pond/Railroad	I	---	public
BD-22	NW Expressway Pond/Railroad wetland	I	---	private
RSC-30B	NW Expressway Pond/Diana's Pond wetland (south)	LDR	AG	private
E69 South Flat Creek:				
E69A	South Flat Creek at Elkay	LDR	---	private
RSC-32	South Flat Creek wetland at Elkay	LDR	---	private
E69B	South Flat Creek at Horn Lane	LDR	---	private
E69C	South Flat Creek at Emerald Park	PL	LDR	public/private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

11.4 ESEE Consequences Analysis

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 11.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

11.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites include those given in Table 11.4.1 below. Some of these characteristics are further discussed below and in Section 11.1, Site Descriptions.

Table 11.4.1 Key resource characteristics: North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds 9/1/05 (See Key below Table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E59 North Flat Creek:												
E59A, B-1, B-3, D	North Flat Creek south of Hyacinth	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
E59B-2	North Flat Creek south of Hyacinth	NO	NO	HI	LO	NO	---	---	---	---	NO	NO
RSC-23	North Flat Creek wetland (north)	NO	NO	HI	MED-HI	YES	DIV	DEGR	INTACT	INTACT	NO	NO
RSC-23H	North Flat Creek wetland at Cinnamon	NO	NO	MED	LO	YES	NES	NES	NES	NES	NO	NO
RSC-25	North Flat Creek wetland (south)	NO	NO	HI	LO-MED	YES	DIV	DEGR	DEGR	INTACT	NO	NO
E59E	North Flat Creek at Hyacinth	NO	NO	NO	LO	NO	---	---	---	---	NO	NO
RSC-22	Wetland at Lancaster	NO	NO	HI	MED-HI	YES	SOME	N/A	INTACT	DEGR	NO	NO
E61 Middle Flat Creek:												
E61A	Middle Flat Creek at Maxwell (slough)	NO	YES	HI	LO	NO	---	---	---	---	NO	NO
E61B	Middle Flat Creek at Maxwell (pond)	YES	YES	HI	HI	YES	---	---	---	---	HI	NO
E61C-1	Middle Flat Creek at Maxwell (pond)	YES	NO	HI	HI	YES	---	---	---	---	HI	NO
RSC-29	Middle Flat Creek wetland at Maxwell (pond)	YES	NO	HI	HI	YES	DIV	DEGR	DEGR	INTACT	HI	NO
E61C-2	Middle Flat Creek at Maxwell (pond)	NO	NO	HI	HI	YES	---	---	---	---	HI	NO
RSC-33A/B	Middle Flat Creek wetland at Maxwell	NO	NO	MED	MED	YES	SOME	N/A	INTACT	INTACT	MED	NO
E61D	Middle Flat Creek at Bramblewood	NO	NO	HI	LO	YES	---	---	---	---	NO	NO
RSC-28B/C	Middle Flat Creek wetland at north Bramblewood	NO	NO	HI	HI	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E61E	Middle Flat Creek at Beltline	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
RSC-28A	Middle Flat Creek wetland at Beltline	NO	NO	HI	LO-MED	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E61F	Middle Flat Creek at Howard ash grove	NO	NO	LO	MED-HI	YES	---	---	---	---	NO	NO
RSC-34	Howard ash grove wetland	NO	NO	LO	MED-HI	YES	SOME	N/A	DEGR	INTACT	NO	NO

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E62 NW Expressway Ponds:												
E62A	NW Expressway Pond/Diana's Pond	YES	YES	HI	HI	YES	---	---	---	---	HI	NO
RSC-30A	NW Expressway Pond/Diana's Pond wetland (north)	YES	YES	HI	HI	YES	SOME	DEGR	DEGR	INTACT	HI	NO
E62B	NW Expressway Pond/Railroad	NO	NO	MED-HI	HI	YES	---	---	---	---	HI	NO
BD-22	NW Expressway Pond/Railroad wetland	NO	NO	MED-HI	MED	YES	SOME	DEGR	DEGR	INTACT	HI	NO
RSC-30B	NW Expressway Pond/Diana's Pond wetland (south)	NO	NO	LO	LO	YES	NES	NES	NES	NES	NO	NO
E69 South Flat Creek:												
E69A	South Flat Creek at Elkay	NO	NO	LO-MED	LO	YES	---	---	---	---	MED	NO
RSC-32	South Flat Creek wetland at Elkay	NO	NO	LO-MED	LO	YES	SOME	DEGR	INTACT	INTACT	MED	NO
E69B	South Flat Creek at Horn Lane	NO	NO	HI	HI	NO	---	---	---	---	NO	NO
E69C	South Flat Creek at Emerald Park	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
		Fish	T&E	Con-nect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open or Pond	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)."
[SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact,
303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

11.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 11.4.2 below list the paragraph number of applicable ESEE consequences.

Table 11.4.2 Summary of ESEE Consequences: North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number of applicable sections listed below)**			
E59 North Flat Creek:				
	FULLY ALLOWING CONFLICTING USES			
E59A thru D North Flat Creek south of Hyacinth*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
RSC-23 North Flat Creek wetland (north)*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
RSC-23H North Flat Creek wetland at Cinnamon**	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
RSC-25 North Flat Creek wetland (south)*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E59E North Flat Creek at Hyacinth**	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
RSC-22 Wetland at Lancaster**	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
**Note: References to higher quality sites apply.*				
***Note: References to lower quality sites apply.*				

E61 Middle Flat Creek				
Maxwell ponds: E61A Middle Flat Creek at Maxwell (slough)* E61B Middle Flat Creek at Maxwell (pond)* E61C-1 Middle Flat Creek at Maxwell (pond)* RSC-29 Middle Flat Creek wetland at Maxwell (pond) * E61C-2 Middle Flat Creek at Maxwell (pond)* RSC-33A/B Middle Flat Creek wetland at Maxwell* **Bramblewood:** E61D Middle Flat Creek at Bramblewood* RSC-28B/C Middle Flat Creek wetland at Bramblewood* **Beltline:** E61E Middle Flat Creek at Beltline* RSC-28A Middle Flat Creek wetland at Beltline* **Howard:** E61F Middle Flat Creek at Howard ash grove** RSC-34 Howard ash grove wetland** **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E62 NW Expressway Ponds:				
E62A NW Expressway Pond/Diana's Pond* RSC-30A NW Expressway Pond/Diana's Pond wetland (north) * E62B NW Expressway Pond/Railroad BD-22 NW Expressway Pond/Railroad wetland* RSC-30B NW Expressway Pond/Diana's Pond wetland (south) ** **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E69 South Flat Creek:				
E69A South Flat Creek at Elkay** RSC-32 South Flat Creek wetland at Elkay** E69B South Flat Creek at Horn* E69C South Flat Creek at Emerald Park** **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

11.5 ESEE Conclusions and Recommendations

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

11.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) North Flat Creek (E59):

(a) North Flat Creek south of Hyacinth (E59A, B-1, B-3, C, D); RSC-23 (except RSC-23H); RSC-25:

Limiting conflicting uses recommended. Based in part on the key resource characteristics described above, this portion of Flat Creek falls in the range of medium- to higher-quality sites, relative to all sites on the inventory. The two wetland sites that occur within the riparian corridor are subject to state wetland regulations, but may not be protected through those regulations. Although the quality of the riparian plant community is variable, and highly disturbed in some portions, North Flat Creek provides a continuous corridor of habitat approximately 3 miles long, with a surface water connection, at least during high flows. Based on these characteristics and the ESEE analysis above, these resources sites have greater importance to the community than the conflicting uses that could occur here if the resources were not protected. As discussed above in Section 4, this is due in part to the arrangement of these resources along generally narrow corridors which do not have a significant impact on developable land and economic opportunities in the community. Although there are some negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences of *fully allowing* conflicting use. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic,

social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) North Flat Creek between Kalmia & Hyacinth Streets (E59B-2):
Limiting conflicting uses recommended. Based in part on the key resource characteristics described above, this portion of Flat Creek (E59B) is a medium-quality site, relative to all sites on the inventory. This segment extends for approximately 1,000 feet (11 lots) between Kalmia Street and Hyacinth Streets. While all of Flat Creek is intermittent (as are many Goal 5 streams), there appears to be very low flows through this segment. It contains very little riparian vegetation, and only a few, small trees that are primarily upland species. There are no LWI wetlands. In contrast, upstream and downstream of this section, the stream corridor is characterized by riparian and wetland vegetation, visible water, and locally significant wetlands. Compared to the rest of Flat Creek, this segment is perhaps the lowest quality section in the corridor. However, this section is an essential connector between the extensive Flat Creek system to the south, including the turtle pond complex at Maxwell Road, and the remainder of Flat Creek to the north. Given its important role in connecting the greater Flat Creek stream system, this stream segment warrants limited protection to ensure that this connection is not lost. Although there are some negative economic consequences of protecting the site, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences of *fully allowing* conflicting uses. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within the site outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for this portion of Flat Creek.

(c) North Flat Creek wetland at Cinnamon (RSC-23H);
North Flat Creek at Hyacinth (E59E):
Fully allowing conflicting uses recommended. These are lower value sites, as indicated by key resource characteristics above. Wetland RSC-23H is a small side-channel, which is essentially mowed lawn during the dry season, and contributes little to the creek habitat system. Site E59E is an isolated remnant of the Flat Creek system that has low connectivity to other habitat areas and little riparian vegetation. Based on these characteristics, and the ESEE analysis above, the positive consequences of protecting the resources at these sites do not outweigh the negative consequences, particularly the negative economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values within these sites. Therefore, fully allowing conflicting uses is recommended for these sites.

(d) Lancaster wetland (RSC-22):

Fully allowing conflicting uses recommended. This is a relatively small and isolated wetland site, but with an intact native plant community. Based on these key resource characteristics, it is a moderate quality wetland site. However, based on the ESEE analysis, its resource value is not high enough for the positive consequences of protecting the resource to outweigh the negative economic and social consequences of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended for these sites.

(2) Middle Flat Creek (E61):

(a) Middle Flat Creek at Maxwell (E61A, E61B, E61C-1, RSC-29); and
(b) Middle Flat Creek at Maxwell (E61C-2; RSC-33A/B):
Limiting conflicting uses recommended. Sites E61A, E61B, E61C-1, RSC-29 form a large, diverse habitat complex with high habitat quality. Key resource characteristics indicate they provide open water habitat, riparian corridors with a large proportion of native species, and valuable wetland functions, such as flood storage and habitat for a diversity of wildlife species. These sites also support fish and western pond turtles. Sites E61C-2 and RSC-33A/B are also part of this habitat complex. By themselves, they provide somewhat lower ecological value than other portions of the complex, but have high connectivity and add valuable riparian and wetland habitat to the complex. Therefore these sites also fall in the range of moderate- to higher quality sites. Based on these resource characteristics, and the ESEE analysis above, limiting conflicting uses for this group of sites is recommended. The high value of the sites makes them of greater importance to the broader community than the conflicting uses that could occur within the areas that would be protected. The negative economic, social, environmental and energy consequences of fully allowing conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of prohibiting conflicting uses within these sites outweigh the negative consequences. Limiting most conflicting uses would protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Middle Flat Creek at Bramblewood (E61D, RSC-28B/C); and
(d) Middle Flat Creek at Beltline (E61E; RSC-28A):
Limiting conflicting uses recommended. Based on key resource characteristics, this portion of Flat Creek falls in the range of medium- to higher-quality sites. Although there are sections where the riparian corridor is greatly disturbed, these sites have high connectivity, providing a continuous corridor of habitat between the fish/turtle pond complex at Maxwell Road, and the rest of Flat Creek. Based on these characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended. Although there are negative consequences, particularly economic consequences, in protecting these sites,

the value of the sites as a key section in the Flat Creek system is greater to the community than the importance of conflicting uses that would be allowed. The negative economic, social, environmental and energy consequences of fully allowing conflicting uses within this site outweigh the positive consequences. The positive economic, social, environmental and energy consequences of prohibiting conflicting uses within these sites outweigh the negative consequences. Limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(e) Howard ash grove (E61F; RSC-34):

Fully allowing conflicting uses recommended. This remnant of the Flat Creek system is a lower-quality site, with low connectivity to other habitat areas, and no surface water connection to the Flat Creek system. Wetland values are relatively low. Based on these key characteristics, and on the ESEE analysis above, fully allowing conflicting uses is recommended for this lower-quality site. Its value is not great enough for the positive consequences of protecting the resource to outweigh the negative consequences of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended.

(3) NW Expressway Ponds (E62):

(a) NW Expressway Pond/Diana's Pond (E62A and RSC-30A);
(b) NW Expressway Pond at railroad (E62B and BD-22):
Limiting conflicting uses recommended. Like the other ponds in this area, E62A and RSC-30A are some of the higher quality sites relative to all sites in the Inventory. As indicated by key resource characteristics, they provide open water habitat, riparian corridors with a large proportion of native species, and valuable wetland functions, such as flood storage and habitat for a diversity of wildlife species. These sites also support fish and western pond turtles. Sites E62B and BD-22 are also higher quality sites. Key characteristics include a high quality riparian plant community, open water habitat. Sites E62B and BD-22, are not documented to support fish or turtles. Based on these resource characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for this group of sites. The sites provide resource functions that are more important than the conflicting uses that would be allowed here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. Limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) NW Expressway Pond south (RSC-30B):
Fully allowing conflicting uses recommended. This wetland provides minimal wetland functions and values, and has little riparian habitat. Based on these resource characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for this lower-quality site. The importance of conflicting uses is greater than the resource values provided by the site. The positive consequences of protecting the resource do not outweigh the negative consequences of prohibiting or limiting conflicting uses. Therefore, this site is recommended for fully allowing conflicting uses.

(4) South Flat Creek (E69):

(a) Elkay Drive to Filbert (E69A; RSC-32):
Fully allowing conflicting uses recommended. In this portion of Flat Creek, the channel itself, and the wetland located within the channel, have been modified extensively and now contain little native riparian vegetation. With little riparian vegetation, and very little native vegetation in the channel to the north, this portion has relatively low connectivity to other habitat areas. These key resource characteristics indicate that this is a lower quality corridor. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for this lower-quality portion of Flat Creek. While it has some habitat value,

its importance is not great enough for the positive consequences of protecting the resource to outweigh the negative consequences of prohibiting or limiting conflicting uses. Therefore, this site is recommended for fully allowing conflicting uses.

(b) South Flat Creek at Horn Lane (E69B):
Limiting conflicting uses recommended. Based in part on key characteristics, this portion of Flat Creek has relatively high connectivity to other habitats, particularly as tributary to the pond complex at Maxwell further downstream, and has a relatively intact, higher quality riparian plant community. It is considered a higher quality site. Based on that and the ESEE analysis above, limiting most conflicting uses is recommended for this portion of Flat Creek. The overall importance of the resource to the Flat Creek stream system is greater than the conflicting uses that would be allowed here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site are comparable to the negative consequences. However, limiting conflicting uses would protect the resource while allowing for certain essential or low-impact uses. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative, and are slightly more positive than if conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for this site.

(c) Emerald Park to Kelly Lane (E69C):
Fully allowing conflicting uses recommended. This portion of Flat Creek at Emerald Park is one of the lower quality corridors in the Inventory. The corridor is essentially a mowed lawn swale, with virtually no riparian habitat other than a few remnant Oregon ash trees. Based these resource characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for this lower-quality site. The importance of the resource, and the positive consequences of protecting it do not outweigh the negative consequences of prohibiting or limiting conflicting uses. Therefore, this site is recommended for fully allowing conflicting uses.

11.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 11.5.2 below and Map 11.B summarize the recommendations for these sites.

(1) E59 North Flat Creek:

(a) E59A, B-1, B-3, C, D (North Flat Creek south of Hyacinth); RSC-23; RSC-25: Conservation setback of 20/25 feet recommended. As discussed above, these sites (E59A-D; RSC-23; RSC-25) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). This recommendation is based upon the ESEE analysis above and on these factors: (1) these sites are medium- to higher-quality sites, (2) North Flat Creek provides a continuous corridor of habitat approximately 3 miles long, giving it high connectivity value. Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) North Flat Creek between Kalmia & Hyacinth Streets (E59B-2): Protected, with no setback recommended. As discussed above, this portion of Flat Creek (E59B between Kalmia and Hyacinth Streets) is recommended for protection. This recommendation is based upon the ESEE analysis above, and the fact that this is one of the most disturbed sites in the inventory, but which has high connectivity value as a connector between the north and south portions of the extensive Flat Creek habitat corridor. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this riparian corridor would be designated a Category E Stream, in which the conservation area is the area between the high banks, with no additional conservation setback. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(c) North Flat Creek wetland at Cinnamon (RSC-23H); North Flat Creek at Hyacinth (E59E):

(d) Lancaster wetland (RSC-22):

No conservation measures are recommended for these sites (RSC-23H, E59E; RSC-22), as discussed in the analysis above.

(2) Middle Flat Creek (E61):

(a) Middle Flat Creek at Maxwell (E61A, E61B, E61C-1, RSC-29): Conservation setback of 40/50 feet recommended. As discussed above, these riparian sites and their associated wetlands (E61A, E61B, E61C-1, RSC-29) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. This recommendation is based upon the ESEE analysis above, and on these factors: (1) the presence of high quality riparian and open water habitat, and (2) the presence of fish and western pond turtles. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Middle Flat Creek at east Maxwell (E61C-2; RSC-33A/B):
(c) Middle Flat Creek at Bramblewood (E61D, RSC-28B/C); and
(d) Middle Flat Creek at Beltline (E61E; RSC-28A):

Conservation setback of 20/25 feet recommended. As discussed above, these riparian corridors and their associated wetlands (E61C-2, RSC-33A/B; E61D, RSC-28B/C; E61E, RSC-28A) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these riparian sites are recommended to be designated Category D Streams, and the wetland sites as Category B Wetlands. This recommendation is based on the ESEE analysis above, and on these factors: (1) these sites provide important connecting corridors to the fish and turtle habitat at Diana's Pond, (2) these site contain medium-to high quality riparian habitat and (3) these sites are hydrologically connected to Diana's Pond and changes in these sites can affect the turtle habitat in Diana's Pond. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(e) Howard ash grove (E61F; RSC-34):
No protection measures are recommended for these sites (E61F; RSC-34), as discussed in the analysis above.

(3) NW Expressway Ponds (E62):

(a) NW Expressway Pond/Diana's Pond (E62A and RSC-30A):
Conservation setback of 40/50 feet recommended. As discussed above, this pond and its associated wetlands are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. This recommendation is based upon the ESEE analysis above, and on these factors: (1) the presence of high quality riparian and open water habitat, and (2) the presence of fish and western pond turtles. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) NW Expressway Pond at railroad (E62B and BD-22):

Conservation setback of 20/25 feet recommended. As discussed above, this pond and its associated wetlands are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these riparian sites are recommended to be designated Category D Streams, and the wetland sites as Category B Wetlands. This recommendation is based on the ESEE analysis above and on these factors: (1) the high quality riparian habitat in this site, (2) the open water habitat in this site, and (3) proximity to the Diana's Pond complex. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) NW Expressway Pond south (RSC-30B):
No protection measures are recommended for this site (RSC-30B), as discussed in the analysis above.

(4) South Flat Creek (E69):

(a) Elkay Drive to Filbert (E69A; RSC-32): and
(c) Emerald Park to Kelly Lane (E69C:
No protection measures are recommended for these sites (E69A; RSC-32; E69C), as discussed in the analysis above.

(b) South Flat Creek at Horn Lane (E69B):
Conservation setback of 20 feet recommended. As discussed above, this pond and its associated wetlands are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

Table 11.5.2 Recommendations Summary: North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds

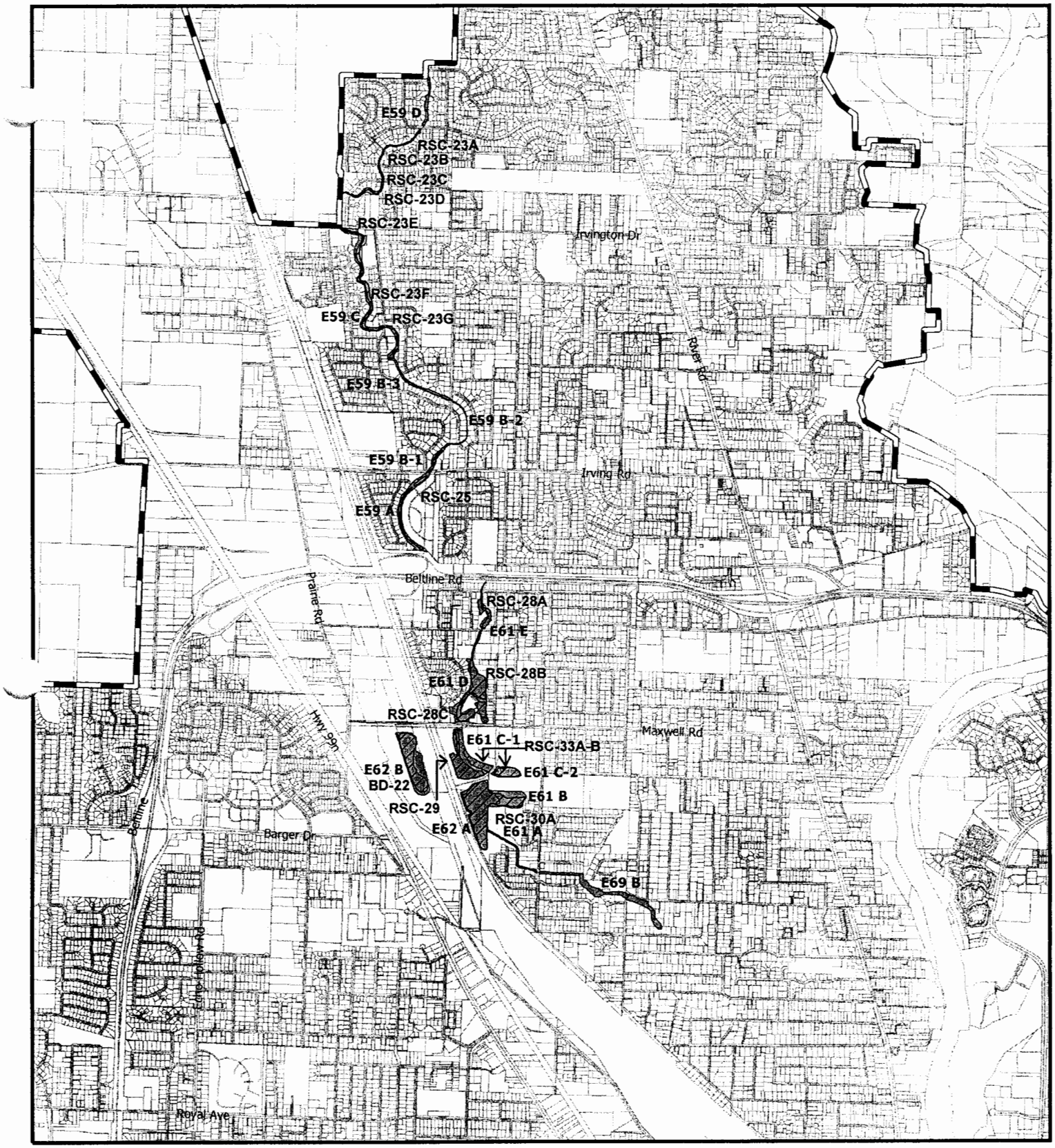
Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	InsideCity Limits***
E59 North Flat Creek:						
E59A, B-1, B-3, D	North Flat Creek south of Hyacinth	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	private	1/2
E59B-2	North Flat Creek betw. Kalmia & Hyacinth	Limit conflicting uses	/WR Overlay Zone, Stream Category E	--0--	private	none
RSC-23	North Flat Creek wetland (north)	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	private/public	2/3
RSC-23H	North Flat Creek wetland at Cinnamon	Fully allow conflicting uses	n/a	n/a	private	all
RSC-25	North Flat Creek wetland (south)	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	private	all
E59E	North Flat Creek at Hyacinth	Fully allow conflicting uses	n/a	n/a	private	all
RSC-22	Wetland at Lancaster	Fully allow conflicting uses	n/a	n/a	private	all
E61 Middle Flat Creek:						
E61A	Middle Flat Creek at Maxwell (slough)	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	private/public	2/3
E61B	Middle Flat Creek at Maxwell (pond)	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	public/private	all
E61C-1	Middle Flat Creek at Maxwell (pond)	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	public/private	all
RSC-29	Middle Flat Creek wetland at Maxwell (pond)	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	50'	public	all
E61C-2	Middle Flat Creek at Maxwell (pond)	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	private	none
RSC-33A/B	Middle Flat Creek wetland at Maxwell	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	private/public	none
E61D	Middle Flat Creek at Bramblewood	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	public	all
RSC-28B/C	Middle Flat Creek wetland at north Bramblewood	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	public	all
E61E	Middle Flat Creek at Beltline	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	private	none
RSC-28A	Middle Flat Creek wetland at Beltline	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	private	none
E61F	Middle Flat Creek at Howard ash grove	Fully allow conflicting uses	n/a	n/a	private	none
RSC-34	Howard ash grove wetland	Fully allow conflicting uses	n/a	n/a	private	none

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	InsideCity Limits***
E62 NW Expressway Ponds						
E62A	NW Expressway Pond/Diana's Pond	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40	public	all
RSC-30A	NW Expressway Pond/Diana's Pond wetland (north)	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	public	all
E62B	NW Expressway Pond/Railroad	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	public	all
BD-22	NW Expressway Pond/Railroad wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	private	all
RSC-30B	NW Expressway Pond/Diana's Pond wetland (south)	Fully allow conflicting uses	n/a	n/a	private	all
E69 South Flat Creek						
E69A	South Flat Creek at Elkay	Fully allow conflicting uses	n/a	n/a	private	none
RSC-32	South Flat Creek wetland at Elkay	Fully allow conflicting uses	n/a	n/a	private	none
E69B	South Flat Creek at Horn Lane	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	private	1/3
E69C	South Flat Creek at Emerald Park	Fully allow conflicting uses	n/a	n/a	public/private	1/6

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Eugene Goal 5 ESEE Analysis Group 11

Goal 5 Protection Designations for
North Flat Creek, Middle Flat Creek, South Flat Creek, & NW Expressway Ponds

Map 11B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Recommended for Protection
- Riparian Corridor Recommended for Protection
- Upland Wildlife Habitat Recommended for Protection

N

0 890 1,780 Feet

5/4/05

11.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

12. Supplemental Analysis

East Santa Clara Waterway & River Loop

Sites E57 (East Santa Clara Waterway); E56 (River Loop); RSC-40 (East Santa Clara Waterway Wetland)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to " To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

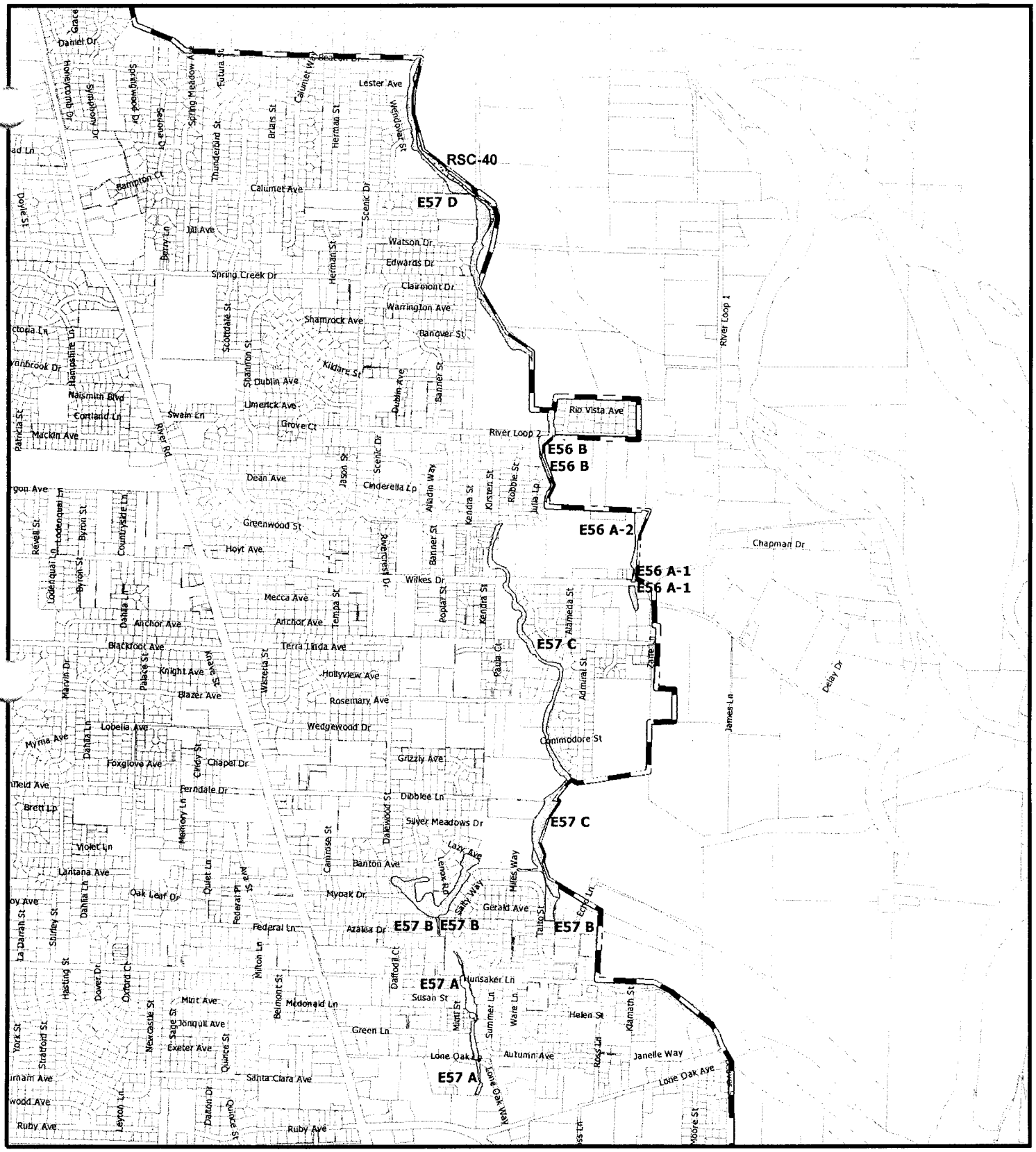
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 12.1 below lists the sites in this analysis group, their resource category and acreage. Map 12.A below shows the site(s) described in this analysis group.

Table 12.1 ESEE analysis group: East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

Site/ Sub-Site #	Site Name	Resource Type*	Site Acres	Inside City Limits**
E57D north of Kildare; RSC-40 at Scenic Meadows:				
E57D	ESCW north of Kildare	R	7.01	1/3
RSC-40	ESCW wetland at Scenic Meadows	W	1.56	1/2
E57C Banton to Dean; E56B, E56A north of Madison Middle				
E57C	ESCW Banton to Dean	R	7.01	1/4
E56B	River Loop/ESCW	R	0.97	1/2
E56A-2	River Loop Tributary north of Madison M.S.	R	0.84	all
E57B at Salty Way; E57A at Lone Oak; E56A south of Madison Middle				
E57B	ESCW at Salty Way	R	6.05	1/3
E57A	ESCW at Lone Oak	R	1.70	1/5
E56A-1	River Loop Tributary south of Madison M.S.	R	0.45	1/2

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 12

Map 12A

Significant Goal 5 Site Boundaries for East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 270 540 1,080 Feet

4/25/05

12.1 Site Description(s)

E57D East Santa Clara Waterway (ESCW) north of Kildare; RSC-40 at Scenic Meadows; E57C East Santa Clara Waterway (ESCW) Banton to Dean; E57B East Santa Clara Waterway (ESCW) at Salty Way; E57A East Santa Clara Waterway (ESCW) at Lone Oak; E56A River Loop Tributary; E56B River Loop/ESCW

The East Santa Clara stream system within the Eugene UGB is comprised of the East Santa Clara Waterway (ESCW) (E57), River Loop No. 1 (E56), and a wetland within the waterway, RSC-40. All of these sites are located in the eastern Santa Clara neighborhood east of River Road. These streams are generally steep-banked, with narrow channels, and water levels that vary seasonally. ESCW north of Spring Creek Drive contains locally significant wetland site RSC-40. Riparian vegetation along these streams is characterized as mixed coniferous/deciduous forest, with primarily Oregon ash, big leaf maple and Douglas-fir overstory. In most sections, particularly from Banton Avenue northward, the riparian area is still relatively intact, with a high level of vegetative and structural diversity. In other sections, the riparian plant community has been degraded over the years, and Armenian blackberry and other invasive species dominate the understory. These corridors also have high connectivity. From Banton Avenue northward, the ESCW and River Loop corridors extend northward approximately 2 miles to the Willamette River. In all, this system contains over 3 linear miles of riparian corridor.

(1) **E57D north of Kildare; RSC-40 at Scenic Meadows:**
This northernmost section of ESCW (E57D) is notable because: 1) it contains higher quality riparian habitat than other sections of ESCW, and 2) it provides documented fish habitat. The presence of fish has been confirmed by Oregon Dept. of Fish and Wildlife (ODFW) as far south as the area at Wendover Street, and fish are likely to be present at least as far south as Kildare Street. This portion of ESCW also contains a locally significant wetland, RSC-40.

(2) **E57C Banton to Dean; E56B; E56A north of Madison Middle School:**

From Banton Avenue northward to Dean Avenue, and north of Madison Middle School, ESCW and River Loop/ESCW (E57C, E56B, E56A-1) contain relatively intact riparian areas. Some sections, such as those near Banton Avenue and Dean Avenue have higher quality riparian plant communities with a significant portion of native species, while other sections have an understory dominated by Armenian blackberry and other invasive species. This segment of the ESCW, nearly a mile long up to Dean Avenue, connects at Dean Avenue to the upper ESCW by a 600-foot piped section. As a whole, these corridors have high connectivity as tributaries to the ESCW system that connects to the Willamette River. The River Loop Tributary to the east (E56A) is the upper end of an extensive tributary (approx. 1 mile long) to ESCW. The western River Loop/ESCW (E56B) is actually a quarter-mile segment of the main stem of ESCW. Downstream portions of E56A and E56B that connect them to river are located outside of the Eugene

UGB, and were not designated for protection through Lane County's Goal 5 process.

(3) E57B at Salty Way; E56A south of Madison Middle School:

South of Banton Avenue (E47B), the character of E57 changes significantly. The riparian area that remains is much more degraded, with a higher component of invasive and ornamental species. Approximately 2,270 feet of a total of approximately 3300 feet of original corridor south of Banton Avenue has been cleared of vegetation, re-graded into engineered swales or piped. Those areas with an already-marginal quality riparian plant community, such as from Lone Oak Way to Hunsaker, are now much more fragmented and disconnected from other corridor sections, further reducing their habitat value. The portion of River Loop Tributary located south of Madison Middle School (E56A-1) has been substantially altered. It contains mostly upland vegetation, and may lack the hydrology necessary to support riparian vegetation. As a result, this portion of the River Loop Tributary has relatively low habitat value.

The East Santa Clara Waterway corridors are generally located within older, low-density residential neighborhoods, with pockets of newer subdivisions. At Lone Oak Way, a number of lots along ESCW are developed into more dense housing. A large portion of ESCW at Wendover Street is dedicated City park land. Almost all of Site E56A (at the UGB) is located on school district property. Major portions of these sites are located outside of city limits within the UGB.

12.2 Impact Area

E57D East Santa Clara Waterway (ESCW) north of Kildare; RSC-40 at Scenic Meadows; E57C East Santa Clara Waterway (ESCW) Banton to Dean; E57B East Santa Clara Waterway (ESCW) at Salty Way; E57A East Santa Clara Waterway (ESCW) at Lone Oak; E56A River Loop Tributary; E56B River Loop/ESCW

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 12.2 below lists the impact areas assigned to these Goal 5 sites.

Table 12.2 Impact Area Summary: East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

Site/ Sub-Site #	Site Name	Impact Area*
E57D north of Kildare; RSC-40 at Scenic Meadows:		
E57D	ESCW north of Kildare	Type C - 50' + mapped riparian vegetation
RSC-40	ESCW wetland at Scenic Meadows	Type C - 50'
E57C Banton to Dean; E56B; E56A north of Madison Middle School:		
E57C	ESCW Banton to Dean	Type D - 25' + mapped riparian vegetation
E56B	River Loop/ESCW	Type D - 25' + mapped riparian vegetation
E56A-2	River Loop Tributary north of Madison M.S.	Type D - 25' + mapped riparian vegetation
E57B at Salty Way; E57A at Lone Oak; E56A south of Madison Middle School:		
E57B	ESCW at Salty Way	Type D - 25' + mapped riparian vegetation
E57A	ESCW at Lone Oak	Type D - 25' + mapped riparian vegetation
E56A-1	River Loop Tributary south of Madison M.S.	Type D - 25' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

12.3 Conflicting uses

E57D East Santa Clara Waterway (ESCW) north of Kildare; RSC-40 at Scenic Meadows; E57C East Santa Clara Waterway (ESCW) Banton to Dean; E57B East Santa Clara Waterway (ESCW) at Salty Way; E57A East Santa Clara Waterway (ESCW) at Lone Oak; E56A River Loop Tributary; E56B River Loop/ESCW

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR), and Agricultural (AG) (although land uses in AG are primarily residential). Portions of sites that are not in residential uses, such as the city park at Wendover, the denser housing at Lone Oak Way, are still zoned LDR. Almost all of Site E56A (at the UGB) is located on school district property and zoned Public Land. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural, and Public Land uses are determined to be conflicting uses for riparian corridors and wetlands. Table 12.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 12.3 Zoning within Impact Areas: East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
E57D north of Kildare; RSC-40 at Scenic Meadows:				
E57D	ESCW north of Kildare	AG	LDR	public/private
RSC-40	ESCW wetland at Scenic Meadows	LDR	AG	public/private
E57C Banton to Dean; E56B; E56A north of Madison Middle School:				
E57C	ESCW Banton to Dean	AG	LDR	private
E56B	River Loop/ESCW	AG	LDR	private
E56A-2	River Loop Tributary north of Madison M.S.	PL	---	public
E57B at Salty Way; E57A at Lone Oak; E56A south of Madison Middle School:				
E57B	ESCW at Salty Way	LDR	AG	private
E57A	ESCW at Lone Oak	LDR	C	private
E56A-1	River Loop Tributary south of Madison M.S.	LDR	AG	private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

12.4 ESEE Consequences

E57D East Santa Clara Waterway (ESCW) north of Kildare; RSC-40 at Scenic Meadows; E57C East Santa Clara Waterway (ESCW) Banton to Dean; E57B East Santa Clara Waterway (ESCW) at Salty Way; E57A East Santa Clara Waterway (ESCW) at Lone Oak; E56A River Loop Tributary; E56B River Loop/ESCW

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 12.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

12.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 12.4.1 below. Some of these characteristics are further discussed below and in Section 12.1, Site Descriptions.

Table 12.4.1 Key resource characteristics: East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E57D north of Kildare; RSC-40 at Scenic Meadows:												
E57D	ESCW north of Kildare	YES	NO	HI	HI	YES	---	---	---	---	NO	NO
RSC-40	ESCW wetland at Scenic Meadows	YES	NO	HI	MED	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E57C Banton to Dean; E56B; E56A north of Madison Middle School:												
E57C	ESCW Banton to Dean	NO	NO	HI	MED-HI	NO	---	---	---	---	NO	NO
E56B	River Loop/ESCW	NO	NO	HI	MED	NO	---	---	---	---	NO	NO
E56A-2	River Loop Tributary north of Madison M.S.	NO	NO	HI	MED	NO	---	---	---	---	NO	NO
E57B at Salty Way; E57A at Lone Oak; E56A south of Madison Middle School:												
E57B	ESCW at Salty Way	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
E57A	ESCW at Lone Oak	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO
E56A-1	River Loop Tributary south of Madison M.S.	NO	NO	LO	LO	NO	---	---	---	---	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

12.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 12.4.2 below list the paragraph number of applicable ESEE consequences.

Table 12.4.2 Summary of ESEE Consequences: East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E57D north of Kildare; RSC-40 at Scenic Meadows:				
	FULLY ALLOWING CONFLICTING USES			
E57D ESCW north of Kildare	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
RSC-40 ESCW wetland at Scenic Meadows	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to higher quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E57C Banton to Dean; E56B; E56A north of Madison Middle School:				
	FULLY ALLOWING CONFLICTING USES			
E57C-ESCW Banton to Dean	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E56B-River Loop/ESCW E56A-2-River Loop Tributary north of Madison M.S.	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to higher quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E57B at Salty Way; E57A at Lone Oak; E56A south of Madison Middle School:				
	FULLY ALLOWING CONFLICTING USES			
E57B ESCW at Salty Way	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E57A ESCW at Lone Oak E56A-1 River Loop Tributary south of Madison M.S.	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

12.5 ESEE Conclusions and Recommendations

E57D East Santa Clara Waterway (ESCW) north of Kildare; RSC-40 at Scenic Meadows; E57C East Santa Clara Waterway (ESCW) Banton to Dean; E57B East Santa Clara Waterway (ESCW) at Salty Way; E57A East Santa Clara Waterway (ESCW) at Lone Oak; E56A River Loop Tributary; E56B River Loop/ESCW

12.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in **Section 5**, Conclusions and Recommendations.

(1) E57D north of Kildare and RSC-40 at Scenic Meadows:

Limiting conflicting uses recommended.
The key resource characteristics of these sites indicate that they provide *relatively high quality* wildlife habitat. The riparian plant community is relatively intact, and the corridor provides valuable fish habitat. Wetland RSC-40 occurs within the riparian corridor. Moreover, the corridor has high connectivity due to its length and connection to the Willamette River. Based on these key resource characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) **E57C Banton to Dean; E56B; E56A north of Madison Middle School:**

Limiting conflicting uses recommended. These portions of the ESCW stream system (E57C, E56B, E56A-2) are more disturbed than the northern portion; however, the native riparian canopy is for the most part continuous, and forms an extensive habitat corridor with high connectivity to the ESCW system and, ultimately, to the Willamette River. Fish have not been documented in these southern segments, but it appears the habitat here could support fish, and there are no documented barriers to fish passage from the reach to the north. These resource characteristics indicate that these sites are *higher quality* sites. Based on the ESEE analysis above and key resource characteristics, in these sites resource values are of somewhat greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) **E57B at Salty Way; E56A south of Madison Middle School:**

Fully allowing conflicting uses recommended. As indicated by key resource characteristics, this portion of the ESCW system located south of Banton Avenue and south of Madison Middle School (E57B and E56A-1) is of *much lower quality* than other sites in the adopted Inventory. Most of the native riparian vegetation has been removed, resulting in disturbed, isolated habitat patches with lower connectivity. There are no wetlands in these sites. Based on these resource characteristics and the ESEE analysis above, the positive consequences of protecting these lower quality sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for these sites.

12.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in

Section 5, Conclusions and Recommendations. Table 12.5.2 below and Map 12.B summarize the recommendations for these sites.

(1) **E57D north of Kildare and RSC-40 at Scenic Meadows:**
Conservation setback of 40/50 feet recommended. As discussed above, the northernmost portion of ESCW and its associated wetlands are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream, and the wetland site as a Category A Wetland. This recommendation is based upon the ESEE analysis above and these factors: (1) the riparian plant community is relatively intact, (2) the corridor provides valuable fish habitat, and (3) the corridor has high connectivity value due to its length and connection to the Willamette River. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) **E57C Banton to Dean; E56B; E56A north of Madison Middle School:**
Conservation setback of 20 feet recommended. As discussed above, these portions of the ESCW stream system are recommended for protection, but fish presence has not been documented. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(3) **E57B at Salty Way; E56A south of Madison Middle School:**

No protection measures are recommended for this site, as discussed in the analysis above.

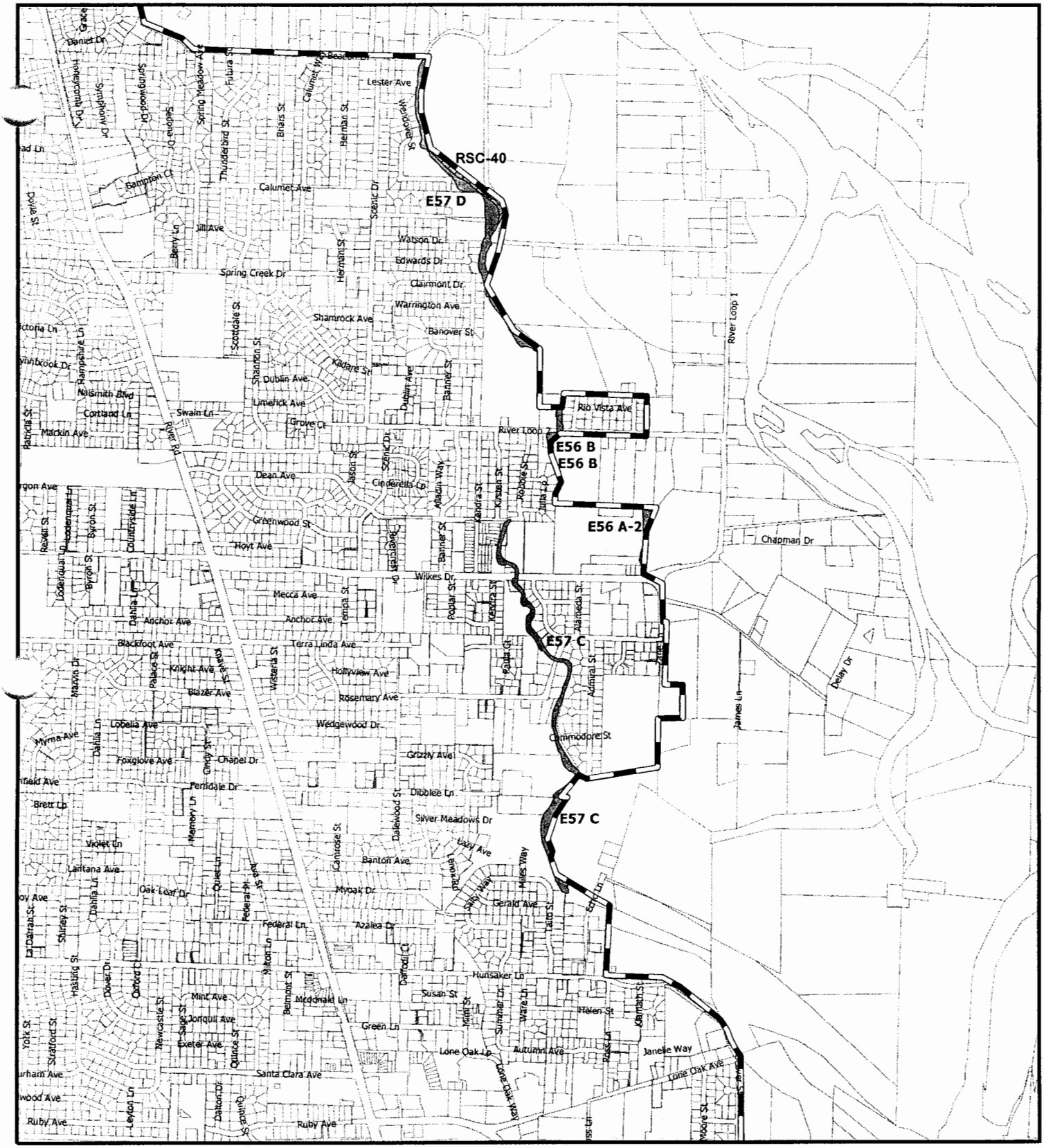
Table 12.5.2 Recommendations Summary: East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	City Limits***
E57D north of Kildare; RSC-40 at Scenic Meadows:						
E57D	ESCW north of Kildare	Limit conflicting uses	/WR Overlay Zone, Category C	40'	private/public	1/3
RSC-40	ESCW wetland at Scenic Meadows	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	public/private	1/2
E57C Banton to Dean; E56B; E56A north of Madison Middle School:						
E57C	ESCW Banton to Dean	Limit conflicting uses	/WR Overlay Zone, Category D	20'	private	1/4
E56B	River Loop/ESCW	Limit conflicting uses	/WR Overlay Zone, Category D	20'	private	1/2
E56A-2	River Loop Tributary north of Madison M.S.	Limit conflicting uses	/WR Overlay Zone, Category D	20'	public	all
E57B at Salty Way; E57A at Lone Oak; E56A south of Madison Middle School:						
E57B	ESCW at Salty Way	Fully allow conflicting uses	n/a	n/a	private	1/3
E57A	ESCW at Lone Oak	Fully allow conflicting uses	n/a	n/a	private	1/5
E56A-1	River Loop Tributary south of Madison M.S.	Fully allow conflicting uses	n/a	n/a	private	1/2

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 12

Goal 5 Protection Designations
for East Santa Clara Waterway, River Loop, East Santa Clara Waterway Wetland

Map 12B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 270 540 1,060 Feet

4/25/05

12.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

E57D East Santa Clara Waterway (ESCW) north of Kildare; RSC-40 at Scenic Meadows; E57C East Santa Clara Waterway (ESCW) Banton to Dean; E57B East Santa Clara Waterway (ESCW) at Salty Way; E57A East Santa Clara Waterway (ESCW) at Lone Oak; E56A River Loop Tributary; E56B River Loop/ESCW

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

13. Supplemental Analysis

Spring Creek

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

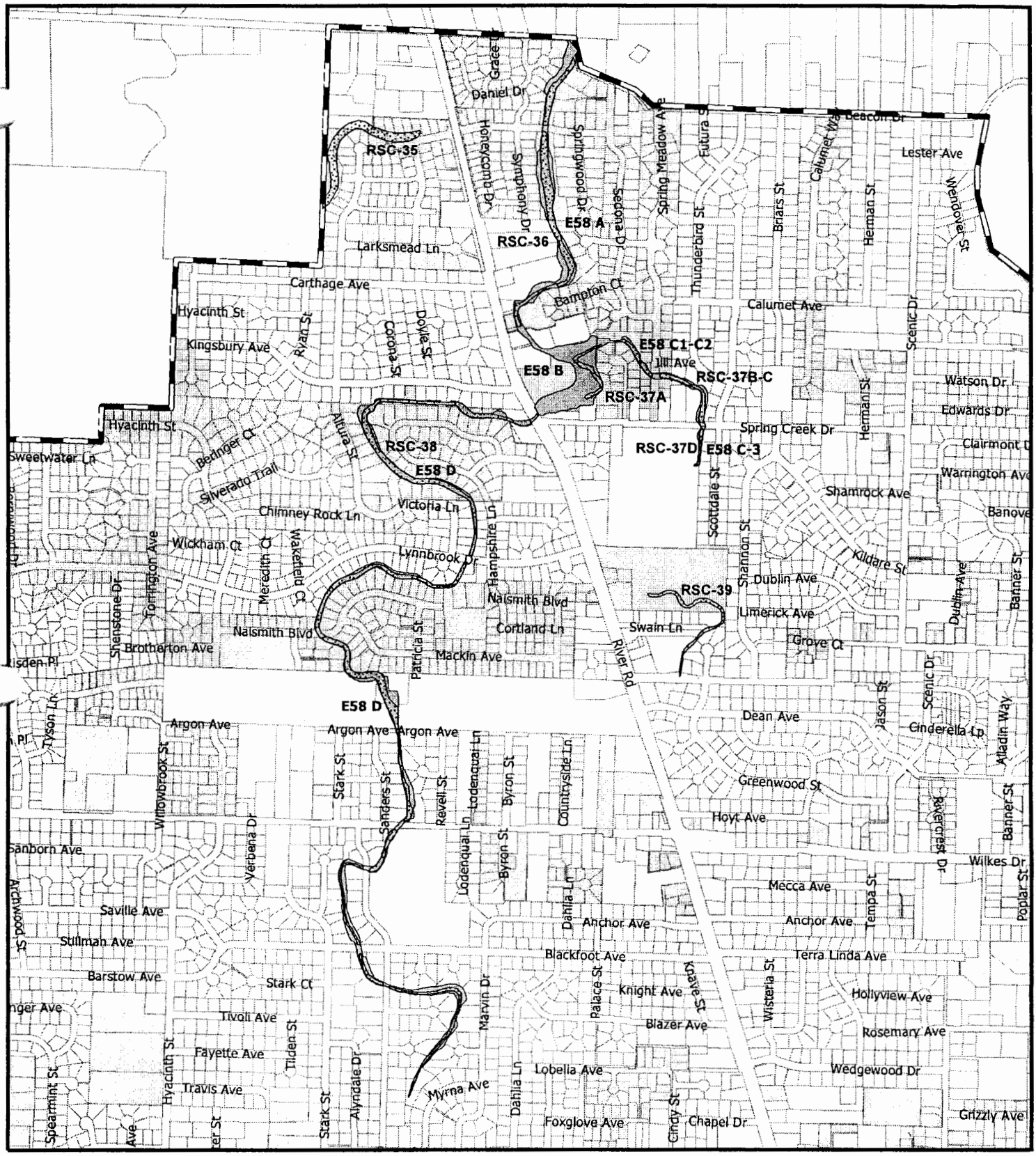
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 13.1 below lists the sites in this analysis group, their resource category and acreage. Map 13.A below shows the site(s) described in this analysis group.

Table 13.1 ESEE analysis group: Spring Creek and Spring Creek Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
E58 Spring Creek east of River Road:				
E58 A	Spring Creek east of River Road	R	2.49	3/4
RSC-36	Spring Creek wetland east	W	2.20	2/3
E58 B	Spring Creek at Awbrey Park	R	5.30	2/3
RSC37-A	Spring Creek wetland at Awbrey	W	0.38	2/3
E58 Spring Creek Tributary:				
E58 C-1/C-2	Spring Creek Tributary at Spring Creek Drive	R	1.19	1/2
RSC-37B/C	Spring Creek wetland at S.C. Drive	W	0.60	1/2
E58 C-3	Spring Creek Tributary at S.C. Elementary	R	0.19	None
RSC-37D	Spring Creek wetland at S.C. Elementary	W	0.12	None
RSC-39	Spring Creek wetland at River Loop	W	0.61	1/2
E58 Spring Creek west of River Road:				
E58D	Spring Creek west of River Road	R	8.89	1/3
RSC-38	Spring Creek wetland west	W	5.64	1/3
RSC-35	Spring Creek wetland at Willow Spring Dr	W	1.69	9/10

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Eugene Goal 5 ESEE Analysis Group 13

Significant Goal 5 Site Boundaries for Spring Creek & Spring Creek Wetlands

Map 13A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 350 700 1,050 Feet

5/4/05

13.1 Site Description(s)

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

The Spring Creek stream system is located in the River Road and Santa Clara neighborhoods in northwest Eugene. It flows northerly from Irvington Drive, crosses River Road near Spring Creek Drive (near Awbrey Park), and continues northward across the Urban Growth Boundary, and eventually into the Willamette River just north of the Willamette-McKenzie confluence (to the east of Lone Pine Drive). Spring Creek was historically a perennial stream, with year-round flow, but major alterations in the hydrology of its drainage basin have rendered it seasonal. However, because it is directly connected to the Willamette River, upper portions of the creek contain fish, especially during high winter and spring flows in the Willamette River. Portions of the creek have primarily native vegetation, with native willow, Oregon ash, black cottonwood, and big-leaf maple, while other portions have been highly disturbed. In disturbed areas, Armenian blackberry is the dominant understory vegetation; in some places almost all riparian vegetation has been removed and replaced with ornamental landscaping. Despite modification and disturbance of the riparian corridor, overall, the Spring Creek system provides a continuous habitat corridor for birds, mammals, and reptiles, and aquatic animals, extending over 5 miles long to the Willamette River.

(1) **E58 Spring Creek east of River Road:** The northern section of Spring Creek (E58A, E58B, RSC-36, RSC-37A) contains higher quality riparian habitat than other sections of the creek, and provides viable fish habitat. The presence of fish has been confirmed by Oregon Dept. of Fish and Wildlife (ODFW) as far south as Awbrey Park. This portion of the creek contains a relatively high quality riparian corridor, with a high proportion of native species. It also includes wetland sites RSC-36 and RSC-37A within the stream channel, where emergent vegetation exists in the channel.

(2) **E58 Spring Creek Tributary:**

(a) Spring Creek Tributary at Spring Creek Drive (E58 C-1, E58 C-2, RSC-37B/C): This corridor (E58C-1, E58C-2, RSC-37B/C) is a tributary to Spring Creek. It extends from Spring Creek Drive, between a number of houses, past Berry Lane, and into Awbrey Park. While is a very narrow corridor for most of its length, and contains patches of Armenian blackberry and reed canarygrass, it has a relatively high proportion of native riparian vegetation. This section of the creek system also contains wetlands (RSC-37B/C).

(b) Spring Creek Tributary at S.C. Elementary School (E58C-3, RSC-37D): This corridor (E58C-3, RSC-37D) is a very short segment of the Spring Creek Tributary located south of Spring Creek Drive next to the elementary school parking lot. The segment has been greatly disturbed and modified. The channel contains steep banks, and riparian vegetation is contained in a very narrow strip between a parking lot on one side and residential fences on the other. Vegetation is predominantly non-native, and includes

very few trees or shrubs. A portion of wetland (RSC-37D) occurs within the channel, but has low wetland values and functions.

(c) RSC-39 Spring Creek wetland at River Loop: Wetland RSC-39, located north of River Loop 2, may have once been a channel connected to Spring Creek. It is now an isolated wetland with no outlet. Although it is small (less than 1 acre) and isolated, it has a significant component of native vegetation, including willow and native rose.

(3) E58 Spring Creek west of River Road:

(a) Spring Creek west of River Road (E58D, RSC-38): The southern portion of Spring Creek (E58D, RSC-38) has a riparian corridor that is still relatively intact as it winds its way through the backyards of 200-or-so residences. Portions of the corridor have been greatly disturbed and native riparian vegetation has been replaced with backyard landscaping or retaining structures. Most of the corridor, however, contains a large component of native vegetation, such as native willow and big-leaf maple. While fish have not been documented in this southern section of Spring Creek, there are no known barriers to prevent fish from using this habitat. Since Spring Creek has been documented to be fish-bearing at Awbrey Park, it is possible that, during high flows, fish also use this southern portion. Despite modification over the years, this portion of the creek adds nearly 2 miles of riparian habitat to a system that ultimately connects to the Willamette River.

(b) RSC-35 Spring Creek at Willow Spring Drive: Wetland site RSC-35 is a remnant channel that may have historically been connected to Spring Creek. It is located approximately 1,000 feet to the west of Spring Creek and has no surface water connection to the creek. It is relatively small (under 2 acres), and it appears to have an overstory of primarily native tree species, but the vegetation in the understory has not been identified.

The Spring Creek sites are generally located within older, low-density residential neighborhoods, with pockets of newer subdivisions, and undeveloped farm land. Major sections are outside of Eugene City limits but within the UGB. Portions of Spring Creek at Spring Creek Drive and at Irvington are within the grounds of elementary schools. At River Road and Spring Creek Drive is the City-owned Awbrey Park. There is are several properties fronting River Road at River Loop 2 that have commercial uses and zoning.

13.2 Impact Area

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 13.2 below lists the impact areas assigned to these Goal 5 sites.

Table 13.2 Impact Area Summary: Spring Creek and Spring Creek Wetlands

Site/ Sub-Site #	Site Name	Impact Area*
E58 Spring Creek east of River Road:		
E58 A	Spring Creek east of River Road	Type C - 50' + mapped riparian vegetation
RSC-36	Spring Creek wetland east	Type C - 50'
E58 B	Spring Creek at Awbrey Park	Type C - 50' + mapped riparian vegetation
RSC37-A	Spring Creek wetland at Awbrey	Type C - 50'
E58 Spring Creek Tributary:		
E58 C-1/C-2	Spring Creek Tributary at Spring Creek Dr	Type D - 25' + mapped riparian vegetation
RSC-37B/C	Spring Creek wetland at S.C. Drive	Type D - 25'
E58 C-3	Spring Creek Tributary at S.C. Elementary	Type D - 25' + mapped riparian vegetation
RSC-37D	Spring Creek wetland at S.C. Elementary	Type D - 25'
RSC-39	Spring Creek wetland at River Loop	Type D - 25'
E58D	Spring Creek west of River Road	Type D - 25' + mapped riparian vegetation
RSC-38	Spring Creek wetland west	Type D - 25'
RSC-35	Spring Creek wetland at Willow Spring Dr	Type D - 25'
E58 Spring Creek west of River Road:		
E58D	Spring Creek west of River Road	Type D - 25' + mapped riparian vegetation
RSC-38	Spring Creek wetland west	Type D - 25'
RSC-35	Spring Creek wetland at Willow Spring Dr	Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

13.3 Conflicting uses

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR), with some undeveloped areas outside of city limits being zoned Agricultural (AG) (with primarily parks and residential uses). A small section of Spring Creek crosses land zoned Public Land (PL) at the school site at Irvington Drive. There is also Commercial (C) zoning at Wetland RSC-39 on River Road. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 13.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 13.3 Zoning within Impact Areas: Spring Creek and Spring Creek Wetlands

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
E58 Spring Creek east of River Road:				
E58 A	Spring Creek east of River Road	LDR	---	Private, public
RSC-36	Spring Creek wetland east	LDR	AG	Private, public
E58 B	Spring Creek at Awbrey Park	LDR	AG	Private, public
RSC37-A	Spring Creek wetland at Awbrey	AG	LDR	Private, public
E58 Spring Creek Tributary:				
E58 C-1, C-2	Spring Creek Tributary at Spring Creek Dr	LDR	PL, AG	Private, public
RSC-37B, C	Spring Creek wetland at S.C. Drive	LDR	---	Private, public (R.O.W.)
E58 C-3	Spring Creek Tributary at S.C. Elementary	AG, LDR	---	Private, public
RSC-37D	Spring Creek wetland at S.C. Elementary	AG, LDR	---	Private, public
RSC-39	Spring Creek wetland at River Loop	AG	C2, R2, LDR	Private, public (R.O.W.)
E58 Spring Creek west of River Road:				
E58D	Spring Creek west of River Road	LDR	AG, PL	Private, public
RSC-38	Spring Creek wetland west	LDR	AG, PL	Private, public
RSC-35	Spring Creek wetland at Willow Spring Dr	LDR	AG	Private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

13.4 ESEE Consequences

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 13.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

13.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends on the quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 13.4.1 below. Some of these characteristics are further discussed below and in Section 13.1, Site Descriptions.

Table 13.4.1 Key resource characteristics: Spring Creek and Spring Creek Wetlands (See Key below Table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E58 Spring Creek east of River Road:												
E58 A	Spring Creek east of River Road	YES	NO	HI	MED-HI	YES	--	--	--	--	NO	NO
RSC-36	Spring Creek wetland east	YES	NO	HI	N/A	YES	SOME	DEGR	DEGR	INTACT	NO	NO
E58 B	Spring Creek at Awbrey Park	YES	NO	HI	HI	YES	--	--	--	--	NO	NO
RSC37-A	Spring Creek wetland at Awbrey	YES	NO	HI	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E58 Spring Creek Tributary:												
E58 C-1, C-2	Spring Creek Tributary at Spring Creek Drive	NO	NO	MED	MED	YES	--	--	--	--	NO	NO
RSC-37B, C	Spring Creek wetland at S.C. Drive	NO	NO	MED	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E58 C-3	Spring Creek Tributary at S.C. Elementary	NO	NO	LO	LO	YES	--	--	--	--	NO	NO
RSC-37D	Spring Creek wetland at S.C. Elementary	NO	NO	LO	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
RSC-39	Spring Creek wetland at River Loop	NO	NO	LO	HI	YES	SOME	DEGR	DEGR	INTACT	NO	NO
E58 Spring Creek west of River Road:												
E58D	Spring Creek west of River Road	NO	NO	HI	MED	YES	--	--	--	--	NO	NO
RSC-38	Spring Creek wetland west	NO	NO	HI	N/A	YES	SOME	DEGR	DEGR	INTACT	NO	NO
RSC-35	Spring Creek wetland at Willow Spring Dr	NO	NO	MED	N/A	YES	SOME	INTACT	INTACT	INTACT	NO	NO
		Fish	T&E	Con-nect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

13.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 12.4.2 below list the paragraph number of applicable ESEE consequences.

Table 13.4.2 Summary of ESEE Consequences: Spring Creek and Spring Creek Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E58 Spring Creek east of River Road:				
	FULLY ALLOWING CONFLICTING USES			
E58 A Spring Creek east of River Road*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
RSC-36 Spring Creek wetland east*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E58 B Spring Creek at Awbrey Park*	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
RSC37-A Spring Creek wetland at Awbrey*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
**Note: References to higher quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E58 Spring Creek Tributary:

E58 C-1, C-2 Spring Creek Tributary at Spring Creek Drive*

RSC-37B, C Spring Creek wetland at S.C. Drive*

E58 C-3 Spring Creek Tributary at S.C. Elementary**

RSC-37D Spring Creek wetland at S.C. Elementary**

RSC-39 Spring Creek wetland at River Loop**

**Note: References to higher quality sites apply.*

***Note: References to lower quality sites apply.*

FULLY ALLOWING CONFLICTING USES			
Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
LIMITING CONFLICTING USES			
Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
PROHIBITING CONFLICTING USES			
Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E58 Spring Creek west of River Road:

E58D Spring Creek west of River Road*

RSC-38 Spring Creek wetland west*

RSC-35 Spring Creek wetland at Willow Spring Dr*

**Note: References to higher quality sites apply.*

FULLY ALLOWING CONFLICTING USES			
Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
LIMITING CONFLICTING USES			
Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
PROHIBITING CONFLICTING USES			
Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

13.5 ESEE Conclusions and Recommendations

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

13.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in **Section 5**, Conclusions and Recommendations.

(1) E58 Spring Creek east of River Road (E58A, E58B, RSC-36, RSC-37A):

Limiting conflicting uses recommended.
The key resource characteristics of these riparian corridors (E58A, E58B, RSC-36, RSC-37A) indicate that they provide *relatively high quality* wildlife habitat. The riparian plant community is relatively intact, and the corridor provides valuable fish habitat. Wetland sites within the channel add emergent wetland habitat to the riparian corridor. Moreover, the corridor has high connectivity due to its length and connection to the Willamette River. Based on these key resource characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) E58 Spring Creek Tributary:

(a) E58 Spring Creek Tributary at Spring Creek Drive (E58C-1, E58C-2; RSC-37B, RSC-37C):

Limiting conflicting uses recommended. This segment of the Spring Creek system (E58C-1, E58C-2; RSC-37B, RSC-37C) is a narrow corridor that has been constricted by adjacent development and is dominated in places by non-native species. However, overall, the corridor has a relatively high proportion of native riparian vegetation, and adds wetland values, such as water quality protection, to the portion of Spring Creek that contains fish. Because of these resource characteristics, these are *higher quality* sites. Based on these resource characteristics and the ESEE analysis above, the resource values provided by these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) E58 Spring Creek Tributary at S.C. Elementary (E58C-3, RSC-37D):

Fully allowing conflicting uses recommended. This portion of the Spring Creek system (E58C-3, RSC-37D) is a very short, narrow segment at the school parking lot that contains virtually no riparian vegetation. As indicated by key resource characteristics, these sites are of *much lower quality* than other sites in the adopted Inventory. Most of the native riparian vegetation has been removed. Based on these resource characteristics and the ESEE analysis above, the positive consequences of protecting these lower quality sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for these sites.

(c) RSC-39 Spring Creek wetland at River Loop (RSC-39):

Fully allowing conflicting uses recommended. Although Wetland RSC-39 contains primarily native vegetation, it is relatively small and is isolated from other habitat areas by surrounding development. Due to these resource characteristics, this site falls in the range of *medium to lower quality sites*. Based on these resource characteristics and the ESEE analysis above, the positive consequences of protecting this site do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses within the site. Conflicting uses are more important relative to

the lower resource values here. Therefore, fully allowing conflicting uses is recommended for this site.

(3) E58 Spring Creek west of River Road:

(a) E58 Spring Creek and wetland west of River Road:
Limiting conflicting uses recommended. The sites comprising the southern portion of Spring Creek (E58D, RSC-38) are relatively higher quality sites. Despite the fact that there are sections of the creek where the riparian plant community is highly disturbed, there are other portions with a robust native plant community, and the corridor overall is relatively intact. It has high connectivity, providing a continuous corridor of habitat connected to the Willamette River. Because of these characteristics, these are *higher quality* sites. Based on this and the ESEE analysis above, the resource values provided by these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites **somewhat** outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) RSC-35 Spring Creek wetland at Willow Spring Drive:
Limiting conflicting uses recommended. Wetland site RSC-35 has an overstory dominated by native tree species. The composition of the understory vegetation has not been documented. This site is unique in providing intact forested wetland habitat within the River Road-Santa Clara area. The technical report for the Eugene Local Wetland Inventory indicates that this wetland may provide fish habitat. Although the site is approximately 1,000 feet from Spring Creek, and has no surface water connection to the creek, it appears to be hydrologically connected to a channel to the west, outside the UGB. These key resource characteristics make this a *moderate quality* site. Based on these resource characteristics and the ESEE analysis above, the resource values provided by these sites are of somewhat greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic,

social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

13.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 13.5.2 below and Map 13.B summarize the recommendations for these sites.

(1) Spring Creek east of River Road (E58A, E58B, RSC-36, RSC-37A):

Conservation setback of 40/50 feet recommended. As discussed above, the northern portion of Spring Creek and its associated wetlands (E58A, E58B, RSC-36, RSC-37A) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. This recommendation is based on the ESEE analysis above, and these factors: (1) the high quality and diversity of habitat, and (2) the presence of fish. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Spring Creek Tributary:

(a) E58 Spring Creek Tributary and wetland at Spring Creek Drive (E58C-1, E58C-2, RSC-37B, RSC-37C):
Conservation setback of 20/25 feet recommended. As discussed above, these sites (E58C-1, E58C-2, RSC-37B, RSC-37C) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these riparian sites are recommended to be designated Category D Streams, and the wetland sites as Category B Wetlands. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area

includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Spring Creek Tributary at S.C. Elementary (E58C-3, RSC-37D); and
(c) Spring Creek wetland at River Loop (RSC-39):
No protection measures are recommended for these sites (E58C-3, RSC-37D, RSC-39), as discussed in the analysis above.

(3) Spring Creek west of River Road:

(a) E58 Spring Creek west of River Road; and
(b) RSC-38 Spring Creek wetland at Willow Spring Drive:
Conservation setback of 20/25 feet recommended. As discussed above, these sites (E58D, RSC-38, RSC-35) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these riparian sites are recommended to be designated Category D Streams, and the wetland sites as Category B Wetlands. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

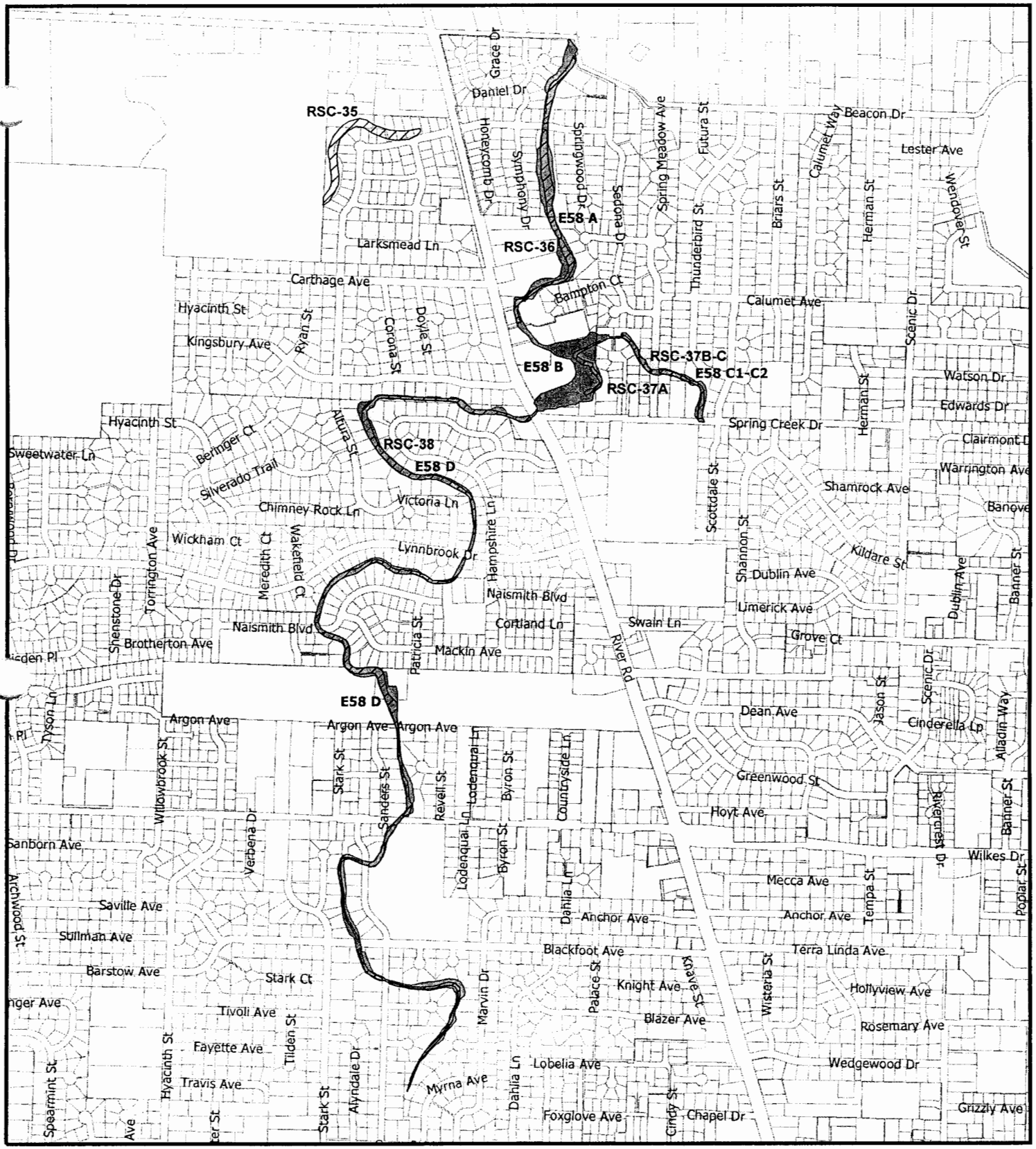
Table 13.5.2 Recommendations Summary: Spring Creek and Spring Creek Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	City Limits***
E58 Spring Creek east of River Road:						
E58 A	Spring Creek east of River Road	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Private, public	3/4
RSC-36	Spring Creek wetland east	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private, public	2/3
E58 B	Spring Creek at Awbrey Park	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Private, public	2/3
RSC37-A	Spring Creek wetland at Awbrey	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private, public	2/3
E58 Spring Creek Tributary:						
E58 C-1, C-2	Spring Creek Tributary at Spring Creek Drive	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private, public	1/2
RSC-37B, C	Spring Creek wetland at S.C. Drive	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private, public (R.O.W.)	1/2
E58 C-3	Spring Creek Tributary at S.C. Elementary	Fully allow conflicting uses	n/a	n/a	Private, public	None
RSC-37D	Spring Creek wetland at S.C. Elementary	Fully allow conflicting uses	n/a	n/a	Private, public	None
RSC-39	Spring Creek wetland at River Loop	Fully allow conflicting uses	n/a	n/a	Private, public (R.O.W.)	1/2
E58 Spring Creek west of River Road:						
E58D	Spring Creek west of River Road	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private, public	1/3
RSC-38	Spring Creek wetland west	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private, public	1/3
RSC-35	Spring Creek wetland at Willow Spring Dr	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	9/10

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection

Eugene Goal 5 ESEE Analysis Group 13

Goal 5 Protection Designations for Spring Creek & Spring Creek Wetlands

Map 13B

13.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

Exhibit A to Ordinance No. 20352

Goal 5 Water Resources Conservation Plan

City of Eugene, Oregon

Goal 5 Water Resources Conservation Plan

Table of Contents

Goal 5 Water Resources Conservation Plan

Section I

Introduction

Background

Oregon's statewide planning goals provide the framework for land use planning within the state. Statewide Planning Goal 5 requires all Oregon cities and counties "to conserve open space and protect natural and scenic resources." The Goal itself, plus Oregon Administrative Rules establish specific procedures and criteria for Goal 5 compliance. The City of Eugene was required by the Oregon Department of Land Conservation and Development (DLCD), through the Metropolitan periodic review work program, to address Goal 5 requirements for *wetlands, riparian corridors, and wildlife habitat* sites. This Plan contains several components of the City's Goal 5 process for wetlands, riparian corridors and wildlife habitat.

Study Area

The study area includes all of the Eugene Urban Growth Boundary area, excluding sites that were previously considered for protection in the West Eugene Wetlands Plan (WEWP) area. Three stream segments within the boundaries of the WEWP were not previously considered for protection (portions of sites E87 and E88), and, therefore, are included in this Plan. All other sites addressed by this Plan are outside the boundary of the WEWP.

Use of this Plan

The criteria in Section II were used to determine which resource sites are "significant" for purposes of Goal 5. The maps and lists in Section III identify those resource sites that have been determined to be significant, based on the criteria in Section II for riparian corridors and wildlife habitat and on the criteria at OAR 141-086-0350 for wetlands. Section IV includes maps identifying these significant resource sites that, based on the analysis required by Goal 5, should be protected. The summary tables in Section IV further identify those resources as Category A, B, C, D or E streams or as Category A, B or C wetlands to differentiate between the various degrees of protection appropriate for the resource sites. The protections are to be applied through the adoption and implementation of land use code provisions in the form of the /WR Water Resources Conservation Overlay Zone. This Plan does not contain any provisions directly applicable to development. Rather, it serves as background information for use in applying the code provisions pertaining to the /WR overlay zone.

Goal 5 Water Resources Conservation Plan

Section II

Criteria for Determining the Significance of Riparian Corridor and Wildlife Habitat Resource Sites Within the Eugene Urban Growth Boundary

A riparian corridor site or an upland wildlife habitat stream corridor site shall be included on the list of significant resource sites if (in addition to consideration of the criteria at OAR 660-023-0090(4) for riparian corridor sites and to those at OAR 660-023-0110(3) for upland wildlife habitat stream corridor sites) it is described in at least one of the following Tier One Criteria and if its listing is consistent with both of the following Tier Two Criteria:

Tier One Criteria:

1. Areas mapped as wetland on the State/National Wetland Inventory (S/NWI).

2. Streams and other water bodies identified by the ODF or ODFW as fish-bearing streams.

3. Undeveloped areas that contain natural vegetation (non-cultivated, including forests, natural prairies, and meadows) and are within sites larger than one acre.

4. Undeveloped natural areas that are contiguous with a water feature.

5. Areas that are undeveloped, and which in their natural state are un-vegetated (e.g., rock outcrops, gravel bars).

6. Locations of plants listed as threatened or endangered, or considered official candidates to be listed as threatened or endangered by state or federal government.

7. Documented habitat of animals listed as threatened or endangered, or considered official candidates to be listed as threatened or endangered by state or federal government.

8. Native plant communities within the Federal Emergency Management Agency (FEMA) floodway and 100-year floodplain.

9. Ecologically significant areas identified by local experts in the natural resource sciences, such as wildlife biology, botany, fisheries, hydrology, and landscape architecture.

Tier Two Criteria:

1. At the time of inventory adoption, areas that have been filled or substantially altered to the degree that they no longer meet any of the Tier 1 criteria shall be removed from the Goal 5 inventory.

2. Sites with a Wildlife Habitat Assessment (WHA) rating of 17 or greater shall be included on the Goal 5 inventory.

Goal 5 Water Resources Conservation Plan

SECTION III

SIGNIFICANT RIPARIAN CORRIDOR, WILDLIFE HABITAT, AND WETLAND RESOURCE SITES WITHIN THE EUGENE URBAN GROWTH BOUNDARY

Goal 5 Water Resources Conservation Plan, Section III

GOAL 5 RIPARIAN AND UPLAND WILDLIFE HABITAT SITES WITHIN THE EUGENE URBAN GROWTH BOUNDARY

October 24, 2005

	Site No.	Site Name	Type*	Tier 1 Significance Criteria									Tier 2 Criteria		Acreage	
				NWI	Fish	Nat > 1 acre	Water Cont	Non-Veg	T&E Plnt	T&E Anml	Nat Flood	Eco Signif	Meets Tier 2 #1	WHA Score	Sub-total Acres	Total Acres
1	E30/31	Amazon Channel Natural/Urban	R	yes	yes	yes	yes	no	yes	no	part	no	yes	50-60		**54.9**
2	E35	West Eugene Upland Wildlife Habitat Stream Corridors	U	part	no	yes	yes	no	no	no	no	no	yes	59-61		**32.4**
	E35 A	Stream Corridor A	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	5.6	
	E35 B	Stream Corridor B	U	part	no	yes	yes	no	no	no	no	no	yes	59-61	10.8	
	E35 C	Stream Corridor C	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	2.5	
	E35 D	Stream Corridor D	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	2.0	
	E35 E	Stream Corridor E	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	5.5	
	E35 F	Stream Corridor F	U	part	no	yes	yes	no	no	no	no	no	yes	59-61	4.4	
	E35 G	Stream Corridor G	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	0.8	
	E35 H	Stream Corridor H	U	no	no	yes	yes	no	no	no	no	no	yes	59-61	0.5	
	E35 I	Stream Corridor I	U	yes	no	yes	yes	no	no	no	no	no	yes	59-61	0.3	
3	E37	Southwest Hills Upland Wildlife Habitat Stream Corridors	U	part	part	yes	yes	no	no	no	no	no	yes	66-68		**112.5**
	E37 A	Stream Corridor A	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	2.6	
	E37 B	Stream Corridor B	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	2.3	
	E37 C	Stream Corridor C	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	3.2	
	E37 D	Stream Corridor D	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	3.0	
	E37 E	Stream Corridor E	U	part	part	yes	yes	no	no	no	no	no	yes	66-68	7.1	
	E37 F	Stream Corridor F	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	0.9	
	E37G	Stream Corridor G	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	1.2	
	E37 H	Stream Corridor H	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	11.2	
	E37 I	Stream Corridor I	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	2.5	
	E37 J	Stream Corridor J	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	15.7	
	E37 K	Stream Corridor K	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	16.9	
	E37 L	Stream Corridor L	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	16.5	
	E37 M	Stream Corridor M	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	7.6	
	E37 N	Stream Corridor N	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	1.1	
	E37 O	Stream Corridor O	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	1.7	
	E37 P	Stream Corridor P	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	3.6	
	E37 Q	Stream Corridor Q	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	9.2	
	E37 R	Stream Corridor R	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	0.7	
	E37 S	Stream Corridor S	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	5.0	
	E37 T	Stream Corridor T	U	no	part	yes	yes	no	no	no	no	no	yes	66-68	0.6	
4	E38	Laurel Hill Upland Wildlife Habitat Stream Corridors	U	no	no	yes	yes	no	no	no	no	no	yes	59-60		**32.2**
	E38 A	Stream Corridor A	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	3.4	
	E38 B	Stream Corridor B	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	2.1	
	E38 C	Stream Corridor C	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	11.0	
	E38 D	Stream Corridor D	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	7.1	
	E38 E	Stream Corridor E	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	4.2	
	E38 F	Stream Corridor F	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	3.0	
	E38 G	Stream Corridor G	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	0.9	
	E38 H	Stream Corridor H	U	no	no	yes	yes	no	no	no	no	no	yes	59-60	0.5	
5	E39	Glenwood Slough	R	yes	no	yes	yes	no	no	no	no	no	yes	46-47		**0.1**
6	E40	Riverfront Park	R	part	yes	yes	yes	no	no	no	part	no	yes	42		**16.9**
7	E42	Alton Baker (Riparian)	R	yes	yes	yes	yes	no	no	no	part	no	yes	60-61		**99.5**
8	E45	Ascot Park	R	yes	no	yes	yes	no	no	no	no	no	yes	22-23		**9.3**
9	E48a	Beltline Drainage Channel	R	no	yes	yes	yes	no	no	no	no	no	yes	38		**4.3**
10	E48b	Ayres Pond/Dodson Slough	R	yes	yes	yes	yes	no	no	no	part	no	yes	38		**36.0**
11	E50	Debrick Slough	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**16.5**
12	E56	River Loop No. 1	R	yes	no	yes	yes	no	no	no	yes	no	yes	38		**2.3**
13	E57	East Santa Clara Waterway	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**19.8**
14	E58	Spring Creek	R	yes	no	yes	yes	no	no	no	part	no	yes	22-23		**18.0**
15	E59a	Flat Creek	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**16.7**
16	E60	A-1 Channel	R	yes	no	yes	yes	no	no	no	part	no	yes	38		**22.0**
	E61	Middle Flat Creek	R	yes	no	yes	yes	no	no	no	part	no	yes	33		**26.1**
	E62	NW Expressway Ponds	R	yes	no	yes	yes	no	no	no	part	no	yes	31-34		**18.8**
19	E64	Taney Waterway	R	yes	no	yes	yes	no	no	no	no	no	yes	17		**1.7**
20	E65	Empire Pond	R	yes	no	yes	yes	no	no	no	no	no	yes	32		**3.1**

#	Site No.	Site Name	Type*	Tier 1 Significance Criteria									Tier 2 Criteria		Acreage	
				NWI	Fish	Nat > 1 acre	Water Cont	Non-Veg	T&E Plnt	T&E Anml	Nat Flood	Eco Signif	Meets Tier 2 #1	WHA Score	Sub-total Acres	Total Acres
	E66	Golden Gardens (DeSoto Lake)	R	yes	no	yes	yes	no	no	no	no	no	yes	32		**5.3**
	E68	Highway 99/McDougal	R	yes	no	yes	yes	no	no	no	no	no	yes	37-38		**6.7**
23	E69	Emerald Park/South Flat Creek	R	yes	no	yes	yes	no	no	no	no	no	yes	22-23		**12.6**
24	E70	Beltline/A-2 Channel	R	yes	no	yes	yes	no	no	no	part	no	yes	22-23		**1.2**
25	E72	Marshall Ditch	R	yes	no	yes	yes	no	no	no	yes	no	yes	22-23		**14.2**
26	E73	County Farm Road	R	yes	no	yes	yes	no	no	no	part	no	yes	22-23		**4.8**
27	E75	Goodpasture Island Slough	R	yes	yes	yes	yes	no	no	no	yes	no	yes	38		**37.3**
28	E76	North Gilham	R	no	no	yes	yes	no	no	no	yes	no	yes	62		**8.9**
29	E78	Augusta Creek/Laurel Valley Creek	R	yes	no	yes	yes	no	no	no	no	no	yes	42		**8.2**
30	E81	Lorane Highway Riparian	R	no	no	yes	yes	no	no	no	no	no	yes	37		**5.8**
31	E83	Elliott Hill/Tugman Riparian Corridor	R	no	no	yes	no	no	no	no	no	no	yes	57		**3.2**
32	E86	Braeburn Riparian	R	no	no	yes	yes	no	no	no	no	no	yes	39		**11.9**
33	E87	Willow Creek Tributaries	R	yes	no	yes	yes	no	no	no	no	no	yes	51		**6.3**
34	E88	Bailey Hill Riparian	R	no	no	yes	yes	no	no	no	no	no	yes	20		**4.8**
35	WA/WB	Willamette River	R	yes	yes	yes	yes	no	no	yes	yes	no	yes	64-74		**453.5**

*Key: "R" = riparian corridor
"U" = upland wildlife habitat stream corridor

Total acres in riparian corridor sites: 950.7
Total acres in upland wildlife habitat stream corridor sites: 177.2
Total acres: 1127.8

Goal 5 Water Resources Conservation Plan, Section III

Locally Significant Wetland Sites within the Eugene Urban Growth Boundary*

August 2005

					Mandatory Locally Significant Wetland Criteria**									
					1	2	3	4	5	6	7	8		Acreage
#	Site No.	Site Name	Type*	Meets Exclusion Criteria	Wildlife Habitat	Fish Habitat	Water Quality	Hydro Control	Near 303(d) St.	Rare Plants	State/FedT &E	Salmonid	Meets Optional Criteria	Site Acres
1	AMA-3	West Eugene Uplands wetland at Skyview	W	no	no	no	yes	yes	no	no	no	no	no	0.5
2	AMA-4	West Eugene Uplands wetland at Hawkins	W	no	yes	no	no	no	no	no	no	no	no	1.4
3	AMA-5	West Eugene Uplands wetland at Videra	W	no	yes	no	no	no	no	no	no	no	no	1.2
4	AMA-6	Westmoreland wetlands	W	no	no	no	no	yes	yes	no	no	no	no	9.4
5	AMA-7	Amazon Creek wetlands	W	no	no	no	no	yes	yes	no	no	no	no	7.7
6	AMA-9	Amazon Park wetland ash grove	W	no	no	no	yes	yes	yes	no	yes	no	no	14.8
7	AMA-10	Amazon Park wetland 24th	W	no	no	no	yes	yes	yes	no	no	no	no	1.4
8	AMA-11	Amazon Park wetland pool/ballfield	W	no	no	no	yes	yes	yes	no	no	no	no	8.4
9	AMA-12	Amazon Park wetland 29th	W	no	no	no	no	no	yes	no	no	no	no	1.0
10	AMA-13	Owl Road wetland	W	no	yes	no	no	no	no	no	no	no	no	1.4
11	AMA-14	Barber wetland	W	no	no	no	yes	no	no	no	no	no	no	0.9
12	AMA-16	Amazon Park wetland prairie	W	no	no	no	yes	no	yes	no	yes	no	no	0.9
13	BD-2	Bethel-Danebo wetland at Terry	W	no	no	no	no	yes	no	no	no	no	no	5.4
14	BD-3	Royal Avenue wetlands	W	no	no	no	yes	yes	no	no	no	no	no	5.7
15	BD-4	Royal Avenue wetlands	W	no	no	no	yes	yes	yes	no	no	no	no	9.1
16	BD-5	Royal Avenue wetlands	W	no	no	no	no	no	yes	no	no	no	no	24.0
17	BD-6	Royal Avenue wetlands	W	no	no	no	no	no	yes	no	no	no	no	13.9
18	BD-7	Royal Avenue wetlands	W	no	no	no	no	yes	yes	no	no	no	no	25.7
19	BD-8	Royal Avenue wetlands	W	no	no	no	yes	yes	yes	no	no	no	no	8.8
20	BD-9	Amazon Creek wetland at Royal	W	no	no	no	no	yes	yes	no	no	no	no	61.3
21	BD-10	Royal Avenue wetlands	W	no	no	no	no	no	yes	no	no	no	no	7.4
22	BD-11	Royal Avenue wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.6
23	BD-13	Bethel-Danebo wetlands at Beltline	W	no	no	no	yes	yes	no	no	no	no	no	2.7
24	BD-15	Bethel-Danebo wetlands at Beltline	W	no	no	no	no	yes	no	no	no	no	no	0.6
25	BD-16	Bethel-Danebo wetlands at Beltline	W	no	no	no	no	yes	no	no	no	no	no	2.0
26	BD-17	Bethel-Danebo wetlands at Beltline	W	no	no	no	no	yes	no	no	no	no	no	1.0
27	BD-20	Empire Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	1.8
	BD-21	Taney Waterway wetland	W	no	no	no	no	yes	no	no	no	no	no	0.7
	BD-22	NW Expressway Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	5.3
30	RSC-1	Prairie Rd/Hwy 99 wetlands	W	no	no	no	no	yes	no	no	no	no	no	111.4
31	RSC-2	A-1 Channel wetland	W	no	no	no	no	yes	no	no	no	no	no	11.5
32	RSC-5	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	yes	no	no	no	no	no	10.4
33	RSC-6	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	2.6
34	RSC-8	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.9
35	RSC-9	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.6
36	RSC-10	Prairie Rd/Hwy 99 wetlands	W	no	no	no	no	yes	no	no	no	no	no	5.4
37	RSC-12	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	yes	no	no	no	no	no	6.1
38	RSC-15	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	1.0
39	RSC-16	Prairie Rd/Hwy 99 wetlands	W	no	no	no	yes	no	no	no	no	no	no	0.8
40	RSC-17	Prairie Rd/Hwy 99 wetlands	W	no	no	no	no	yes	no	no	no	no	no	15.2
41	RSC-18	A-1 Side Channel	W	no	no	no	yes	no	no	no	no	no	no	2.8
42	RSC-20	Highway 99/McDougal Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	1.9
43	RSC-21	Highway 99/McDougal Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	2.4
44	RSC-22	Wetland at Lancaster	W	no	no	no	yes	no	no	no	no	no	no	1.3
45	RSC-23	North Flat Creek wetlands	W	no	yes	no	yes	yes	no	no	no	no	no	4.5
46	RSC-25	North Flat Creek wetlands	W	no	yes	no	no	yes	no	no	no	no	no	1.7
47	RSC-26	Prairie Rd/Hwy 99	W	no	no	no	yes	yes	no	no	no	no	no	0.9
48	RSC-27	Prairie Rd/Hwy 99	W	no	no	no	yes	no	no	no	no	no	no	0.6
49	RSC-28	Middle Flat Creek wetlands	W	no	no	no	yes	yes	no	no	no	no	no	6.8
50	RSC-29	Middle Flat Creek wetlands	W	no	yes	no	no	yes	no	no	no	no	no	3.5
51	RSC-30	NW Expressway Pond/Diana's Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	12.1
52	RSC-32	South Flat Creek wetland	W	no	no	no	yes	yes	no	no	no	no	no	2.7
53	RSC-33	Middle Flat Creek wetlands	W	no	no	no	yes	yes	no	no	no	no	no	2.9
54	RSC-34	Middle Flat Creek wetlands	W	no	no	no	no	yes	no	no	no	no	no	1.2
55	RSC-35	Spring Creek wetlands	W	no	no	yes	yes	yes	no	no	no	no	no	1.7
56	RSC-36	Spring Creek wetlands	W	no	no	no	no	yes	no	no	no	no	no	2.2
57	RSC-37	Spring Creek wetlands	W	no	no	no	yes	yes	no	no	no	no	no	1.1
58	RSC-38	Spring Creek wetlands	W	no	no	no	no	yes	no	no	no	yes	no	5.6
59	RSC-39	Spring Creek wetlands	W	no	no	no	no	yes	no	no	no	no	no	0.6
	RSC-40	East Santa Clara Waterway wetland	W	no	no	no	yes	yes	no	no	no	no	no	1.6
	WC-1	Willow Creek wetland	W	no	yes	no	no	no	no	no	no	no	no	1.4
62	WKZ-1	Patterson Slough wetland	W	no	yes	no	no	yes	no	no	no	no	no	4.1
63	WKZ-2	Ayres Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	0.5

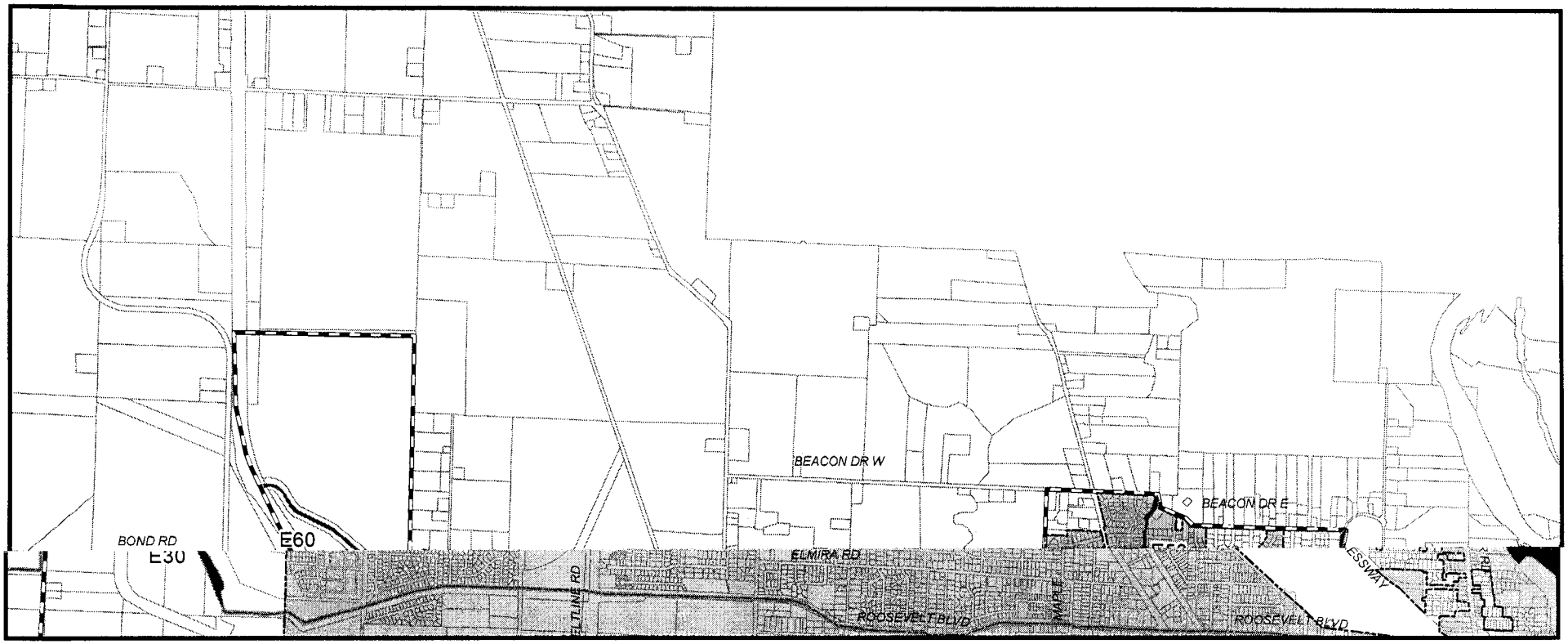
					Mandatory Locally Significant Wetland Criteria**									
					1	2	3	4	5	6	7	8		Acreage
#	Site No.	Site Name	Type*	Meets Exclusion Criteria	Wildlife Habitat	Fish Habitat	Water Quality	Hydro Control	Near 303(d) St.	Rare Plants	State/FedT &E	Salmonid	Meets Optional Criteria	Site Acres
64	WKZ-3	Green Acres wetland	W	no	no	no	no	yes	no	no	no	no	no	1.0
65	WKZ-4	Goodpasture wetlands	W	no	no	no	yes	yes	yes	no	no	no	no	6.6
66	WKZ-5	Goodpasture wetlands	W	no	no	no	yes	yes	yes	no	no	yes	no	13.7
67	WKZ-6	Delta Ponds wetlands	W	no	no	yes	no	yes	no	no	no	yes	no	19.0
68	WKZ-7	Delta Ponds wetlands	W	no	yes	no	no	yes	yes	no	no	no	no	65.5
69	WKZ-8	Willagillespie wetland	W	no	no	no	yes	yes	no	no	no	no	no	0.6
70	WKZ-9	Debrick Slough wetland	W	no	no	no	no	yes	no	no	no	no	no	10.0
71	WKZ-10	County Farm wetland	W	no	no	no	no	yes	yes	no	no	no	no	0.6
72	WKZ-13	Sorrel Pond wetland	W	no	no	no	no	yes	no	no	no	no	no	2.7
73	WKZ-14	Alton Baker wetland	W	no	no	no	yes	yes	no	no	no	no	no	7.3
74	WR-1	Willamette River wetland	W	no	no	no	yes	yes	yes	no	no	no	no	1.9
75	WR-2	Willamette River wetland	W	no	no	no	no	no	yes	no	no	no	no	1.8
76	WR-3	Delta Ponds wetlands	W	no	yes	no	no	yes	yes	no	no	no	no	25.5
77	WR-4	Riverfront Park/Millrace wetland	W	no	no	no	no	yes	yes	no	no	no	no	6.3
78	WR-5	Willamette River wetland	W	no	no	no	yes	no	yes	no	no	no	no	1.2

"W" = Locally Significant Wetland

Total acres in Locally Significant Wetland sites: 618.6

*Does not include wetlands within the boundary of the West Eugene Wetlands Plan

**Locally Significant Wetland criteria are found in Oregon Administrative Rules at OAR 141-086-0350.



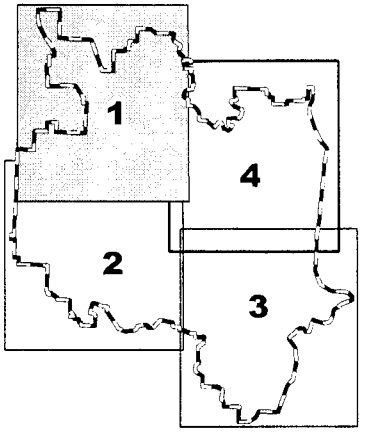
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

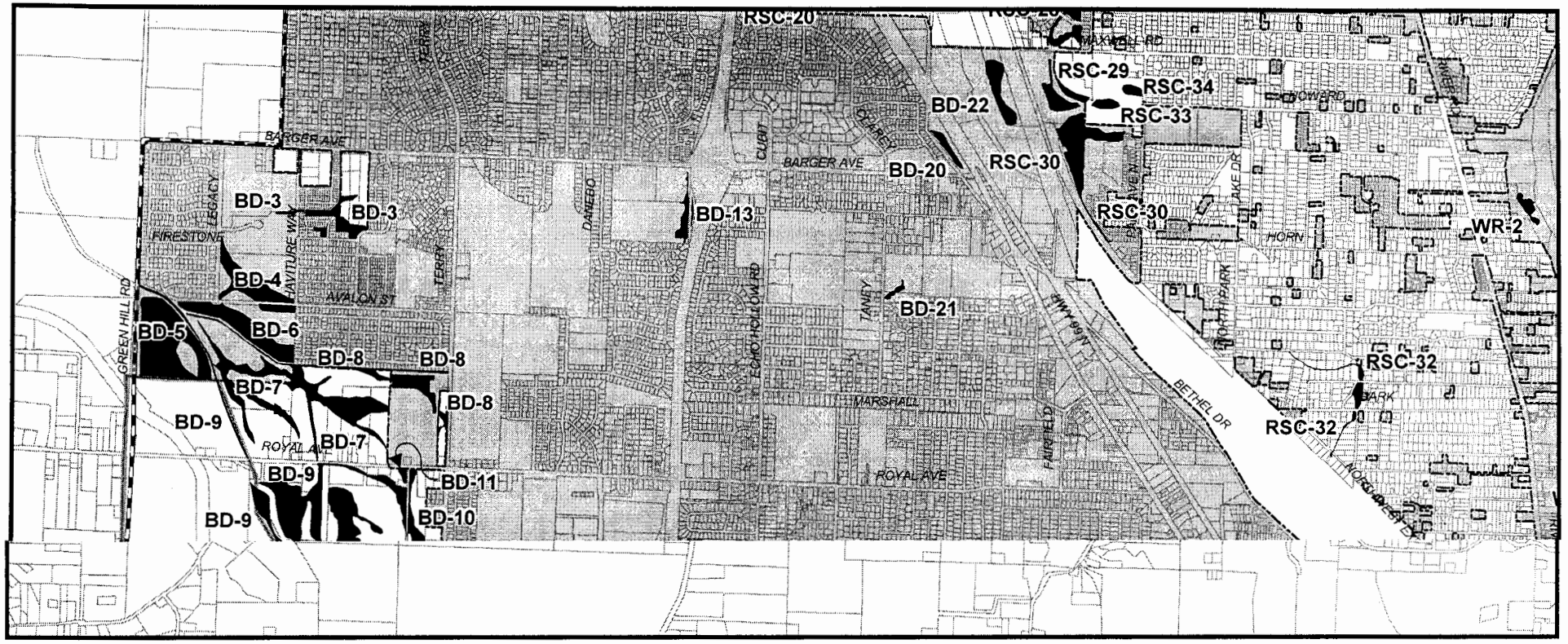
Tile 1 - Northwest Eugene
April 20, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites





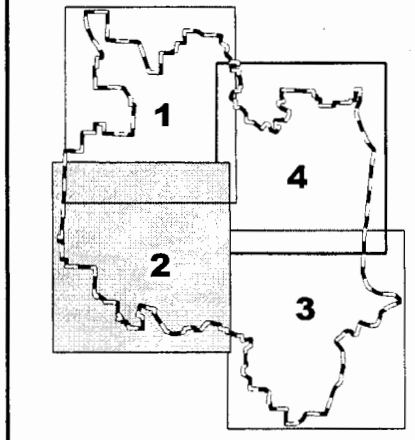
Goal 5 Water Resources Conservation Plan, Section III
Locally Significant Goal 5 Wetland Sites
within the Eugene Urban Growth Boundary

Tile 2 - Southwest Eugene
April 20, 2005

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Locally Significant Wetlands

0 0.25 0.5 1 Miles



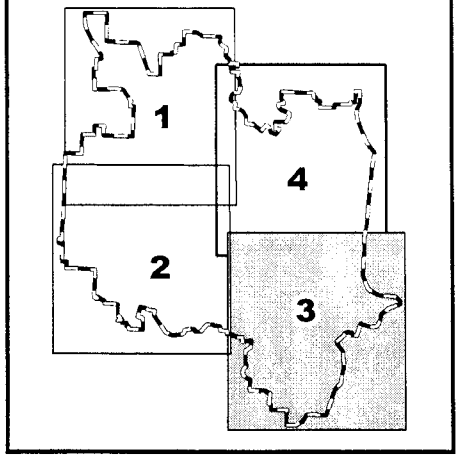
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

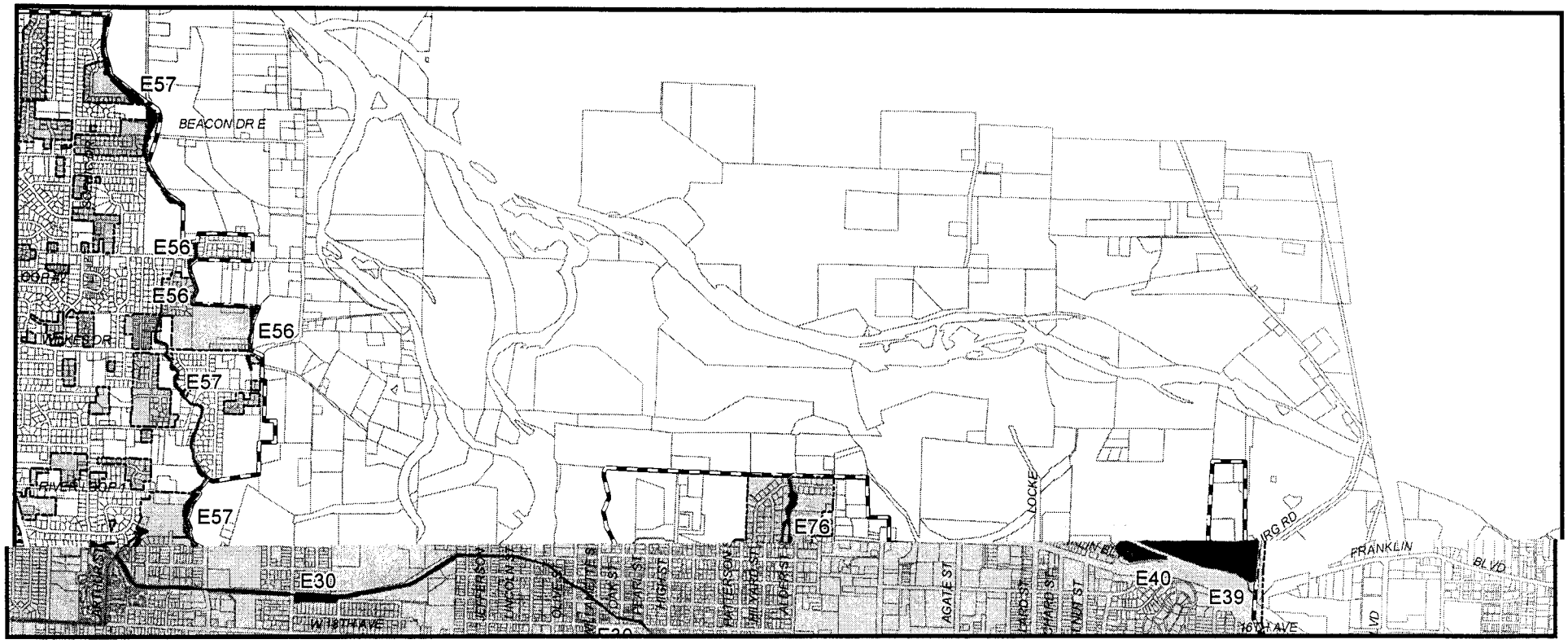
Tile 3 - Southeast Eugene
October 24, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites





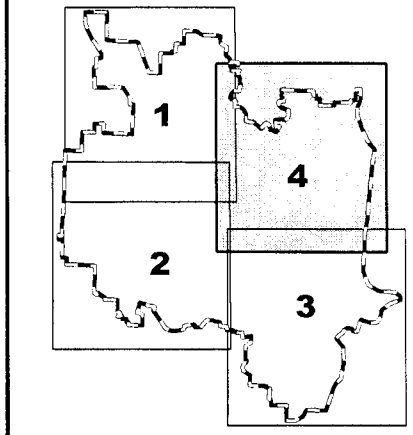
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

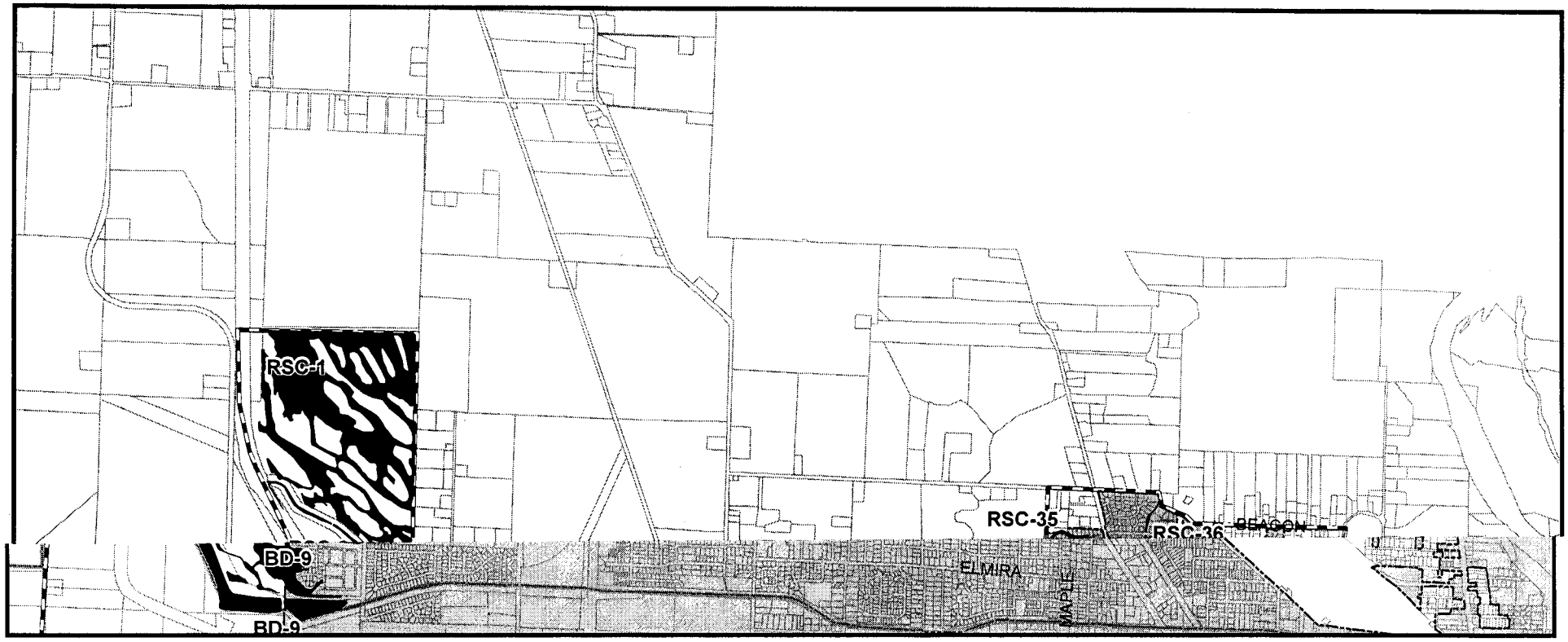
Tile 4 - Northeast Eugene
September 7, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites



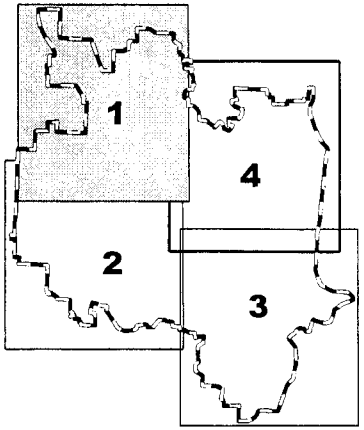


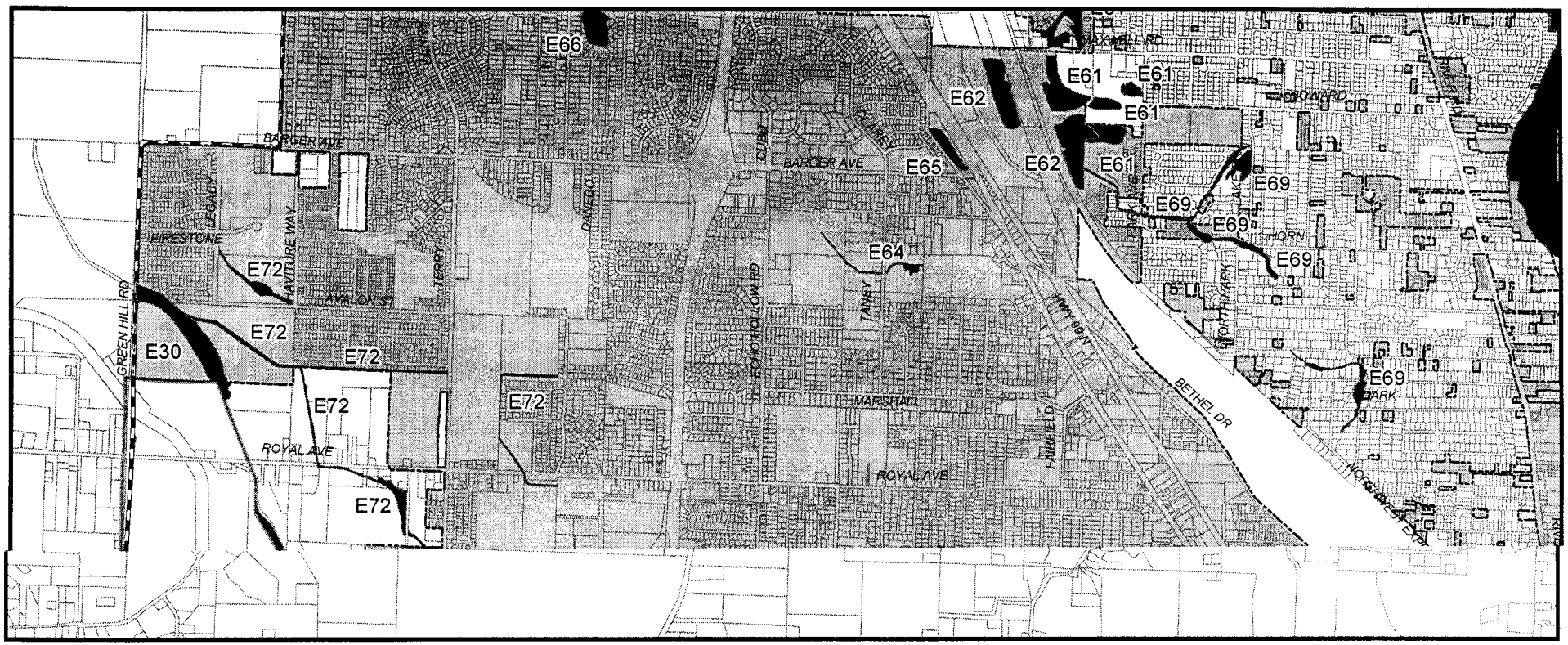
Goal 5 Water Resources Conservation Plan, Section III
Locally Significant Goal 5 Wetland Sites
within the Eugene Urban Growth Boundary
Tile 1 - Northwest Eugene
September 7, 2005

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Locally Significant Wetlands

0 0.25 0.5 1 Miles





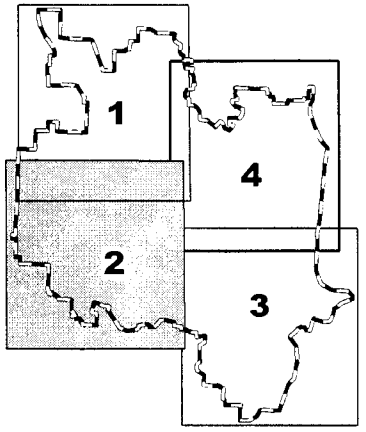
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

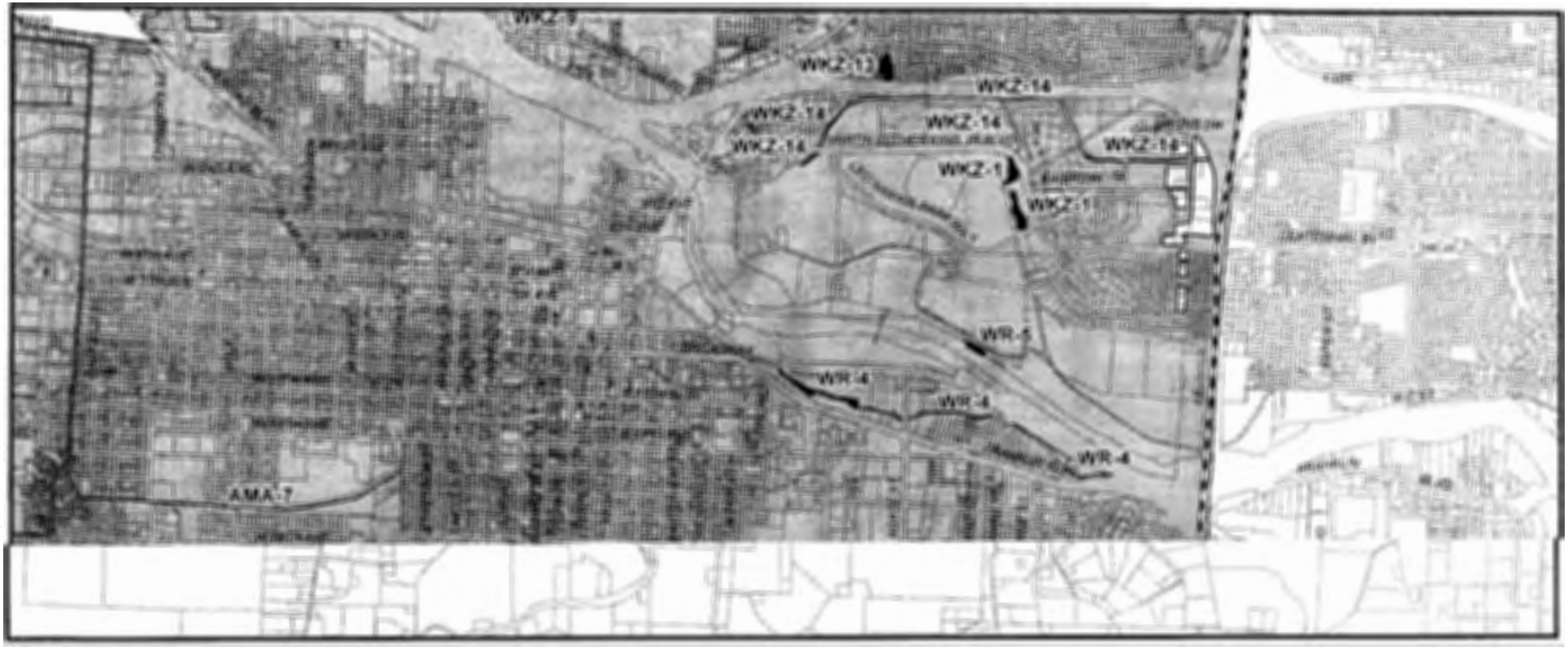
Tile 2 - Southwest Eugene
April 20, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites





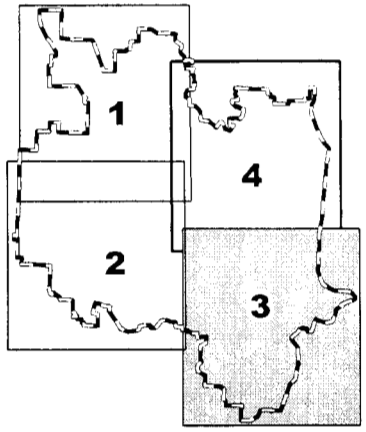
Goal 5 Water Resources Conservation Plan, Section III
Locally Significant Goal 5 Wetland Sites
within the Eugene Urban Growth Boundary

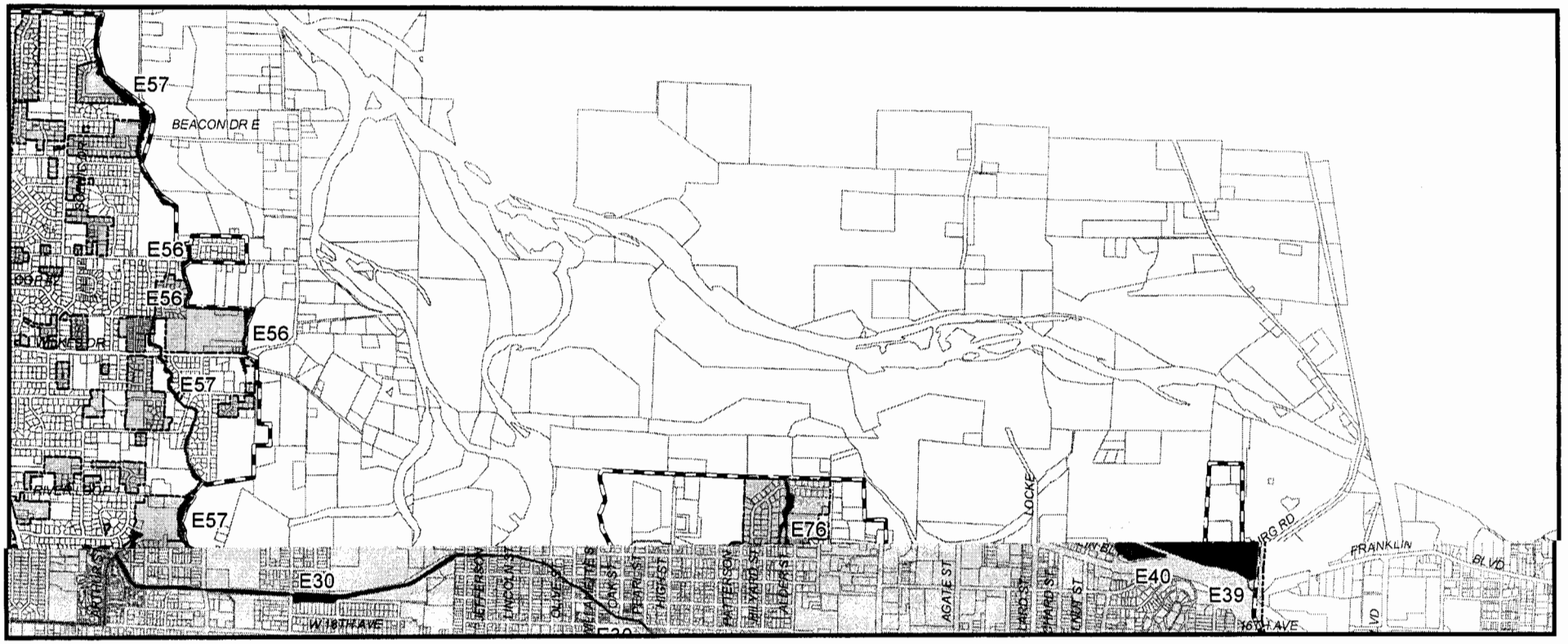
Tile 3 - Southeast Eugene
September 7, 2005

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Locally Significant Wetlands

0 0.25 0.5 1 Miles





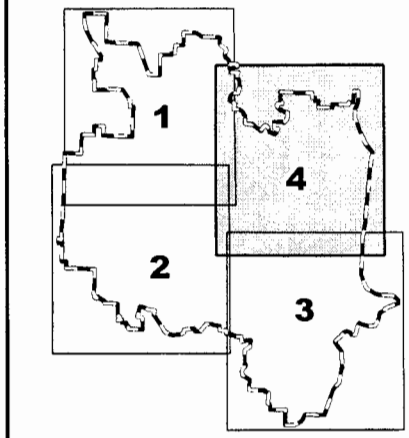
Goal 5 Water Resources Conservation Plan, Section III
Significant Goal 5 Riparian Corridors and Wildlife Habitat Sites within the Eugene Urban Growth Boundary

Tile 4 - Northeast Eugene
September 7, 2005

0 0.25 0.5 1 Miles

NORTH

- Urban Growth Boundary
- West Eugene Wetland Boundary
- Tax Lots
- Eugene City Limits
- Significant Riparian Corridors
- Significant Wildlife Habitat Sites



Goal 5 Water Resources Conservation Plan

SECTION IV

DEGREE OF PROTECTION INTENDED FOR SIGNIFICANT RIPARIAN CORRIDOR, WILDLIFE HABITAT, AND WETLAND RESOURCE SITES WITHIN THE EUGENE URBAN GROWTH BOUNDARY

ESEE Conclusions Summary Table - Riparian Corridor Sites

9/1/05

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from TOB)**	ESEE CONCLUSIONS MAP NUMBER
Amazon Channel Natural/Urban	E30	E30 A	R	14.14	Limit Conflicting Uses	Stream Category B	60	5
Amazon Channel Natural/Urban	E30	E30 B	R	5.19	Limit Conflicting Uses	Stream Category B	60	5
Amazon Channel Natural/Urban	E30	E30 D	R	11.37	Limit Conflicting Uses	Stream Category B	60	10
Amazon Channel Natural/Urban	E30	E30 E	R	9.12	Limit Conflicting Uses	Stream Category B	60	10
Amazon Channel Natural/Urban	E30	E30 F	R	1.69	Limit Conflicting Uses	Stream Category E	0	10
Amazon Channel Natural/Urban	E30	E30 G	R	2.95	Limit Conflicting Uses	Stream Category E	0	10
Amazon Channel Natural/Urban	E30	E30 H	R	10.48	Limit Conflicting Uses	Stream Category B	60	10
Glenwood Slough	E39	E39	R	0.10	Fully Allow Conflicting Uses	None	0	
Riverfront Park	E40	E40	R	16.85	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-1	R	6.75	Limit Conflicting Uses	Stream Category E	0	13
Alton Baker (Riparian)	E42	E42 A-2	R	9.67	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-3	R	13.75	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-4	R	15.58	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 A-5	R	10.59	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 B	R	22.32	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 C-1	R	2.46	Limit Conflicting Uses	Stream Category C	40	13
Alton Baker (Riparian)	E42	E42 C-2	R	6.84	Limit Conflicting Uses	Stream Category D	20	13
Alton Baker (Riparian)	E42	E42 C-3	R	9.82	Limit Conflicting Uses	Stream Category D	20	13
Alton Baker (Riparian)	E42	E42 C-4	R	1.68	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 A	R	2.70	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 B	R	0.48	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 C	R	0.80	Fully Allow Conflicting Uses	None	0	
Ascot Park	E45	E45 D	R	5.29	Fully Allow Conflicting Uses	None	0	
Beltline Drainage Channel	E48	E48 A1	R	0.45	Fully Allow Conflicting Uses	None	0	
Beltline Drainage Channel	E48	E48 A2	R	3.80	Fully Allow Conflicting Uses	None	0	
Ayres Pond/Dodson Slough	E48	E48 B-1	R	1.59	Limit Conflicting Uses	Stream Category C	40	15
Ayres Pond/Dodson Slough	E48	E48 B-3	R	1.05	Limit Conflicting Uses	Stream Category D	20	15
Ayres Pond/Dodson Slough	E48	E48 B-4	R	29.20	Limit Conflicting Uses	Stream Category C	40	15
Ayres Pond/Dodson Slough	E48	E48 B-5	R	3.21	Fully Allow Conflicting Uses	None	0	
Debrick Slough	E50	E50 A	R	4.28	Limit Conflicting Uses	Stream Category D	20	14
Debrick Slough	E50	E50 B	R	10.32	Limit Conflicting Uses	Stream Category D	20	14
Debrick Slough	E50	E50 C	R	1.95	Fully Allow Conflicting Uses	None	0	
River Loop No. 1	E56	E56 A-1	R	0.45	Fully Allow Conflicting Uses	None	0	
River Loop No. 1	E56	E56 A-2	R	0.84	Limit Conflicting Uses	Stream Category D	20	16
River Loop No. 1	E56	E56 B	R	0.97	Limit Conflicting Uses	Stream Category D	20	16
East Santa Clara Waterway	E57	E57 A	R	1.70	Fully Allow Conflicting Uses	None	0	
East Santa Clara Waterway	E57	E57 B	R	4.98	Fully Allow Conflicting Uses	None	0	
East Santa Clara Waterway	E57	E57 C	R	6.05	Limit Conflicting Uses	Stream Category D	20	16
East Santa Clara Waterway	E57	E57 D	R	7.01	Limit Conflicting Uses	Stream Category C	40	16
Spring Creek	E58	E58 A	R	2.49	Limit Conflicting Uses	Stream Category C	40	1
Spring Creek	E58	E58 B	R	5.30	Limit Conflicting Uses	Stream Category C	40	1
Spring Creek	E58	E58 C1-C2	R	1.19	Limit Conflicting Uses	Stream Category D	20	1
Spring Creek	E58	E58 C-3	R	0.19	Fully Allow Conflicting Uses	None	0	
Spring Creek	E58	E58 D	R	8.89	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 A	R	3.42	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 B-1	R	2.21	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 B-2	R	0.36	Limit Conflicting Uses	Stream Category E	0	1
Flat Creek	E59	E59 B-3	R	1.11	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 C	R	5.37	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 D	R	3.28	Limit Conflicting Uses	Stream Category D	20	1
Flat Creek	E59	E59 E	R	0.94	Fully Allow Conflicting Uses	None	0	
A-1 Channel	E60	E60 A	R	12.20	Limit Conflicting Uses	Stream Category D	20	2
A-1 Channel	E60	E60 B	R	7.65	Limit Conflicting Uses	Stream Category D	20	2
A-1 Channel	E60	E60 C	R	2.16	Fully Allow Conflicting Uses	None	0	
Middle Flat Creek	E61	E61 A	R	0.96	Limit Conflicting Uses	Stream Category C	40	3
Middle Flat Creek	E61	E61 B	R	3.80	Limit Conflicting Uses	Stream Category C	40	3
Middle Flat Creek	E61	E61 C-1	R	7.69	Limit Conflicting Uses	Stream Category C	40	3
Middle Flat Creek	E61	E61 C-2	R	2.00	Limit Conflicting Uses	Stream Category D	20	3
Middle Flat Creek	E61	E61 D	R	8.08	Limit Conflicting Uses	Stream Category D	20	3
Middle Flat Creek	E61	E61 E	R	2.08	Limit Conflicting Uses	Stream Category D	20	3
Middle Flat Creek	E61	E61 F	R	1.48	Fully Allow Conflicting Uses	None	0	
NW Expressway Ponds	E62	E62 A	R	10.32	Limit Conflicting Uses	Stream Category C	40	3
NW Expressway Ponds	E62	E62 B	R	8.47	Limit Conflicting Uses	Stream Category D	20	3
Taney Waterway	E64	E64	R	1.69	Fully Allow Conflicting Uses	None	0	
Empire Pond	E65	E65	R	3.13	Limit Conflicting Uses	Stream Category D	20	3
Golden Gardens (DeSoto Lake)	E66	E66	R	5.30	Limit Conflicting Uses	Stream Category D	20	4
Highway 99/McDougal	E68	E68	R	6.68	Limit Conflicting Uses	Stream Category D	20	3
Emerald Park/South Flat Creek	E69	E69 A	R	3.40	Fully Allow Conflicting Uses	None	0	
Emerald Park/South Flat Creek	E69	E69 B	R	4.77	Limit Conflicting Uses	Stream Category D	20	3
Emerald Park/South Flat Creek	E69	E69 C	R	4.42	Fully Allow Conflicting Uses	None	0	
Beltline/A-2 Channel	E70	E70	R	1.24	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 A	R	2.60	Fully Allow Conflicting Uses	None	0	

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from TOB)**	ESEE CONCLUSIONS MAP NUMBER
Marshall Ditch	E72	E72 B-1	R	2.32	Limit Conflicting Uses	Stream Category D	20	5
Marshall Ditch	E72	E72 B-2A	R	1.06	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-2B	R	0.73	Limit Conflicting Uses	Stream Category D	20	5
Marshall Ditch	E72	E72 B-3A	R	0.87	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-3B	R	0.07	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-3C	R	0.36	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-3D	R	0.02	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4A	R	0.25	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4B	R	0.73	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-4C	R	0.19	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4D	R	2.47	Limit Conflicting Uses	Stream Category E	0	5
Marshall Ditch	E72	E72 B-4E	R	0.10	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 B-4F	R	0.44	Fully Allow Conflicting Uses	None	0	
Marshall Ditch	E72	E72 C	R	1.95	Fully Allow Conflicting Uses	None	0	
County Farm Road	E73	E73 A	R	2.51	Fully Allow Conflicting Uses	None	0	
County Farm Road	E73	E73 B	R	2.26	Fully Allow Conflicting Uses	None	0	
Goodpasture Island Slough	E75	E75 A-1	R	17.07	Limit Conflicting Uses	Stream Category B	60	13
Goodpasture Island Slough	E75	E75 A-2	R	3.23	Limit Conflicting Uses	Stream Category D	20	13
Goodpasture Island Slough	E75	E75 B-1	R	3.78	Limit Conflicting Uses	Stream Category C	40	13
Goodpasture Island Slough	E75	E75 B-2	R	4.40	Limit Conflicting Uses	Stream Category C	40	13
Goodpasture Island Slough	E75	E75 B-3	R	2.26	Fully Allow Conflicting Uses	None	0	
Goodpasture Island Slough	E75	E75 B-4	R	5.14	Limit Conflicting Uses	Stream Category E	0	13
Goodpasture Island Slough	E75	E75 B-5	R	1.43	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 A-1	R	0.41	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 A-2	R	1.32	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 B-1	R	0.56	Fully Allow Conflicting Uses	None	0	
North Gilham	E76	E76 B-2	R	3.40	Limit Conflicting Uses	Stream Category D	20	15
North Gilham	E76	E76 B-3	R	3.20	Limit Conflicting Uses	Stream Category D	20	15
Augusta Creek/Laurel Valley Creek	E78	E78 A	R	0.64	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 B	R	0.63	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 D	R	0.40	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 E	R	0.47	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 F	R	0.05	Fully Allow Conflicting Uses	None	0	
Augusta Creek/Laurel Valley Creek	E78	E78 G	R	1.60	Limit Conflicting Uses	Stream Category D	20	12
Augusta Creek/Laurel Valley Creek	E78	E78 H	R	3.80	Limit Conflicting Uses	Stream Category D	20	12
Augusta Creek/Laurel Valley Creek	E78	E78 I	R	0.64	Limit Conflicting Uses	Stream Category D	20	12
Lorane Highway Riparian	E81	E81	R	5.82	Limit Conflicting Uses	Stream Category C	40	10
Tugman Creek Riparian	E83	E83	R	3.18	Limit Conflicting Uses	Stream Category D	20	10
Braeburn Riparian	E86	E86 A-B	R	1.89	Fully Allow Conflicting Uses	None	0	
Braeburn Riparian	E86	E86 C	R	1.55	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 D	R	5.69	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 E	R	0.29	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 F	R	0.13	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 G	R	1.85	Limit Conflicting Uses	Stream Category C	40	10
Braeburn Riparian	E86	E86 H	R	0.46	Limit Conflicting Uses	Stream Category D	20	10
Willow Creek Tributaries	E87	E87 A	R	0.48	Fully Allow Conflicting Uses	None	0	
Willow Creek Tributaries	E87	E87 B	R	5.18	Limit Conflicting Uses	Stream Category C	40	6
Willow Creek Tributaries	E87	E87 C	R	0.62	Limit Conflicting Uses	Stream Category D	20	6
Bailey Hill Riparian	E88	E88	R	4.78	Limit Conflicting Uses	Stream Category C	40	6
Willamette River	WA	WA	R	453.49	Limit Conflicting Uses	Stream Category A	100	13

*Stream categories are from the draft /WR Water Resources Conservation Overlay Zone

**Setback distances are measured from top of bank (TOB)

ESEE Conclusions Summary Table - Upland Wildlife Habitat Sites

October 24, 2005

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from TOB)**	ESEE CONCLUSIONS MAP NUMBER
West Eugene Uplands	E35	E35 A	U	5.61	Limit conflicting uses	Stream Category C	40	7
West Eugene Uplands	E35	E35 B1-B2	U	4.41	Limit conflicting uses	Stream Category C	40	7
West Eugene Uplands	E35	E35 B-3	U	4.87	Limit conflicting uses	Stream Category D	20	7
West Eugene Uplands	E35	E35 B-4	U	1.50	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 C	U	2.46	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 D	U	1.98	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 E	U	5.46	Limit conflicting uses	Stream Category C	40	6
West Eugene Uplands	E35	E35 F	U	4.38	Limit conflicting uses	Stream Category C	40	7
West Eugene Uplands	E35	E35 G	U	0.84	Fully allow conflicting uses	None	0	
West Eugene Uplands	E35	E35 H	U	0.51	Limit conflicting uses	Stream Category C	40	6
West Eugene Uplands	E35	E35 I	U	0.33	Limit conflicting uses	Stream Category C	40	6
Southwest Hills	E37	E37 A	U	2.65	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 B-1	U	0.10	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 B-2	U	2.25	Limit conflicting uses	Stream Category D	20	8
Southwest Hills	E37	E37 C-1	U	2.01	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 C-2	U	1.19	Limit conflicting uses	Stream Category D	20	8
Southwest Hills	E37	E37 D	U	3.01	Limit conflicting uses	Stream Category D	20	8
Southwest Hills	E37	E37 E-1	U	1.40	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 E-2	U	4.69	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 E-3	U	0.99	Limit conflicting uses	Stream Category C	40	8
Southwest Hills	E37	E37 F	U	0.90	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 G	U	1.18	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 H	U	11.20	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 I-1	U	1.14	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 I-2	U	0.54	Limit conflicting uses	Stream Category D	20	9
Southwest Hills	E37	E37 I-3	U	0.78	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 J-1	U	2.91	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 J-2	U	2.00	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 J-4	U	0.71	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 J-5	U	10.06	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 K	U	16.87	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 L	U	16.50	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 M-1	U	5.40	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 M-2	U	0.83	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 M-3	U	1.40	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 N	U	1.10	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 O	U	1.74	Limit conflicting uses	Stream Category C	40	9
Southwest Hills	E37	E37 P	U	3.58	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-1	U	3.01	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-2	U	1.88	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-3	U	1.93	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 Q-5	U	1.28	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 Q-6	U	1.12	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 R	U	0.69	Fully allow conflicting uses	None	0	
Southwest Hills	E37	E37 S	U	5.04	Limit conflicting uses	Stream Category C	40	11
Southwest Hills	E37	E37 T	U	0.56	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 A	U	3.42	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 B	U	2.06	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 C	U	11.04	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 D	U	7.09	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 E	U	4.22	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 F	U	2.98	Limit conflicting uses	Stream Category C	40	11
Laurel Hill	E38	E38 G	U	0.89	Fully allow conflicting uses	None	0	
Laurel Hill	E38	E38 H	U	0.51	Fully allow conflicting uses	None	0	

*Stream categories are from the draft /WR Water Resources Conservation Overlay Zone

**Setback distances are measured from top of bank (TOB)

ESEE Conclusions Summary Table - Wetland Sites

9/1/05

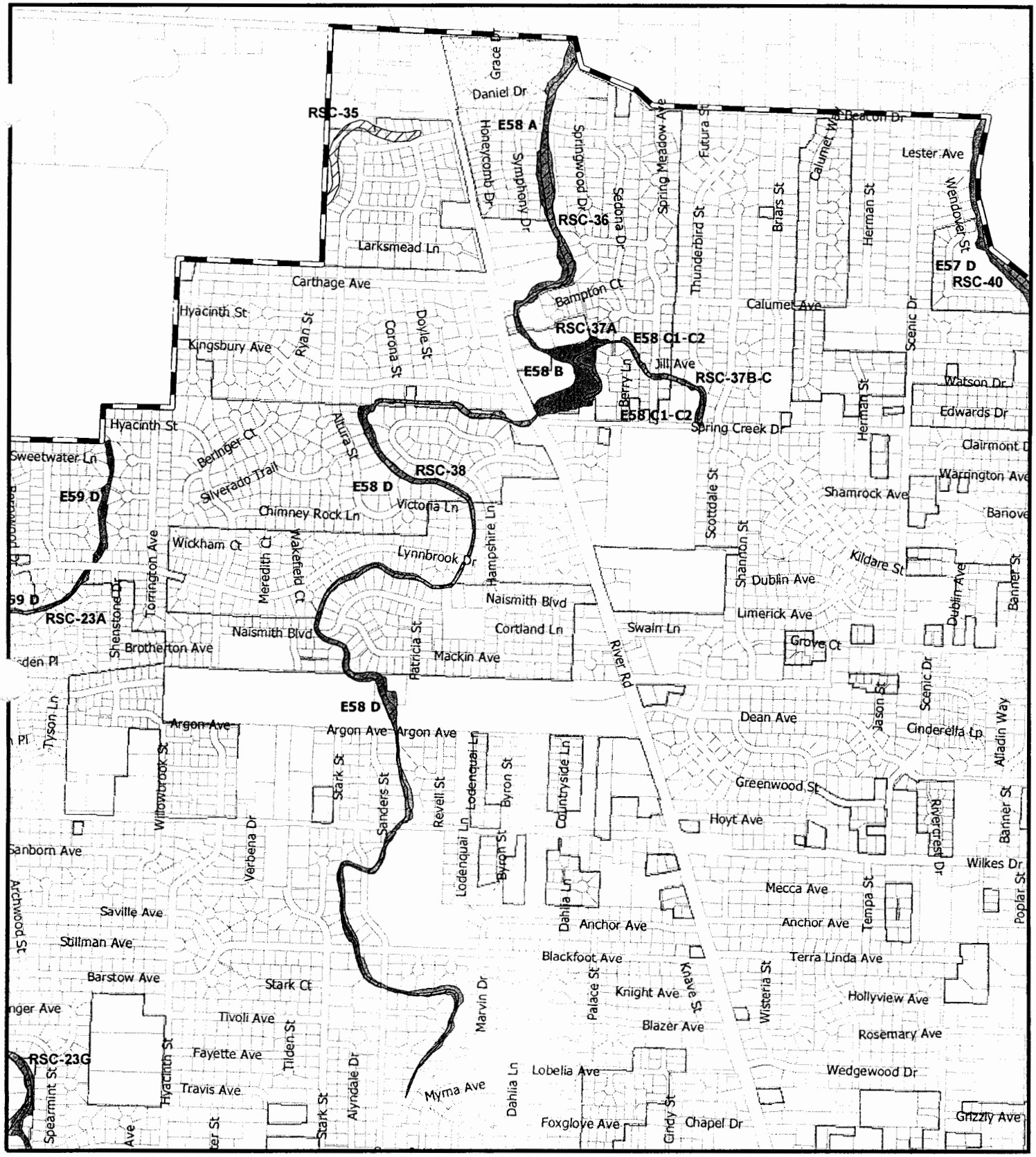
SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from JWB)**	ESEE CONCLUSIONS MAP NUMBER
West Eugene Uplands wetland at Skyview Park	AMA-3	AMA-3	W	0.53	Limit Conflicting Uses	Category B Wetland	25	7
West Eugene Uplands wetland at Hawkins	AMA-4	AMA-4	W	1.44	Fully Allow Conflicting Uses	None	0	
West Eugene Uplands wetland at Videra Ck	AMA-5	AMA-5A	W	0.16	Limit Conflicting Uses	Category B Wetland	25	7
West Eugene Uplands wetland at Videra Ck	AMA-5	AMA-5B	W	1.00	Limit Conflicting Uses	Category B Wetland	25	7
West Eugene Uplands wetland at Videra Ck	AMA-5	AMA-5C	W	0.04	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6A	W	5.65	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6B	W	2.35	Limit Conflicting Uses	Category A Wetland	50	10
Westmoreland wetlands	AMA-6	AMA-6C	W	1.23	Limit Conflicting Uses	Category A Wetland	50	10
Westmoreland wetlands	AMA-6	AMA-6D	W	0.03	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6E	W	0.04	Fully Allow Conflicting Uses	None	0	
Westmoreland wetlands	AMA-6	AMA-6F	W	0.10	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetlands	AMA-7	AMA-7A	W	3.62	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7B	W	1.62	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7C	W	0.24	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7D	W	0.18	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7E	W	0.20	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Creek wetlands	AMA-7	AMA-7F	W	1.83	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Park wetland ash grove	AMA-9	AMA-9	W	14.84	Limit Conflicting Uses	Category A Wetland	50	10
Amazon Park wetland 24th	AMA-10	AMA-10	W	1.42	Limit Conflicting Uses	Category B Wetland	25	10
Amazon Park wetland pool/ballfield	AMA-11	AMA-11A	W	5.58	Fully Allow Conflicting Uses	None	0	
Amazon Park wetland pool/ballfield	AMA-11	AMA-11B	W	2.78	Limit Conflicting Uses	Category B Wetland	25	10
Amazon Park wetland 29th	AMA-12	AMA-12A	W	0.59	Limit Conflicting Uses	Category B Wetland	25	10
Amazon Park wetland 29th	AMA-12	AMA-12B	W	0.44	Limit Conflicting Uses	Category B Wetland	25	10
Owl Road wetland	AMA-13	AMA-13	W	1.43	Limit Conflicting Uses	Category B Wetland	25	9
Barber wetland	AMA-14	AMA-14	W	0.86	Limit Conflicting Uses	Category B Wetland	25	9
Amazon Park wetland prairie	AMA-16	AMA-16	W	0.89	Limit Conflicting Uses	Category A Wetland	50	10
Bethel-Danebo wetland at Terry	BD-2	BD-2	W	5.35	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-3	BD-3A	W	4.74	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-3	BD-3B	W	0.44	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-3	BD-3C	W	0.53	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-4	BD-4	W	9.06	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-5	BD-5	W	23.97	Limit Conflicting Uses	Category A Wetland	50	5
Royal Avenue wetlands	BD-6	BD-6A	W	12.19	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-6	BD-6B	W	1.68	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A1	W	0.44	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7A2	W	0.08	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A3	W	1.26	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7A4	W	0.88	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7A5	W	0.08	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A6	W	0.14	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7A7	W	9.24	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7B1	W	1.50	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7B2	W	4.86	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7C1	W	1.54	Limit Conflicting Uses	Category B Wetland	25	5
Royal Avenue wetlands	BD-7	BD-7C2	W	0.63	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-7	BD-7C3	W	1.81	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7C4	W	1.77	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-7	BD-7C5	W	1.50	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-8	BD-8A1	W	0.52	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-8	BD-8A2	W	0.57	Limit Conflicting Uses	Category B Wetland	25	5
Royal Avenue wetlands	BD-8	BD-8A3	W	0.94	Limit Conflicting Uses	Category B Wetland	25	5
Royal Avenue wetlands	BD-8	BD-8A4	W	0.21	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-8	BD-8B	W	1.16	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-8	BD-8C	W	4.79	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-8	BD-8D	W	0.62	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9A	W	2.49	Limit Conflicting Uses	Category A Wetland	50	5
Amazon Creek wetland at Royal	BD-9	BD-9B1	W	12.95	Limit Conflicting Uses	Category B Wetland	25	5
Amazon Creek wetland at Royal	BD-9	BD-9B2	W	0.63	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9B3	W	0.16	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9C	W	0.83	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9D1	W	5.08	Limit Conflicting Uses	Category B Wetland	25	5
Amazon Creek wetland at Royal	BD-9	BD-9D2	W	0.93	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E1	W	0.02	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E2	W	0.65	Limit Conflicting Uses	Category C Wetland	0	5
Amazon Creek wetland at Royal	BD-9	BD-9E3	W	3.94	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E4	W	1.24	Limit Conflicting Uses	Category C Wetland	0	5
Amazon Creek wetland at Royal	BD-9	BD-9E5	W	29.17	Fully Allow Conflicting Uses	None	0	
Amazon Creek wetland at Royal	BD-9	BD-9E6	W	2.80	Limit Conflicting Uses	Category C Wetland	0	5
Amazon Creek wetland at Royal	BD-9	BD-9E7	W	0.44	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-10	BD-10A1	W	0.30	Fully Allow Conflicting Uses	None	0	

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from JWB)**	ESEE CONCLUSIONS MAP NUMBER
Royal Avenue wetlands	BD-10	BD-10A2	W	1.13	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-10	BD-10A3	W	0.51	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-10	BD-10A4	W	2.10	Limit Conflicting Uses	Category C Wetland	0	5
Royal Avenue wetlands	BD-10	BD-10B	W	3.31	Fully Allow Conflicting Uses	None	0	
Royal Avenue wetlands	BD-11	BD-11	W	0.57	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-13	BD-13	W	2.66	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-15	BD-15	W	0.63	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-16	BD-16	W	1.97	Fully Allow Conflicting Uses	None	0	
Bethel-Danebo wetland at Beltline	BD-17	BD-17	W	1.01	Fully Allow Conflicting Uses	None	0	
Empire Pond wetland	BD-20	BD-20	W	1.84	Limit Conflicting Uses	Category B Wetland	25	3
Taney Waterway wetland	BD-21	BD-21	W	0.73	Fully Allow Conflicting Uses	None	0	
NW Exp'wy Pond/Railroad wetland	BD-22	BD-22	W	5.31	Limit Conflicting Uses	Category B Wetland	25	3
Prairie Rd/Hwy 99	RSC-1	RSC-1	W	111.44	Fully Allow Conflicting Uses	None	0	
A-1 Channel wetland	RSC-2	RSC-2A	W	8.20	Limit Conflicting Uses	Category B Wetland	25	2
A-1 Channel wetland	RSC-2	RSC-2C	W	0.24	Fully Allow Conflicting Uses	None	0	
A-1 Channel wetland	RSC-2	RSC-2B	W	3.08	Limit Conflicting Uses	Category B Wetland	25	2
Prairie Rd/Hwy 99 wetlands	RSC-5	RSC-5	W	10.44	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-6	RSC-6	W	2.57	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-8	RSC-8	W	0.90	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-9	RSC-9	W	0.57	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-10	RSC-10A	W	1.72	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-10	RSC-10B	W	3.67	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-12	RSC-12	W	6.10	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-15	RSC-15	W	1.04	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-16	RSC-16	W	0.84	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-17	RSC-17	W	15.16	Fully Allow Conflicting Uses	None	0	
A-1 Side Channel	RSC-18	RSC-18	W	2.77	Fully Allow Conflicting Uses	None	0	
Highway 99/McDougal Pond wetlands	RSC-20	RSC-20	W	1.86	Limit Conflicting Uses	Category B Wetland	25	3
Highway 99/McDougal Pond wetlands	RSC-21	RSC-21	W	2.38	Limit Conflicting Uses	Category B Wetland	25	3
Wetland at Lancaster	RSC-22	RSC-22	W	1.27	Fully Allow Conflicting Uses	None	0	
North Flat Creek wetlands	RSC-23	RSC-23A	W	0.33	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23B	W	0.10	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23C	W	0.80	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23D	W	0.09	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23E	W	0.35	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23F	W	2.06	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23G	W	0.69	Limit Conflicting Uses	Category B Wetland	25	2
North Flat Creek wetlands	RSC-23	RSC-23H	W	0.11	Fully Allow Conflicting Uses	None	0	
North Flat Creek wetlands	RSC-25	RSC-25	W	1.73	Limit Conflicting Uses	Category B Wetland	25	2
Prairie Rd/Hwy 99 wetlands	RSC-26	RSC-26A	W	0.04	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-26	RSC-26B	W	0.90	Fully Allow Conflicting Uses	None	0	
Prairie Rd/Hwy 99 wetlands	RSC-27	RSC-27	W	0.63	Fully Allow Conflicting Uses	None	0	
Middle Flat Creek wetlands	RSC-28	RSC-28A	W	0.77	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetlands	RSC-28	RSC-28B	W	3.45	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetlands	RSC-28	RSC-28C	W	2.59	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetlands	RSC-29	RSC-29	W	3.53	Limit Conflicting Uses	Category A Wetland	50	3
NW Expressway Pond/Diana's Pond wetland	RSC-30	RSC-30A	W	11.33	Limit Conflicting Uses	Category A Wetland	50	3
NW Expressway Pond/Diana's Pond wetland	RSC-30	RSC-30B	W	0.78	Fully Allow Conflicting Uses	None	0	
South Flat Creek wetland	RSC-32	RSC-32	W	2.70	Fully Allow Conflicting Uses	None	0	
Middle Flat Creek wetland	RSC-33	RSC-33A-B	W	2.89	Limit Conflicting Uses	Category B Wetland	25	3
Middle Flat Creek wetland	RSC-34	RSC-34	W	1.18	Fully Allow Conflicting Uses	None	0	
Spring Creek wetlands	RSC-35	RSC-35	W	1.69	Limit Conflicting Uses	Category B Wetland	25	1
Spring Creek wetlands	RSC-36	RSC-36	W	2.20	Limit Conflicting Uses	Category A Wetland	50	1
Spring Creek wetlands	RSC-37	RSC-37A	W	0.38	Limit Conflicting Uses	Category A Wetland	50	1
Spring Creek wetlands	RSC-37	RSC-37B-C	W	0.60	Limit Conflicting Uses	Category B Wetland	25	1
Spring Creek wetlands	RSC-37	RSC-37D	W	0.12	Fully Allow Conflicting Uses	None	0	
Spring Creek wetlands	RSC-38	RSC-38	W	5.64	Limit Conflicting Uses	Category B Wetland	25	1
Spring Creek wetlands	RSC-39	RSC-39	W	0.61	Fully Allow Conflicting Uses	None	0	
East Santa Clara Waterway wetland	RSC-40	RSC-40	W	1.56	Limit Conflicting Uses	Category A Wetland	50	1, 3
Willow Creek wetland	WC-1	WC-1	W	1.38	Limit Conflicting Uses	Category A Wetland	50	6
Patterson Slough wetland	WKZ-1	WKZ-1A	W	1.71	Limit Conflicting Uses	Category A Wetland	50	13
Patterson Slough wetland	WKZ-1	WKZ-1B	W	2.40	Limit Conflicting Uses	Category A Wetland	50	13
Ayres Pond wetland	WKZ-2	WKZ-2	W	0.48	Limit Conflicting Uses	Category A Wetland	50	13
Green Acres wetland	WKZ-3	WKZ-3	W	1.00	Limit Conflicting Uses	Category B Wetland	25	13
Goodpasture wetlands	WKZ-4	WKZ-4	W	6.58	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5A	W	3.61	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5B	W	1.75	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5C	W	2.35	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5D	W	3.57	Limit Conflicting Uses	Category A Wetland	50	13
Goodpasture wetlands	WKZ-5	WKZ-5E	W	2.42	Limit Conflicting Uses	Category A Wetland	50	13
Delta Ponds wetlands	WKZ-6	WKZ-6	W	18.95	Limit Conflicting Uses	Category B Wetland	25	13

SITENAME	SITE LABEL	SUB-SITE LABEL	TYPE	ACRES	ESEE CONCLUSION	PROPOSED PROTECTION LEVEL*	PROPOSED SETBACK (Feet from JWB)**	ESEE CONCLUSIONS MAP NUMBER
Delta Ponds wetlands	WKZ-7	WKZ-7	W	65.54	Limit Conflicting Uses	Category A Wetland	50	13
Willagillespie wetland	WKZ-8	WKZ-8	W	0.62	Fully Allow Conflicting Uses	None	0	
Debrick Slough wetland	WKZ-9	WKZ-9	W	10.03	Limit Conflicting Uses	Category B Wetland	25	13
County Farm wetland at Game Farm	WKZ-10	WKZ-10	W	0.55	Fully Allow Conflicting Uses	None	0	
Sorrel Pond wetland	WKZ-13	WKZ-13	W	2.69	Limit Conflicting Uses	Category B Wetland	25	13
Alton Baker wetland	WKZ-14	WKZ-14A	W	0.54	Limit Conflicting Uses	Category A Wetland	50	13
Alton Baker wetland	WKZ-14	WKZ-14B1	W	1.18	Limit Conflicting Uses	Category A Wetland	50	13
Alton Baker wetland	WKZ-14	WKZ-14B2	W	0.46	Limit Conflicting Uses	Category A Wetland	50	13
Alton Baker wetland	WKZ-14	WKZ-14B3	W	3.51	Limit Conflicting Uses	Category B Wetland	25	13
Alton Baker wetland	WKZ-14	WKZ-14C	W	1.27	Limit Conflicting Uses	Category B Wetland	25	13
Alton Baker wetland	WKZ-14	WKZ-14D	W	0.33	Limit Conflicting Uses	Category B Wetland	25	13
Willamette River wetlands	WR-1	WR-1	W	1.94	Limit Conflicting Uses	Category A Wetland	50	13
Willamette River wetlands	WR-2	WR-2	W	1.79	Limit Conflicting Uses	Category A Wetland	50	13
Delta Ponds wetlands	WR-3	WR-3	W	25.46	Limit Conflicting Uses	Category A Wetland	50	13
Riverfront Park/Millrace wetland	WR-4	WR-4	W	6.30	Limit Conflicting Uses	Category A Wetland	50	13
Willamette River wetlands	WR-5	WR-5A	W	1.05	Limit Conflicting Uses	Category A Wetland	50	13
Willamette River wetlands	WR-5	WR-5B	W	0.12	Limit Conflicting Uses	Category A Wetland	50	13

*Wetland categories are from the draft /WR Water Resources Conservation Overlay Zone

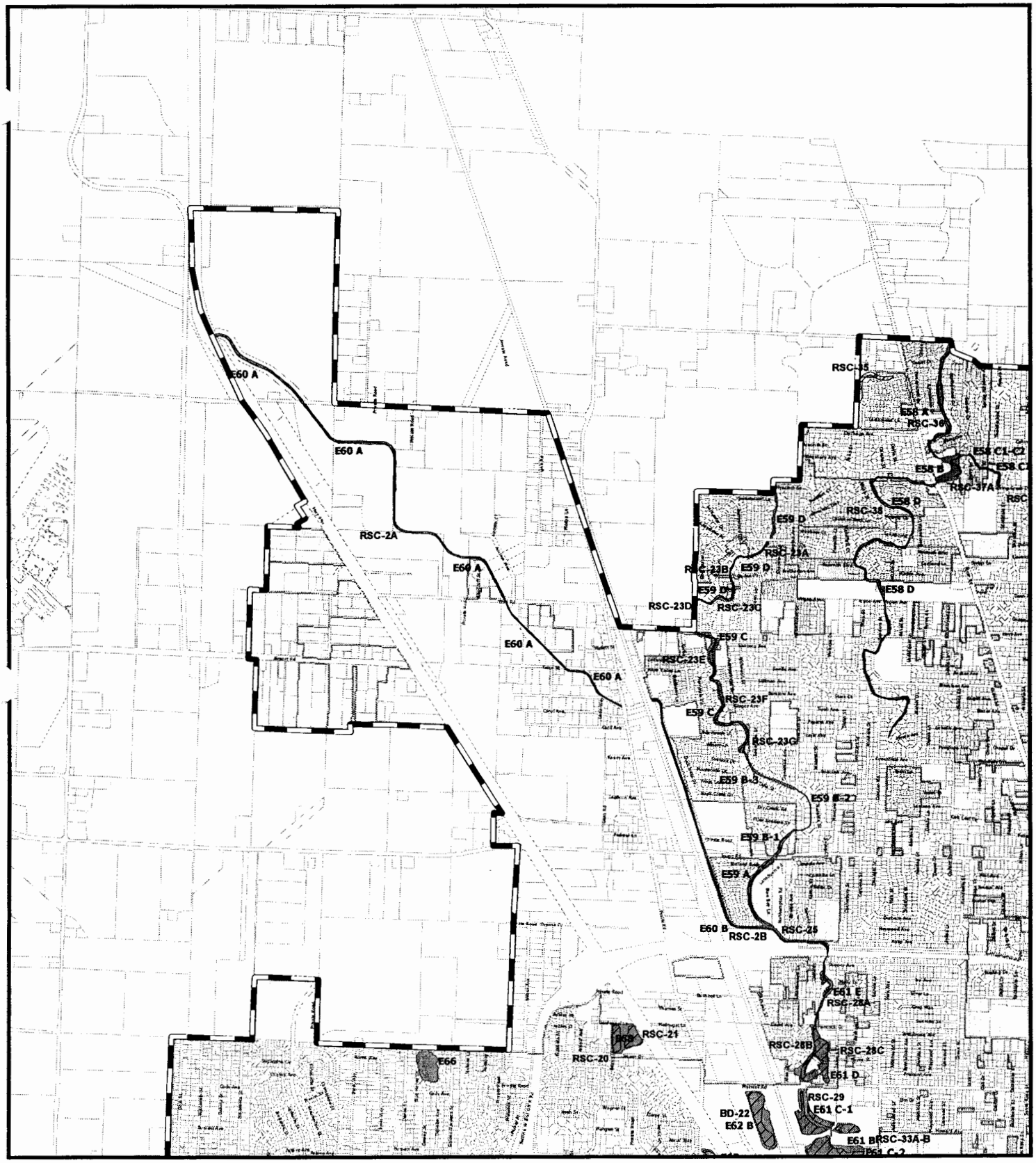
**Setback distances for wetlands are measured from the jurisdictional wetland boundary (JWB).



Goal 5 Water Resources Conservation Plan, Section IV, Map 1
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 225 450 675



Goal 5 Water Resources Conservation Plan, Section IV, Map 2
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
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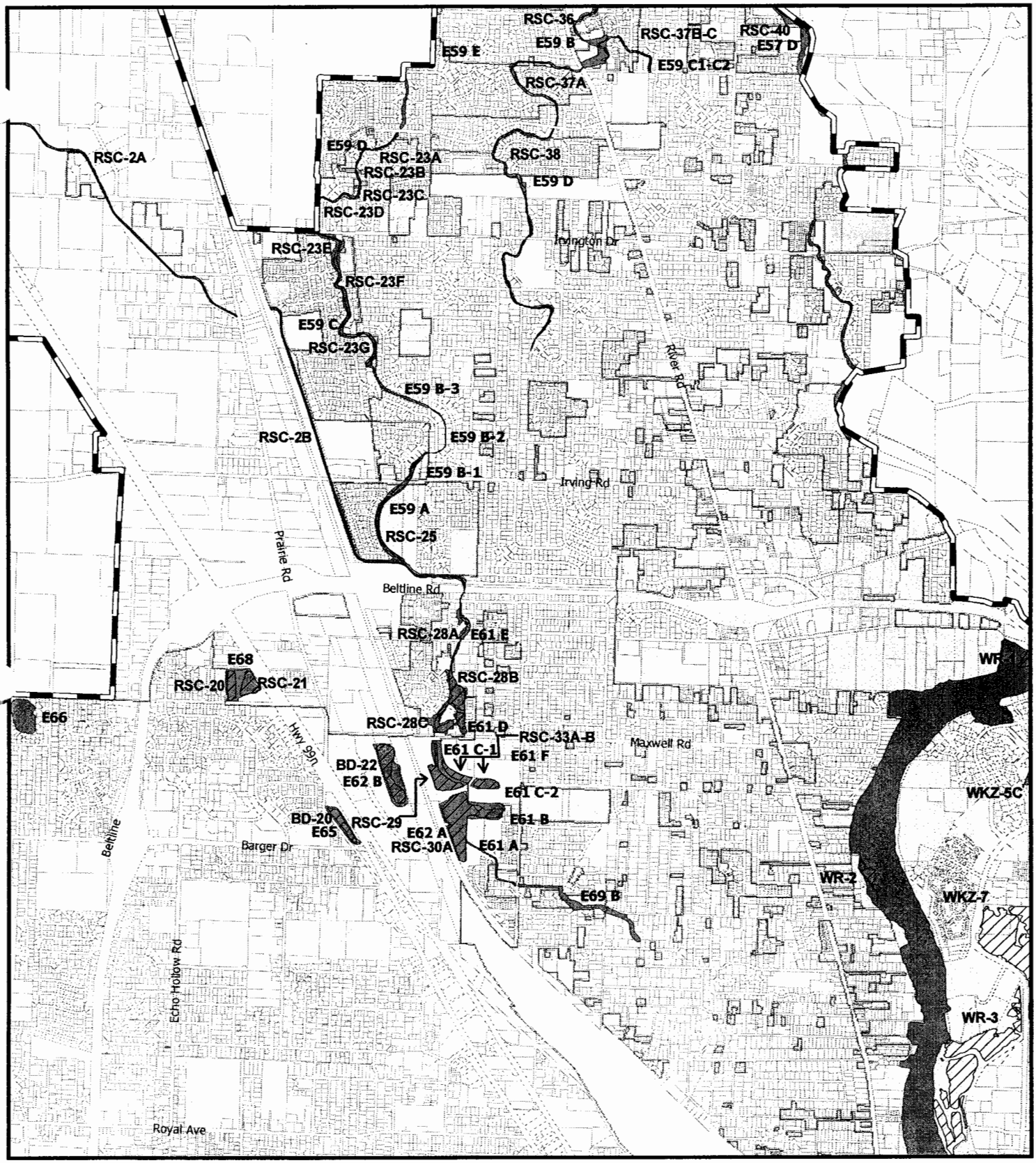


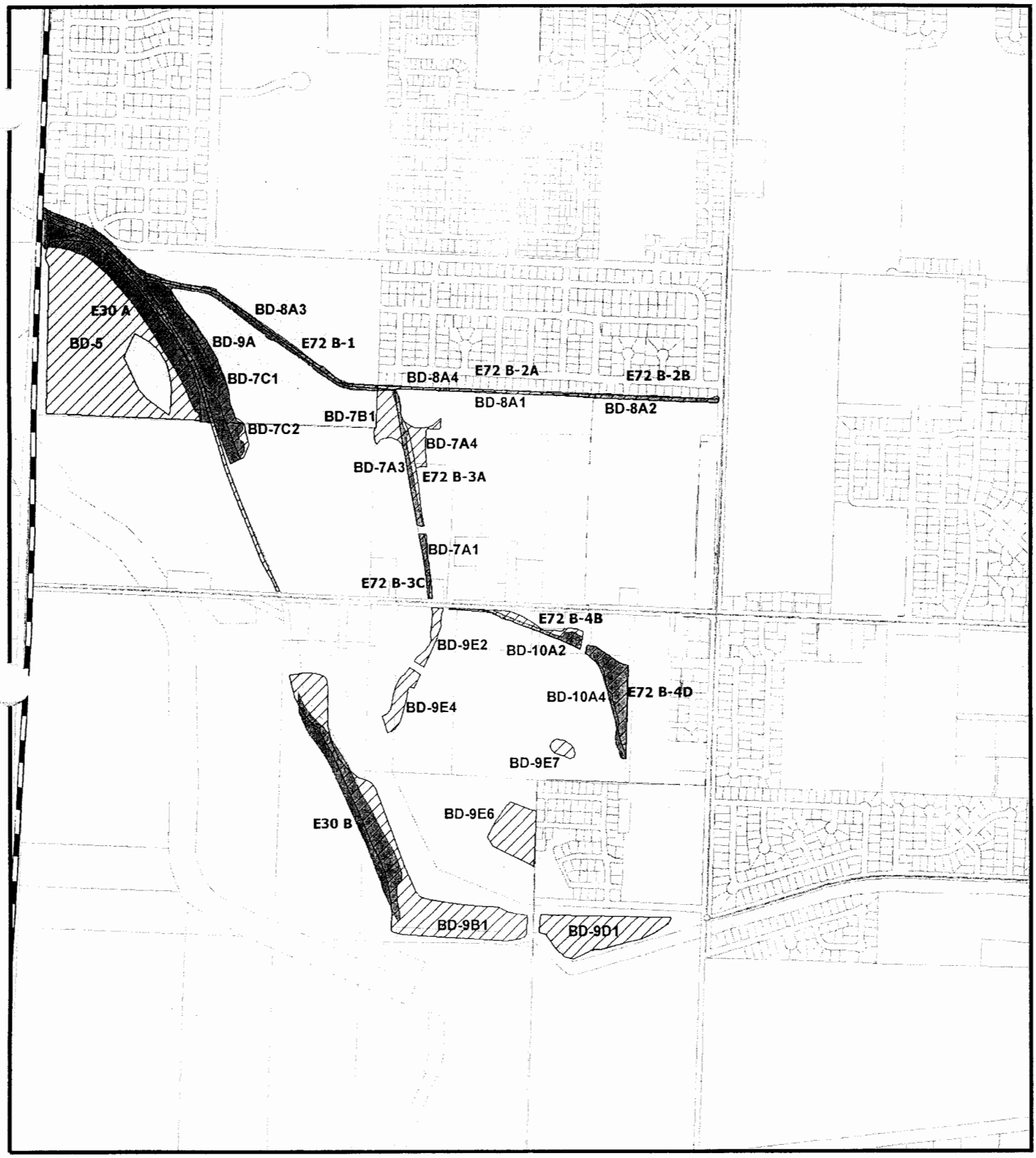
Goal 5 Water Resources Conservation Plan, Section IV, Map 3
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 890 1,780


E59 A
E60 B
RSC-25
RSC-2B
E68
RSC-20
RSC-21
E66
E62 B
BD-22
BD-20
E65
E72 B-2B
E72 B-2A
BD-8A1
BD-8A2
Federal Ln
Private Road
Irving Rd
Midland Brid
Private Road Theona Dr
Prairie Rd
Wilbur Ave
Bushnell Ln
Thomas St
Ashley Ln
Ashley Ct
Mcdougal Ln
Jessen Dr
Bear St
Elizabeth St
Arnold Ave
Rosebay
Melrose Ln
Blue Heron Ln
Cody Ave
Private Road
Primrose St
Parker Pl
Bettine W Blvd Off R Rd
Noah St
Wagner St
Clarey St
Mangan St
Aerial Way
Tenney Ln
Riviera
Quest Dr
Altimont St
Cubit St
Century Dr
Empire Park Dr
Sugarpine Cir
Coolidge Ave
North Way
Irwin Way
Devos St
Dewey St
Danebo Ave
Golden Gardens St
Burnett Ave
Leona Ct
Astove Ave
Aldabra St
Minnesota St
Lemuria St
Trevor St
Cosmopolis St
Antelope St
Antarctic St
Burke St
Port St
Laveta Ln
Regina St
Private Road
Terry St
Glenn Ellen Dr
Club Dr
Prasin St
Heitzman Way
Riley Ln
Hamlet Ln
Olympic Cir
Souza St
Souza Ct
Liberty St
Philip St
Haven St
Dota St
Avalon St
Cambon St
Concord St
Fuller Ave
Marshall Ave
Laurelhurst Dr
Candlelight Dr
Stagecoach Rd
Harriet Ave
Surrey Ln
Williams St
Leopold Dr
Heathrow Dr
Throne Dr
Hollow Way
West St
Rupp St
Frigon Ave
Redfrig Ave
Delores Ct
Dee Ct
Elman Ln
Bostoo Ln
Scandia St
Juhl St
Catalina St
Murnane St
Bettine E Blvd Off R Rd
Echo Hollow Rd
Cascade Dr
Sean St
Knoop Ave
Flagstaff St
Bethesda St
Willhi St
Withi St
Jay St
Rutledge St
Ellsworth St
Taney St
Pattison St
Nuvia
Chase St
Bemtzen Rd
Waite St
Taft St
Hughes St
Hawthorne Ave
Robin Ave
Dove Ln
Ruskin St
Private Road
Danebo Ave
Avalon
Concord St
Jay St
Fuller Ave
Marshall Ave
Hawthorne Ave
Bemtzen Rd
Waite St
Taft St
Hughes St
Avalon St
Pattison St
Nuvia
Chase St
Bemtzen Rd
Waite St
Taft St
Hughes St
Avalon
Concord St
Jay St
Fuller Ave
Rutledge St
Ellsworth St
Taney St
Willhi St
Withi St
Avalon St
Cascade Dr
Sean St
Knoop Ave
Flagstaff St
Bethesda St
Echo Hollow Rd
Bettine E Blvd Off R Rd
Scandia St
Juhl St
Catalina St
Murnane St
Bostoo Ln
Dove Ln
Ruskin St
Private Road
Robin Ave
Taft St
Waite St
Souza St
Private Road
Danebo Ave
Souza Ct
Liberty St
Philip St
Haven St
Dota St
Avalon St
Cambon St
Concord St
Fuller Ave
Marshall Ave
Laurelhurst Dr
Candlelight Dr
Stagecoach Rd
Harriet Ave
Surrey Ln
Williams St
Leopold Dr
Heathrow Dr
Throne Dr
Hollow Way
West St
Rupp St
Frigon Ave
Redfrig Ave
Delores Ct
Dee Ct
Elman Ln
Riley Ln
Hamlet Ln
Olympic Cir
Heitzman Way
Prasin St
Club Dr
Glenn Ellen Dr
Terry St
Private Road
Burke St
Port St
Laveta Ln
Regina St
Private Road
Aldabra St
Minnesota St
Lemuria St
Trevor St
Cosmopolis St
Antelope St
Antarctic St
Astove Ave
Astove Ave
Burnett Ave
Leona Ct
Private Road
Dewey St
Danebo Ave
Golden Gardens St
Devos St
Irwin Way
Irwin Way
Blue Heron Ln
Cody Ave
Private Road
Primrose St
Parker Pl
Bettine W Blvd Off R Rd
Rosebay
Melrose Ln
Elizabeth St
Arnold Ave
Ashley Ln
Ashley Ct
Mcdougal Ln
Jessen Dr
Bear St
Private Road
Wilbur Ave
Private Road Theona Dr
Prairie Rd
Private Road
Irving Rd
Midland Brid
Federal Ln
Sugarpine Cir
Coolidge Ave
North Way
Irwin Way
Devos St
Dewey St
Danebo Ave
Golden Gardens St
Burnett Ave
Leona Ct
Astove Ave
Aldabra St
Minnesota St
Lemuria St
Trevor St
Cosmopolis St
Antelope St
Antarctic St
Private Road
Private Road
Private Road
Private Road
Noah St
Wagner St
Clarey St
Mangan St
Aerial Way
Tenney Ln
Riviera
Quest Dr
Altimont St
Cubit St
Century Dr
Empire Park Dr
Bushnell Ln
Thomas St
Mcdougal Ln
Jessen Dr
Bear St
Elizabeth St
Arnold Ave
Rosebay
Melrose Ln
Blue Heron Ln
Cody Ave
Private Road
Primrose St
Parker Pl
Bettine W Blvd Off R Rd
Wilbur Ave
Private Road Theona Dr
Prairie Rd
Private Road
Irving Rd
Midland Brid
Federal Ln
Goal 5 Water Resources Conservation Plan, Section IV, Map 4
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources
Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection
N
W
E
S
Feet
0 340 680 1,020

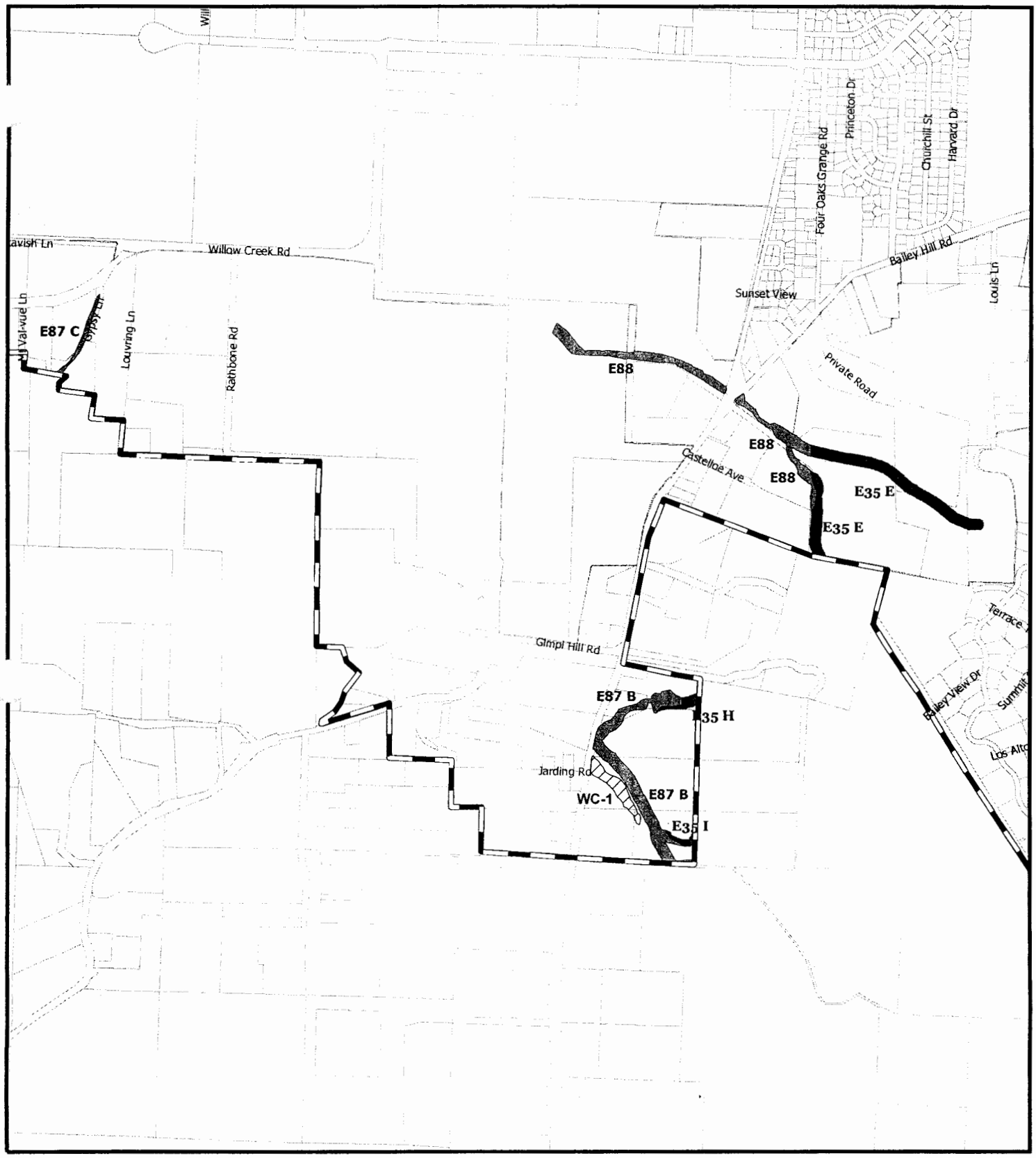


Goal 5 Water Resources Conservation Plan, Section IV, Map 5
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection

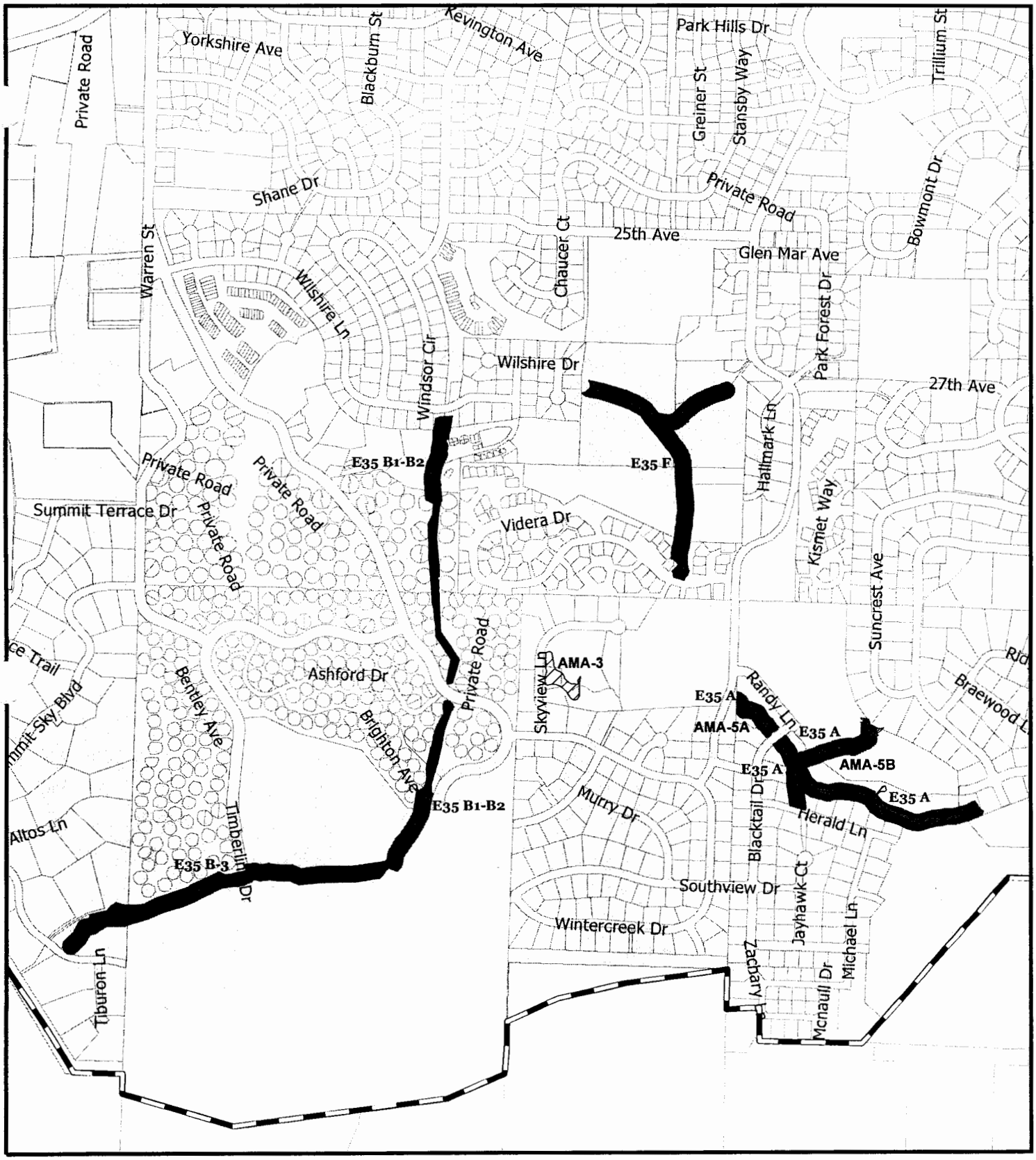
Feet
0 260 520 780



Goal 5 Water Resources Conservation Plan, Section IV, Map 6
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

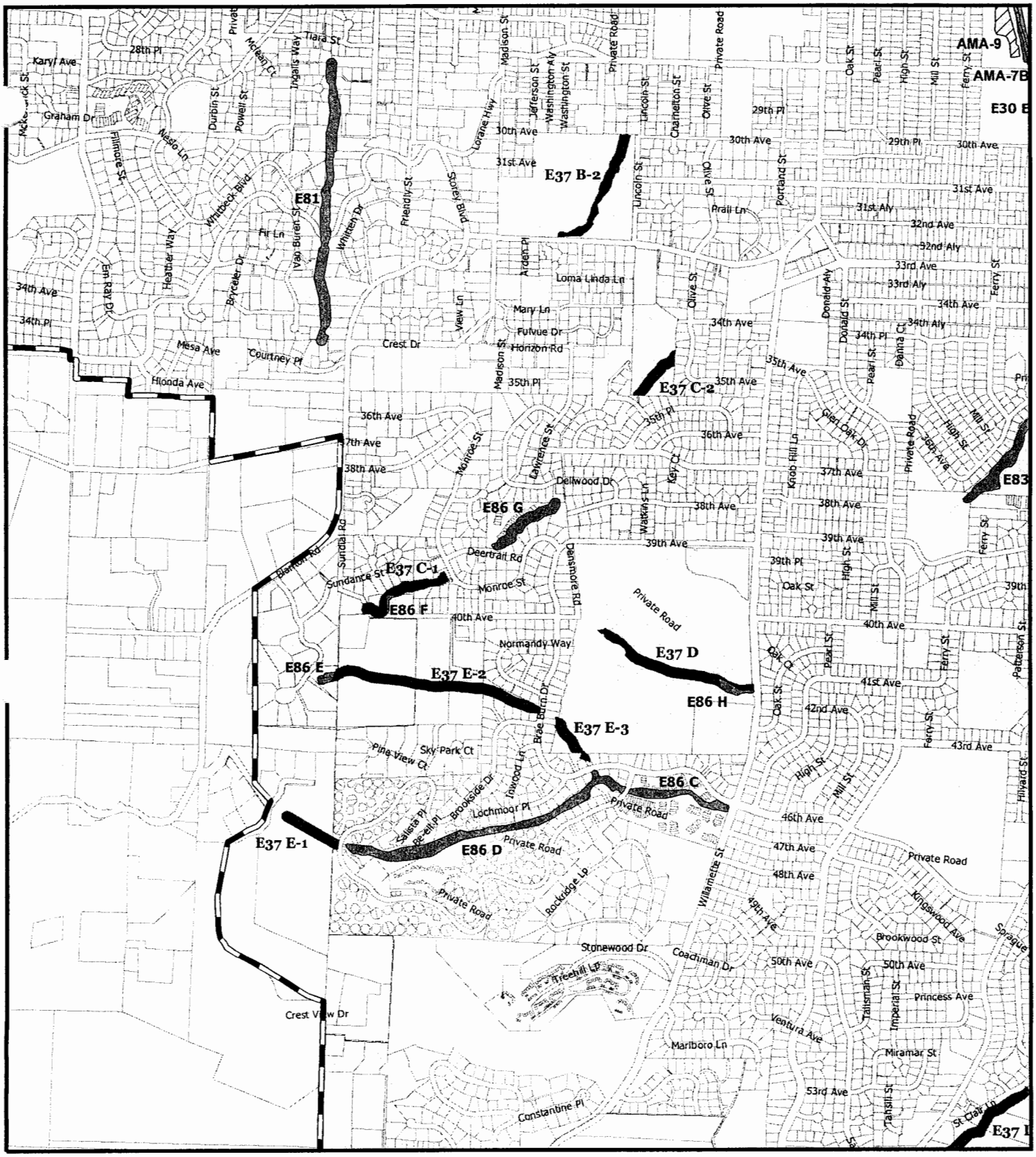
Feet
0 260 520 780



Goal 5 Water Resources Conservation Plan, Section IV, Map 7
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Fee
0 230 460 690



Goal 5 Water Resources Conservation Plan, Section IV, Map 8

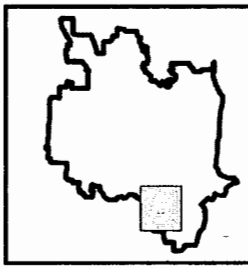
Eugene Goal 5 ESEE Conclusions

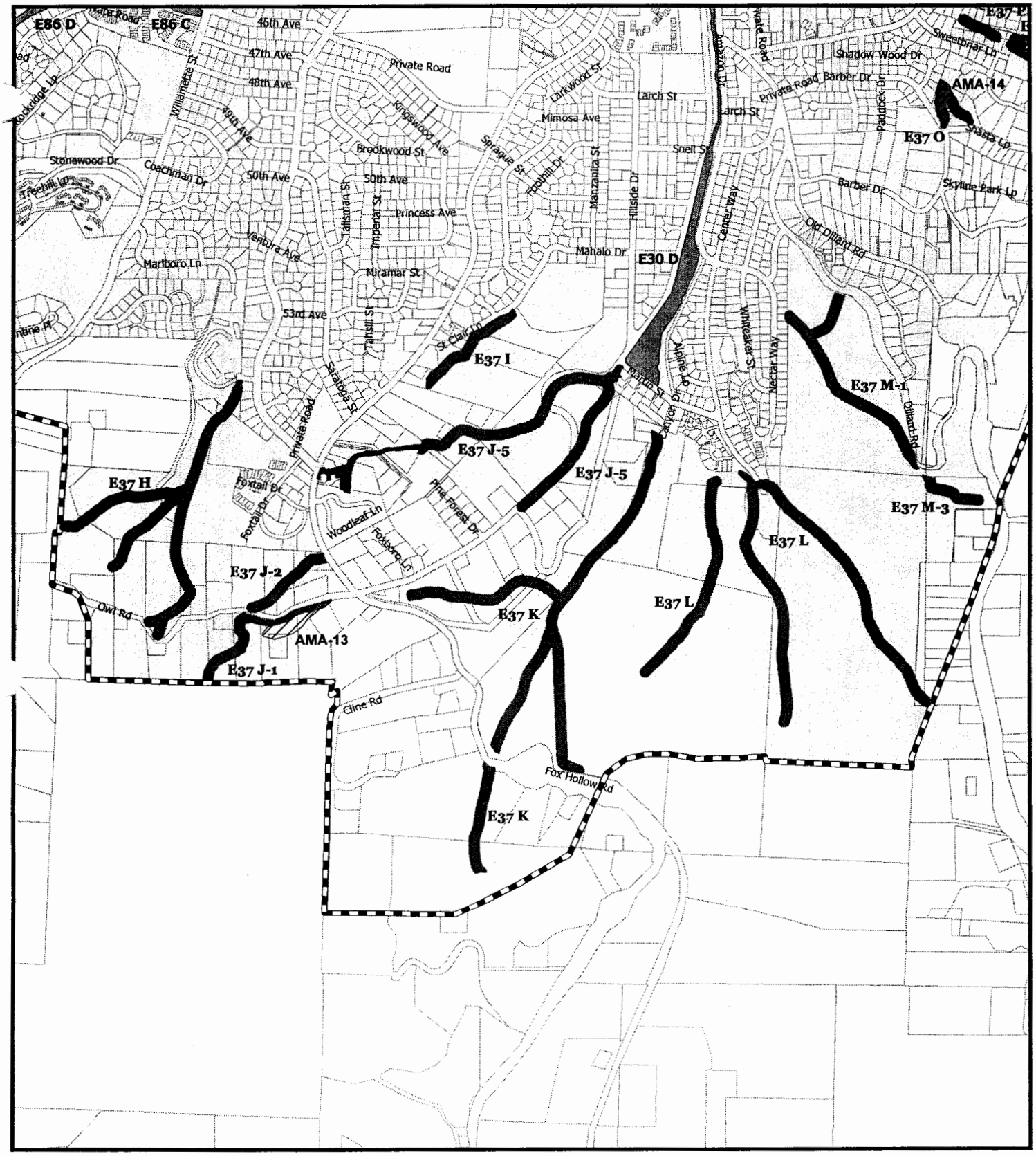
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N W E S

Feet
0 280 560 840





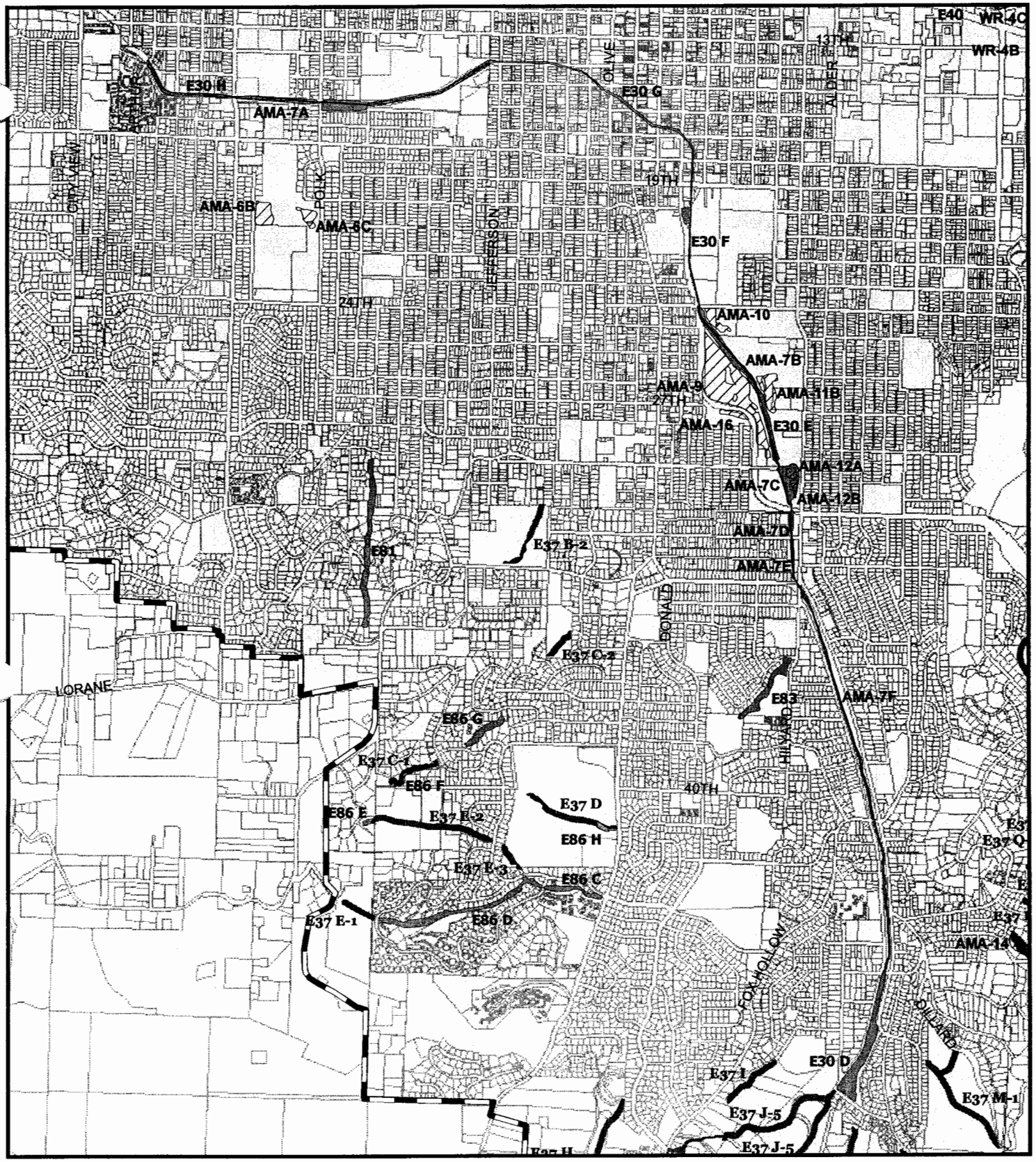
Goal 5 Water Resources Conservation Plan, Section IV, Map 9

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources October 24, 2005

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

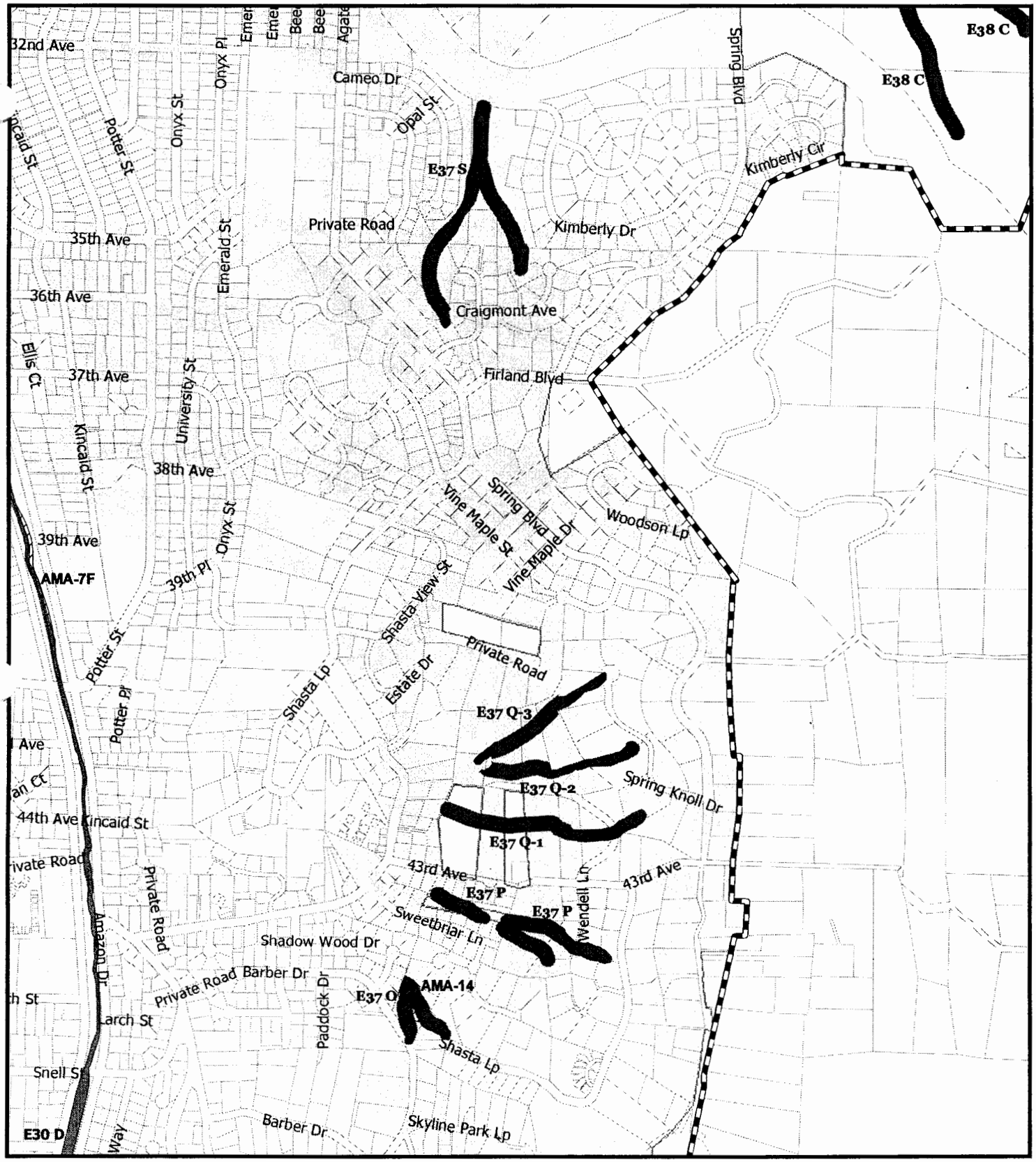
0 325 650 975 Feet



Goal 5 Water Resources Conservation Plan, Section IV, Map 10
Eugene Goal 5 ESEE Conclusions
Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

0 620 1,240 1,860 Feet



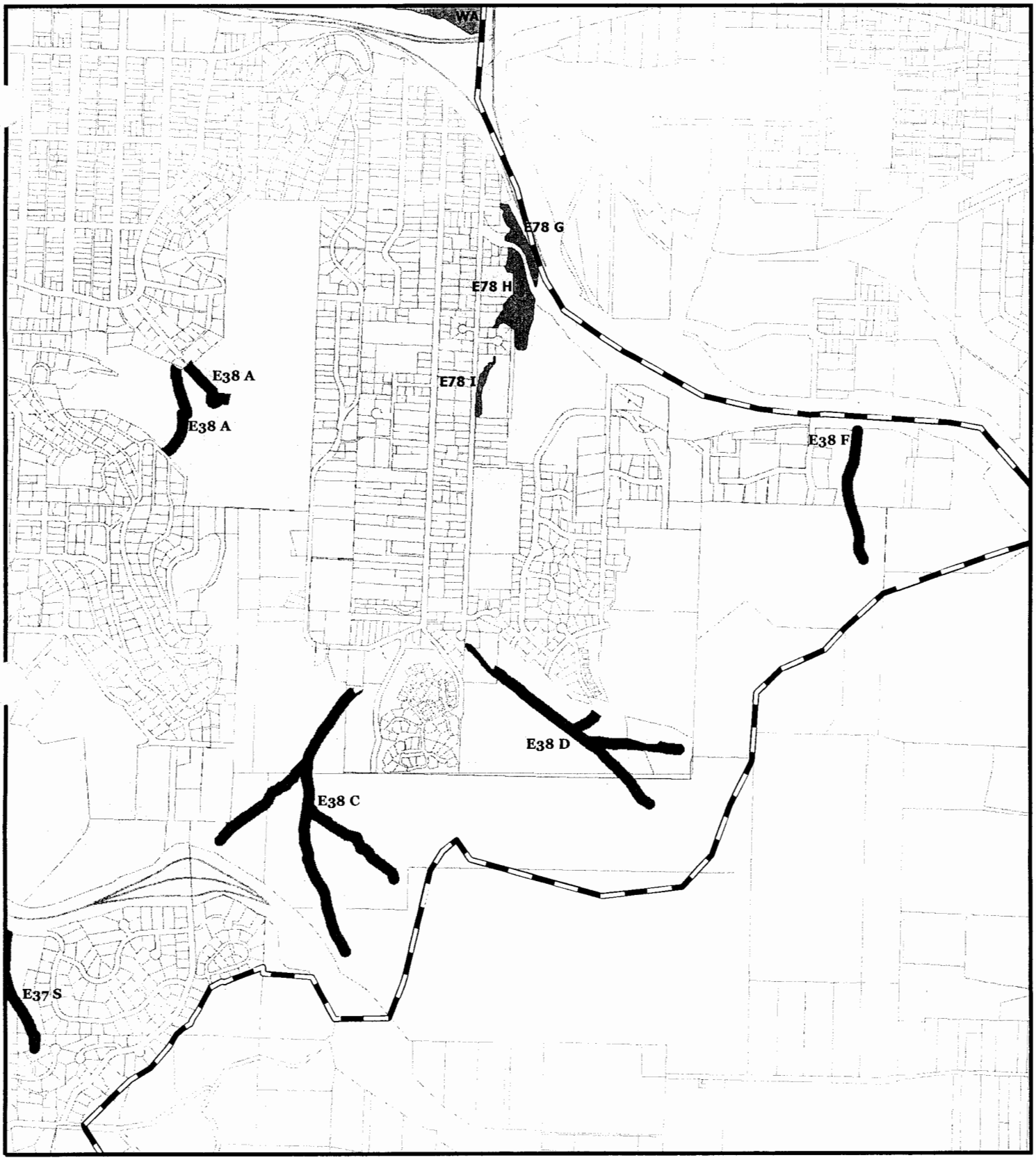
Goal 5 Water Resources Conservation Plan, Section IV, Map 11

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

0 250 500 750 Feet

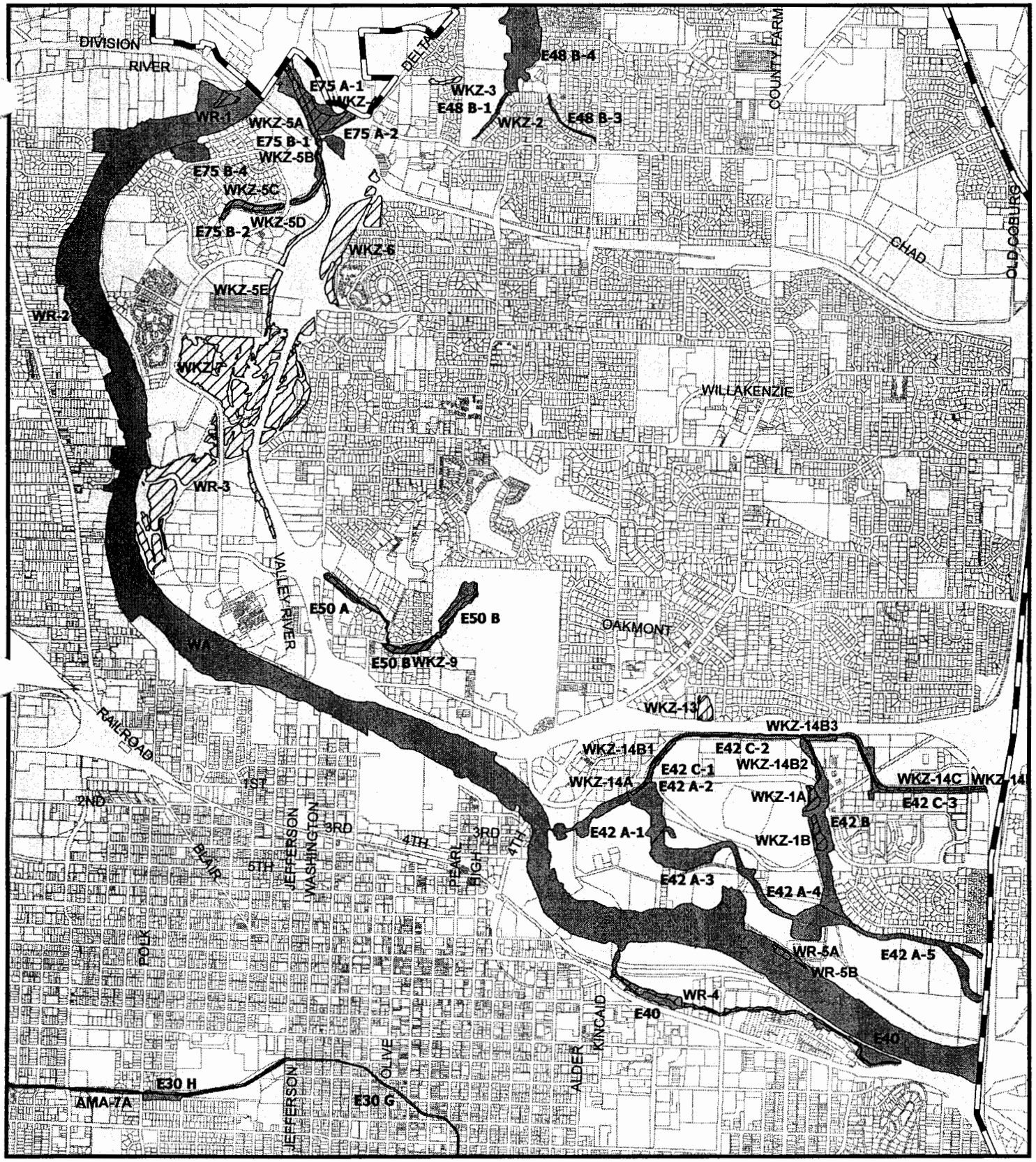


Goal 5 Water Resources Conservation Plan, Section IV, Map 12
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection

Feet
0 460 920



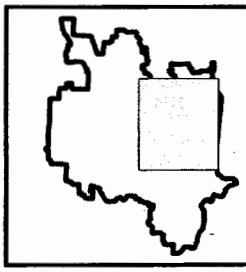
Goal 5 Water Resources Conservation Plan, Section IV, Map 13

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 780 1,560 2,340



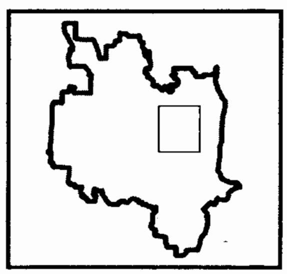
Goal 5 Water Resources Conservation Plan, Section IV, Map 14

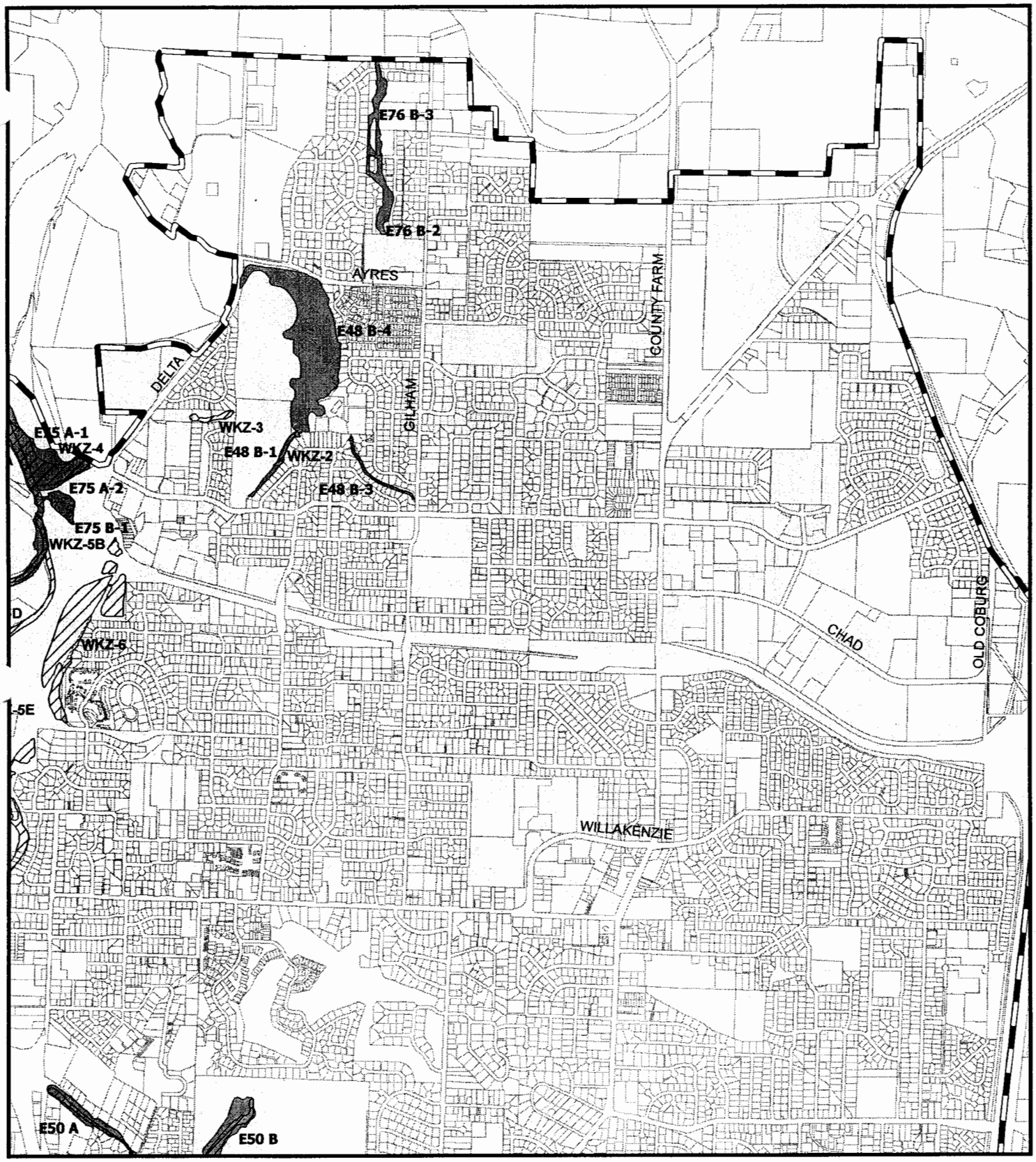
Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

Eugene Urban Growth Boundary	Wetland Designated for Protection
Eugene City Limits	Riparian Corridor Designated for Protection
Taxlots	Upland Wildlife Habitat Designated for Protection

0 370 740 1,110 Feet





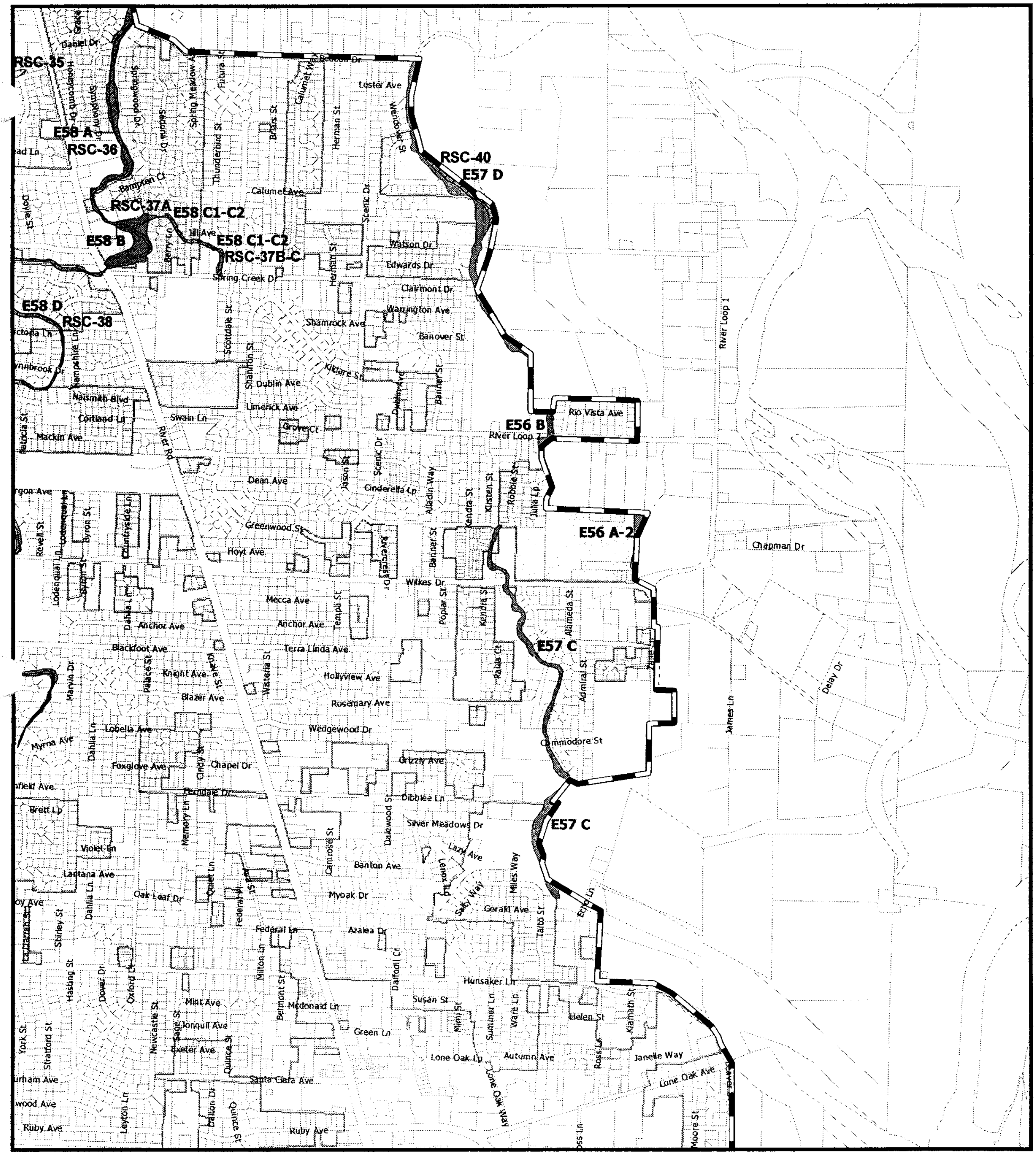
Goal 5 Water Resources Conservation Plan, Section IV, Map 15

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

Feet
0 540 1,080 1,620



Goal 5 Water Resources Conservation Plan, Section IV, Map 16

Eugene Goal 5 ESEE Conclusions

Protected Goal 5 Resources

Eugene Urban Growth Boundary	Wetland Designated for Protection
Eugene City Limits	Riparian Corridor Designated for Protection
Taxlots	Upland Wildlife Habitat Designated for Protection

0 0.05 0.1 0.2 Miles

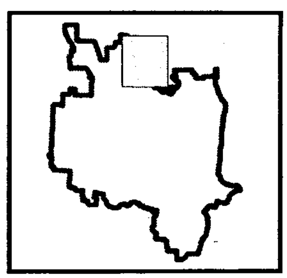


Exhibit B - Conflicting Uses and ESEE Analysis

Contents

7. **Supplemental Analysis:**

A-1 Channel and Highway 99/Prairie Road Wetlands
Sites E60 (A-1 Channel); RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

8. **Supplemental Analysis:**

Bethel-Danebo Area Riparian Corridors (Taney Waterway, Empire Pond, DeSoto Lake, Highway 99/McDougal Pond, Beltline Channel); and Bethel-Danebo Wetlands
Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

9. **Supplemental Analysis:**

Portions of West Eugene Upland Stream Corridors and West Eugene Upland Wetlands
Sites E35A at Videra Creek, E35F at Videra Creek, E35B at Timberline Creek, E35C at Warren, and E35G at Hawkins (West Eugene Upland Stream Corridors); and AMA-3 at Skyview Park, AMA-4 Hawkins, and AMA-5 at Videra (West Eugene Upland Wetlands)

10. **Supplemental Analysis:**

Bailey Hill Riparian, Willow Creek Tributaries, Willow Creek Wetlands, and portions of West Eugene Upland Stream Corridors
Sites E88 at Bailey Hill (Bailey Hill Riparian); E87A at Gimpl Hill, E87B at Bailey Hill, E87C at Gypsy Lane (Willow Creek Tributaries); WC-1 at Bailey Hill (Willow Creek Wetlands); and E35E, E35H, E35I at Bailey Hill and E35D at Louis Lane (West Eugene Upland Stream Corridors)

11. **Supplemental Analysis:**

North Flat Creek, Middle Flat Creek, South Flat Creek, and NW Expressway Ponds
Sites E59 (North Flat Creek); E61 (Middle Flat Creek); E69 (South Flat Creek); E62 (NW Expressway Ponds); BD-22; RSC-22, RSC-23, RSC-25, RSC-28, RSC-29, RSC-30, RSC-32, RSC-33, RSC-33 (Flat Creek Wetlands)

12. **Supplemental Analysis:**

East Santa Clara Waterway & River Loop
Sites E57 (East Santa Clara Waterway); E56 (River Loop); RSC-40 (East Santa Clara Waterway Wetland)

13. **Supplemental Analysis:**

Spring Creek
Sites E58 (Spring Creek); RSC-35; RSC-36; RSC-37; RSC-38; RSC-39 (Spring Creek Wetlands)

14. **Supplemental Analysis:**

North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands
Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

15. **Supplemental Analysis:**

Debrick Slough, Willagillespie wetlands
Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

16. **Supplemental Analysis:**

Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors
Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

17. **Supplemental Analysis:**

Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Portions of Upper Amazon Wetlands
Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

18. **Supplemental Analysis:**

Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands
Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

19. **Supplemental Analysis:**

Laurel Hill Upland Stream Corridors & Augusta Creek
Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78 A-B (Augusta Creek at Floral Hill); E78 D-F (Augusta Creek at Riverview); E78 G-I (August Creek at Augusta)

20. **Supplemental Analysis:**

Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough
Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

21. **Supplemental Analysis:**

Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands
Sites E75A (Goodpasture Slough at Beltline); E75B (Goodpasture Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

22. **Supplemental Analysis:**

Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands
Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

23. **Supplemental Analysis:**

Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian
Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

24. **Supplemental Analysis:**

Willamette River, Willamette River Wetlands
Sites WA/WB (Willamette River); WR-1; WR-2; WR-5 (Willamette River Wetlands)

1. Introduction

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to every Goal 5 site. **Section 6** addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. **Sections 7 through 24**, contain supplemental analyses that address groups of sites in greater detail.

2. Impact Areas

Applicable OAR Sections

> *660-023-0010 (3) "Impact area" is a geographic area within which conflicting uses could adversely affect a significant Goal 5 resource.*
>
> *660-023-0040 (3) Determine the impact area. Local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site.*

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. These impact areas are based upon: 1) uses allowed in adjacent properties; and 2) potentially adverse effects of those uses on the resource. The impact areas established for each of Eugene's Goal 5 sites encompass the entire site and include additional areas beyond the site boundary.

Impact areas are referred to below as either a "Type A," "Type B," "Type C," "Type D," or "Type E" impact area. These references are only for convenience, and will be referred to later in this document as a "shorthand" reference to each distinct type of impact area.

For riparian and upland wildlife habitat sites, the impact area consists of three components: (1) the area between the banks of the stream, (2) an area within a specified distance from the top of banks, plus (3) any riparian vegetation within the site boundary that extends beyond the specified distance from the top of bank (see sections 2.1 through 2.5 below). The total area of these three components together makes up the impact area for these sites.

For wetland sites, the impact area includes two component areas: (1) the area within the wetland boundary as delineated on the Eugene Local Wetland Inventory and the area within a specified distance measured from the wetland boundary (see sections 2.1 through 2.5 below). The total area of these two components together makes up the impact area for sites with wetlands.

For areas that contain both wetlands and riparian or upland wildlife habitat sites, the impact areas for each resource type is calculated, and the combined total area of the impact area for all the resource types is used.

Defining an impact area defines the geographic area within which conflicting uses and potential impacts to the resource are analyzed. Those areas that are recommended for protection measures are defined in Sections 7 through 24. Below is a discussion of the factors considered in establishing impact areas for different types of Goal 5 resource sites, and the extent of each type of impact area. For a list of the impact areas assigned to each site in the Inventory, see impact area tables in Sections 7 through 24 below.

2.1 "Type A" Impact Area

The Type A Impact Area is assigned to the Willamette River. The Type A Impact Area is the combined total area of these three component areas: (1) the area between the banks of the river, (2) the area within 120 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 120 feet from the top of bank. This impact area is assigned to the river due to the river's regional ecological and social significance, and surrounding conflicting uses and potential adverse effects of those uses. Potentially adverse impacts from allowed uses surrounding this site include stormwater runoff pollutants, such as agricultural, industrial or yard care chemicals, noise and light trespass, erosion and sedimentation, and removal of riparian vegetation (see Conflicting Uses Section 3). In establishing this impact area for the river, consideration was given the fact that the river: (1) is surrounded by a wide range of land uses and is subject to a broad array of adverse impacts (see Conflicting Uses Section 3); 2) is the largest stream in the region, including all of the Eugene UGB area; (3) has major economic, social and environmental importance to the community and the region; (4) contains a highly intact riparian plant community with a mature forest canopy that supports a wide range of terrestrial and aquatic wildlife species; and (5) provides habitat for the upper Willamette Spring Chinook Salmon, a federally-listed Threatened species, and (6) contains at least nineteen other native fish species. Sections 7 through 24 contain tables listing the impact areas for each site, including the Type A Impact Area for the Willamette River, based on surrounding conflicting uses and potential adverse effects of those uses.

2.2 "Type B" Impact Area

The "Type B" Impact Area for riparian and upland wildlife habitat sites is the combined total area of these three component areas: (1) the area between the banks of the stream, (2) the area within 75 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 75 feet from the top of bank. A Type B Impact Area is assigned to sites which are surrounded by primarily low density residential or agricultural uses, but with some pockets of industrial and commercial uses, and which are highly likely to be adversely affected by those surrounding uses. Potentially adverse impacts from allowed uses surrounding these sites include stormwater runoff pollutants, such as chemicals and sediment from agricultural practices, landscape maintenance at residential yards and commercial sites, and industrial operations. In addition, there is a high potential for noise and light trespass, erosion and sedimentation, and removal of riparian vegetation (see Conflicting Uses Section 3). Certain characteristics of these sites make them more vulnerable to adverse effects or increases the importance of those impacts: 1) these sites have very high connectivity to regional habitat systems, are important movement corridors for wildlife, which makes impacts to them more important; 2) w wetlands occur within the stream corridor, and wetlands can be susceptible to different types and levels of impacts from adjacent activities compared to streams—e.g., they

may be more vulnerable to impacts related to changes in hydrology (higher or lower water levels, or increased flow rates); 3) the quality of riparian plant community may vary from low to high, but the overall length of the riparian corridor elevates l its value as a habitat connecting corridor; 4) water quality impacts in the stream corridor can mean significant impacts downstream as they are either regional drainages or are connected to extensive, important drainages; or (5) some portions of these sites are fish-bearing, meaning a higher resource value and greater vulnerability to adverse impacts to water quality. Sections 7 through 24 contain tables listing the impact area for each site, including the Type B Impact Area, based on surrounding conflicting uses and potential adverse effects of those uses.

2.3 "Type C" Impact Area

The "Type C" Impact Area for riparian and upland wildlife habitat sites is the combined total area of these three component areas: (1) the area between the banks of the stream, (2) the area within 50 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 50 feet from the top of bank. A Type C Impact Area is assigned to sites which are surrounded by primarily low density residential, agricultural, or industrial uses, and are relatively vulnerable to adverse effects of surrounding uses. Potentially adverse impacts from allowed uses surrounding these sites include stormwater runoff pollutants, such as agricultural, industrial or yard care chemicals and sediment, noise and light, erosion, and removal of riparian vegetation (see Conflicting Uses Section 3). Some sites are more vulnerable to these adverse effects due to certain characteristics, such as: (1) the steep gradient of the stream channel bed and steep slopes of the surrounding topography make the stream more vulnerable (compared to streams without steep slopes) to erosion, and to activities (e.g. vegetation removal) that increase flows or impervious surfaces; (2) the site's connection to larger or more extensive habitats means it functions more as a corridor for wildlife, which increases vulnerability to impacts; 4) locally significant wetlands occur along the stream corridor, and wetlands are susceptible to different types and levels of adjacent activities than streams—e.g., they are often more vulnerable to impacts related to hydrology (higher or lower water levels, increased flow rates); 5) the riparian plant community is generally more pristine or undisturbed and therefore, disturbances such as invasion of exotic blackberry or ivy can have proportionately greater impacts. 6) water quality impacts in the stream corridor can mean significant impacts downstream where the stream is a headwater or important drainage to more extensive riparian systems; or (7) some portions of these sites contain fish or sensitive species (western pond turtle), meaning a higher resource value and greater vulnerability to adverse impacts. Sections 7 through 24 contain tables listing the impact area for each site, including the Type C Impact Area, based on surrounding conflicting uses and potential adverse effects of those uses.

2.4 "Type D" Impact Area

The "Type D" Impact Area for riparian and upland wildlife habitat sites is the combined total area of these three component areas: (1) the area between the banks of the stream, (2) the area within 25 feet of the top of banks, plus (3) any riparian vegetation within the Goal 5 site boundary that extends beyond 25 feet from the top of bank. A Type D Impact Area is assigned to sites which are surrounded by primarily low density residential or agricultural uses, or industrial uses, and are somewhat vulnerable to adverse impacts. Potentially adverse impacts from allowed uses surrounding these sites include stormwater runoff pollutants, such as agricultural, industrial or yard care chemicals and sediment, noise and light, erosion, and

removal of riparian vegetation (see Conflicting Uses Section 3). The impact area for these sites is also based on particular environmental characteristics of the site that affect how vulnerable the site is to adverse effects from surrounding uses, such as whether surrounding topography is relatively flat (which helps slow down storm flows, allowing for better infiltration and filtration of stormwater runoff and potential pollutants), and whether the site is highly disturbed with dominant invasive species, or whether it is relatively pristine and more vulnerable to disturbance. In some portions of these sites, riparian vegetation is narrow and fragmented. At the same time, wetlands typically occur within these corridors, and wetlands are often more vulnerable to impacts related to hydrology (too much water, not enough water). Sections 7 through 24 contain tables listing the impact area for each site, including the Type D Impact Area, based on surrounding conflicting uses and potential adverse effects of those uses.

2.5 "Type E" Impact Area

The Type E Impact Area is equal to the site boundary. It is assigned to stream corridors where: 1) the adjacent land is physically separated from the hydrology of the stream and adjacent riparian vegetation (if any) is not functionally or hydrologically connected to the stream; but 2) the stream provides an essential connection between other significant riparian corridors. Physical barriers such as pavement or a concrete curb surround these sites. These streams have little or no adjacent riparian vegetation, and the site boundary does not extend beyond the channel banks. For these reasons, adjacent uses outside the resource site boundary, such as stormwater runoff or removal of riparian vegetation, are not likely to adversely impact the resource. Sections 7 through 24 contain tables listing the impact area for each site, including the Type E Impact Area.

3. Conflicting Uses

3.1 Introduction

Applicable OAR Sections

660-023-0010 (1) "Conflicting use" is a land use, or other activity reasonably and customarily subject to land use regulations, that could adversely affect a significant Goal 5 resource (except as provided in OAR 660-023-0180(1)(b)). Local governments are not required to regard agricultural practices as conflicting uses.

660-023-0040 (2) Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site. The following shall also apply in the identification of conflicting uses:

(a) If no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. The determination that there are no conflicting uses must be based on the applicable zoning rather than ownership of the site. (Therefore, public ownership of a site does not by itself support a conclusion that there are no conflicting uses.)

(b) A local government may determine that one or more significant Goal 5 resource sites are conflicting uses with another significant resource site. The local government shall determine the level of protection for each significant site using the ESEE process and/or the requirements in OAR 660-023-0090 through 660-023-0230 (see OAR 660-023-0020(1)).

660-023-0090 (7) When following the standard ESEE process in OAR 660-023-0040 and 660-023-0050, a local government shall comply with Goal 5 if it identifies at least the following activities as conflicting uses in riparian corridors:

(a) The permanent alteration of the riparian corridor by placement of structures or impervious surfaces, except for:

(A) Water-dependent or water-related uses; and

(B) Replacement of existing structures with structures in the same location that do not disturb additional riparian surface area; and

(b) Removal of vegetation in the riparian area, except:

(A) As necessary for restoration activities, such as replacement of vegetation with native riparian species;

(B) As necessary for the development of water-related or water-dependent uses; and

(C) On lands designated for agricultural or forest use outside UGBs.

Following the adoption of an inventory of significant Goal 5 resources, local governments must identify conflicting uses within inventoried significant resource sites and their designated impact areas. Conflicting uses are defined as a land use or activity that, if allowed, could negatively impact a significant natural resource site (OAR 660-023-0010(1)). To identify conflicting uses,

the rule directs local governments to examine the uses allowed within zoning districts that exist within resource sites and within their impact areas (OAR 660-023-0040(2)). For a discussion of impact areas and how they were designated for of Goal 5 riparian, wildlife habitat and wetland resources, see Section 2. This analysis addresses both outright uses and conditional uses.

This analysis includes Goal 5 wetlands sites, riparian sites and upland wildlife habitat sites within the Eugene Urban Growth Boundary and their impact areas. Those sites within the Eugene City limits are within the jurisdiction of the City of Eugene; those sites between the Eugene City limits and the Eugene Urban Growth Boundary are within the jurisdiction of Lane County.

Table 3.1. Zoning District Names*

AG	Agricultural Zone
R-1	Low-Density Residential Zone
R-2	Medium-Density Residential Zone
R-3	Limited High-Density Residential Zone
R-4	High-Density Residential Zone
C-1	Neighborhood Commercial Zone
C-2	Community Commercial Zone
GO	General Office Zone
I-2	Light-Medium Industrial Zone
I-3	Heavy Industrial Zone
PL	Public Land Zone
S-CN	Chase Node Special Area Zone
S-RN	Royal Node Special Area Zone
S-RP	Riverfront Park Special Area Zone

* Only those zones that affect Goal 5 riparian, upland wildlife habitat and wetlands sites are listed.

Table 3.2a. Zoning by Resource Site, Riparian and Upland Wildlife Habitat

No.	Site Name	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
E30/31	Amazon Channel Natural/Urban	R	X	X	X	X	X	X	X	X			X			
E35	West Eugene Upland Wildlife Habitat (Stream Corridors)	U	X	X												
E37	Southwest Hills Upland Wildlife Habitat (Stream Corridors)	U	X	X									X			
E38	Laurel Hill Upland Wildlife Habitat (Stream Corridors)	U	X	X					X	X			X			
E39	Glenwood Slough	R														
E40	Riverfront Park	R							X			X	X			X
E42	Alton Baker (Riparian)	R	X	X		X	X		X				X	X		
E45	Ascot Park	R		X	X				X				X			
E48a	Beltline Drainage Channel	R		X						X						
E48b	Ayres Pond/Dodson Slough	R		X												
E50	Debrick Slough	R		X	X	X				X						
E56	River Loop No. 1	R	X	X									X			
E57	East Santa Clara Waterway	R	X	X	X											
E58	Spring Creek	R	X	X									X			
E59a	Flat Creek	R	X	X					X							
E60	A-1 Channel	R	X	X							X	X				
E61	Middle Flat Creek	R	X	X	X											
E62	NW Expressway Ponds	R	X	X	X							X				
E64	Taney Waterway	R		X									X			
E65	Empire Pond	R											X			
E66	Golden Gardens (DeSoto Lake)	R		X												
E68	Highway 99/McDougal	R		X	X						X		X			
E69	Emerald Park/South Flat Creek	R		X									X			

No.	Site Name	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
E70	Beltline/A-2 Channel	R		X							X					
E72	Marshall Ditch	R	X	X	X											
E73	County Farm Road	R	X						X							
E75	Goodpasture Island Slough	R	X		X											
E76	North Gilham	R	X	X	X			X								
E78	Augusta Creek/Laurel Valley Creek	R		X				X								
E81	Lorane Highway Riparian	R		X												
E83	Elliott Hill/Tugman Upland Wildlife Habitat (Stream Corridor)	U		X									X			
E86	Braeburn Riparian	R		X												
E87	Willow Creek Tributaries	R	X													
E88	Bailey Hill Riparian	R		X												
WA/WB	Willamette River	R	X	X	X				X		X	X	X			X
	Number of affected sites:		18	29	11	3	2	3	8	4	4	4	14	1	0	2

* Key: "R" = riparian corridor
"U" = upland wildlife habitat stream corridor

Table 3.2b. Zoning by Resource Site, Wetlands

Site No.	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
AMA-3	W		X												
AMA-4	W		X												
AMA-5	W		X												
AMA-6	W		X									X			
AMA-7	W		X	X	X		X	X	X						
AMA-9	W		X		X							X			
AMA-10	W											X			
AMA-11	W		X									X			
AMA-12	W											X			
AMA-13	W	X	X												
AMA-14	W		X												
AMA-16	W											X			
BD-2	W		X												
BD-3	W	X	X												
BD-4	W		X												
BD-5	W	X	X												
BD-6	W		X												
BD-7	W	X	X												
BD-8	W	X	X												
BD-9	W	X	X												

Site No.	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
BD-10	W	X	X												
BD-11	W	X													
BD-13	W		X									X			
BD-15	W		X							X					
BD-16	W									X					
BD-17	W									X					
BD-20	W											X			
BD-21	W		X												
BD-22	W										X				
RSC-1	W										X				
RSC-2	W	X	X							X	X				
RSC-5	W									X					
RSC-6	W									X					
RSC-8	W									X					
RSC-9	W									X					
RSC-10	W									X					
RSC-12	W									X					
RSC-15	W										X				
RSC-16	W										X				
RSC-17	W									X					
RSC-18	W		X							X	X				
RSC-20	W											X			
RSC-21	W											X			
RSC-22	W		X												
RSC-23	W	X	X					X							
RSC-25	W		X												
RSC-26	W									X	X				
RSC-27	W									X					
RSC-28	W		X	X											
RSC-29	W		X												
RSC-30	W	X	X	X											
RSC-32	W		X												
RSC-33	W		X												
RSC-34	W		X				X								
RSC-35	W	X	X												
RSC-36	W	X	X												
RSC-37	W	X	X												
RSC-38	W	X	X									X			
RSC-39	W	X	X	X				X							
RSC-40	W	X	X												
WC-1	W	X													
WKZ-1	W					X						X			
WKZ-2	W		X												
WKZ-3	W		X	X				X							
WKZ-4	W	X													
WKZ-5	W	X		X			X	X				X			
WKZ-6	W		X					X							
WKZ-7	W		X	X								X			

Site No.	T	AG	R-1	R-2	R-3	R-4	C-1	C-2	GO	I-2	I-3	PL	S-CN	S-RN	S-RP
WKZ-8	W		X					X	X						
WKZ-9	W		X	X	X			X	X						
WKZ-10	W	X													
WKZ-13	W		X												
WKZ-14	W	X	X		X	X		X				X	X		
WR-1	W											X			
WR-2	W		X									X			
WR-3	W			X				X				X			
WR-4	W							X			X	X			X
WR-5	W		X									X			

3.2 Uses permitted by Zone

This section describes the land uses that are allowed in each zone that is affected by a site on the adopted Goal 5 inventory of riparian and upland wildlife habitat sites and their designated impact areas (see Section 2). The zones are listed in alphabetical order. The remaining base zones included in the Eugene Code are not found within any adopted resource sites, and so are not addressed here. This section also briefly examines those uses that are not assigned to a specific zone, such as temporary uses. The analysis of ESEE consequences that follows this addresses the existing and potential conflicting uses allowed within each resource site on the adopted inventory. Tables 3.3a and 3.3b below summarize the allowed and conditional uses with each of the applicable base zones.

AG Agricultural Zone

The Agricultural Zone is intended to allow agricultural uses within the urban growth boundary until the land is converted to urban development. As such, agricultural uses are considered interim uses until public services and facilities can be provided in a logical and efficient manner. OAR 660-023-0010(1) states that local governments are not required to consider agricultural uses as conflicting uses.

The primary uses allowed outright in this zone include agricultural production and extraction and accessory uses to those. Other uses allowed outright include golf courses, grange halls, libraries, equestrian trails, government services (e.g., a fire station), neighborhood transit improvements, single family dwellings, utility and communication facilities, and farm related educational activities and events. Uses allowed subject to special development standards include farm animals and pasturing, parks and non-public open space, bed and breakfasts, above ground water reservoirs, home occupations, wildlife care centers and temporary uses. Uses allowed conditionally include mineral resources mining, equestrian academies and stables, and kennels.

C-1 Neighborhood Commercial Zone

The C-1 Neighborhood Commercial zone is designed to provide commercial areas of less than 5 acres in size to serve the day-to-day needs of the surrounding neighborhood. These areas are intended to enhance neighborhood character with landscaping and safe vehicle movement.

In addition to retail establishments and commercial services and their accessory uses, this zone allows as outright uses horticultural use, performing arts studios, churches, community centers, athletic clubs, ATM stations, banks, government services, information technology service establishments, low impact smaller scale manufacturing, recycling receptacles, health clinics, neighborhood transit improvements, residences, and utility and communication facilities.

Conditional uses include taverns, amusement centers, live theaters, non-profit meal services, transit stations, larger day care centers, and veterinarian services.

C-2 Community Commercial Zone

The C-2 zone is designed to provide areas for community commercial uses that serve a larger area than a neighborhood, and which are larger than 5 acres in size. Typical uses include a wide range of retail goods, entertainment, offices, and services, as well as housing.

In addition to a wide variety of retail establishments, entertainment and indoor recreation and commercial services and their accessory uses, this zone allows as outright uses horticulture, performing arts studios, churches, community centers, libraries, museums, schools and colleges, athletic clubs, financial services, government services, information technology service establishments, lodging, low impact medium scale manufacturing, recycling receptacles, health clinics, medical facilities, assisted care and day care facilities, neighborhood transit improvements, residences, and utility and communication facilities.

Conditional uses include indoor arenas, correctional facilities, truck sales, parking structures, agricultural and heavy equipment sales, and train stations.

GO General Office Zone

The GO zone is intended to provide areas that allow a compatible mix of office and residential development. Typical development includes small to medium sized office buildings, often between residential and commercial uses, and some retail uses.

In addition to offices, residential, some retail uses and accessory uses to those, this zone also allows as outright uses horticultural use, most eating establishments, churches, organizational clubs and lodges, ATM stations, banks, government services, information technology service establishments, bed and breakfasts, recycling receptacles, blood banks, health clinics, medical labs, nursing homes, parking areas, neighborhood transit improvements, some residences, certain retail establishments, and utility and communication facilities.

Conditional uses include performing arts studios, community centers, athletic clubs, correctional facilities, hospitals, residential treatment center, parking structures, assisted care facilities, and boarding houses.

I-2 Light-Medium Industrial Zone

The I-2 Light Medium Industrial Zone is designed to provide areas for a wide variety of manufacturing and other industrial activities. These often include secondary processing of materials into components or finished products, as well as transportation, communication and utilities, wholesaling, and warehousing. Most activities are located indoors, and external impacts

are generally less than in heavy industrial. On a limited basis, supporting commercial uses and offices are permitted.

This zone allows outright a wide variety of manufacturing uses including processing, assembling packaging and repairing activities and accessory uses to those. In addition, outright uses include horticultural use, eating establishments, gallery/studio spaces, organizational clubs and lodges, libraries, schools, ATM stations, banks, government services, information technology service establishments, automatic recycling receptacles, drug treatment clinics, all auto related uses, some residences, certain retail and wholesale establishments, utility and communication facilities, certain commercial uses and train stations.

Conditional uses include performing arts studios, churches, athletic clubs, live theater, homeless shelters, correctional facilities and treatment centers, and various retail uses.

I-3 Heavy Industrial Zone

The purpose of the I-3 Heavy Industrial Zone is to provide areas for a range of manufacturing uses including those that involve processing large volumes of raw materials into refined products and industrial uses that have significant external impacts. These uses often require access to both truck and train transportation.

This zone allows outright a wide variety of manufacturing uses including processing, assembling packaging and repairing activities and accessory uses to those. In addition, outright uses include horticultural use, gallery/studio spaces, organizational clubs and lodges, libraries, schools, ATM stations, government services, automatic recycling receptacles, drug treatment clinics, most auto related uses, certain retail and wholesale establishments, utility and communication facilities, certain commercial uses and train stations.

Conditional uses include race tracks, live theater, homeless shelters, correctional facilities, and various retail uses.

PL Public Land Zone

The PL Public Land Zone is intended to accommodate public and semi-public land uses including government services and education.

Outright uses in this zone include public uses like government offices, libraries, park and recreation facilities, neighborhood and community centers, post offices, fire stations, pump stations, electrical substations, schools, reservoirs, specialized housing, and accessory uses to these. The zone also allows various privately operated uses including athletic fields, performing art studios, community gardens, day care, meal services, parks, playgrounds and schools.

Conditional uses include many uses operated by private entities including small scale retail, campus living organizations, churches, horticulture, hospitals, clinics, information technology services, certain low-impact manufacturing uses, parking structures, recycling facilities, schools, science and education centers, storage facilities, and colleges.

R-1 Low-Density Residential Zone

The purpose of the R-1 Low-Density Residential Zone is to provide areas for low-density residential use. The zone is designed for single family dwellings with some allowance for other types of dwellings, and is also intended to provide a limited range of non-residential uses to provide services for the local neighborhood.

The R-1 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-1 Zone: accessory uses, community gardens, horticultural use, agricultural product sales, government services, neighborhood transit park and ride stations, assisted care residences, and utility and communication facilities.

A number of other uses are allowed subject to special standards including parks, private open space, recycling centers, four-plex residences, manufactured dwellings, smaller day care facilities, home occupations, and wildlife care facilities.

Uses allowed conditionally include indoor athletic facilities, outdoor athletic fields, churches, community centers, schools, colleges, live theaters, bed and breakfasts, residential treatment centers, large day care or assisted care facilities, and cemeteries.

R-2 Medium-Density Residential Zone

The purpose of the R-2 Low-Density Residential Zone is to provide areas for medium-density residential use and to encourage a variety of housing types. This zone is also intended to provide for a limited range of non-residential uses to provide services for residents.

The R-2 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-2 Zone: accessory uses, community gardens, horticultural use, agricultural product sales, government services, neighborhood transit improvements, smaller assisted care residences, and utility and communication facilities.

A number of other uses are allowed subject to special standards including pasturing farm animals, multiple family dwellings, parks, private open space, recycling centers, four-plex residences, manufactured dwellings, smaller day care facilities, telecommunication towers, and home occupations.

Uses allowed conditionally include indoor athletic facilities, outdoor athletic fields, churches, community centers, schools, colleges, live theaters, bed and breakfasts, residential treatment centers, larger day care or assisted care facilities, single room occupancy housing and cemeteries.

R-3 Limited High-Density Residential Zone

The purpose of the R-3 Low-Density Residential Zone is to provide areas for limited high-density residential use that encourage attached one-family dwelling units and multiple -family dwelling units. This zone is also intended to provide a limited range of non-residential uses to provide services for residents.

The R-3 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-3 Zone: accessory uses, community gardens,

government services, neighborhood transit improvements, smaller assisted care residences, single room occupancy housing, college dormitories and utility and communication facilities.

A number of other uses are allowed subject to special standards including multiple family dwellings, four-plex residences, manufactured dwellings, pasturing farm animals, parks, private open space, recycling centers, bed and breakfasts, smaller day care facilities, telecommunication towers, home occupations.

Uses allowed conditionally or with site review approval include indoor athletic facilities, outdoor athletic fields, churches, community centers, schools, colleges, live theaters, residential treatment centers, larger day care or assisted care facilities, boarding houses.

R-4 High-Density Residential Zone

The purpose of the R-4 Low-Density Residential Zone is to provide areas for high-density residential use, and to provide opportunities for a dense living environment. As with the other residential zones, it is also intended to provide for a limited range of non-residential uses to provide services to residents.

The R-4 zone allows single family dwellings, row houses, duplexes as outright uses. In addition, the following uses are allowed outright in the R-4 Zone: accessory uses, community gardens, government services, neighborhood transit improvements, minor transit stations, transit park and ride stations, smaller assisted care residences, single room occupancy housing, community centers, college dormitories and utility and communication facilities.

A number of other uses are allowed subject to special standards including multiple family dwellings, four-plex residences, manufactured dwellings, pasturing farm animals, parks, private open space, recycling centers, bed and breakfasts, smaller day care facilities, telecommunication towers, home occupations.

Uses allowed conditionally or with site review approval include indoor athletic facilities, outdoor athletic fields, major transit stations, churches, organizational lodges, schools, colleges, live theaters, residential treatment centers, larger day care or assisted care facilities, boarding houses.

S Special Area Zones

Eugene's Land Use Code includes eight special area zones, each of which is applied within a specific, limited geographic area to address unique characteristics, including distinctive buildings or important natural features. The eight special area zones are the Chase Node SAZ, the Downtown Westside SAZ, the Elmira Road SAZ, the Fifth Avenue SAZ, the Blair Boulevard Historic SAZ, the Riverfront Park SAZ, the Royal Node SAZ and the Whitaker SAZ. These special area zones are intended to require special consideration of the unique characteristics of each area, and implementation of conservation and development measures that are not included in the base zones. These special area zones allow a combination of uses that are allowed separately by other zones. For this reason, the impacts of the uses allowed in the special area districts will not be discussed separately, but, rather, will be considered in the discussion of the individual uses (e.g., residential, commercial, industrial).

Adopted Goal 5 inventory sites occur within only three of the eight special area zones: the Chase Node SAZ and the Riverfront Park SAZ and the Royal Node SAZ.

S-CN Chase Node and S-RN Royal Node Special Area Zones

These two special area zones are similar in that they are both intended to implement nodal development areas in conformance with City policy and the Oregon Transportation Planning Rule, which calls for reductions in reliance on automobiles and design support for alternative transportation modes in urban areas. Nodal development is defined as a mixed-use, pedestrian-friendly land use pattern that seeks to increase concentrations of population and employment in well-defined areas with good transit service, a mix of diverse and compatible land uses, and public and private improvements designed to be pedestrian and transit oriented.

The Chase Node SAZ and Royal Node SAZ allow similar land uses, however the Royal Node SAZ has not been applied to any properties yet. The Chase Node SAZ has been applied, and allows horticultural uses, eating and drinking establishments, educational, cultural, religious, social and fraternal institutions, entertainment and recreation facilities, some financial services, government services, information technology services, lodging, low impact manufacturing, medical and health services, motor vehicle related uses, office uses, various personal services, residential uses, assisted living and daycare facilities, retail and wholesale trade establishments, utilities and communications facilities and a variety of other commercial services. Many of these uses are subject to standards or allowed only with a conditional use permit. Both of these special area zones include open space designations for waterways that provide some level of protection.

S-RP Riverfront Park Special Area Zone

The Riverfront Park SAZ is designed to provide for activities and uses that complement the research and educational functions of the adjacent University of Oregon campus. The allowed uses include laboratories, offices and facilities for applied research and development, and manufacturing uses that are related to these uses. The Riverfront Park SAZ requires minimum setbacks of 35 feet from the south bank of the Willamette River and within 15 feet of the top of the bank of the Eugene Mill Race.

3.3 Summary of Uses by Zone

For the purpose of considering potential or existing impacts under the ESEE analysis, the allowed uses for the various zones are grouped into categories of uses and summarized in Tables 3.3A and 3.3B below. This is intended to simplify the analysis of conflicting uses within each zone, while still considering the entire range of uses and impacts within each zone.

Table 3.3a. Allowed Uses by Base Zone: Agricultural, Commercial, Industrial, and Public

Use Categories	AG	C-1	C-2	GO	I-2	I-3	PL
Residential Categories							
Household Living	x	x	x	x			x
Group Living		x	x	x			x
Commercial Categories							
Retail Sales and Service		x	x	x	x	x	
Office		x	x	x	x		x
Quick Vehicle Servicing			x		x	x	
Vehicle Repair			x		x	x	
Commercial Parking			x	x	x	x	x
Self-Service Storage			x		x	x	
Commercial Outdoor Recreation	x		x				
Major Event Entertainment		x	x				
Industrial Categories							
Low impact, small scale		x	x		x	x	x
Manufacturing and Production					x	x	
Warehouse and Freight Moving					x	x	
Wholesale Sales					x	x	
Industrial Service					x	x	
Railroad Yards					x	x	
Waste-Related					x	x	x
Institutional Categories							
Basic Utilities	x	x	x		x	x	x
Major Utilities (water reservoirs)					x	x	x
Low impact, small scale			x				
Government Services (e.g., fire	x	x	x	x	x	x	x
Community Service		x	x	x	x		x
Parks and Open Areas	x		x	x	x		x
Schools & Libraries	x		x		x	x	x
Colleges			x				x
Medical Centers		x	x	x	x		x
Religious Institutions		x	x	x	x		x
Daycare		x	x	x			x
Other Categories							
Agricultural & horticultural crops	x	x	x	x	x		x
Agricultural animals and pasture	x						
Aviation & Surface Passenger			x		x	x	x
Local transit facilities		x	x	x	x		x
Detention/Correctional Facilities					x		
Mining	x				x	x	
Radio Transmission Facilities			x		x		x
Rail Lines and Utility Corridors	x				x		

Table 3.3b. Allowed Uses by Base Zone: Residential, Special Areas

Use Categories	R-1	R-2	R-3	R-4	S-CN	S-RN	S-RP
Residential Categories							
Household Living	x	x	x	x	x	x	x
Group Living	x	x	x	x	x	x	
Commercial Categories							
Retail Sales and Service	x	x	x	x	x	x	x
Office					x	x	x
Quick Vehicle Servicing							
Vehicle Repair							
Commercial Parking						x	
Self-Service Storage							
Commercial Outdoor Recreation							
Major Event Entertainment							
Industrial Categories							
Low impact, small scale					x		x
Manufacturing and Production							
Warehouse and Freight Moving							
Wholesale Sales							
Industrial Service							
Railroad Yards							
Waste-Related							
Institutional Categories							
Basic Utilities	x	x	x	x	x	x	x
Major Utilities (water reservoirs)					x		
Government Services (e.g., fire	x	x	x	x	x	x	
Community Service	x	x	x	x	x	x	
Parks and Open Areas	x	x	x	x	x	x	
Schools & Libraries	x	x	x	x	x		
Colleges	x	x	x	x			
Medical Centers			x	x	x	x	
Religious Institutions	x	x	x	x	x	x	
Daycare					x	x	x
Other Categories							
Agricultural & Horticultural Crops	x				x	x	
Agricultural animals and pasture	x	x	x	x			
Aviation and Surface Passenger							
Local Transit Facilities	x		x	x	x	x	
Detention/Correctional Facilities		x	x	x			
Mining							
Radio Transmission Facilities					x		
Rail Lines and Utility Corridors							

3.4 Conflicting Use Impacts

This section describes the land uses that conflict with Goal 5 riparian corridors, upland wildlife habitat and wetlands as allowed in the existing zoning districts that are applied to the various sites on the adopted Goal 5 inventory and within their impact areas (as shown in Table 3.3a and 3.3b above). Zoning districts that do not affect any of these Goal 5 resources are not listed. The discussion is organized to separately address impacts within five broad groups of land uses: residential, commercial, industrial, agricultural, and public uses. Most of these broad uses are allowed in several individual zoning districts as shown in Table 3.4 below. As noted above, the individual uses that are allowed in combination in special area districts are addressed individually below.

Table 3.4. Land Use Categories and Zoning Districts That Allow Them

Use Category	Zoning Districts
Residential	Agricultural (AG), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4), Chase Node Special Area Zone (S-CN), Royal Node Special Area Zone (S-RN)
Commercial	Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4), Riverfront Park Special Area Zone (S-RP), Chase Node Special Area Zone (S-CN), Royal Node Special Area Zone (S-RN)
Industrial	Light-Medium Industrial (I-2), Heavy Industrial (I-3), Neighborhood Commercial (C-1), Chase Node Special Area Zone (S-CN), and Public Lands (PL)
Agricultural	Agricultural (AG)
Public Uses	Public Land (PL), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), and Riverfront Park Special Area Zone (S-RP)

Residential Uses

The uses allowed under the various zones in the Eugene Land Use Code include both individual household living and group living. For the purposes of this analysis, it is important only to note that both household and group living uses require construction of or occupancy in residential structures. In addition to single and multiple unit residential structures, household and group living uses may include construction of driveways, garages, patios, decks, other accessory buildings, landscaped areas, utility construction and repair and related activities. The construction and maintenance of these structures has numerous adverse impacts on Goal 5 natural resource areas as detailed below.

Household and/or group living uses are allowed in the following zones: Agricultural (AG), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4). General categories of residential uses are also listed in Tables 3.3a and 3.3b.

1. Loss of vegetation, including riparian vegetation: A common precursor to any development including residential use is the removal of some or all of the natural vegetation on the site. At least temporarily, this leaves bare soil, which is vulnerable to erosion and its damaging effects (see "erosion," below). The loss of native vegetation has multiple, far-reaching impacts for wildlife. Vegetated natural areas provide habitat for mammals, birds, mollusks, reptiles, amphibians, and insects. The affected species include not only mammals and birds that depend on native fruits, nuts and vegetation for food, but also insects like butterflies, many of which have very limited plant species that can serve as larval host plants.

Potential lost habitat functions include: (1) food sources, nesting, perching and roosting places for birds and insects, (2) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (3) loss of food source, shade and cover for aquatic insects and fish. The natural vegetation, including trees, may provide important structural elements including snags, fallen trees, and on some sites, multiple levels of vegetation (forbs, shrubs, trees) that provide for a variety of habitat niches that can support a broader diversity of wildlife species. In the residential environment, these are typically replaced by greatly simplified landscape plantings, usually of exotic species and lawns, which often provide little or no habitat function or value.

In some settings, where susceptible soils occur on steep slopes, removal of trees and other vegetation can cause mass wasting, slumps or landslides during high rainfall events. These events can damage large habitat areas, cause additional loss of vegetation, deposit large volumes of sediment in streams and kill wildlife in the immediate area.

Loss of riparian vegetation, in addition to impacts described above, further affects streams and aquatic habitat in a number of ways. Riparian vegetation protects channel banks from erosion, while supporting insects and other invertebrates that fall into or live part of their life cycle in water, and provide food for fish and other aquatic life. Leaf litter that naturally drops into waterways provides organic matter that supports various macro- and micro-invertebrates, which in turn provide food for fish and other aquatic species. Riparian vegetation also can provide shade that helps keep water temperatures lower during low flow, warm weather periods. High water temperatures lead to growth of algae that deplete available oxygen. All of these functions can be lost when riparian vegetation is removed in preparation for development, with significant adverse impacts on fish and other aquatic wildlife.

2. Soil disturbance and compaction: Site preparation is often conducted with heavy machinery, which can cause unnatural compaction of soils. This compaction can reduce infiltration of precipitation and may prevent native plants from surviving or reestablishing themselves on the site. Mechanical scraping of surface soils to remove vegetation can also remove components of the native soil that are important to native plants adapted to those soils, including the topsoil, which is rich in organic matter. Loss of this layer along with native plants, can lead to infestations of weedy plant species that are well-adapted to such disturbed areas.

3. Erosion: Vegetation protects land from erosion in several ways. First, the foliage intercepts falling precipitation and prevents it from hitting soil directly. Hard rain falling on bare soil can

move a substantial amount of soil downhill. Second, the roots of the vegetation bind the soil together, and make it much more difficult for moving water to move soil particles. Removal of vegetation removes these protective functions, and leaves the soil vulnerable to erosion, primarily during the construction process. Erosion can take many forms, such as formation of gullies, or movement of soil downhill. Either way, erosion removes valuable topsoil, and deposits that soil in receiving waterways. This soil, or sediment, becomes suspended in the stream, which blocks light and interferes with many life functions of aquatic organisms, including evading predators and finding food. The reduced light within the waterway can lead to significant reductions in aquatic plants (phytoplankton) that provide food for aquatic insects and crustaceans. Suspended sediments can also mechanically disrupt proper functioning of fish gills. Eventually, sediments are deposited on the bed of the waterway and cause further impacts there. These deposited sediments are referred to as "siltation" of the stream. Siltation fills the spaces between rocks on the bottom of the stream, thus removing spaces for aquatic insects and small fish to hide or lay eggs.

4. Impervious surfaces: Residential development generally leads to creation of impervious surfaces (those that don't allow water to pass through into the soil), such as buildings, sidewalks, patios, decks, etc. In many cases, precipitation that falls on these structures is quickly carried away into stormwater pipes or channels, rather than infiltrating and moving slowly underground towards the nearest channel. This change has a number of impacts. Generally, the magnitude and frequency of peak flows are increased, while the magnitude of summer flows in smaller waterways can be greatly reduced. These effects are all the result of stormwater moving much more quickly through the landscape than in a naturally vegetated system. Increased peak flows are more likely to cause channel and bank erosion, leading to adverse impact described above under "erosion." Decreased summer flows are likely to lead to increased water temperatures and in some cases inadequate flow to support aquatic species in smaller waterways. These impacts are magnified by engineered stormwater conveyance systems in which the pipes and channels are designed primarily to move stormwater as quickly as possible to receiving waters in order to prevent floods and flood damage.

5. Habitat fragmentation: As areas of contiguous habitat are separated from one another by intervening development, their value and attractiveness to certain wildlife species decreases. Species that require larger patches of habitat will no longer use the smaller, isolated patches. Such fragmentation can create barriers to wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover. For species that are unable to travel to other habitat areas, this isolation can lead to in-breeding and subsequent weakening of the genetic stock of the population. Isolation can also increase susceptibility to disease, and greater vulnerability to predation and, potentially, extinction of local populations. The way in which residential development is designed to fit a given site can reduce, to some extent, habitat fragmentation (see "design impacts" discussion below).

6. Introduction or spread of invasive plants: After native vegetation is cleared, exotic plants may become established intentionally or accidentally. A number of exotic species have been identified as environmentally damaging, because they "escape" from landscaped areas into natural areas and out-compete the native plants. Other invasive species simply spread by effectively dispersing their seed into suitable areas. This displacement of native plant species leads to a decrease in plant diversity, and is directly damaging to wildlife species that depend on specific native plant species for food or nesting (e.g., Fender's blue butterfly, which can only feed on certain species of lupine; if those are lost, the butterfly cannot survive).

7. On-going disturbing activities: Human activities associated with inhabited residential areas can have a number of negative impacts on natural areas. Bright lights, loud noises, constant movement, and other activities that occur in residential areas can disrupt wildlife survival activities. The noise and movement level of residential activities can be 10 to 100 times greater than in an undeveloped natural area. These disturbances can interfere with communication, mating, hunting and competition among some wildlife species.

8. Predation by domestic animals: Domestic dog and cats not only harass, but also injure or kill small mammals and birds in significant numbers in residential areas. Harassment by domestic animals can interfere with critical functions such as hunting, mating, nesting and finding mates.

9. Artificial irrigation: Most landscaped areas feature exotic plant species that require special care, including irrigation, to survive. Regular irrigation in the dry summer months can weaken the roots of nearby native trees, making them more susceptible to wind-throw and disease. Irrigation can also change local hydrology from precipitation-driven to irrigation-driven, which can favor non-native plants in adjacent areas receiving irrigation runoff.

10. Introduction of toxic chemicals: Those living in residential areas often use various chemicals in managing their homes and yards. These include insecticides, herbicides, rodenticides, and fungicides used to eliminate unwanted insects, plants, rodents and fungi. The majority of such chemicals are used outdoors as part of landscape maintenance activities. These chemicals are washed off plants and soil during rainfall and ultimately are deposited in local waterways. These chemicals have direct and indirect, lethal and sub-lethal effects on plants, animals, insects, fish, birds, and amphibians. Sub-lethal effects are those that, while not directly fatal to an animal, sufficiently interfere with its life functions so as to reduce its ability to survive. Sub-lethal effects of pesticides that have been documented in fish include impaired swimming and navigation ability, which can lead to inability to evade predators. Other sub-lethal effects include damage to gill structure, respiratory distress, lethargy, aggressiveness, muscle spasms and skeletal deformations. Pesticides which are documented to break down quickly may degrade into by-products that are as toxic as or more toxic than the original pesticide. Such processes are not well documented. In residential areas, these chemicals are typically applied by untrained homeowners, who may not understand the importance of following application instructions or disposal warnings. On public and commercial lands, such chemicals are more often applied by trained and licensed professionals. This difference leaves some uncertainty about the relative use of pesticides in residential areas compared to other land use types.

11. Stormwater pollution: In addition to the toxic chemicals described above, other forms of pollutants may be washed off residential lands by rainfall. These may include paints, cleaners, fluids that leak from parked cars or be deposited during maintenance activities (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.), and fertilizers. These substances collect and are stored on plants, soil and particularly on impervious surfaces until rain washes them into the stormwater system, which ultimately deposits them in local waterways.

12. Design impacts: In addition to the direct impacts of individual and collective residential developments, the arrangement of residential development on the landscape can also affect the degree of its negative impacts. Clustered residential units may have lower impacts than scattered single family residences, because larger open spaces can be maintained around the buildings. Such clustering may also allow preservation of the most valuable habitat on a given site, including wetlands, streams, riparian areas or important plant species or plant communities.

Although all of the above impacts do not occur on every residentially developed site, in total, the above impacts are more than sufficient to distinguish household and group residential living as uses that clearly conflict with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Commercial Uses

Commercial uses are allowed to varying degrees in the following zones: Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), Public Lands (PL), Low Density Residential (R-1), Medium Density Residential (R-2), Limited High Density Residential (R-3), and High Density Residential (R-4). The construction and maintenance of commercial structures has numerous adverse impacts on Goal 5 natural resource areas, which are greater than those for residential uses, as described below. Tables 3.3a and 3.3b list broad categories of commercial uses. The types of impacts described for residential uses will be referred to below, but not repeated in detail, to simplify this document.

1. Loss of vegetation, including riparian vegetation: These impacts are similar to those for residential uses, except that commercial uses have less vegetated area and more impervious surface than residential uses on the whole.

2. Soil disturbance and compaction: These impacts are the same as for residential uses, except that larger buildings and parking areas require higher levels of soil disturbance.

3. Erosion: These impacts are the same as for residential uses, except that because commercial development sites are typically larger than residential ones, the potential exposure of bare soil to erosion is greater than on residential development sites.

4. Impervious surfaces: These impacts are the same as for residential uses, except that commercial uses typically cover more of a development site with buildings and other impervious surfaces like parking lots. Therefore, the impacts to peak flows and low flows are much greater.

5. Habitat fragmentation: These impacts are the same as for residential uses, except that commercially developed areas typically require large areas of parking or other impervious surfaces, leaving little or no habitat at all. Therefore the potential for fragmentation of habitat is generally greater with commercial uses than with residential uses.

6. Introduction or spread of invasive plants: These impacts are the same as for residential uses, except that since vegetated areas make up a relatively small portion of developed commercial sites, and since those are typically surrounded by buildings and parking lots, these areas generally have lower incidences of introducing or spreading invasive plant species.

7. On-going disturbing activities: These impacts are the same as for residential uses, except that movement, noise and light impacts can be much greater and more constant for many commercial uses. For some commercial uses, such as certain types of office uses, on-going disturbing activities may be less intense, and of more limited duration than activities associated with 24-hour commercial uses or active multi-unit residential areas.

8. Predation by domestic animals: Domestic animals are relatively uncommon in commercial areas, so this impact is relatively insignificant in commercial areas.

9. Artificial irrigation: These impacts are similar to those for residential uses, except that landscaped areas make up a much smaller proportion of commercial areas and consequently these impacts are less than in residential areas.

10. Introduction of toxic chemicals: These impacts are similar to those for residential uses, except that commercial properties are often maintained by professional landscapers or other licensed pesticide applicators who are licensed to use stronger chemicals than are allowed otherwise. This is balanced by the fact that commercial areas typically have much smaller landscaped areas than residential areas.

11. Stormwater pollution: With large parking areas, and heavy automobile traffic, commercial areas contribute much higher levels of auto-related pollutants than do residential areas.

12. Design impacts: Since commercial uses typically require relatively large parking areas, and have relatively small landscaped areas, opportunities to reduce impacts through design are more limited than in residential uses. Commercial development can be designed to minimize light, noise and movement impacts to adjacent areas.

Although all of the above impacts do not occur on every commercially-developed site, in total, the above impacts are more than sufficient to distinguish commercial development as a use that clearly conflicts with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Industrial Uses

Industrial uses are allowed to varying degrees in the following zones: Light-Medium Industrial (I-2), Heavy Industrial (I-3), Neighborhood Commercial (C-1), Chase Node Special Area Zone (S-CN), and Public Lands (PL). The construction and maintenance of industrial structures has numerous adverse impacts on Goal 5 natural resource areas, which are greater than those for residential uses, as described below. The types of impacts described for residential uses will be referred to below, but not repeated in detail, to simplify this document. Categories of industrial uses are shown in Tables 3.3a and 3.3b above.

1. Loss of vegetation, including riparian vegetation: These impacts are the same as for residential uses, except that industrial uses typically have less vegetated area and more impervious surface than residential uses on the whole.

2. Soil disturbance and compaction: These impacts are the same as for residential uses, except that larger buildings and parking areas in industrial development require higher levels of soil disturbance.

3. Erosion: These impacts are the same as for residential uses, except that because industrial development sites are typically larger than residential ones, the potential exposure of bare soil to erosion during construction is greater than on residential development sites.

4. Impervious surfaces: These impacts are the same as for residential uses, except that industrial uses typically cover more of a development site with buildings and other impervious surfaces like parking lots. Therefore, the impacts to peak flows and low flows are typically much greater.

5. Habitat fragmentation: These impacts are similar to those for residential uses, except that industrially developed areas are generally larger and have more intensive uses. However, industrial sites can also have large areas that are temporarily undeveloped, or that have relatively low impact uses, or that include log ponds or other features that have some habitat value.

6. Introduction or spread of invasive plants: These impacts are similar to those for residential uses, except that vegetated areas of industrial sites typically have a lower level of maintenance than in commercial or residential sites, which can lead to the growth of weedy, invasive plant species in areas that are not maintained.

7. On-going disturbing activities: These impacts are the same as for residential uses, except that movement, noise and light impacts can be much greater for industrial uses.

8. Predation by domestic animals: Domestic animals are less common in industrial areas, except for feral animals, so this impact is typically lower in industrial areas than in residential areas.

9. Artificial irrigation: These impacts are the same as for residential uses, except that landscaped areas make up a very small proportion of industrial areas and consequently these impacts are less than in residential or commercial areas.

10. Introduction of toxic chemicals: These impacts are similar to those in residential areas, but can be much greater in industrial areas, where manufacturing and other processes can use large volumes of toxic chemicals. While many industrial uses are designed and operated to follow stringent chemical handling and storage practices, toxic chemicals may enter local waterways through accidental spills, cumulative minor leakage, or licensed discharges into the air or local waterways. Such chemicals may be stored on site, and may be transported on and off site by truck.

11. Stormwater pollution: With large impervious areas, equipment and materials storage, cumulative leaks of auto and truck fluids and other chemicals used in processing or maintenance, industrial areas typically contribute much higher levels of stormwater pollutants than do residential areas. These pollutants may include toxic materials or by-products like heavy metals, or PCBs that increasingly find their way into local waterways.

12. Design impacts: Opportunities to reduce the impacts of industrial uses on Goal 5 natural resources are very limited. Industrial development may be designed to minimize the potential for chemical spills, or to reduce light, glare and noise impacts to adjacent areas.

Although all of the above impacts do not occur on every industrially-developed site, in total, the above impacts are more than sufficient to distinguish industrial development as a use that clearly conflicts with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Agricultural Uses

Impacts from agricultural uses are much different than those from more typical urban uses, in that there is relatively little development or impervious surface. OAR 660-023-0010(1) states that local governments are not required to consider agricultural uses as uses that conflict with Goal 5 resources. However, native vegetation is typically removed in order to plant cultivated crops and chemical use can be high.

1. Loss of vegetation, including riparian vegetation: These impacts are similar to those for residential uses, except that agricultural uses often leave natural vegetation around wet depressions and streams that can't be actively farmed.

2. Soil disturbance and compaction: Farming practices that involve frequent plowing and removal of crops expose soil to erosion repeatedly. Although farming necessitates that these areas not become compacted, the natural soil structure is altered to support single species plantations.

3. Erosion: These impacts are similar to those for residential uses, except that agricultural sites expose bare soils on a recurring basis. Extended use of riparian areas by livestock can result in the loss of vegetation along stream banks, exposed soils, and increased erosion and sedimentation, as well as introduce bacteria into the waterway.

4. Impervious surfaces: These impacts are significantly less than those for residential uses, since most of the land in agricultural uses is in cultivated fields that allow infiltration of precipitation. Therefore, the impacts to peak flows and low flows are much lower.

5. Habitat fragmentation: These impacts are similar to those for residential uses, except that agricultural fields can be used by a number of wildlife species and birds for foraging and resting areas. Therefore the potential for fragmentation is less for agricultural uses than with residential uses.

6. Introduction or spread of invasive plants: These impacts are the same as for residential uses, except that field margins and larger agricultural fields can support a high incidence of invasive or "weedy" plant species.

7. On-going disturbing activities: These impacts are somewhat less than for residential uses, as activity levels are lower, and activities typically occur at longer intervals.

8. Predation by domestic animals: Domestic animals occur in much lower densities in agricultural areas than in residential areas, since dwellings are much less dense. Therefore this impact is less significant in agricultural areas.

9. Artificial irrigation: These impacts are similar to but higher than those for residential uses, because many types of agricultural uses require significant irrigation over large areas during dry periods. Some agricultural uses, such as animal pasture, do not require significant irrigation.

10. Introduction of toxic chemicals: These impacts are similar to those for residential uses. Studies have shown that the number of water samples containing pesticides is as high as or higher in urban area waterways as they are in agricultural area waterways. The types of pesticides used are different in agricultural areas, and they may be used in higher quantities and over larger areas than in urban, residential areas.

11. Stormwater pollution: Other than run-off of pesticides and fertilizers, these impacts are typically less than in residential, commercial or industrial areas, since stormwater can infiltrate into soils before moving into local waterways due to relatively little impervious surface. Areas of natural vegetation left un-farmed, especially adjacent to waterways, can reduce runoff of pollutants entering waterways. Agricultural areas typically also have lower levels of vehicular traffic than urban residential areas.

12. Design impacts: Not applicable.

Although all of the above impacts do not occur on every site with agricultural uses, in total, the above impacts are more than sufficient to distinguish agricultural development as a use that clearly conflicts with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

Public Uses

Public uses include a very wide range of uses, from natural open space to relatively intensive office or commercial development. These uses are allowed in several zones: Public Land (PL), Neighborhood Commercial (C-1), Community Commercial (C-2), General Office (GO), Light-Medium Industrial (I-2), Heavy Industrial (I-3), and Riverfront Park Special Area Zone (S-RP). Broad categories of public land uses are shown in Tables 3.3a and 3.3b, above. The analysis below considers primarily the most intensive uses allowed. Therefore, the types of potential impacts are similar to those found in commercial zones, and may include complete or partial removal of vegetation within habitat areas, and construction of structures that remove all habitat values.

1. Loss of vegetation, including riparian vegetation: These impacts are the same as for residential uses, although some uses may have less vegetated area and more impervious surface than residential uses on the whole. Certain public uses, such as parks, may preserve areas of native and riparian vegetation.

2. Soil disturbance and compaction: These impacts are the same as for residential uses, except that some public uses with larger buildings and parking areas require higher levels of soil disturbance.

3. Erosion: These impacts are the same as for residential uses, except that because public use sites can be larger than residential ones, the potential exposure of bare soil to erosion is greater than on residential development sites.

4. Impervious surfaces: These impacts are the same as for residential uses, except that public uses typically can cover more of a development site with buildings and other impervious surfaces like parking lots. Therefore, the impacts to peak flows and low flows can be much greater.

5. Habitat fragmentation: These impacts are the same as for residential uses, except that some public land uses require large parking areas or other impervious surfaces, leaving little or no habitat remaining. Therefore, the potential for fragmentation is greater with public uses than with residential uses.

6. Introduction or spread of invasive plants: These impacts are the same as for residential uses.

7. On-going disturbing activities: These impacts are the same as for residential uses, except that movement, noise and light impacts can be much greater for certain public uses.

8. Predation by domestic animals: Domestic animals are relatively uncommon in public uses, so this impact is relatively insignificant in these areas.

9. Artificial irrigation: These impacts are the same as for residential uses, except that landscaped areas may make up a much smaller proportion of a development site for certain public uses and

consequently these impacts may be less than in residential areas. For other public uses, such as intensive, active recreation sites, impacts of artificial irrigation can be much greater.

10. Introduction of toxic chemicals: These impacts are similar as for residential uses, with variations depending upon the particular type of public use and the policy of the managing agency regarding use of toxic chemicals.

11. Stormwater pollution: With large parking areas, and potentially heavy automobile traffic, some public land uses can contribute much higher levels of auto-related pollutants than do typical residential areas.

12. Design impacts: Similarly to residential development, public use development may lend itself to creative site design to minimize impacts to habitat values.

Although all of the above impacts do not occur on every public use development, in total, the above impacts are more than sufficient to distinguish public use development as a use that clearly has the potential to conflict with protection and maintenance of Goal 5 riparian corridors, upland wildlife habitat sites and wetlands.

4. Economic, Social, Environmental, and Energy (ESEE) Consequences Analysis

Applicable OAR Sections

660-023-0040(2) "ESEE consequences" are the positive and negative economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use.

660-023-0040(4) Analyze the ESEE consequences. Local governments shall analyze the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The analysis may address each of the identified conflicting uses, or it may address a group of similar conflicting uses. A local government may conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning. The local government may establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis. A local government may conduct a single analysis for a site containing more than one significant Goal 5 resource. The ESEE analysis must consider any applicable statewide goal or acknowledged plan requirements, including the requirements of Goal 5 recommendation. The analyses of the ESEE consequences shall be adopted either as part of the plan or as a land use regulation.

The following analysis addresses ESEE consequences from the perspective of the community as a whole, rather than from the perspective of each individual landowner separately.

Natural resource sites have multiple functions that provide benefits to people (e.g. moderation of downstream flooding, fish habitat). Allowing conflicting uses within resource sites and their impact areas will typically have adverse impacts on the resource (see Section 3, Conflicting Uses). However, prohibiting or limiting uses also has negative consequences, because these "conflicting" land uses provide benefits to both property owners and to the larger community (e.g. housing sites, production of manufactured goods). This section explores in more detail the negative and positive consequences of allowing, limiting or prohibiting conflicting uses as required by OAR 660-023-0040. The consequences are described for each of the four ESEE categories: economic, social, environmental, and energy consequences.

Many of the consequences of allowing, limiting or prohibiting uses are common to all resources in the Inventory, whether the resources are zoned for residential, commercial or industrial uses. The common consequences are grouped together in the text discussion below. Unique consequences due to unusual land uses or unique site characteristics are discussed separately. For reference purposes, each group of consequences discussed in the text is labeled with a paragraph number. The tables for each site in Sections 7 through 24 list the paragraph number that applies to each site (see Tables 7.4.2 through 24.4.2 in Sections 7 through 24.)
For the purposes of this discussion, the terms "consequences" and "impacts" may be used interchangeably. The term "residential" means both single family residential and multi-family residential uses; "commercial" includes both commercial and office uses; the term "industrial" includes light, medium, and heavy industrial uses. (For a detailed description of these uses, see Section 3, Conflicting Uses.)

4.1 Key Resource Characteristics

The conflicting use analysis in Section 3 describes the potentially adverse impacts of conflicting uses on a resource site. Resource sites provide a variety of ecological functions, such as water quality improvement, wildlife habitat, reduced downstream flooding and erosion, and microclimate moderation. To the extent that conflicting uses impact or impair these ecological functions, there are not only environmental consequences, but economic, social, and energy consequences as well. For example, the loss of the stormwater storage capacity of wetland areas has potential economic consequences in terms of public costs for flood control. The loss of open space areas along stream corridors has potential social consequences related to the loss of recreational opportunities. Further, the magnitude or severity of the ESEE consequences of allowing, limiting or prohibiting conflicting uses varies depending in part on the relative quality of the resource site. Generally, *higher quality resource sites* provide multiple ecological functions, while *relatively low quality resource sites* provide fewer functions or diminished functions. Sites that provide more ecological functions also tend to be the sites that provide more economic, social and energy benefits. For example, a large stream with extensive riparian areas, wetlands and mature tree canopy is more likely to increase adjacent property values, and to provide more social benefits such as passive recreation opportunities. A small stream with highly modified banks and very little wetland or riparian vegetation generally provides fewer benefits such as flood storage capacity. Sites that are already fairly disturbed (e.g., vegetation has been removed by human activity) are considered less likely to be adversely affected by impacts such as invasion of exotic species, compared to more pristine sites. Thus, the magnitude of ESEE consequences will be greater for *higher quality sites* than for more disturbed, relatively *lower quality sites*.

The sites discussed in this analysis have already been determined to be "significant" Goal 5 resources in the adopted Inventory. However, these resources range in quality from relatively pristine, higher quality sites to sites with varying degrees of disturbance. Relative resource quality among the various Goal 5 sites can be described, in part, by describing "key resource characteristics" of these sites. These are characteristics typical of stream corridors and wetlands that indicate in part the presence and quality of the ecological functions provided by the site. Key resource characteristics used in this analysis are: (1) presence of threatened or endangered species; (2) presence of fish; (3) level of connectivity (site connects to a large habitat area or links an extensive stream system, or is itself large in area or length); (4) quality of the riparian or wetland plant community (relatively continuous, presence of trees and shrubs, ratio of native/exotic plants, etc.); (5) presence of significant wetlands; (6) wildlife habitat within wetlands, (7) fish habitat within wetlands, (8) water quality function within wetlands, (9) flood storage within wetlands, (10) presence of open water habitat; and (11) steep slopes (steep surrounding slopes or stream has a steep channel gradient). These key resource characteristics are important factors in determining the consequences of allowing, limiting, or prohibiting conflicting uses, and are considered in the analysis of ESEE consequences below.

Key resource characteristics for each resource site are listed in Tables 7.4.1 through 24.4.1 in Sections 7 through 24. Some of these characteristics are further described in individual Site Descriptions in Sections 7.1 through 24.1. In general, sites with a relatively high-quality, intact, native-dominated riparian plant community and with relatively high connectivity to other habitat areas are considered higher quality sites. Sites where riparian vegetation may be more disturbed,

partially reduced or replaced by non-native species, but where there is a high level of habitat connectivity, are considered relatively high or moderate quality sites. Where the stream channel gradient and/or surrounding topography is steep, the site is more susceptible to channel degradation, erosion and sedimentation of downstream reaches. Additional characteristics, such as the presence of wetlands or open water increase the value of otherwise lower value sites.

4.2 Fully Allowing Conflicting Uses - ESEE Consequences

4.2.1 Economic Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.1A All sites: Fully allowing conflicting uses would provide economic benefits by accommodating a larger buildable area for a given site which, in some cases, could result in a greater number of residential units or industrial/commercial floor area within a given development site, or by providing greater flexibility in the layout of development sites. There would also be positive economic consequences for agricultural uses, where site acreage remains available for agriculture and pasturing, and for industrial uses that require large areas for heavy equipment movement and outdoor storage. Fully allowing conflicting uses within the impact area of stream corridors and wetlands may also provide minor economic benefits from the removal and sale of trees. There are no Goal 5 sites within the Eugene UGB where extractive industries (e.g. commercial forest production, sand and gravel mining) are permitted, so economic consequences for resource extraction would typically not be significant enough to provide community economic benefits. Where a larger buildable area provides more flexibility in locating and designing public facilities and utilities, a positive consequence may be a reduction in costs for these facilities, benefiting the public. Construction of more residential units or industrial/commercial floor area will temporarily sustain or create somewhat greater employment opportunities within the construction industry in the local economy. To the extent that a greater number of units and floor area can be constructed, the tax base for the community would increase, thus supporting local government services.

4.2.1B All sites: The positive consequences of fully allowing conflicting uses within these Goal 5 sites are reduced by the fact that portions of these Goal 5 sites are waterways and wetlands that are regulated by state and federal wetland agencies. Conflicting uses may already be restricted under those state and federal programs, or costs may be added for preparing additional studies, for state or federal permit applications, and for carrying out wetland mitigation requirements. In addition, due in part to these kinds of environmental constraints, some portions of these Goal 5 streams and wetland sites are already dedicated to public open space, private open space, or stormwater uses. For these reasons, in many cases, there may be only a minor, incremental economic benefit in fully allowing uses in these areas.

4.2.1C Sites with Prior Development or Prior Land Use Approval: For many of these sites, the positive economic consequences of fully allowing conflicting uses will be reduced by these factors: 1) most of the tax lots and development sites affected by a Goal 5 site are already partially or fully developed; and 2) many parcels have a prior land use approval that could supersede future Goal 5 regulations. Most of the Goal 5 riparian corridors are within built-out residential subdivisions. There is little capacity for further subdivision of these parcels, and the resource corridor often contains structures, so, on the whole, there is relatively little *additional* economic benefit in fully allowing development in the Goal 5 portion of these parcels. Certain Goal 5 sites, such as the Alton Baker Park stream corridor and Delta Ponds, are surrounded primarily by land that is already dedicated as public park land that is not available for development.

Under state law, local governments must apply the rules in place at the time a land use application is submitted. For some sites, the owner will submit an application for development prior to the effective date of the new Goal 5 regulations, so that the new regulations will not apply. Once an application is approved, the applicant is given certain development rights through that land use approval. Development rights conferred by prior land use approvals must be evaluated on a case by case basis to determine consistency with established case law. However, in many cases, new Goal 5 protections would be applied only if prior land use approvals have expired or if development is proposed that is not consistent with the prior approval. Such cases will reduce the area within which Goal 5 protection measures would apply, and therefore would reduce the positive economic consequences of a decision to fully allow conflicting uses. City records show that 74 significant Goal 5 resource sites (24 riparian sites, 16 upland wildlife habitat sites and 34 wetland sites) are at least partially affected by prior land use approvals that may prevail over new Goal 5 regulations.

4.2.1D All sites: Positive economic consequences of fully allowing conflicting uses will also be limited by the fact that the impact areas of these Goal 5 sites are generally narrow and linear in nature, and typically represent a relatively small portion of a parcel. The largest portion of a development or use on a given parcel will occur primarily *outside* of these resource corridors. Therefore, the economic benefits discussed in this analysis would accrue only from uses within the impact area, and *would not be generated from land or uses outside of the impact area.*

4.2.1E All sites: For resource sites with relatively *lower-quality habitat*, fully allowing conflicting uses may provide positive economic consequences by avoiding or reducing the need to develop *higher quality* Goal 5 resource sites. Development in *higher quality* resource sites is likely to have more adverse economic consequences, as these higher quality sites tend to provide more of the ecological functions with economic value (e.g. scenic value/increased property values, flood control). For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

Negative consequences

4.2.1F All sites: Streams and wetlands provide multiple functions and values (e.g. habitat for birds, moderation of downstream flooding, recreation). Many of these functions have economic value. Fully allowing conflicting uses will reduce the economic contribution of the resource to the immediate area and to the larger community. Table 4.2.1 below lists some of the economic benefits provided by resource sites. (Not all resource sites provide all functions or provide the same quality of functions.)

Table 4.2.1 Functions with economic value provided by resource sites

RESOURCE FUNCTION	ECONOMIC BENEFIT OR AVOIDED COSTS
Increased property values	Increased tax base
Air pollutant removal	Reduced health care costs
Wildlife habitat	Recreation/tourism industries
Fish and aquatic habitat	Fisheries, federal regulatory compliance
Flood management	Reduced flood insurance costs, reduced costs for stormwater treatment
Water quality improvement	Improved fisheries, increased recreational values, reduced costs for infrastructure

Thermal moderation	Reduced heating/cooling, energy costs
Soil stabilization	Improved water quality, reduced property damage
Groundwater/drinking water quality	Reduced treatment costs, improved fisheries

4.2.1G All sites: In residential and commercial areas, negative economic consequences would result from the loss of aesthetic, open space and recreational features that typically increase adjacent property values. For example, the loss of large, mature trees and woodlands in residential areas is a directly measurable value often used in market appraisals and property damage claims. A number of commercial and multi-family residential uses adjacent to Goal 5 sites reflect the amenity value of the resource in the way these enterprises are designed and oriented toward the resource (e.g., restaurants and apartment complexes situated to take advantage of the view of the resource area). Many residential developments capitalize on the presence of an adjacent stream corridor in their name, market identity and promotional strategy. Fully allowing conflicting uses within the impact area of Goal 5 stream corridors and wetlands would also result in the loss of features that contribute positively to perceptions of quality of life in the surrounding neighborhood and that help attract new residents and businesses to the community. For properties with industrial uses, the aesthetic or recreational value of a natural resource may be minimal; however, these properties share in the economic benefits that natural resource sites bring to the larger community, such as contributing to positive perceptions of quality of life, which helps attract new employees, businesses, and local markets to the community. In addition, the loss of stream corridors can lead to increased soil erosion and flooding, which can result in significant economic losses to adjacent property owners.

4.2.1H All sites: Negative economic consequences would also result from allowing conflicting uses that may impact water quality in adjacent streams. Uses that remove vegetation adjacent to streams and wetlands can contribute to increased water pollution, by reducing the filtration effect of vegetation on stormwater that runs off adjacent land and into adjacent waters. This can lead to increased stream bank erosion, turbidity of the streams, and the number of pollutants entering the stream system. Degradation in water quality can cause significant economic losses to downstream fisheries (e.g. salmon), recreation/tourist industries, and associated industries (e.g. driftboat manufacturers), particularly in communities that create market identities associated with the outdoors. In addition, poor water quality can directly affect public health where people swim or consume fish caught in polluted waters. This translates into increased public health costs, water treatment costs, and costs to clean up polluted waters. To fully allow conflicting uses in riparian corridors could also result in increased costs of restoring these habitats in the future, and in increased costs of complying with state and federal regulations (e.g. Clean Water Act, Endangered Species Act).

4.2.1I All sites: Stream corridors and wetlands provide natural storage and infiltration of stormwater runoff. Loss or a reduction in these functions can result in significant negative economic consequences. Where impervious surfaces replace natural vegetation in these corridors, the magnitude and frequency of peak flows are increased, resulting in stormwater moving much more quickly through the landscape than in a naturally vegetated system. Increased peak flows are more likely to cause channel and bank erosion, and downstream flooding. These impacts are magnified by engineered stormwater conveyance systems in which pipes and channels are designed to move stormwater as quickly as possible to receiving waters in order to prevent floods in the immediate vicinity. However, this can result in flooding down stream, and increased erosion and landslides, property/infrastructure damage, increased flood

insurance costs, and increased costs to a community to construct and maintain stormwater treatment and conveyance facilities.

4.2.1J All sites: A majority of Goal 5 resource sites evaluated here occur on land that is already developed or partially developed with allowed uses, and many of these resource sites are already dedicated to public open space or stormwater uses. Many of the *higher quality* resource sites exhibit environmental characteristics that already constrain conflicting uses because of their intrinsic characteristics, such as steep slopes, flood ways, and wetlands that may not be filled without meeting state and/or federal requirements. (For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.) In addition, the impact areas of riparian corridors and upland stream sites are generally narrow and linear in nature. In most cases, there is land outside of the impact area that remains available for allowed uses, and a far greater proportion of the conflicting uses discussed in this analysis would typically occur *outside* of these narrow corridors than within them. Therefore, most of the negative economic consequences discussed in this analysis are limited to these narrow corridors, and *do not extend to lands outside of the impact area.* For these reasons, the magnitude of negative economic consequences associated with protecting a resource site is reduced to the extent that the impact area is narrow and linear in character, is already built out or is already constrained by other environmental factors.

4.2.1K Sites with public facilities, institutional and parks uses: Like other developments, institutional and public uses often realize economic benefits from the aesthetic, recreational and open space functions provided by adjacent natural resource areas. These amenities can increase the appeal and status of a facility which attract users such as patients, students, and employees; loss of these amenities can reduce the appeal of the facility. Where parks and recreation are the primary uses, the loss of a stream corridor could diminish the attractiveness of the area to potential users, fee users and concessionaires. In addition, natural resource areas within parks often provide buffers between more intensely used public areas and adjacent residential areas. The loss of these buffers can have a direct economic consequence for adjacent properties.

Conclusion

4.2.1L All sites: For sites with *relatively low habitat quality* the economic consequences of fully allowing conflicting uses tend to be more positive than for higher quality sites. *Lower quality sites* have diminished ecological functions or fewer of the ecological functions and, therefore, provide fewer economic benefits (see Functions/Economic Benefits, Table 4.2.1 above). As a result, the loss of these sites by fully allowing conflicting uses would result in fewer economic losses, and fewer negative consequences. *Higher-quality sites* provide greater economic benefits to property owners and the community as a whole. For those sites, the negative economic consequences of fully allowing conflicting uses are more severe, outweighing the positive consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.2.2 Social Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.2A Sites with residential uses: Fully allowing conflicting uses within the impact area of a stream corridor or wetland may yield minor positive social impacts by slightly increasing the number of housing units within a housing site affected by a Goal 5 protection measures, or by lowering the cost of housing in some cases. Whether this would be a positive consequence would depend on its effect on the overall supply and cost of housing in various price ranges in the community. If it results in greater availability of housing due to more units and/or lower costs, this would have a positive social impact.

Negative consequences

4.2.2B All sites: Green open spaces with pedestrian access have been shown to have a positive impact on physical and mental well-being for residents and employees with easy access to those areas. The Human-Environment Research Laboratory (HERL) at the University of Chicago has conducted numerous studies on the social effects of natural green spaces in developed urban areas. These studies have documented numerous beneficial effects including: (1) lower crime rates, (2) higher rates of concentration and self-discipline in school-age girls, (3) relief from attention deficit disorder in children, (4) greater mutual caring and support among neighbors, and (5) lower levels of aggression against domestic partners. In most cases, these effects were shown to increase as the amount of natural green space in the neighborhood increased. A separate study conducted by researchers at Cornell University showed that interaction with nature in and around the home protected children against the effects of stress. Other studies have shown that patients recovering from surgery recuperate more quickly if they are exposed to natural open spaces. In summary, the loss of green natural spaces in neighborhoods where people live and work would have negative impacts on physical and mental health of its residents, especially over the long term, as the density of urban development increases.

4.2.2C All sites: Negative social consequences would also occur due to conflicting uses causing degradation of water quality. The introduction of urban uses and impervious surfaces next to a stream can increase water temperatures, erosion and turbidity, and the number of pollutants entering the stream. Degradation in water quality can directly affect public health where people swim, play or when humans consume fish caught in polluted waters.

4.2.2D All sites: The loss of riparian areas and wetlands that provide natural storage and conveyance of stormwater results in stormwater moving much more quickly through the landscape, which is more likely to cause channel and bank erosion, landslides, and downstream flooding. This can result in minor to severe impacts to public health and safety.

4.2.2E Sites with parks and open space uses: In areas where parks and recreation are the primary uses, fully allowing conflicting uses could reduce the diversity of recreational experiences available to users of the area. Active and high-intensity recreational activities (e.g., a soccer field) developed within a resource site would result in the loss natural vegetation and wildlife habitat and, therefore a loss of some passive recreation opportunities that might not be readily available elsewhere. Where natural resource areas within parks act as buffers between intense recreation (particularly intensely lighted areas) and adjacent residential areas, the loss of those buffers can create conflicts between uses, and diminish the sense of well-being and comfort of adjacent residents.

4.2.2F Sites with residential, public facilities and institutional uses: Fully allowing conflicting uses within the impact area of stream corridors or wetlands would reduce green space and natural areas in and around residential neighborhoods and lower the aesthetic quality of the

neighborhood. In some cases, the potential for recreational opportunities may be decreased, where potential for recreational access is precluded. For low-income residents, or persons with disabilities, natural areas near their homes may be the only ones they can afford to visit, so that conservation of natural areas in residential areas provides a valuable social service. Fully allowing conflicting uses would reduce these benefits.

Conclusion

4.2.2G All sites: For sites with diminished habitat quality, the social consequences of fully allowing conflicting uses are minimal or neutral. The positive social consequences realized in the greater availability of buildable area and housing units are approximately the same for higher quality and lower quality sites. *Lower quality sites* provide fewer ecological functions/benefits and, therefore, provide fewer of the social benefits described above. Therefore, the negative social consequences for these lower quality sites will be less severe or negligible, compared to the positive social consequences. For *sites with relatively high habitat quality*, the social consequences of fully allowing conflicting uses tend to be more negative than positive, as these sites provide a number of social benefits described above that would be lost or diminished. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.2.3 Environmental Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.3A All sites: Fully allowing conflicting uses within the impact area of a stream corridor or wetland would rarely have any positive environmental consequences. For certain low-impact uses, allowing the use may have minor positive effects. For example, a recreational trail or viewing area, sensitively designed, might bring people to the resource area, fostering public awareness of and interest in protecting a resource site. For resource sites with relatively *lower-quality habitat*, fully allowing conflicting uses may result in positive environmental consequences by avoiding or reducing development in *higher quality sites*, where negative environmental consequences may be greater. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1., Key Resource Characteristics.

Negative consequences

4.2.3B All sites: Fully allowing conflicting uses within the impact area of these stream corridors and wetlands would have multiple negative environmental consequences. Development and expansion of conflicting uses typically results in removal or reduction of the ecological functions provided by stream corridors and wetlands. Some of these functions are described further in Section 4.1., Key Resource Characteristics. In addition to the adverse impacts listed in Section 3, Conflicting Uses, the negative consequences of fully allowing conflicting uses include the following:

Fully allowing conflicting uses would allow removal of vegetation that covers the soil along stream banks, wetlands and adjacent lands, exposing soil to increased erosion. Erosion of soil in areas that drain to streams causes a number of water quality problems, including an increase in sediments, and in some cases chemicals, entering the stream and impairment or death of aquatic

plants and animals. In addition, the grading and preparation of a site for development can lead to a temporary increase in erosion.

Fully allowing conflicting uses would remove riparian vegetation that shades streams and helps keep water temperatures lower during warm weather periods with low flows. An increase in water temperature has direct water quality impacts, as it causes depletion of available oxygen in the waterway and destruction of aquatic life.

Fully allowing the development and expansion of conflicting uses generally removes vegetation and leads to creation of impervious surfaces such as buildings, parking lots, sidewalks, patios, etc. An increase in impervious surfaces can cause a number of water quality problems. Rain that falls on impervious surfaces moves more quickly into streams, increasing the rate and magnitude of peak flows. This can lead to increased channel and bank erosion, and increased sedimentation of receiving waters. Due to the loss of the natural infiltration and storage capacity of vegetated areas, summer flows are likely to decrease, increasing water temperatures and, in some cases, leading to inadequate flow to support aquatic species in smaller waterways. Fully allowing conflicting uses would also allow the use of heavy machinery during construction within stream and wetland areas. This can cause compaction of soils, which has effects similar to the creation of impervious surfaces, in that it reduces infiltration of rainfall and can increase stormwater runoff and erosion.

Fully allowing conflicting uses would increase the potential for toxic chemicals to enter streams and habitat areas, by reducing or eliminating the "buffer" of riparian vegetation between developed uses, where such chemicals are used, and streams and wetlands. The use of various chemicals in managing homes and landscaping areas can be very high in residential, agricultural and commercial areas. These chemicals include insecticides, herbicides, rodenticides, fungicides, fertilizers, paints, cleaners, and products associated with cars (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.). These chemicals are carried by rainfall into local waterways and can have both direct and indirect, lethal and debilitating effects on plants, animals, insects, birds, and amphibians, and on fish in downstream receiving waters.

Fully allowing conflicting uses within Goal 5 stream corridors would replace natural vegetation that is structurally complex and diverse with ornamental landscaping which has greatly simplified diversity, and limited, or in some cases, no habitat value. In agricultural areas, the repeated use of riparian areas by livestock can result in the loss of vegetation along stream banks. The loss of existing native vegetation has multiple, far-reaching impacts for native wildlife including loss of: (a) food sources, nesting, perching and roosting places for birds and insects, (b) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (c) loss of food source, shade and cover for aquatic insects.

Fully allowing conflicting uses would increase fragmentation of wildlife habitat. As areas of contiguous habitat are separated from one another by intervening development, their value and usefulness to certain wildlife species decreases. Species that require larger areas of contiguous habitat will no longer use the smaller, isolated patches. This fragmentation can create barriers to wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover.

Fully allowing conflicting uses can introduce into habitat areas intense human activities that directly impact wildlife. Many of the activities associated with residential and commercial uses have a number of negative impacts on natural areas, such as bright lights, loud noises, constant

movement, and similar activities. Such activities within or adjacent to areas used by wildlife can interfere with communication, mating, hunting and competition among some wildlife species.

Fully allowing conflicting uses would allow, at least temporarily, removal of vegetation in preparation for development, leaving bare soil which is vulnerable to erosion and its damaging effects, (including increased sedimentation of adjacent streams). In addition, earth-moving activities remove topsoil and expose soil to exotic plant seeds, often brought in on truck tires, which increases invasive, non-native plants in adjacent undeveloped areas.

4.2.3C All sites: The magnitude or severity of these potentially negative environmental consequences depends on the quality and vulnerability of the resource site. Sites that are relatively pristine and intact (higher quality sites) are more vulnerable to negative environmental consequences because there are more ecological functions and values present that can be disrupted or lost. Where the resource is more modified or disturbed, the consequences of allowing or limiting conflicting uses are less severe. Relative resource quality for each Goal 5 site is indicated in part through "key resource characteristics." For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

Conclusion

4.2.3D All sites: For sites with *lower habitat quality*, the negative environmental consequences of fully allowing conflicting uses are less severe than for higher quality sites. Lower quality sites provide diminished or fewer ecological functions and, therefore, the loss of these sites would mean the loss of relatively few environmental benefits to a property and the community at large. For sites with *relatively high habitat quality*, the environmental consequences of fully allowing conflicting uses will be much more negative than positive, as these sites provide a number of environmental benefits described above that would be lost or diminished. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.2.4 Energy Consequences of Fully Allowing Conflicting Uses

Positive consequences

4.2.4A All sites: Fully allowing conflicting uses within the impact area of these stream corridors and wetlands has negligible positive consequences for energy consumption.

Negative consequences

4.2.4B All sites: Fully allowing conflicting uses within the impact area of these stream corridors and wetlands has minor negative consequences for energy consumption. Areas of vegetation can shade the surface of the ground, reducing heat absorption and radiation, and providing a cooling effect to the immediate vicinity, and reducing energy costs. These beneficial effects can be provided by both natural areas and ornamental landscaping. To the extent that stream corridors and wetlands are replaced by impervious surfaces, these energy-conserving functions would be lost.

Conclusion

4.2.4C All sites: Positive energy consequences of fully allowing conflicting uses within the impact area of resource sites are approximately equal to the negative consequences of fully allowing conflicting uses. The relative quality of habitat in the resource site has no discernible effect on energy consequences.

4.2.5 Summary ESEE consequences of fully allowing conflicting uses

All sites: Based on the above analysis, the combined negative economic, social, environmental and energy consequences of fully allowing conflicting uses within the impact area of *higher quality Goal 5 resource sites* outweigh the positive consequences. For some sites, however, the negative environmental and social consequences are minimal. This is the case for sites that provide lower-quality habitat. As a result, for *lower-quality sites,* the positive consequences of fully allowing conflicting uses are equal to or outweigh the negative. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above. Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

4.3 Limiting Conflicting Uses - ESEE Consequences

4.3.0 All sites: The OARs consider "limiting" conflicting uses as a means of protecting a resource site (OAR 660-023-0040 (5)). However, there is a wide range of possible consequences of limiting conflicting uses, as "limiting" uses can range from prohibiting nearly all conflicting uses to limiting conflicting uses only slightly. Uses may be "limited" by allowing conflicting uses within a smaller portion of the impact area, at a specified distance from the resource (e.g. a setback). Limiting uses may also mean restricting the type and number of uses allowed in the impact area, or requiring special permits. If most uses are fully allowed in the impact area, with only a few restrictions, the consequences of limiting conflicting uses will be similar to the consequences for fully allowing conflicting uses. If most conflicting uses are prohibited or restricted in some way, and only a few lower impact uses are allowed or allowed with special permits, the consequences of limiting uses will be very similar to the consequences of prohibiting conflicting uses.

4.3.1 Economic Consequences of Limiting Conflicting Uses

Positive consequences

4.3.1A All sites: Limiting conflicting uses would result in positive economic consequences in that it would preserve much of the aesthetic, open space and recreational features associated with resource sites. These features help attract new residents, employees, and businesses to the area, and help expand local markets for products and services. In residential areas, natural resource features typically increase adjacent property values, and contribute positively to perceptions of quality of life in the surrounding neighborhood. For commercial uses, particularly retail or entertainment establishments, the amenity value of natural resource sites can translate into increased visibility and patronage. Ready access to natural areas and recreational facilities for employees in some office or industrial sites, such as a large corporate office or business park, can also attract employees and tenants, and contribute to higher lease rates. In addition, protection of adjacent stream corridors, which provide areas for stormwater infiltration and conveyance, can minimize soil erosion, flooding, and property damage for all uses.

4.3.1B All sites: Natural resource sites have multiple ecological functions that also have economic value (see Table 4.2.1). Limiting conflicting uses will maintain most of these economic contributions of the resource site to the immediate area and to the larger community.

4.3.1C All sites: Limiting conflicting uses in stream and wetland areas would minimize clearing of vegetation, grading, and similar development activities that can cause degradation of water quality in streams. Vegetation adjacent to streams and wetlands helps filter stormwater that runs off adjacent land, which helps minimize erosion of stream banks, turbidity of the water, and pollutants entering streams. This results in positive economic consequences through lowering public and private costs of maintaining clean water and remediation of poor water quality. Clean water can mean significant economic benefits to a community by increasing the health of downstream fisheries (e.g. salmon), supporting recreation/tourism activities that rely on high water quality, and lowering public health care costs associated with public contact with polluted waters.

4.3.1D All sites: Limiting conflicting uses within the impact area of stream corridors and wetlands helps maintain the stormwater storage and conveyance capacity of these areas. When these natural areas are developed with impervious surfaces and piped systems, their natural infiltration and storage functions are lost, and the magnitude and frequency of peak storm flows increases. This increases the potential for surges in floodwaters downstream, and potential downstream erosion and flooding. Limiting conflicting uses would help maintain the flood control functions of stream corridors and wetlands, by protecting property and infrastructure from flooding, and minimizing costs for flood insurance and stormwater conveyance facilities, resulting in positive economic consequences for private property owners and the public.

4.3.1E All sites: Positive economic consequences would result from limiting conflicting uses where uses could occur that would not be possible if all conflicting uses were prohibited. If almost all uses are otherwise prohibited, allowing some limited uses within the impact area could mitigate negative economic consequences. In addition, some accessory uses, such as trails or access roads, might be allowed in a limited way, which may not add to the buildable area of a development site, but could add amenity value to development outside of the area where uses are restricted or facilitate development where other access options are not available.

4.3.1F Sites with public facilities, institutional and parks uses: Institutional and public uses often realize an economic advantage in a location adjacent to the aesthetic, recreational and open space amenities provided by natural resource areas. These amenities can contribute to the appeal and status of a facility, attracting potential patients, students, and employees. Ready access to natural areas and recreational facilities is often a factor influencing the choice of an institution of higher learning or alternative school. For many people, natural areas have a calming and restorative effect, offering passive outdoor activities such as bird-watching, relief from heat, glare and noise, and a sense of safety from urban activities. The presence of these restorative qualities can shape perceptions of the quality of care provided by, and selection of, health care or long-term care facilities. Schools and churches may benefit from opportunities for educational and interpretive programs that are nearby, and do not involve transportation costs or entry fees. For parks and recreational uses, the presence of a stream corridor can increase the diversity of recreational opportunities, making the area more attractive to potential users, fee users, and concessionaires. Limiting conflicting uses would help protect these aesthetic, recreational and open space amenities and the economic benefits they provide.

Negative consequences

4.3.1G All sites: Reducing the floor area or number of units that might otherwise be allowed on a given development site by limiting conflicting uses would have negative economic consequences. There would be direct economic impacts to owners of a development site and those involved in developing land and the construction industry. In addition to a reduction in units or floor area, other economic impacts of limiting uses would include reduced flexibility in the layout of a development, which could affect the ability to accommodate, and the cost of accommodating, heavy equipment movement, outdoor storage, street layout, etc. Restricting uses such as roads, utilities and other public infrastructure could result in decreased or suppressed property values for areas not adequately served or in increased costs for alternative approaches. Where restrictions on developable area increase the cost of public facilities and utilities, these costs are partially borne by the larger public. Limiting conflicting uses also may produce minor economic impacts to a property owner by limiting the removal and sale of trees in resource sites. As there are no commercial forest lands within Goal 5 streams or wetlands within the Eugene UGB, such tree removal would typically be on a relatively small scale, or occur as

one part of site development, and the economic consequences would be relatively minor. Limiting conflicting uses also results in indirect, secondary economic consequences for the community as a whole. Limiting the construction of new residential units or floor area would sustain or create fewer, employment opportunities within the construction industry in the local economy. Limiting the area available for development may also reduce the availability of housing units and commercial/industrial sites that attract new residents, employees and businesses to the local economy. To the extent that a smaller number of residential units or floor area could be constructed, the tax base for the community would decrease, thus decreasing support for local government services, such as police, fire, and library service.

4.3.1H All sites: The magnitude of potentially negative outcomes of limiting conflicting uses is mitigated somewhat by the fact that many of these Goal 5 sites include waterways and wetlands that are regulated by state and federal wetland agencies. Conflicting uses may already be restricted under those state and federal programs, or costs may be added for preparing additional studies, for state or federal permit applications, and for carrying out wetland mitigation requirements. In many cases, streams and wetlands have other environmental characteristics, such as steep slopes or unstable soils, that may already constrain conflicting uses by adding costs to development for engineering studies or engineered structures, or restricting the extent of development. In addition, due in part to these kinds of environmental constraints, some portions of these Goal 5 streams and wetland sites are already dedicated to public open space, private open space, or stormwater uses.

4.3.1I Sites with Prior Development or Prior Land Use Approval: For many of these sites, the economic consequences of limiting conflicting uses will be reduced or neutral, due to the fact that: (1) most of the tax lots and development sites affected by a Goal 5 site are already fully developed; or (2) the parcel has a prior land use approval. For example, Flat Creek (E59), Spring Creek (E58), East Santa Clara Waterway (E57, most of the streams in the southeast hills (E35, E37), and a large portion of the Willamette River (WA) are lined with built-out residential subdivisions. At R-1 low density residential zoning, few of these areas have the capacity for further subdivision or additional residential construction. Sites such as the Alton Baker Park stream corridor and Delta Ponds are surrounded primarily by dedicated public park land.

Under state law, local governments must apply the rules in place at the time a land use application is submitted, and once an application is approved, the applicant is given certain vested development rights through that land use approval. This results in a situation where previous land use approvals on sites with Goal 5 resources have conferred vested development rights that must be honored. In most cases, only if those approvals expire or if development is proposed that is not consistent with the approval would new Goal 5 protections be applied. City records show that 74 significant Goal 5 resource sites (24 riparian sites, 16 upland wildlife habitat sites and 34 wetland sites) are at least partially affected by prior land use approvals that may prevail over new Goal 5 regulations.

4.3.1J All sites: The severity of the negative economic consequences described in this analysis will be limited by the fact that the impact areas of most of these Goal 5 sites are generally narrow and linear in nature. First, on most sites, conflicting uses will be only partially affected, as the largest portion of the development or use will occur primarily on the areas of a parcel located *outside* of resource corridors. The negative economic consequences discussed in this analysis apply only to the impact area, and *do not extend to land and uses outside of the impact area* (i.e., do not affect the entire development site). Second, portions of conflicting uses that might occur within a Goal 5 corridor can, in many instances, be located in non-Goal 5 areas. For example,

units in a new residential subdivision or accessory uses in existing areas can often be located on a given property in a manner that preserves the resource (e.g., clustering housing units) while allowing for similar densities and uses. In other cases, construction of those extra residential units may shift to other properties, with no net loss to the local economy. Other uses are more location-dependent (e.g. manufacturers dependent on rail transportation or proximity to input suppliers), or restricted to large, single story buildings (e.g. assembly plants), and are more constrained when adding floor area. For these reasons, conflicting uses within a resource site would be minimally affected in proportion to all other uses, and the negative economic consequences associated with limiting uses are only slightly greater than fully allowing conflicting uses.

4.3.1K Sites with public facilities, institutional and parks uses: Public ownership of a resource site to some degree mitigates negative economic consequences, because other goals, such environmental or social goals, are often of equal or higher importance to the public in determining how or if a site or use is developed.

Conclusion

4.3.1L All sites: Limiting conflicting uses (as opposed to prohibiting conflicting uses) would allow more flexibility for development near protected resource sites, and would allow for some uses that support adjacent development to occur within otherwise protected areas. For this reason, economic consequences are more positive for limiting conflicting uses, than for prohibiting conflicting uses.

Sites with *relatively low habitat quality* provide fewer ecological functions and values, which means they provide less of an economic benefit to property owners and the community as a whole. Therefore, there are fewer positive economic consequences of protecting these sites. For these sites, the negative economic consequences of limiting conflicting uses outweigh the positive consequences. *Higher quality sites* provide better habitat, water quality protection, aesthetic values, and other economic benefits. As a result, the positive economic consequences of protecting the site through limiting conflicting uses are much greater, and outweigh the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.2 Social Consequences of Limiting Conflicting Uses

Positive consequences

4.3.2A All sites: In some instances, allowing certain, low impact uses within the impact area of a riparian corridor or wetland can provide positive social consequences. For example, a recreational trail or viewing area, sensitively designed, can increase the visibility and accessibility of the natural area, and the positive influence of urban green spaces on the physical and mental well-being of residents and employees.

4.3.2B Sites with residential, commercial and institutional uses: Limiting conflicting uses within the impact area of Goal 5 stream corridors or wetlands would increase green open space and natural areas in and around residential and commercial neighborhoods. The presence of natural areas in a neighborhood can enhance the mental and physical well-being of people who

live and work there. Natural areas provide mental and visual relief from urban glare, heat and noise, and, in some cases, provide both passive and active recreational opportunities. Views of trees and wildlife, and green open spaces with trails have been shown to have a positive impact on the physical and mental well-being for residents and employees that have easy access to these features. The Human-Environment Research Laboratory (HERL) at the University of Chicago has conducted numerous studies on the social effects of natural green spaces in developed urban areas. These studies documented numerous beneficial effects including: (1) lower crime rates, (2) higher rates of concentration and self-discipline in school-age girls, (3) relief from attention deficit disorder in children, (4) greater mutual caring and support among neighbors, and (4) lower levels of aggression against domestic partners. In most cases, these effects were shown to increase as the amount of natural green space in the neighborhood increased. A study conducted by researchers at Cornell University showed that interaction with nature in and around the home protected children against the effects of stress. Other studies have shown that patients recovering from surgery recuperate more quickly if they are exposed to natural open spaces. For low-income residents or people with decreased mobility, natural areas near their homes may be the only areas they can afford to visit or that are accessible, so conservation of natural areas in residential areas provides a valuable service. Natural resource areas near schools and churches can also provide opportunities for nearby educational and interpretive programs that benefit school-age children. In summary, the conservation of green natural spaces in neighborhoods where people live and work would have positive impacts on physical and mental health, especially over the long term, as the density of urban development increases.

4.3.2C All sites: Areas of riparian vegetation and wetland areas help filter and slow the rate of stormwater runoff, which helps minimize the potential for sediments, chemicals and other pollutants to enter adjacent streams. This helps maintain water quality not only in adjacent streams, but in downstream areas as well. Limiting conflicting uses that would remove vegetation in these resource sites helps protect water quality throughout the community. This is an important social benefit, in that poor water quality can have serious effects on public health, where people consume fish from polluted waters or come in contact with (swimming, boating) polluted water.

4.3.2D All sites: As stream corridors and wetlands provide storage and infiltration of stormwater runoff, limiting impervious surfaces in these areas will help maintain these functions, with positive social consequences. As the area of impervious surfaces is increased, stormwater moves much more quickly through the landscape, and the magnitude and frequency of peak storm flows are increased. Increased peak flows are more likely to cause erosion and downstream flooding. This can result in increased hazards to the public, due to downstream flooding, landslides, and property/infrastructure damage, and increased costs to maintain public health and safety.

Negative consequences

4.3.2E All sites: Limiting conflicting uses within the impact area of these stream corridors and wetlands could result in minor negative social impacts by potentially decreasing the number of housing units that would otherwise be allowed within a stream corridor or wetland. This could slightly reduce the supply of housing in the community or slightly increase the cost of housing units. The degree to which this would affect housing supply and costs would depend on a number of factors, such as the design and location of a particular development, whether the same number of units are accommodated elsewhere on a development site through clustering, whether the housing is designed for special markets, such as affordable housing, and the current supply

and cost of housing in various price ranges in the community. If limiting conflicting uses results in fewer housing units and/or higher costs, this would have a negative social impact.

Conclusion

4.3.2F All sites: Limiting conflicting uses within sites with *relatively low habitat quality* will have minor social consequences. These sites have fewer ecological functions or poorer-quality habitat, which means they provide fewer of the social benefits described above, such as open space, passive recreation, and educational opportunities. Therefore, the positive consequences of protecting these sites are about equal to the negative consequences of protecting them. For *higher-quality sites*, the positive social consequences of limiting conflicting uses will be much greater, and will outweigh the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.3 Environmental Consequences of Limiting Conflicting Uses

Positive consequences

4.3.3A All sites: Streams and wetlands provide a number of ecological functions (many of which are described further in Section 4.1, Key Resource Characteristics). As discussed in Section 3, Conflicting Uses, most of the conflicting uses that could occur within the impact area of these Goal 5 sites would remove or diminish these ecological functions. Moderately limiting conflicting uses would maintain many of these ecological functions; greatly limiting uses would preserve most of these functions. Both would result in a number of positive environmental consequences. Those positive consequences include the following:

Limiting conflicting uses would maintain the vegetation that protects stream banks and adjacent soils, reducing the potential for erosion. Erosion of soils along stream banks and adjacent lands that drain to streams is a direct cause of water quality damage, and leads to, among other things, excessive sediments and chemical compounds entering the stream, increased turbidity of the water, impairment of respiration and growth of aquatic plants and animals, and degradation of gravel substrates used for salmon spawning.

Limiting conflicting uses would maintain the role of riparian vegetation in shading streams corridors, which helps maintain normal water temperatures. An increase in water temperature can cause severe water quality damage, particularly during low flow, warm weather periods, as it leads to depletion of available oxygen for aquatic life in the waterway. Lack of available oxygen not only interferes with the normal biological processes of aquatic life, it can be lethal to many organisms, including fish.

Limiting conflicting uses would minimize the creation of impervious surfaces and compacted soils. An increase in impervious surfaces (such as buildings, sidewalks, patios, etc) and compacted soils adjacent to stream corridors and wetlands can have multiple detrimental effects on water quality. These vegetated areas have a natural infiltration and storage capacity that helps maintain adequate summer flows, which helps moderate summer water temperatures and oxygen levels (especially important for aquatic species in smaller waterways). These functions are lost when streams and wetlands are replaced with impervious surfaces. In addition, the loss of these areas increases the rate and magnitude of stormwater runoff from adjacent lands. This

contributes to scouring of stream banks, erosion, and heavy sediment loads in the water. Effects similar to this occur when soils are scraped and compacted during the development process. Heavy machinery traffic moving over native soil during construction, and the removal and grading of looser soil layers, leads to compaction of soils and collapses soil structure, which impairs infiltration of rainfall.

Limiting uses to areas further away from a stream or wetland helps protect water quality from various chemicals commonly used by homeowners and renters in managing their homes and yards. Commonly-used substances that can damage water quality include insecticides, herbicides, rodenticides, fungicides, fertilizers, paints, cleaners, and fluids or other products associated with cars (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.) These chemicals are carried by rainfall into local waterways and can have both direct and indirect, lethal and non-lethal, but debilitating effects on plants, animals, insects, birds, and amphibians, and on fish in downstream receiving waters. Keeping these commonly-used products further from waterways will reduce the potential for their entering adjacent waterways.

Limiting conflicting uses would benefit wildlife by conserving areas of native vegetation that provide essential habitat functions, including: (a) food sources, nesting, perching and roosting places for birds and insects, (b) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (c) a food source, shade and cover for aquatic insects, which are in turn a food source for fish and wildlife.

Limiting conflicting uses would benefit wildlife by minimizing intervening development that separates contiguous habitat areas from one another, thus maintaining the value and attractiveness of these areas to wildlife. Contiguous habitat areas facilitate wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover, where all of these essential functions may not be available in isolated habitat areas. This connectivity is particularly important for certain wildlife species that require larger, connected areas of habitat.

Limiting conflicting uses would benefit wildlife by minimizing human activities associated with residential and commercial uses that can have a number of negative impacts on wildlife, such as the introduction of bright lights, loud noises, constant movement, and similar activities. Such activities can interfere with communication, mating, hunting and competition among some wildlife species.

Limiting conflicting uses minimizes the areas open to disturbance from vehicles and machinery during construction. This helps prevent compression and damage to the roots of adjacent riparian plants, and compaction of soils. It also reduces the exposure of soil to exotic plant seeds and, therefore, the likelihood of invasion of non-native plants in adjacent undeveloped areas.

4.3.3B All sites: The extent to which limiting conflicting uses results in positive environmental consequences depends on the quality and vulnerability of the resource site. For resource sites where habitat value has been greatly diminished or altered, and that provide fewer ecological benefits, limiting conflicting uses may result in relatively minor positive environmental consequences. Limiting conflicting uses within the impact area of sites with relatively *high quality* habitat will result in greater environmental benefits to the property and to the community as a whole. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.3C Sites within Parks: Within publicly accessible parks, public access and use is a primary purpose. Where there are significant Goal 5 natural resources within these parks, public access and resource protection can be conflicting goals. In order to minimize habitat damage from public access, in some situations facilities must be constructed within a resource or impact area, in order to control where people can go, and deter them from entering more sensitive areas. In such instances, limiting conflicting uses can allow some of these facilities that control public access while preserving the integrity of the resource. In such cases, limiting conflicting uses can have a more positive environmental consequence than prohibiting conflicting uses, by allowing facilities that manage access to the resource. Without such facilities, people will often damage a resource through their desire to see it more closely.

Negative consequences

4.3.3D All sites: Limiting conflicting uses within the impact area of these stream corridors and wetlands would have negative environmental consequences because, while some uses would be restricted or prohibited, other uses would be allowed. The degree to which this impacts the resource site depends on the quality of the resource, and to what degree uses are restricted. Limiting most uses or greatly restricting them will protect more of the resource, with fewer negative environmental consequences. Placing minimal limits on conflicting uses will result in greater negative environmental consequences.

Conclusion

4.3.3E All sites: Protecting a resource site through limiting conflicting uses results in primarily positive environmental consequences. For *higher quality sites*, the positive environmental consequences would be significant. These sites provide multiple ecological functions, such as contiguous wildlife habitat, filtration and storage of stormwater runoff, and water quality protection, that would be maintained if uses are restricted. For sites with *relatively low habitat quality*, there are fewer ecological functions to maintain, so limiting conflicting uses results in fewer positive consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.3.4 Energy Consequences of Limiting Conflicting Uses

Positive consequences:

4.3.4A All sites: Limiting conflicting uses within the impact area of these Goal 5 sites could have minor positive consequences for energy consumption. These areas of vegetation shade the surface of the ground, reducing heat absorption and radiation, and reducing energy costs. Limiting conflicting uses such as limiting the level of vegetation removal, or restricting where impervious surfaces can occur, would maintain these energy-conserving functions.

Negative consequences:

4.3.4B All sites: Limiting conflicting uses within some or most of the impact area of these Goal 5 sites would have minor negative consequences for energy consumption. However, if conflicting uses are only slightly limited, such that vegetation removal may occur in most of the impact area, the energy-moderation effects of vegetation would be reduced, resulting in increased energy costs, and slightly greater negative energy consequences.

Conclusion:

4.3.4C All sites: Generally, the positive energy consequences of limiting conflicting uses within the impact area of resource sites are slightly greater than the negative energy consequences of limiting conflicting uses. To the extent that uses are more limited, the energy consequences become more positive; to the extent that uses are less limited, the energy consequences become more negative.

4.3.5 Summary ESEE consequences of limiting conflicting uses

4.3.5A All sites: Limiting conflicting uses (as opposed to prohibiting conflicting uses) would allow more flexibility for development near protected resource sites, and would allow for some uses that support adjacent development to occur within otherwise protected areas. For this reason, economic consequences are more positive for limiting conflicting uses, than for prohibiting conflicting uses. The type and magnitude of the consequences of limiting conflicting uses can vary depending on the quality and vulnerability of the resource. For several sites in the adopted Inventory, where ecological functions and *habitat value are greatly diminished* by human activity, the combined positive consequences of protecting the site by limiting uses are not great enough to outweigh the negative consequences. These sites provide fewer ecological functions than higher quality sites, which means they provide fewer economic, social and energy benefits to an individual property and the community as a whole. For these sites, conflicting uses are of greater importance than the resource. Limiting conflicting uses would provide relatively few positive consequences; yet prohibiting conflicting uses would have too many negative economic consequences. *Higher-quality* sites, however, provide multiple ecological functions with economic, social and energy value. For the community as a whole, the positive consequences of protecting these higher quality sites outweigh the negative. For these reasons, the combined positive economic, social, environmental and energy consequences of protecting higher quality sites by limiting most conflicting uses largely outweigh the combined negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above. Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

4.4 Prohibiting Conflicting Uses - ESEE Consequences

4.4.1 Economic Consequences of Prohibiting Conflicting Uses

Positive consequences

4.4.1A All sites: Some positive economic consequences would result from the conservation of aesthetic, open space and recreational features associated with resource sites. These features can attract new residents, employees, businesses, and potential customers to the area. In residential areas, the presence of natural resource features often increases the attractiveness of a neighborhood and adjacent property values. For commercial, office and some industrial uses, the amenity value of a nearby natural resource site can increase visibility and patronage by customers, and access to aesthetic and recreational amenities can attract employees and tenants. Uses that are not located adjacent to a natural resource also share in the community-wide economic benefits provided by stream corridors and wetlands, which provide stormwater infiltration and conveyance, minimizing soil erosion, flooding, and property damage for all uses.

4.4.1B All sites: Natural resource sites have multiple ecological functions that also have economic value (see Table 4.2.1). Prohibiting conflicting uses will maintain the economic contribution of the resource to the immediate area and to the larger community

4.4.1C All sites: Positive economic consequences would result from minimizing or preventing conflicting uses that cause degradation of water quality in stream corridors, minimizing or avoiding the public and private costs of remediation of these impacts. Prohibiting conflicting uses that remove vegetation adjacent to streams and wetlands helps minimize erosion of stream banks, turbidity of the streams, and pollutants entering the stream, and helps lower public and private costs for maintaining clean water. Positive economic consequences also result from clean water and its contribution to the health of downstream fisheries (e.g. salmon), recreation/tourism activities that rely on high water quality, and lower costs from public health impacts from swimming and other water contact recreation.

4.4.1D All sites: Prohibiting impervious surfaces within the impact area of stream corridors and wetlands helps maintain the stormwater storage and conveyance capacity of these areas, which reduces the potential for downstream erosion and flooding. This would result in positive economic consequences for private property owners and the public, including minimizing costs for flood insurance and stormwater conveyance facilities.

4.4.1E Sites with public facilities, institutional and parks uses: Institutional and public uses also may benefit from the aesthetic, recreational and open space amenities provided by natural resources. Ready access to natural areas and recreational facilities is often a factor in choosing an institution of higher learning or alternative school. The presence of these amenities can influence the selection of health care or long-term care facilities. Schools and churches may benefit from reduced costs for educational and interpretive programs when natural areas are located nearby, and do not involve transportation costs or entry fees. For parks and recreational uses, the presence of a stream corridor or wetland can increase the diversity of recreational opportunities, making the area more attractive to potential users, fee users, and concessionaires.

Negative consequences

4.4.1F All sites: Prohibiting conflicting uses would have negative economic consequences in some cases by limiting the floor area or number of residential units or other development within a given development site, or by providing less flexibility in the layout of a development. This would be especially true for small lots or narrow lots where the impact area would occupy a greater portion of the developable area of the site. This can result in increased per unit costs, and increased costs for access, utilities, and other infrastructure. For industrial and commercial areas, this may also impact the ability to accommodate heavy equipment movement and outdoor storage. Prohibiting uses such as roads, utilities and other public infrastructure could result in decreased or suppressed property values for areas not adequately served or in increased costs for alternative approaches. Prohibiting conflicting uses may also produce minor economic losses by preventing the removal and sale of trees along streams and wetlands. These economic consequences would affect the owners of development sites, and those involved in land development and construction. Prohibiting conflicting uses in the impact areas of these streams and wetlands would also have economic consequences for the larger community. Construction of fewer residential units or floor area would mean fewer employment opportunities within the local construction industry, and fewer units or commercial/industrial space available to potential residents and businesses. To the extent that a smaller number of residential units or floor area could be constructed, the tax base for the community would also decrease.

4.4.1G All sites: Prohibiting conflicting uses would have negative economic consequences by limiting access to some otherwise developable sites, and by eliminating the possibility of allowing low-impact uses that support primary uses outside the protected area. In addition, prohibiting all conflicting uses would preclude development flexibility on small sites, sites with unusual configurations or sites where other unforeseen circumstances caused by prohibiting conflicting uses within the impact area would limit or preclude development outside the impact area.

4.4.1H All sites: The negative economic consequences of prohibiting conflicting uses are somewhat limited due to the fact that portions of these Goal 5 sites are waterways and wetlands that are regulated by state and federal wetland agencies. Conflicting uses may already be restricted under state and federal programs, or costs may be added for additional studies, state and federal permit applications, or for wetland mitigation (e.g. replacement). Also, streams and wetlands often have other characteristics, such as steep slopes or unstable soils, that may constrain or add costs to development. These natural resource areas are also the areas that are most often dedicated in developments for public open space or stormwater uses.

4.4.1I All sites: Negative consequences of prohibiting conflicting uses are also limited by the fact that the impact areas of riparian corridors and upland stream sites are generally narrow and linear in nature. In most cases, the largest portion of a parcel or development site occurs *outside* of these narrow corridors. Most of the negative economic consequences discussed in this analysis are limited to these narrow areas, and *do not extend to lands and uses outside of the impact area* (i.e., do not affect the entire development site). Further, many of the affected uses that do occur within a resource site can often be designed and constructed in non-Goal 5 areas. As a result, the magnitude of negative economic consequences associated with prohibiting conflicting uses is small in proportion to the negative consequences of allowing uses

4.4.1J Sites with public facilities, institutional and parks uses: Public ownership of a resource site to some degree mitigates negative economic consequences of prohibiting

conflicting uses, because other goals, such environmental or social goals, are often of equal or higher importance to the public in determining how or if a site or use is developed.

Conclusion

4.4.1K All sites: For sites with *relatively low habitat quality*, the negative economic consequences of prohibiting conflicting uses outweigh the positive consequences. Lower quality sites perform fewer of the ecological functions that provide economic benefits. Therefore, there are fewer positive consequences of protecting these sites. For *higher-quality sites*, the positive economic consequences of prohibiting conflicting uses are greater, and are comparable to the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.4.2 Social Consequences of Prohibiting Conflicting Uses

Positive consequences

4.4.2A Sites with residential, commercial and institutional uses: Prohibiting conflicting uses would increase green open space and natural areas in and around residential and commercial neighborhoods. Visual access to green open spaces, and easy access to natural areas with trails have been shown to have a positive impact on the physical and mental well-being of residents and employees. Some of these positive impacts include: greater mutual support amongst neighbors, lower crime rates, reduced stress in children, and faster recovery of surgery patients. For low-income residents or less-mobile people, the only readily accessible areas that provide these kinds of benefits are often natural areas near their homes. Natural resource areas near schools and churches can also provide opportunities for nearby educational and interpretive programs that benefit school-age children. The protection of green natural areas would have long term, positive impacts on physical and mental health in neighborhoods where people live and work

4.4.2B All sites: One of the most important functions of riparian vegetation and wetland areas is water quality protection. Areas of vegetation help slow the rate of stormwater flow from adjacent land to receiving waters, and help filter out pollutants that would otherwise enter the stream system. Polluted water can have serious public health implications if people consume fish from polluted water or come in contact with polluted water. Prohibiting conflicting uses in these natural areas would minimize the removal of vegetation, would minimize pollutants entering streams, and would help protect water quality throughout the community. In this respect, prohibiting conflicting uses would result in positive social consequences by helping to protect public health.

4.4.2C All sites: Prohibiting conflicting uses in riparian and wetland areas will help maintain the stormwater storage and flood control functions of these areas. Where conflicting uses are allowed, development replaces vegetated areas with impervious surfaces, and stormwater moves much more quickly through the landscape. This can increase erosion and downstream flooding, landslides, and property damage. By minimizing impervious surface area, prohibiting conflicting uses within resource sites would have positive social consequences for public health and safety.

Negative consequences

4.4.2D All sites: Prohibiting conflicting uses within the impact area of these stream corridors and wetlands may result in minor negative social impacts if it reduces the number of housing units that would otherwise be allowed within a stream corridor or wetland, or if it increases the cost of housing. To what degree this would be a negative social consequence would depend on such factors as: the design of a particular housing development, the type of housing, and the current supply and cost of housing in various price ranges in the community.

Conclusion

4.4.2E All sites: Sites with *relatively low habitat quality* provide fewer social benefits, such as open space, passive recreation, and educational opportunities. Therefore, there are fewer positive consequences of protecting these sites through prohibiting conflicting uses. For *higher-quality sites*, the positive social consequences of prohibiting conflicting uses will be much greater, and will outweigh the negative consequences. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.4.3 Environmental Consequences of Prohibiting Conflicting Uses

Positive consequences

4.4.3A All sites: Streams and wetlands provide a number of ecological functions (see also Section 4.1., Key Resource Characteristics). Most types of development and conflicting uses within the impact area of these Goal 5 sites remove or diminish these ecological functions (see Section 3, Conflicting Uses). Prohibiting conflicting uses would maintain most of a site's ecological functions, resulting in a number of positive environmental consequences, including the following:

Prohibiting conflicting uses would maintain the vegetation that protects stream banks and adjacent soils, reducing the potential for erosion. Erosion of soils along stream banks and adjacent lands that drain to streams is a direct cause of water quality damage, and leads to, among other things, excessive sediments and chemical compounds entering the stream, increased turbidity of the water, impairment of respiration and growth of aquatic plants and animals, and degradation of gravel substrates used for salmon spawning.

Prohibiting conflicting uses would maintain the role of riparian vegetation in shading streams corridors, which helps maintain normal water temperatures. An increase in water temperature can cause severe water quality damage, particularly during low flow, warm weather periods, as it leads to depletion of available oxygen for aquatic life in the waterway. Lack of available oxygen not only interferes with the normal biological processes of aquatic life, it can be lethal to many organisms, including fish.

Prohibiting conflicting uses would minimize the creation of impervious surfaces and compacted soils. An increase in impervious surfaces (such as buildings, sidewalks, patios, etc) and compacted soils adjacent to stream corridors and wetlands can have multiple detrimental effects on water quality. These vegetated areas have a natural infiltration and storage capacity that helps maintain adequate summer flows, which helps moderate summer water temperatures and oxygen

levels (especially important for aquatic species in smaller waterways). These functions are lost when streams and wetlands are replaced with impervious surfaces. In addition, the loss of these areas increases the rate and magnitude of stormwater runoff from adjacent lands. This contributes to scouring of stream banks, erosion, and heavy sediment loads in the water. Effects similar to this occur when soils are scraped and compacted during the development process. Heavy machinery traffic moving over native soil during construction, and the removal and grading of looser soil layers, leads to compaction of soils and collapses soil structure, which impairs infiltration of rainfall.

Prohibiting uses near a stream or wetland helps protect water quality from various chemicals commonly used by homeowners and renters in managing their homes and yards. Commonly-used substances that can damage water quality include insecticides, herbicides, rodenticides, fungicides, fertilizers, paints, cleaners, and fluids or other products associated with cars (e.g., oil, gas, wax, tar, antifreeze, brake fluid, etc.) These chemicals are carried by rainfall into local waterways and can have both direct and indirect, lethal and non-lethal, but debilitating effects on plants, animals, insects, birds, and amphibians, and on fish in downstream receiving waters. Keeping these commonly-used products further from waterways will reduce the potential for their entering adjacent waterways.

Prohibiting conflicting uses would benefit wildlife by conserving areas of native vegetation that provide essential habitat functions, including: (a) food sources, nesting, perching and roosting places for birds and insects, (b) nesting, refuge and travel corridors for mammals, reptiles, amphibians, (c) a food source, shade and cover for aquatic insects, which are in turn a food source for fish and wildlife.

Prohibiting conflicting uses would benefit wildlife by minimizing intervening development that separates contiguous habitat areas from one another, thus maintaining the value and attractiveness of these areas to wildlife. Contiguous habitat areas facilitate wildlife movement to habitat patches that contain critical functions, such as sources of food, water or cover, where all of these essential functions may not be available in isolated habitat areas. This connectivity is particularly important for certain wildlife species that require larger, connected areas of habitat.

Prohibiting conflicting uses would benefit wildlife by minimizing human activities associated with residential and commercial uses that can have a number of negative impacts on wildlife, such as the introduction of bright lights, loud noises, constant movement, and similar activities. Such activities can interfere with communication, mating, hunting and competition among some wildlife species.

Prohibiting conflicting uses minimizes the areas open to disturbance from vehicles and machinery during construction. This helps prevent compression and damage to the roots of adjacent riparian plants, and compaction of soils. It also reduces the exposure of soil to exotic plant seeds and, therefore, the likelihood of invasion of non-native plants in adjacent undeveloped areas.

4.4.3B All sites: The magnitude of positive environmental consequences of prohibiting conflicting uses depends on the quality and vulnerability of the resource site. For *lower quality* resource sites, prohibiting conflicting uses would result in preserving fewer ecological functions and benefits, and in relatively minor positive environmental consequences. Prohibiting conflicting uses within the impact area of sites with *relatively high quality* habitat would result in greater environmental benefits to the property and to the community as a whole. For a

discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

Negative consequences

4.4.3FC All sites: Prohibiting conflicting uses within the impact area of these stream corridors and wetlands would rarely have any negative environmental consequences.

Conclusion

4.4.3D All sites: For sites with *relatively low habitat quality*, the environmental benefits of prohibiting conflicting uses are relatively minor. Lower quality sites provide fewer of the ecological functions and benefits described above. Therefore, there are fewer positive consequences of protecting these sites. For *higher-quality sites*, sites that provide valuable habitat and multiple ecological functions, the positive environmental consequences of prohibiting conflicting uses will be much greater. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above.

4.4.4 Energy Consequences of Prohibiting Conflicting Uses

Positive consequences:

4.4.4A All sites: Prohibiting conflicting uses within the impact area of these Goal 5 sites could have minor positive consequences for energy consumption. Areas of riparian and wetland vegetation shade the surface of the ground, reducing heat absorption and radiation, and reducing energy costs. Prohibiting conflicting uses, such as impervious surfaces, would maintain these energy-conserving functions.

Negative consequences:

4.4.4B All sites: Prohibiting conflicting uses within the impact area of streams and wetlands has negligible negative consequences for energy consumption.

Conclusion:

4.4.4C All sites: The positive energy consequences of prohibiting conflicting uses within the impact area of resource sites are slightly greater than the negative energy consequences of prohibiting conflicting uses.

4.4.5 Summary ESEE consequences of prohibiting conflicting uses

4.4.5A All sites: Based on the above analysis, prohibiting conflicting uses within the impact area would have negative economic consequences, particularly on small, irregular or narrow development sites. The positive consequences of protecting a *higher quality resource* site are greater than for lower quality resource sites, because these higher quality sites provide significant social, environmental and energy benefits. For these sites, the combined positive consequences of prohibiting conflicting uses are comparable to the combined negative

consequences. However, for sites with *lower-quality habitat value*, as indicated by certain key resource characteristics, there are fewer positive environmental and social consequences. As a result, the negative consequences of prohibiting conflicting uses for lower quality sites outweigh the positive. For a discussion of the relative habitat quality of Goal 5 sites, see Section 4.1, Key Resource Characteristics, above. Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

4.5 Summary of ESEE Consequences

In the ESEE analysis, the consequences of allowing, limiting, or prohibiting conflicting uses were evaluated. Consequences were evaluated in terms of the economic, social, environmental and energy functions provided by resource sites and land within their impact areas. Relative habitat quality among sites, based in part on key environmental characteristics, was considered. Consideration was also given to zoning districts and allowed uses in those zones as indicators of the potential consequences of allowing, limiting, or prohibiting conflicting uses within the impact area of resource sites.

Land within resource sites and their impact areas provide benefits to both property owners and the larger community. The consequences of prohibiting or limiting conflicting uses within the impact area of these resource sites are generally a reduction in the economic and social benefits provided by land uses (e.g. available housing units, development sites and jobs) that would otherwise occur within the impact area of the site. Public ownership of a resource site to some degree mitigates negative economic consequences, due to the precedence of broader or more long-germ environmental or social goals. The presence of other features, such as steep slopes, wetlands, or listed species may also limit economic consequences from Goal 5 regulations, as areas with these features are already constrained to some degree by field conditions or existing state or federal regulations. Likewise, natural resource sites provide multiple ecological functions and social benefits (e.g. fish habitat, health benefits, and recreational opportunities). The consequences of fully allowing conflicting uses, or slightly limiting uses, within the impact area of these resource sites will generally be a loss of the ecological and social functions provided to a given property and to the larger community. There are also negative economic consequences, as resource sites have functions with economic value (e.g. increased property values, flood control). Prohibiting uses or limiting most uses within the impact area will generally sustain the environmental benefits and social benefits (positive consequences) provided by the resource.

Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

5. Conclusions and Recommendations

5.1 Conclusions and Recommendations to Fully Allow, Prohibit, or Limit Uses

Applicable OAR sections

> *660-023-0040 (5) Develop a program to achieve Goal 5. Local governments shall determine whether to allow, limit, or prohibit identified conflicting uses for significant resource sites. This decision shall be based upon and supported by the ESEE analysis. A decision to prohibit or limit conflicting uses protects a resource site. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5, provided it is supported by the ESEE analysis. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:*
> *(a) A local government may decide that a significant resource site is of such importance compared to the conflicting uses, and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be prohibited.*
> *(b) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.*
> *(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.*

The Goal 5 sites discussed in this analysis have already been evaluated during the Goal 5 Inventory process, and determined to be "significant" natural resources. However, the resource value within these sites ranges from relatively pristine, high quality sites to more disturbed, lower-quality sites. The relative quality of the sites discussed in this analysis can be evaluated in part using "key resource characteristics." These are characteristics of riparian corridors, upland wildlife habitat sites and wetlands that indicate in part the presence, quality or susceptibility to degradation of some of the stream's ecological functions (see Section 4.1., Key Resource Characteristics). Sites with multiple ecological functions or high quality functions are determined to be higher value, more important resources. For example, sites that provide salmon habitat or are regionally significant drainages or wildlife corridors are considered the most important sites. Sites that are more fragmented, disturbed, and that have fewer key resource characteristics are relatively lower-value sites. The greater the value of the resource site, the more severe the potential adverse effects and consequences of allowing conflicting uses.

As discussed in the Conflicting Use Analysis (Section 3), and the ESEE Consequences Analysis (Section 4), fully allowing conflicting uses will typically diminish or eliminate resource values, resulting in primarily negative environmental and social consequences, but also positive economic consequences. Limiting conflicting uses within the impact area can sustain some or most of the environmental and social benefits provided by the resource, mainly resulting in positive environmental and social consequences and, for many sites, positive economic consequences. Prohibiting conflicting uses will typically preserve resource functions, with positive environmental consequences, but greater negative economic consequences. For *higher quality sites*, fully allowing conflicting uses within the impact area would be severely

detrimental to the resource. For these sites, the resource is of greater importance than the conflicting uses. Given the relative importance and quality of these resources, the negative ESEE consequences of fully allowing conflicting uses outweigh the positive consequences, and the positive ESEE consequences of limiting most conflicting uses outweigh the negative ESEE consequences. Therefore, it is recommended that *higher quality sites* be protected by limiting conflicting uses according to the protection levels specified in the supplemental analyses below, and as described in the draft regulations for conservation of Goal 5 resources. For more disturbed or isolated sites, the importance of the resource is much lower, and potential adverse effects from conflicting uses are less severe. For these *lower quality* sites, the negative economic consequences of protecting the site outweigh all other consequences. Although there are some adverse effects from allowing conflicting uses, with ecological values being fairly low, there are fewer benefits from protecting the site. As a result, conflicting uses in these sites are slightly or significantly more important than the resource. For these sites, the negative ESEE consequences of prohibiting or limiting conflicting uses outweigh the positive, and the positive ESEE consequences of fully allowing conflicting uses outweigh the negative consequences. Therefore, fully allowing conflicting uses is recommended for *lower quality* sites.

Sections 7.4, 8.4, 9.4, 10.4, 11.4, 12.4, 13.4, 14.4, 15.4, 16.4, 17.4, 18.4, 19.4, 20.4, 21.4, 22.4, 23.4, and 24.4 summarize the ESEE consequences for each site.

5.2 Recommendations on Conservation Measures (Goal 5 Program)

Applicable OAR Sections

> *660-023-0010(6) "Program" or "program to achieve the goal" is a plan or course of proceedings and action either to prohibit, limit, or allow uses that conflict with significant Goal 5 resources, adopted as part of the comprehensive plan and land use regulations (e.g., zoning standards, easements, cluster developments, preferential assessments, or acquisition of land or development rights).*

The conservation mechanism proposed for the riparian corridors, upland wildlife habitat sites, and wetlands recommended for protection is the application of the land use regulations contained in the draft /WR Water Resources Conservation Overlay Zone. Under those proposed provisions, riparian corridors, upland wildlife habitat sites, and wetlands recommended for protection are classified as Category A, B, C, D, or E streams, or as Category A, B, or C wetlands. Each category specifies a conservation area that, for riparian and upland wildlife habitat sites includes the area within the resource site boundary, plus the area within a conservation setback measured from the top of bank of the stream. For wetland sites, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

Tables 7.5.2, 8.5.2, 9.5.2, 10.5.2, 11.5.2, 12.5.2, 13.5.2, 14.5.2, 15.5.2, 16.5.2, 17.5.2, 18.5.2, 19.5.2, 20.5.2, 21.5.2, 22.5.2, 23.5.2, and 24.5.2 summarize the ESEE consequences for each site, and list the recommended protection measures for each site.

6. Consistency with Statewide Goals and Acknowledged Plan Requirements

Applicable OAR Sections

660-023-0040(4) ... The ESEE analysis must consider any applicable statewide goal or acknowledg plan requirements, including the requirements of Goal 5.

For a discussion of, and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

7. Supplemental Analysis

A-1 Channel and Highway 99/Prairie Road Wetlands

Sites E60 (A-1 Channel); RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

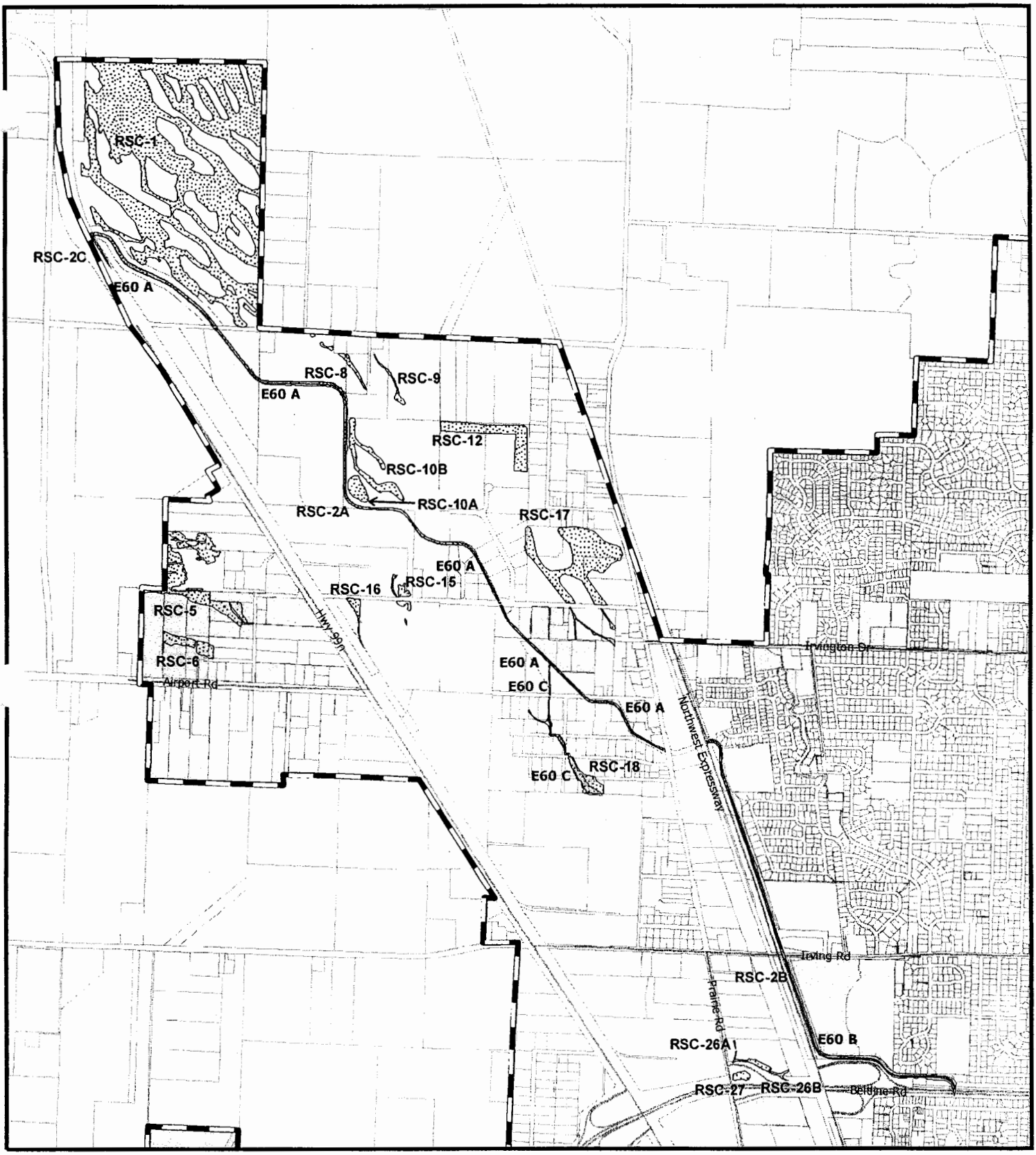
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 7.1 below lists the sites in this analysis group, their resource category and acreage. Map 7.A below shows the site(s) described in this analysis group.

Table 7.1 ESEE analysis group: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
E60 at Highway 99 industrial triangle; RSC-2A; E60 at NW Expressway; RSC-2B:				
E60 A	A-1 Channel at Highway 99	R	12.20	1/5
RSC-2A	A-1 Channel wetland at Highway 99	W	8.20	1/5
E60 B	A-1 Channel at NW Expressway	R	7.65	None
RSC-2B	A-1 Channel wetland at NW Expressway	W	3.32	None
E60 southwest (at Kelso/Carol/Cecil); RSC-:				
E60 C	A-1 Channel (southwest)	R	2.16	None
RSC-18	A-1 Channel wetland (southwest)	R	15.16	None
Hwy 99/Prairie Road wetlands:				
RSC-1	Prairie Rd/Hwy 99	W	111.44	None
RSC-5	Prairie Rd/Hwy 99	W	10.44	None
RSC-6	Prairie Rd/Hwy 99	W	2.57	None
RSC-8	Prairie Rd/Hwy 99	W	0.90	None
RSC-9	Prairie Rd/Hwy 99	W	0.57	None
RSC-10	Prairie Rd/Hwy 99	W	5.39	None
RSC-12	Prairie Rd/Hwy 99	W	6.10	None
RSC-15	Prairie Rd/Hwy 99	W	1.04	None
RSC-16	Prairie Rd/Hwy 99	W	0.84	None
RSC-17	Prairie Rd/Hwy 99	W	15.2	None
RSC-26	Prairie Rd/Hwy 99	W	0.94	None
RSC-27	Prairie Rd/Hwy 99	W	0.63	None

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Eugene Goal 5 ESEE Analysis Group 7

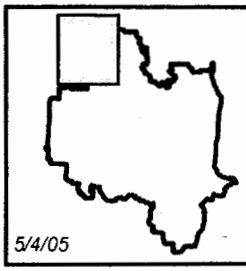
Significant Goal 5 Site Boundaries for A-1 Channel & Highway 99/Prairie Road Wetlands

Map 7A

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Locally Significant Wetland
Riparian Corridor
Upland Wildlife Habitat

N

Feet
0 490 980 1,470



5/4/05

7.1 Site Description(s)

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

These sites are part of the A-1 Channel habitat complex. The A-1 Channel (Site E60) is part of the Amazon Creek drainage system. It begins near the Beltline Highway and flows northwesterly along NW Expressway, across Prairie Road, and then through the Highway 99 industrial corridor and past the UGB limits at Awbrey Lane. This area is characterized by current or former agricultural lands with hydric soils, and a number of Locally Significant Wetlands occur in the area (Sites RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27). The majority of these wetlands occur in areas heavily disturbed by agricultural uses as well as urban land uses, and little of the native wetland plant communities remains. Consequently, habitat values in these wetlands are generally low. Wetlands also occur within the A-1 Channel itself.

(1) E60 at Highway 99 industrial triangle (north & west of Kelso St.); RSC-2A; and E60 at NW Expressway; RSC-2B:

The southern segment of the A-1 Channel (E60B) starts at the Beltline Highway, flows west along the Beltline, and then north along the Northwest Expressway for approximately 1 mile to Prairie Road. The northern portion of the corridor (E60A) continues through the "industrial triangle" to the city limits at Awbrey Lane. The stream as a whole has a low gradient (i.e., minimal elevation change from one end to the other) and is surrounded by relatively flat terrain characteristic of the valley floor. The original stream banks have been greatly altered by human activity, and channel banks are steep and engineered for flood conveyance. Water levels vary throughout the year, but water is often present throughout the year. There is little native riparian vegetation along much of this stream. There are pockets of native vegetation (primarily willow), but most areas lack both the overstory (tree) and herbaceous components of a healthy riparian plant community. Channel banks are typically dominated by invasive species such as reed canarygrass or Armenian blackberry. The segment of the A-1 Channel between Prairie Road and Kelso has been cleared of riparian vegetation. However, this segment provides an important connector between approximately 1 mile of riparian habitat to the south and approximately 2 miles of habitat to the north.

Despite the relatively lower quality of the riparian plant community, the site has relatively high natural resource value due to the presence of wetlands and its high connectivity value. Wetlands (RSC-2A, RSC-2B) occur within the A-1 Channel along the entire length of the site. Within the Eugene UGB, this stream corridor and wetlands within the corridor comprise a habitat complex over 3.5 miles long, which ultimately connects to extensive wildlife habitat areas along the Long Tom River. In addition, this system provides a link between nearly 5 miles of habitat in the Flat Creek system east of Northwest Expressway and the extensive Amazon Creek system to the west.

(2) E60 C southwest (at Kelso/Carol/Cecil); RSC-18:

This riparian corridor (E60C) is a small tributary to the A-1 Channel, in the vicinity of Kelso Street, Carol Avenue, and Cecil Avenue, and is approximately 2100 feet long. It has a much different character than the main stem of the A-1 Channel described above. Here the channel is much narrower, or consists of a wide drainage swale with no well-defined channel. Most of this segment has no native riparian vegetation, and is dominated by invasive reed canarygrass or mowed or grazed pasture. What little habitat remains is located in the wetland area south of Carol Avenue (RSC-18), which is a remnant of a former log pond. The wetland area is considered a Locally Significant Wetland in the state-adopted Eugene Local Wetland Inventory. Most of the wetland is located within the drainage channel, with a small area of willows and other wetland vegetation (approximately 1/3-acre) extending beyond the channel. While this wetland has some habitat value, most of it is located within channel, and so does not provide a significant additional area of habitat. Also, as this portion of the riparian corridor is highly disturbed, there is very little habitat remaining to link this wetland fragment to the rest of the A-1 Channel habitat complex. For these reasons, this southwest segment of E60 and RSC-18 has relatively lower habitat value than habitat along the main stem of the A-1 Channel.

(3) Highway 99/Prairie Road Wetlands RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC- 27:

The wetlands in this analysis group are not associated with any Goal 5 riparian or upland stream corridors (i.e., they are located entirely or almost entirely outside of stream channels). These wetlands occur within old agricultural fields, with minimal native wetland vegetation, except for site RSC-8, which has some areas with native sedge. However, site RSC-8 is isolated and relatively small (less than 1 acre). Based on these characteristics, the wetland sites in this group have relatively low habitat value. Wetland RSC-1 consists of approximately 111 acres of agricultural wetlands that are now part of the cottonwood plantation owned and operated by the Metro Wastewater treatment facility.

Most of the stream corridors and wetlands in this analysis group are located outside of Eugene city limits, within the UGB. Land uses and zoning within this analysis group are primarily industrial, with one or two pockets of low-density residential zoning. Along NW Expressway and the Beltline, approximately half of Site E60B and RSC-2B are zoned Residential, while portions outside of city limits are zoned Agricultural. Land uses here are primarily low-density residential. Site E60 at the Highway 99 industrial corridor and RSC-2A are primarily industrial. Sites E60C and RSC-18 at Kelso/Cleo/Carol/Cecil streets are zoned Residential, but contain both low-density residential and industrial uses. All of the wetland sites not associated with a riparian corridor (i.e. do not significantly overlap a riparian site) (RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27) are zoned Industrial. Within this analysis group there are a few parcels with public facilities uses (e.g. EWEB substation, wastewater treatment plant property) and institutions (e.g. Eagles Lodge).

7.2 Impact Area

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 7.2 below lists the impact areas assigned to these Goal 5 sites.

Table 7.2 Impact Area Summary: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
E60 at Highway 99 industrial triangle & E60 at NW Expressway:			
E60 A	A-1 Channel (Highway 99)		Type D - 25' + mapped riparian vegetation
RSC-2A	A-1 Channel wetland		Type D - 25'
E60 B	A-1 Channel (NW Expressway)		Type D - 25' + mapped riparian vegetation
RSC-2B	A-1 Channel wetland		Type D - 25'
E60 southwest (at Kelso/Carol/Cecil):			
E60 C	A-1 Channel (southwest)		Type D - 25' + mapped riparian vegetation
RSC-18	A-1 Channel wetland		Type D - 25'
Hwy 99/Prairie Road Wetlands:			
RSC-1	Prairie Rd/Hwy 99		Type D - 25'
RSC-5	Prairie Rd/Hwy 99		Type D - 25'
RSC-6	Prairie Rd/Hwy 99		Type D - 25'
RSC-8	Prairie Rd/Hwy 99		Type D - 25'
RSC-9	Prairie Rd/Hwy 99		Type D - 25'
RSC-10	Prairie Rd/Hwy 99		Type D - 25'
RSC-12	Prairie Rd/Hwy 99		Type D - 25'
RSC-15	Prairie Rd/Hwy 99		Type D - 25'
RSC-16	Prairie Rd/Hwy 99		Type D - 25'
RSC-17	Prairie Rd/Hwy 99		Type D - 25'
RSC-26	Prairie Rd/Hwy 99		Type D - 25'
RSC-27	Prairie Rd/Hwy 99		Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

7.3 Conflicting uses

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Industrial (I) with some Low Density Residential (LDR). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential and Agricultural uses are determined to be conflicting uses for riparian corridors and wetlands. Table 7.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 7.3 Zoning within Impact Areas: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
E60 at Highway 99 industrial triangle & E60 at NW Expressway:				
E60 A	A-1 Channel (Highway 99)	I	LDR	Private, public
RSC-2A	A-1 Channel wetland	I	LDR	Private, public
E60 B	A-1 Channel (NW Expressway)	LDR	AG	Public, private
RSC-2B	A-1 Channel wetland	LDR	AG	Public, private
E60 southwest (at Kelso/Carol/Cecil):				
E60 C	A-1 Channel (southwest)	I/LDR	---	Private
RSC-18	A-1 Channel wetland	I/LDR	---	Private
Hwy 99/Prairie Road Wetlands:				
RSC-1	Prairie Rd/Hwy 99	I	---	Public
RSC-5	Prairie Rd/Hwy 99	I	---	Private
RSC-6	Prairie Rd/Hwy 99	I	---	Private
RSC-8	Prairie Rd/Hwy 99	I	---	Private
RSC-9	Prairie Rd/Hwy 99	I	---	Private
RSC-10	Prairie Rd/Hwy 99	I	---	Private
RSC-12	Prairie Rd/Hwy 99	I	---	Private
RSC-15	Prairie Rd/Hwy 99	I	---	Private
RSC-16	Prairie Rd/Hwy 99	I	---	Private
RSC-17	Prairie Rd/Hwy 99	I	---	Private, public
RSC-26	Prairie Rd/Hwy 99	I	---	Private
RSC-27	Prairie Rd/Hwy 99	I	---	Public (R.O.W)

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

7.4 ESEE Consequences Analysis

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 7.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

7.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 7.4.1 below. Some of these characteristics are further discussed below and in Section 7.1, Site Descriptions.

Table 7.4.1 Key resource characteristics: A-1 Channel and Highway 99/Prairie Road Wetlands (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E60 at Highway 99 industrial triangle & E60 at NW Expressway:												
E60 A	A-1 Channel (Highway 99)	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
RSC-2A	A-1 Channel wetland	NO	NO	HI	LO-MED	YES	SOME	DEGR	DEGR	INTACT	NO	NO
E60 B	A-1 Channel (NW Expressway)	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
RSC-2B	A-1 Channel wetland	NO	NO	HI	LO-MED	YES	SOME	DEGR	DEGR	INTACT	NO	NO
E60 southwest (at Kelso/Carol/Cecil):												
E60 C	A-1 Channel (southwest)	NO	NO	LO	LO	YES	---	---	---	---	NO	NO
RSC-18	A-1 Channel wetland	NO	NO	LO	MED	YES	SOME	DEGR	INTACT	DEGR	NO	NO
Hwy 99/Prairie Road Wetlands:												
RSC-1	Prairie Rd/Hwy 99	NO	NO	MED	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
RSC-5	Prairie Rd/Hwy 99	NO	NO	LO	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
RSC-6	Prairie Rd/Hwy 99	NO	NO	LO	MED	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-8	Prairie Rd/Hwy 99	NO	NO	LO	MED	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-9	Prairie Rd/Hwy 99	NO	NO	LO	LO	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-10	Prairie Rd/Hwy 99	NO	NO	MED	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
RSC-12	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	INTACT	NO	NO
RSC-15	Prairie Rd/Hwy 99	NO	NO	LO	LO	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-16	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	DEGR	NO	NO
RSC-17	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
RSC-26	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	INTACT	NO	NO
RSC-27	Prairie Rd/Hwy 99	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	DEGR	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

7.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 7.4.2 below list the paragraph number of applicable ESEE consequences.

Table 7.4.2 Summary of ESEE Consequences: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E60 at Highway 99 Industrial triangle & E60 at NW Expressway:				
	FULLY ALLOWING CONFLICTING USES			
E60A A-1 Channel at Hwy 99 E60B A-1 Channel at NWExp RSC-2A A-1 Channel wetland RSC-2B A-1 Channel wetland	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
Note: References to higher quality sites apply.	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E60 southwest (at Kelso/Carol/Cecil):				
	FULLY ALLOWING CONFLICTING USES			
E60C A-1 Channel southwest RSC-18 A-1 Channel wetland	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
Highway 99/Prairie Road Wetlands:				
	FULLY ALLOWING CONFLICTING USES			
RSC-1 RSC-5 RSC-6 RSC-8, RSC-9 RSC-10 RSC-12 RSC-15 RSC-16 RSC-17 RSC-26 RSC-27	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

7.5 ESEE Conclusions and Recommendations

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

7.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) E60 at Highway 99 industrial triangle (north & west of Kelso St.); RSC-2A; E60 at NW Expressway; RSC 2B:

Limiting conflicting uses recommended. As indicated by key resource characteristics, Site E60A at Highway 99 industrial triangle, E60B at NW Expressway, and their associated wetlands, Sites RSC-2A and RSC-2B, fall in the range of *medium- to higher-quality* sites. Although these sites generally have lower quality riparian plant communities and modified stream banks, the sites have high connectivity, making them valuable wildlife corridors. Based on these resource characteristics and on the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The regional significance of this group of sites as a habitat connecting corridor between the Flat Creek system and the Amazon Creek system, make the resource more important than the conflicting uses that would be allowed within this narrow corridor. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweigh the negative economic consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) E60 southwest (at Kelso/Carol/Cecil) and RSC-18:

Fully allowing conflicting uses recommended. Sites E60 southwest (E60C) (at Kelso/Carol/Cecil) and its associated wetland, RSC-18, are *lower-quality sites*, where riparian vegetation is sparse or non-existent, and relatively little habitat value is present. This corridor is primarily a drainage swale with no well-defined channel in most areas. Based on these key resource characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively *lower quality* sites,

conflicting uses are more important than the resource values. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(3) Highway 99/Prairie Road Wetlands RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27:

Fully allowing conflicting uses recommended. Other wetlands in the Highway 99/Prairie Road area (RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27) are not connected stream corridors, but are either agriculturally disturbed wetlands or small, isolated wetlands. As such, they provide few habitat functions other than flood storage. As indicated by these resource characteristics, these are relatively *lower quality* sites that are not as important as the conflicting uses that would be allowed there. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively lower quality sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

7.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 7.5.2 below and Map 7.B summarize the recommendations for these sites.

(1) E60 at Highway 99 industrial triangle (north & west of Kelso St.); RSC-2A; E60 at NW Expressway; RSC-2B:

Conservation setback of 20/25 feet recommended. As discussed above, these portions of the A-1 Channel and their associated wetlands (E60A, E60B, RSC-2A, RSC-2B) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. These recommendations are based on the ESEE analysis above and these factors: (1) these are *medium- to higher-quality* sites, (2) the sites have high connectivity value, making them important wildlife corridors. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(2) E60 southwest (at Kelso/Carol/Cecil); RSC-18:

No protection measures are recommended for these sites (E60C, RSC-18), as discussed in the analysis above.

(3) Highway 99/Prairie Road Wetlands RSC-1, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-26 and RSC-27:

No protection measures are recommended for these sites, as discussed in the analysis above.

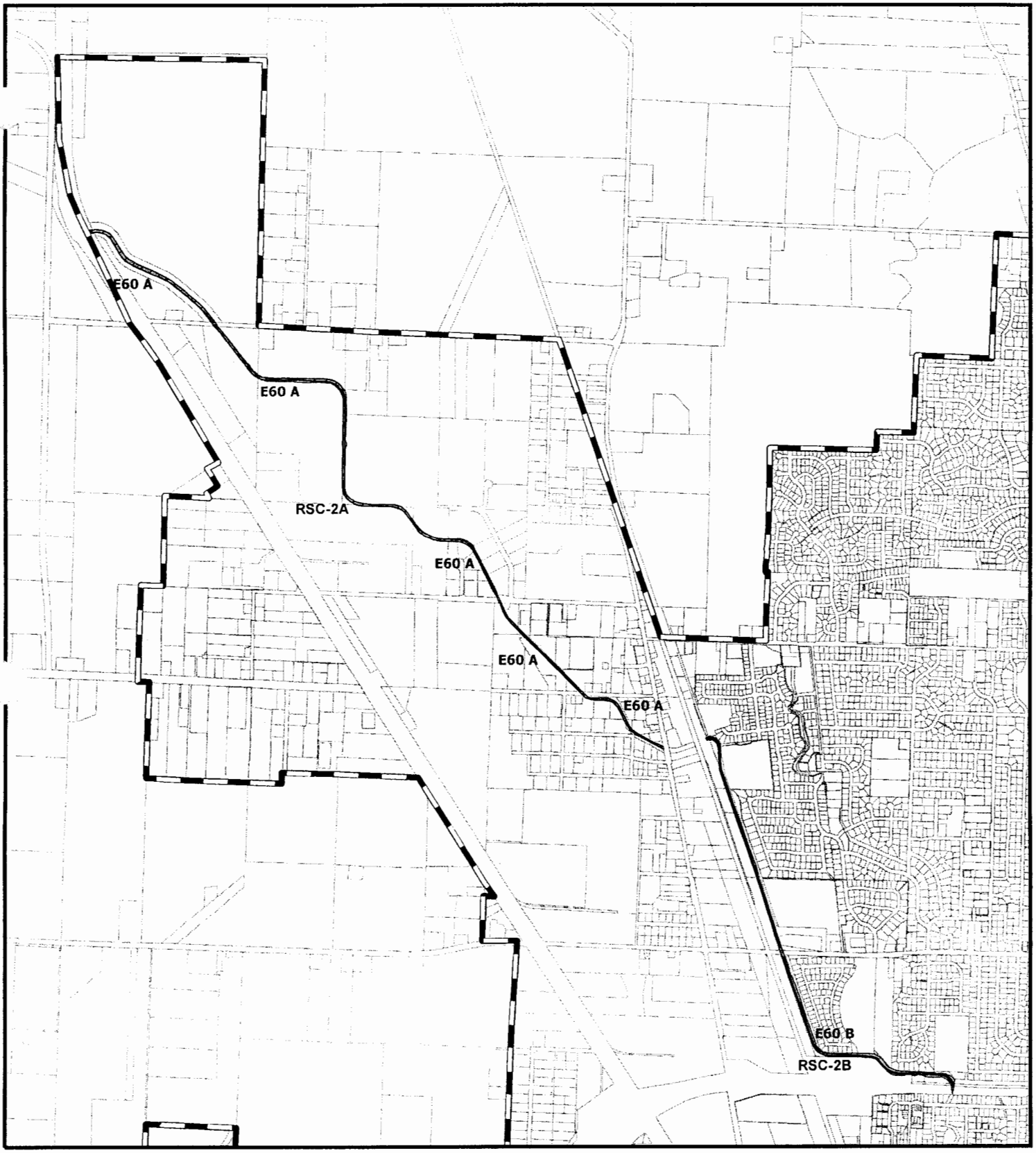
Table 7.5.2 Recommendations summary: A-1 Channel and Highway 99/Prairie Road Wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	City Limits***
E60 at Highway 99 industrial triangle & E60 at NW Expressway:						
E60A	A-1 Channel (Highway 99)	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private, public	1/5
RSC-2A	A-1 Channel wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private, public	1/5
E60B	A-1 Channel (NW Expressway)	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public, private	None
RSC-2B	A-1 Channel wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public, private	None
E60 southwest (at Kelso/Carol/Cecil):						
E60C	A-1 Channel (southwest)	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-18	A-1 Channel	Fully allow conflicting uses	n/a	n/a	Private	None
Highway 99/Prairie Road Wetlands:						
RSC-1	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Public	None
RSC-5	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-6	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-8	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-9	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-10	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-12	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-15	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-16	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-17	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private, public	None
RSC-26	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Private	None
RSC-27	Prairie Rd/Hwy 99	Fully allow conflicting uses	n/a	n/a	Public (R.O.W)	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Eugene Goal 5 ESEE Analysis Group 7
Goal 5 Protection Designations for A-1 Channel & Highway 99/Prairie Road Wetlands

Map 7B

Eugene Urban Growth Boundary
Eugene City Limits
Taxlots
Wetland Designated for Protection
Riparian Corridor Designated for Protection
Upland Wildlife Habitat Designated for Protection

N

Feet
0 520 1,040 1,560

4/22/05

7.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E60 (A-1 Channel); and RSC-1, RSC-2, RSC-5, RSC-6, RSC-8, RSC-9, RSC-10, RSC-12, RSC-15, RSC-16, RSC-17, RSC-18, RSC-26 and RSC-27 (Highway 99/Prairie Road Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

8. Supplemental Analysis

Bethel-Danebo Area Riparian Corridors (Taney Waterway, Empire Pond, DeSoto Lake, Highway 99/McDougal Pond, Beltline Channel); and Bethel-Danebo Wetlands

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

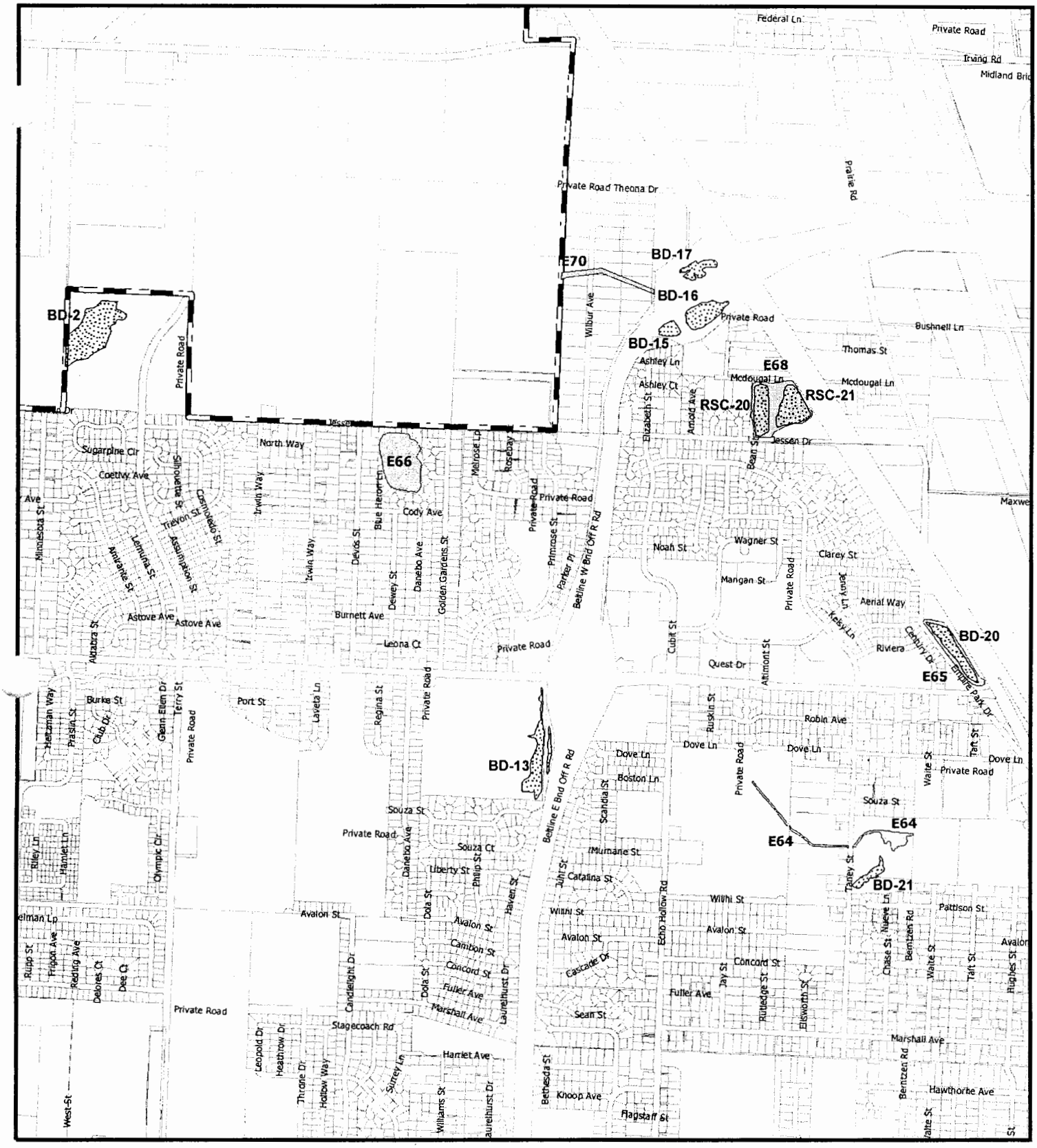
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 8.1 below lists the sites in this analysis group, their resource category and acreage. Map 8.A below shows the site(s) described in this analysis group.

Table 8.1 ESEE analysis group: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Site Acres	Inside City Limits**
Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):				
E64	Taney Waterway	R	1.69	All
BD-21	Taney Waterway wetland	W	0.73	All
E70	Beltline/A-2 Channel	R	1.24	None
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:				
E65	Empire Pond	R	3.13	All
BD-20	Empire Pond wetland	W	1.84	All
E66	DeSoto Lake/Mallard Lake	R	5.30	All
E68	Highway 99/McDougal Pond	R	6.68	None
RSC-20	Highway 99/McDougal Pond wetland	W	1.86	None
RSC-21	Highway 99/McDougal Pond wetland	W	2.38	None
BD-2; BD-13; BD-15; BD-16; BD-17 (Bethel-Danebo Wetlands):				
BD-2	Bethel-Danebo wetland at Terry	W	5.35	All
BD-13	Bethel-Danebo wetland at Beltline	W	2.66	All
BD-15	Bethel-Danebo wetland at Beltline	W	0.63	None
BD-16	Bethel-Danebo wetland at Beltline	W	1.97	None
BD-17	Bethel-Danebo wetland at Beltline	W	1.01	None

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 8

Map 8A

Significant Goal 5 Site Boundaries for Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 330 660 990

4/22/05

8.1 Site Description(s)

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

These sites are scattered throughout the Bethel Danebo area west of Highway 99. This area is characterized by former agricultural lands and hydric soils, and a number of Locally Significant Wetlands occur in the area.

(1) Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):

Two stream corridors in this analysis group (E64/Taney Waterway with adjacent wetland BD-21, and E70/Beltline/A-2 Channel), are remnants of channels that used to flow through undeveloped agricultural land. Over the years, major portions of these streams have been piped and filled to accommodate residential subdivisions or, in the case of E70, altered to facilitate to highway construction. As a result, these sites are disconnected from other habitat systems. Taney Waterway is a four-foot wide, steep-sided ditch surrounded by residential development, a school, and a church. Water quality within the waterway appears to be greatly influenced by maintenance of the adjacent school fields. There is little native riparian vegetation in the channel; vegetation consists primarily of the non-native, invasive species reed canarygrass. Site E70, located at the juncture of the Beltline Highway and Highway 99, is the only portion of the Beltline/A-2 Channel in the adopted Goal 5 Inventory. It is a short segment of the longer Beltline Floodway (the constructed drainage for the highway), which runs north along the Beltline Highway up to Highway 99, joins the A-2 Channel, and then flows west to the urban growth boundary. This segment contains virtually no riparian vegetation, and is essentially a grassy swale that accommodates seasonal flow.

(2) E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:

Two of the sites in the analysis group are ponds in old borrow pits (E66 and E68). Site E66 (known as DeSoto Lake, Mallard Lake, or Golden Gardens Pond) is located in northwest Eugene next to the UGB. A community of single family homes surrounds the pond, and it has recieved heavy recreational use (fishing and bicycling). With the exception of an occasional native willow or black cottonwood, the entire pond perimeter has been cleared of riparian vegetation. Despite the lack of riparian vegetation, the pond is heavily used by wintering waterfowl and some wading birds, particularly due to a small island within the pond that provides refuge from predators and humans. Site E68, McDougal Pond, is located next to Highway 99 near Beltline Road. It is owned by the Oregon Department of Fish and Wildlife and is used by neighbors as a neighborhood park. The site includes two ponds and the wooded area between them. The two ponds are also mapped as wetland sites RSC-20 and RSC-21. The riparian area here has high structural (trees/shrubs/groundcover layers) diversity and species diversity, and includes willow, black cottonwood, big-leaf maple, and Oregon ash. The open water and adjacent vegetation in this site provide valuable habitat for waterfowl, wading birds, heron (great blue, green) and songbird

species. The third pond in this group (E65 Empire Pond) is located next to Highway 99 at Barger Drive. The pond is also mapped as wetland BD-20. The site is surrounded by residential development on the west and Highway 99 on the east. There is a fringe of riparian vegetation, including primarily willow and a variety of non-native grass species. The pond provides a habitat for wintering waterfowl.

(3) BD-2, BD-13, BD-15, BD-16, BD-17 (Bethel-Danebo Wetlands):

These locally significant wetland sites are located in the Bethel-Danebo area in west Eugene between Highway 99 and Greenhill Road. Site BD-2 is a 5.3-acre forested wetland located west of Terry Street adjacent to the UGB, within a fully developed residential subdivision. Four wetlands are located along the Beltline Highway (BD-13, BD-15, BD-16 and BD-17). Sites BD-15, BD-16 and BD-17 were likely created by water impoundments associated with the construction of the highway ramps. BD-13 is located mostly on the Shasta Middle School grounds, and partly in Beltline Highway right-of-way. These wetlands are not associated with any Goal 5 stream corridors (i.e., they are located entirely or almost entirely outside of stream channels), and are isolated from other habitat areas. There use by wildlife is limited by, their isolation, surrounding land uses and their proximity to a major highway.

Land uses within these sites are primarily single family residential, with most other uses being public (schools), followed by public right-of-way. Taney Waterway, for example, runs through a school site zoned as Low Density Residential; Highway 99/McDougal Pond is located on a site zoned Public Land and owned by ODFW; Empire Pond is located on State Department of Transportation land zoned as Public Land.

8.2 Impact Area

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 8.2 below lists the impact areas assigned to these Goal 5 sites.

Table 8.2 Impact Area Summary: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):			
E64	Taney Waterway		Type D - 25' + mapped riparian vegetation
BD-21	Taney Waterway wetland		Type D - 25'
E70	Beltline/A-2 Channel		Type D - 25' + mapped riparian vegetation
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:			
E65	Empire Pond		Type D - 25' + mapped riparian vegetation
BD-20	Empire Pond wetland		Type D - 25'
E66	DeSoto Lake/Mallard Lake		Type D - 25' + mapped riparian vegetation
E68	Highway 99/McDougal Pond		Type D - 25' + mapped riparian vegetation
RSC-20	Highway 99/McDougal Pond wetland		Type D - 25'
RSC-21	Highway 99/McDougal Pond wetland		Type D - 25'
BD-2, BD-13, BD-15, BD-16, BD-17:			
BD-2	Bethel-Danebo wetland at Terry		Type D - 25'
BD-13	Bethel-Danebo wetland at Beltline		Type D - 25'
BD-15	Bethel-Danebo wetland at Beltline		Type D - 25'
BD-16	Bethel-Danebo wetland at Beltline		Type D - 25'
BD-17	Bethel-Danebo wetland at Beltline		Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

8.3 Conflicting uses

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Public Land (PL), with some Industrial (I) zoning (although land uses are primarily

residential, schools, and public right-of-way). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land and Industrial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 8.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 8.3 Zoning within Impact Areas: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel)				
E64	Taney Waterway	PL, LDR	—	Public, private
BD-21	Taney Waterway wetland	LDR	—	Private
E70	Beltline/A-2 Channel	LDR	—	Private, public (R.O.W.)
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21				
E65	Empire Pond	PL	—	Public
BD-20	Empire Pond wetland	PL	—	Public
E66	DeSoto Lake/Mallard Lake	LDR	—	Private
E68	Highway 99/McDougal Pond	PL	LDR	Public
RSC-20	Highway 99/McDougal Pond wetland	PL	LDR	Public
RSC-21	Highway 99/McDougal Pond wetland	PL	LDR	Public
BD-2, BD-13, BD-15, BD-16, BD-17				
BD-2	Bethel-Danebo wetland at Terry	LDR	—	Private, public
BD-13	Bethel-Danebo wetland at Beltline	PL	LDR	Public (R.O.W.)
BD-15	Bethel-Danebo wetland at Beltline	I	—	Public (R.O.W.)
BD-16	Bethel-Danebo wetland at Beltline	I	—	Public (R.O.W.)
BD-17	Bethel-Danebo wetland at Beltline	I	—	Public (R.O.W.)

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first

8.4 ESEE Consequences Analysis

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 8.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

8.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 8.4.1 below. Some of these characteristics are further discussed below and in Section 8.1, Site Descriptions.

Table 8.4.1 Key resource characteristics: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands
(See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):												
E64	Taney Waterway	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
BD-21	Taney Waterway wetland	NO	NO	LO	N/A	NO	SOME	N/A	DEGR	INTACT	NO	NO
E70	Beltline/A-2 Channel	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:												
E65	Empire Pond	NO	NO	LO	MED	YES	---	---	---	---	HI	NO
BD-20	Empire Pond wetland	NO	NO	LO	MED	YES	SOME	DEGR	DEGR	INTACT	HI	NO
E66	DeSoto Lake/Mallard Lake	NO	NO	LO	LO	NO	---	---	---	---	HI	NO
E68	Highway 99/McDougal Pond	NO	NO	LO	HI	YES	---	---	---	---	HI	NO
RSC-20	Highway 99/McDougal Pond wetland	NO	NO	LO	N/A	YES	SOME	DEGR	DEGR	INTACT	HI	NO
RSC-21	Highway 99/McDougal Pond wetland	NO	NO	LO	N/A	YES	SOME	DEGR	DEGR	INTACT	HI	NO
BD-2, BD-13, BD-15, BD-16, BD-17:												
BD-2	Bethel-Danebo wetland at Terry	NO	NO	LO	N/A	YES	SOME	NOT PRE-SENT	DEGR	INTACT	NO	NO
BD-13	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	INTACT	NO	NO
BD-15	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
BD-16	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO
BD-17	Bethel-Danebo wetland at Beltline	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

8.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 8.4.2 below list the paragraph number of applicable ESEE consequences.

Table 8.4.2 Summary of ESEE Consequences: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):				
	FULLY ALLOWING CONFLICTING USES			
E64 Taney Waterway	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
BD-21 Taney Waterway wetland E70 Beltline/A-2 Channel	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
Note: References to lower quality sites apply.	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21;				
E65 Empire Pond BD-20 Empire Pond wetland E66 DeSoto Lake/Mallard Lake E68 Highway 99/McDougal Pond RSC-20 Highway 99/McDougal Pond wetland RSC-21 Highway 99/McDougal Pond wetland *Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
BD-2; BD-13; BD-15; BD-16; BD-17;				
B-2 Bethel-Danebo wetland at Terry BD-13 Bethel-Danebo wetland at Beltline BD-15 Bethel-Danebo wetland at Beltline BD-16 Bethel-Danebo wetland at Beltline BD-17 Bethel-Danebo wetland at Beltline *Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

8.5 ESEE Conclusions and Recommendations

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

8.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in **Section 5**, Conclusions and Recommendations.

(1) Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):

Fully allowing conflicting uses recommended. Based on key resource characteristics, these two stream corridors and wetland are relatively *lower quality* sites. The sites have little or no riparian vegetation, and are relatively isolated from other habitats. Based on these characteristics, and the ESEE analysis discussed above, fully allowing conflicting uses is recommended for these sites. The importance of conflicting uses that would be allowed within the impact areas is greater than the resource value of these sites. For these sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(2) E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:

Limiting conflicting uses recommended. Based on key resource characteristics, these ponds and their associated wetlands are *medium- to higher-quality* sites. Empire Pond (E65) and McDougal Pond (E68) have relatively intact, high quality riparian plant communities. In addition, they provide open water habitat for waterfowl and shorebirds. Mallard Lake (E66), by comparison, has very little riparian vegetation, but provides valuable open water and island habitat. Based on these resource characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The resources in these sites are more important to the broader community than the conflicting uses that would be allowed within the impact area. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource.

Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) BD-2, BD-13, BD-15, BD-16, BD-17 (Bethel-Danebo Wetlands):

Fully allowing conflicting uses recommended. Based on key resource characteristics, these wetland sites are **lower-quality** sites, with relatively low value wetland functions, and relatively little habitat value. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these sites, the conflicting uses that would be allowed within the impact area are more important than the lower value resource. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

8.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 8.5.2 below and Map 8.B summarize the recommendations for these sites.

(1) Sites E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):

No protection measures are recommended for these sites (E64, BD-21, E70), as discussed in the analysis above.

(2) E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:

Conservation setback of 20/25 feet recommended. As discussed above, these ponds and their associated wetlands (E65, BD-20, E66, E68, RSC-20, RSC-21) are *higher quality* sites and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. These recommendations are based on the ESEE analysis above and these factors: (1) the sites have relatively intact, high quality riparian plant communities, (2) they provide open water habitat for waterfowl and wading birds. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of

riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(3) BD-2, BD-13, BD-15, BD-16, BD-17 (Bethel-Danebo Wetlands):

No protection measures are recommended for these sites (BD-2, BD-13, BD-15, BD-16, BD-17), as discussed in the analysis above.

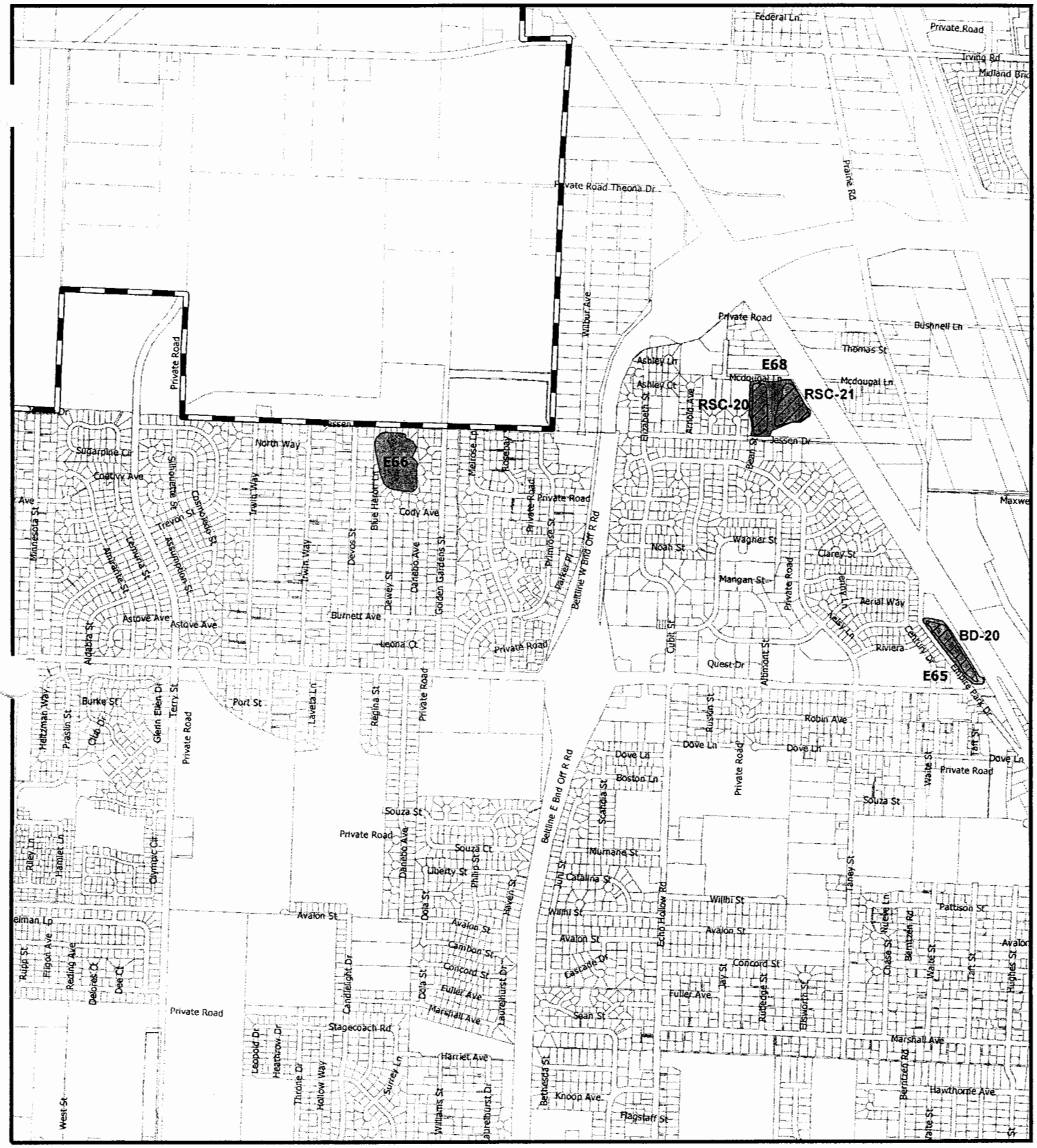
Table 8.5.2 Recommendations summary: Bethel-Danebo Area Riparian Corridors and Bethel-Danebo Wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
E64 (Taney Waterway); BD-21; and E70 (Beltline/A-2 Channel):						
E64	Taney Waterway	Fully allow conflicting uses	n/a	n/a	Public/private	All
BD-21	Taney Waterway wetland	Fully allow conflicting uses	n/a	n/a	Private	All
E70	Beltline/A-2 Channel	Fully allow conflicting uses	n/a	n/a	Private	None
E65 (Empire Pond); BD-20; E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); RSC-20; RSC-21:						
E65	Empire Pond	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	All
BD-20	Empire Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
E66	DeSoto Lake/Mallard Lake	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private	All
E68	Highway 99/McDougal Pond	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	None
RSC-20	Highway 99/McDougal Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	None
RSC-21	Highway 99/McDougal Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	None
BD-2, BD-13, BD-15, BD-16, BD-17:						
BD-2	Bethel-Danebo wetland at Terry	Fully allow conflicting uses	n/a	n/a	Private/public	All
BD-13	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	All
BD-15	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	None
BD-16	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	None
BD-17	Bethel-Danebo wetland at Beltline	Fully allow conflicting uses	n/a	n/a	Public	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 8

Goal 5 Protection Designations for Bethel-Danebo Area
Riparian Corridors and Bethel-Danebo Wetlands

Map 8B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 330 660 990 Feet

4/22/05

8.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E64 (Taney Waterway); E65 (Empire Pond); E66 (DeSoto Lake/Mallard Lake); E68 (Highway 99/McDougal Pond); E70 (Beltline/A-2 Channel); BD-20 (Empire Pond wetland); BD-21 (Taney Waterway wetland); RSC-20, RSC-21 (Highway 99/McDougal wetland); BD-2, BD-13, BD-15, BD-16 and BD-17, (Bethel-Danebo Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

14. Supplemental Analysis

North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

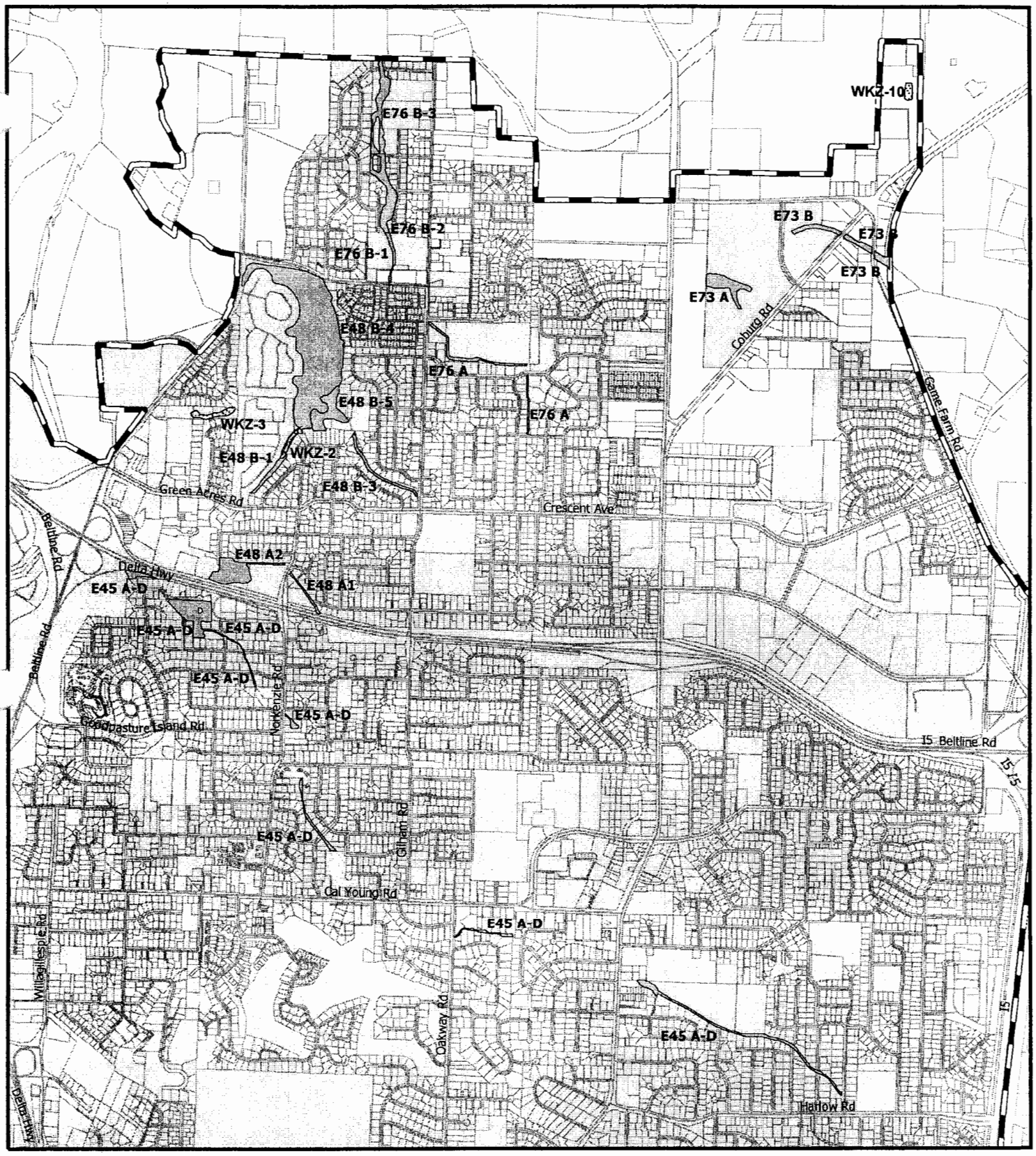
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 14.1 below lists the sites in this analysis group, their resource category and acreage. Map 14.A below shows the site(s) described in this analysis group.

Table 14.1 ESEE analysis group: North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
North Gilham:				
E76 A	North Gilham at Honeywood Elementary	R	1.73	All
E76 B-1	North Gilham at Ayres Road	R	0.56	3/4
E76 B-2	North Gilham at Sterling Woods	R	3.40	All
E76 B-3	North Gilham at Mirror Pond	R	3.20	All
Ayres Pond/Dodson Slough:				
E48B-1	Dodson Slough west	R	1.59	All
E48B-3	Dodson Slough east	R	1.05	All
E48B-4	Ayres Pond	R	29.20	All
E48B-5	Ayres Pond upland	R	3.21	All
WKZ-2	Ayres Pond wetland	W	0.48	All
WKZ-3	Green Acres wetland	W	1.00	All
Beltline Drainage Channel; Ascot Park:				
E48A	Beltline Drainage Channel	R	4.28	All
E45 A-D	Ascot Park	R	3.98	All
County Farm Road:				
E73 A	County Farm Road at Fox Meadow	R	2.51	All
E73 B	County Farm Road at Game Farm	R	2.26	1/3
WKZ-10	County Farm wetland at Game Farm	W	0.55	None

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits.



Site Boundaries

Significant Goal 5 ESEE Analysis Group 14

Map 14A

Significant Goal 5 Site Boundaries for North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road and Willakenzie Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 540 1,080 1,620

4/25/05

14.1 Site Description(s)

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

The sites in this analysis group are located in the Willakenzie Area, west of Delta Highway, and north of I-105 and the Beltline Highway. These riparian and wetland sites are located in areas of established residential subdivisions, with primarily low density residential zoning.

(1) North Gilham:

The North Gilham stream corridor is comprised of two separate stream corridors. The first corridor (E76A) starts at approximately Bonnie View Drive, continues north to Lakeview Drive and Gilham Park, then flows along the south side of the Honeywood Elementary School property out to Gilham Road. This corridor is highly modified and heavily disturbed. It is a very narrow corridor, with little vegetation. From Bonnie View to the school, corridor vegetation is primarily non-native or ornamental landscaping plants. A section at Lakeview Street has been filled. The portion of the corridor that crosses the school property contains primarily of reed canarygrass. The northern portion of the site (E76B) contains more of the original riparian vegetation. At Ayres Road (E76B-1), the channel has a overstory of primarily native trees, but only a short distance further, where the channel crosses an open field, it contains virtually no riparian trees or shrubs, and reed canarygrass is the dominant plant. At Sterling Woods Drive, the riparian habitat is much more intact (E76B-2, B-3). There is a relatively densely vegetated riparian corridor dominated by primarily native species, such as Oregon ash and willow. Part of this site runs through City-owned Creekside Park. At its northern end, the site abuts an extensive area of sand and gravel mining that leads to the McKenzie River. A human-made berm at this point appears to prevent any direct, surface water connection to the Willamette or McKenzie rivers. In the inventory adopted in 1993, site E76 included a large, intermittent pond at Mirror Pond Way/Riverpointe. However, under remand by the Land Conservation and Development Commission, the eastern portion of this intermittent pond was of this site is required to be removed from the Inventory.

(2) Ayres Pond/Dodson Slough:

The Ayres Pond/Dodson Slough site (E48B) consists of a large pond, "Ayres Pond," plus two short waterways that enter into it. The complex is located north of the Beltline Bridge in the Willakenzie neighborhood. The pond (E48B-4) is a former borrow pit that has become part of the Dodson Slough system. Dodson Slough (E48B-1) starts near Green Acres Road and flows northwest into Ayres Pond, which connects at its north end to the Willamette River. At the south end of the pond, a portion of this original slough was diverted into an east-west channel that was constructed in the 1970s a part of the North Beltline Floodway system, which runs from I-5 west along the Beltline Highway, to Ayres Pond. (This human-made channel does not meet the OAR definition of a riparian corridor.) A second waterway in this system (E48B-3) starts at Green Acres Road and flows northeast into Ayres Pond. Both of these waterways have relatively intact riparian corridors dominated by native species mixed with Armenian blackberry, and a predominately native overstory of Oregon ash, black cottonwood, and big-leaf

maple. The western slough (E48B-1) and Ayres Pond itself (E48B-4) are identified by ODFW as fish-bearing. The eastern slough (E76B-3) is not documented to contain fish; however, it contains a relatively intact riparian plant community. The remainder of the site has almost no native riparian vegetation; pond banks are dominated by reed canarygrass, English ivy or residential landscaping. However, the pond is heavily used by waterfowl and other birds (e.g., swallows). There is an upland forest at the southeast end of the pond (E48B-5) which is not functionally part of the riparian corridor. It contains native tree species, but does not contain riparian species, and is separated from the pond by its higher elevation. Wetland site WKZ-2 is a locally significant wetland located within the western slough that drains into the pond. This wetland area provides important habitat for fish. The Ayres Pond/Dodson Slough complex as a whole provides habitat for birds, mammals, and reptiles, and aquatic animals (e.g., fish, amphibians, macroinvertebrates).

Wetland site WKZ-3 is located to the west of Ayres Pond, but is not directly connected to any riparian corridor. It is located north of Green Acres Road between two residential subdivisions. The 1 acre wetland is within land owned by the City of Eugene.

(3) **Beltline Drainage Channel:**

The Beltline Drainage Channel (E48A) originates north of Beltline Road and just east of Norkenzie Road. It is a relatively short, 1800-foot long channel that may once have been connected to the Delta Ponds, but now ends behind the WalMart at the Delta Oaks shopping center. The eastern portion of the site (near Elanco) is a narrow, steep-banked channel. Armenian (Himalayan) blackberry is dominant in the understory; however, there is a primarily native tree overstory, including Oregon ash, big-leaf maple and black cottonwood. The western half of the site has virtually no riparian vegetation. At Elanco, the channel is a mowed grassy swale; it enters a grove of oaks on undeveloped church property, and becomes a narrow, blackberry-filled channel with little riparian vegetation. The presence of upland species and the fragmented character of the site indicate that there may no longer be the hydrology present to sustain riparian functions.

(4) **Ascot Park:** The Ascot Park site (E45) consists of several unconnected sections of old stream beds and ditches that run through residential subdivisions in the Cal Young neighborhood. It starts near Harlow Road and continues northwesterly to the Beltline Highway. The water level varies seasonally. The channels that make up the site tend to be steep-banked and narrow. Non-native plants, including Himalayan blackberry and reed canarygrass, are the dominant understory vegetation. In most sections, there is little riparian vegetation. The section at Monroe Middle School and Ascot Park is one of the few segments which there is a relatively continuous tree canopy; here it is mostly ornamental species with some native species. From Goodpasture Island Road up to near Beltline Road, the site is a relatively intact, narrow riparian corridor dominated by native species, such as Oregon ash, black cottonwood, and big-leaf maple and willow. These disconnected segments provide some habitat value as isolated patches of habitat that are relatively near to each other, but overall the site is only marginally functional as a riparian habitat corridor.

(5) **County Farm Road:**
This site is comprised of two short riparian segments that once formed a much longer waterway that flowing through agricultural land toward the McKenzie River. Water is

seasonal. The western segment (E73A), located on the south side of the First Baptist Church property, is an isolated patch of riparian forest, with a large component of native species, including a relatively intact overstory of Oregon ash trees. The eastern segment (E73B) retains some of the character of a riparian corridor, with a defined, wooded channel that extends from the First Baptist property west of Coburg Road, past the UGB at Game Farm Road, and into the county. The corridor has a fairly high ratio of native riparian vegetation, including willow and black cottonwood. Both segments of E73 provide some habitat value for birds, mammals, and reptiles, and limited habitat for aquatic animals (e.g., amphibians, macroinvertebrates). However, both of these sites are now relatively isolated from other habitats. The portion of E73B that extends past the UGB (approx. 1/2 of the corridor) is not designated for protection in the Lane County Goal 5 inventory.

Wetland site WKZ-10 is in the vicinity of County Farm Road and Coburg Road, but it is not near or connected to any riparian corridor or other habitat area. This site is a small pond surrounded by a manufactured dwelling park.

Land uses within these sites are primarily single family residential uses. There is a school and a City-owned park at a portion of both the Ascot Park corridor (E45A) and the southern portion of North Gilham (E76A) corridor. Most of the eastern slough (E76B-3) draining into Ayres Pond is dedicated to the City of Eugene as the North Beltline Floodway natural area. The County Farm (E73) site includes a large church development. Sites WKZ-3 and E48A are situated in low density residential neighborhoods, but end at commercial developments.

14.2 Impact Area

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. In some cases, such as for the upland forest at Ayres Pond (E48B-5), there is a barrier or other significant physical separation between the sub-site and the riparian area, such that impacts are not likely to occur beyond the sub-site boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 14.2 below lists the impact areas assigned to these Goal 5 sites.

Table 14.2 Impact Area Summary: North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands

Site/ Sub-Site #	Site Name		Impact Area*
North Gilham:			
E76 A	North Gilham at Honeywood Elementary		Type D - 25' + mapped riparian vegetation
E76 B-1	North Gilham at Ayres Road		Type D - 25' + mapped riparian vegetation
E76 B-2	North Gilham at Sterling Woods		Type D - 25' + mapped riparian vegetation
E76 B-3	North Gilham at Mirror Pond		Type D - 25' + mapped riparian vegetation
Ayres Pond/Dodson Slough:			
E48B-1	Dodson Slough west		Type C - 50' + mapped riparian vegetation
E48B-3	Dodson Slough east		Type D - 25' + mapped riparian vegetation
E48B-4	Ayres Pond		Type C - 50' + mapped riparian vegetation
E48B-5	Ayres Pond upland		Type E - 0' (Impact Area = site boundary)
WKZ-2	Ayres Pond wetland		Type D - 50'
WKZ-3	Green Acres wetland		Type D - 25'
Beltline Drainage Channel; Ascot Park:			
E48A	Beltline Drainage Channel		Type D - 25' + mapped riparian vegetation
E45 A-D	Ascot Park		Type D - 25' + mapped riparian vegetation
County Farm Road:			
E73 A	County Farm Road at Fox Meadow		Type D - 25' + mapped riparian vegetation
E73 B	County Farm Road at Game Farm		Type D - 25' + mapped riparian vegetation
WKZ-10	County Farm wetland at Game Farm		Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

14.3 Conflicting uses

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR). Three parcels at Ayres Road (E76B) and Game Farm Road (E73) are zoned Agricultural (AG) (outside of city limits), two parcels are zoned Commercial (C). A portion of the Ascot Park site (E45A) at Monroe Middle School is zoned Public Land (PL). At the western end of Sites E45, E48A, and WKZ3, where they meet Delta Highway, and a portion of this site located within the Beltline Highway right-of-way are zoned Commercial (C). A small area at the western end of the Beltline Drainage Channel (E48 A2) is zoned General Office (GO). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 14.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 14.3 Zoning within Impact Areas: North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
North Gilham:				
E76 A	North Gilham at Honeywood Elementary	LDR	—	Public/private
E76 B-1	North Gilham at Ayres Road	LDR	AG, C	Private
E76 B-2	North Gilham at Sterling Woods	LDR	—	Private
E76 B-3	North Gilham at Mirror Pond	LDR	—	Private/public
Ayres Pond/Dodson Slough:				
E48B-1	Dodson Slough west	LDR	—	Private
E48B-3	Dodson Slough east	LDR	—	Public/private
E48B-4	Ayres Pond	LDR	—	Private
E48B-5	Ayres Pond upland	LDR	—	Private
WKZ-2	Ayres Pond wetland	LDR	—	Private
WKZ-3	Green Acres wetland	LDR	C	Private
Beltline Drainage Channel; Ascot Park:				
E48A	Beltline Drainage Channel	LDR	C	Private
E45 A-D	Ascot Park	LDR	C	Private/public
County Farm Road:				
E73 A	County Farm Road at Fox Meadow	LDR	—	Private
E73 B	County Farm Road at Game Farm	LDR	AG, C	Private
WKZ-10	County Farm wetland at Game Farm	AG	—	Private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

14.4 ESEE Consequences Analysis

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 14.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

14.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 14.4.1 below. Some of these characteristics are further discussed below and in Section 14.1, Site Descriptions.

Table 14.4.1 Key resource characteristics: North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
North Gilham:												
E76 A	North Gilham at Honeywood Elementary	NO	NO	LO	LO	NO	---	---	----	----	NO	NO
E76 B-1	North Gilham at Ayres Road	NO	NO	MED	LO	NO	---	---	----	----	NO	NO
E76 B-2	North Gilham at Sterling Woods	NO	NO	MED	MED	NO	---	---	----	----	NO	NO
E76 B-3	North Gilham at Mirror Pond	NO	NO	MED	MED	NO	---	---	----	----	NO	NO
Ayres Pond/Dodson Slough:												
E48B-1	Dodson Slough west	YES	NO	HI	HI	YES	---	---	----	----	NO	NO
E48B-3	Dodson Slough east	NO	NO	HI	MED-HI	NO	---	---	----	----	NO	NO
E48B-4	Ayres Pond	YES	NO	HI	LO	NO	---	---	----	----	HI	NO
E48B-5	Ayres Pond upland	NO	NO	HI	MED	NO	---	---	----	----	NO	NO
WKZ-2	Ayres Pond wetland	YES	NO	HI	MED-HI	YES	SOME	DEGR	DEGR	INTACT	NO	NO
WKZ-3	Green Acres wetland	NO	NO	LO	MED-HI	YES	SOME	N/A	DEGR	INTACT	NO	NO
Beltline Drainage Channel; Ascot Park:					NO							
E48A	Beltline Drainage Channel	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
E45 A-D	Ascot Park	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL	Fish	WQ	Flood		
County Farm Road:												
E73 A	County Farm Road at Fox Meadow	NO	NO	LO	MED	NO	---	---	---	---	NO	NO
E73 B	County Farm Road at Game Farm	NO	NO	LO	MED	NO	---	---	---	---	NO	NO
WKZ-10	County Farm wetland at Game Farm	NO	NO	LO	N/A	YES	SOME	N/A	DEGR	INTACT	YES	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

14.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are **discussed in further detail in Section 4, ESEE Consequences**. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the **text in Section 4** are labeled with a paragraph number. For each site and sub-site, **Table 14.4.2** below list the paragraph number of applicable ESEE consequences.

Table 14.4.2 Summary of ESEE Consequences: North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
North Gilham:				
E76 A North Gilham at Honeywood Elementary** E76 B-1 North Gilham at Ayres Road** E76 B-2 North Gilham at Sterling Woods* E76 B-3 North Gilham at Mirror Pond* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Ayres Pond/Dodson Slough:

E48B-1 Dodson Slough west*

E48B-3 Dodson Slough east*

E48B-4 Ayres Pond*

E48B-5 Ayres Pond upland**

WKZ-2 Ayres Pond wetland*

WKZ-3 Green Acres wetland*

**Note: References to higher quality sites apply.*

***Note: References to lower quality sites apply.*

FULLY ALLOWING CONFLICTING USES			
Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
LIMITING CONFLICTING USES			
Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
PROHIBITING CONFLICTING USES			
Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Beltline Drainage Channel; Ascot Park:

E48A Beltline Drainage Channel**

E45 A-D Ascot Park**

***Note: References to lower quality sites apply.*

FULLY ALLOWING CONFLICTING USES			
Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
LIMITING CONFLICTING USES			
Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
PROHIBITING CONFLICTING USES			
Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

County Farm Road:				
E73 A County Farm Road at Fox Meadow** E73 B County Farm Road at Game Farm** WKZ-10 County Farm wetland at Game Farm** ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

14.5 ESEE Conclusions and Recommendations

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

14.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) North Gilham:

(a) North Gilham at Honeywood (E76 A); and
(b) North Gilham at Ayres Road (E76 B-1):
Fully allowing conflicting uses recommended. The key resource characteristics for these sites (E76A, E76B-1) indicate that these portions of the North Gilham system are highly modified and disturbed. Most of the native riparian vegetation has been removed. Due to this, and the fact that the sites are also somewhat fragmented, the sites have low connectivity to other habitat areas. There are no locally significant wetlands within these sites. Given these characteristics, these sites provide *lower quality* habitat. Based on that, and the ESEE analysis above, the positive consequences of protecting these lower quality sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for these sites.

(c) North Gilham at Sterling Woods (E76 B-2); and
(d) North Gilham at Mirror Pond (E76 B-3):
Limiting conflicting uses recommended. Although these portions of the North Gilham corridor (E76B-2, E76B-3) have been disturbed by adjacent development, they provide relatively continuous riparian habitat out to the UGB and areas in the county connecting the river. These key resource characteristics indicate that these areas are *higher quality* sites. Based on these characteristics and the ESEE analysis above, for these sites, resource values are of somewhat greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, limiting conflicting uses would protect the resource while allowing for certain essential or low-impact uses. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative, and are slightly more positive than if conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for this site.

(2) Ayres Pond/Dodson Slough:

(a) Dodson Slough west (E48 B-1) and wetland (WKZ-2);
(b) Ayres Pond (E48 B-4); and
(c) Dodson Slough east (E48 B-3):
Limiting conflicting uses recommended. The key resource characteristics of these sites (E48B-1, E48B-3, E48B-4, WKZ-2) indicate that they provide *relatively high quality* wildlife habitat. The native riparian plant community at the southern end of the pond (E48B-1, E48B-3) is relatively intact, and the west slough, Site E48B-1 provides fish habitat. Wetland WKZ-2 adds emergent wetland habitat to the riparian corridor, and provides valuable habitat for fish. While there is little native riparian vegetation around the pond, it provides valuable open water habitat for waterfowl. In addition, the pond contains fish. The east slough (E48B-3) has valuable resource characteristics, but does not contain fish. As a whole, these sites have high connectivity due to their combined

length and connection to the Willamette River. Based on these resource characteristics and the ESEE analysis discussed above, these resources have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, limiting conflicting uses would protect the resource while allowing for certain essential or low-impact uses. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative, and are slightly more positive than if conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for this site.

(d) Upland forest above pond (E48 B-5):
Fully allowing conflicting uses recommended. As indicated by key resource characteristics, this portion (E48B-5) of the Ayers Pond site is of *lower quality* than the other sites in the habitat complex due to its separation from the pond and the sloughs and lack of riparian vegetation. Based on these resource characteristics and the ESEE analysis above, the positive consequences of protecting this less valuable site do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for this site.

(e) WKZ-3 Green Acres wetland (WKZ-3):
Limiting conflicting uses recommended. As discussed above, although wetland (WKZ-3) is isolated and relatively small, it provides valuable wetland habitat, performs important water quality functions, and is publicly owned. Based on these characteristics, this is a *moderately higher quality site*. Based on these characteristics, and the ESEE analysis for this site above, resource values are of somewhat greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site somewhat outweighs the negative consequences. However, limiting conflicting uses would protect the resource while allowing for certain essential or low-impact uses. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative, and are slightly more positive than if conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for this site.

(3) Beltline Drainage Channel; Ascot Park (E48A, E45 A-D):
Fully allowing conflicting uses recommended. As indicated by key resource characteristics, the various segments of these sites (E48A, E45) have been greatly modified, fragmented and disturbed, with the result that the corridors have little native riparian vegetation, and minimal habitat value. There are no wetlands along or within these corridors. Given these resource characteristics, these are *lower quality* sites. Based on these resource characteristics and the ESEE analysis above, conflicting uses are more important relative to the lower resource values here. The positive consequences of

protecting these sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended for these sites.

(4) **County Farm Road (E73A, E73B):**
Fully allowing conflicting uses recommended. While these sites (E73A, E73B) contain relatively intact, native plant communities, they have very low connectivity to other habitats. Wetland WKZ-10 provides relatively low value wetland functions, and is relatively small and isolated. As these resource characteristics indicate, these are relatively *lower quality* sites. Based on that, and the ESEE analysis above, the positive consequences of protecting these lower quality sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for these sites.

14.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 14.5.2 below and Map 14.B summarize the recommendations for these sites.

(1) **North Gilham:**

(a) **North Gilham at Honeywood (E76 A); and**
(b) **North Gilham at Ayres Road (E76 B-1):**
No protection measures are recommended for these sites (E76A, E76B-1), as discussed in the analysis above.

(c) **North Gilham at Sterling Woods (E75 B-2); and**
(d) **North Gilham at Mirror Pond (E76 B-3):**
Conservation setback of 20 feet recommended. As discussed above, these portions of the North Gilham corridor (E76B-2, E76B-3) provide *relatively high quality* habitat and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category D Streams. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Ayres Pond/Dodson Slough:

(a) Dodson Slough west (E48 B-1) and wetland (WKZ-2);
(b) Ayres Pond (E48 B-4):
Conservation setback of 40/50 feet recommended. As discussed above, the pond, the western slough and its associated wetlands (E48B-1, E48B-2, E48B-4, WKZ-2) are *higher quality* sites containing fish, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. This recommendation is based on the ESEE analysis above and on these factors: (1) the connection of these sites to the Willamette River gives them high connectivity value, (2) and the presence of fish, and (3) these sites contain the largest open water habitat in the inventory. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Dodson Slough east (E48 B-3):
Conservation setback of 20 feet recommended. As discussed above, the eastern slough (E48B-3) does not contain fish, but is a higher quality site connected to a fish-bearing site, and is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(d) Upland forest at pond (E48 B-5):
No protection measures are recommended for this site (E48 B-5), as discussed in the analysis above.

(e) WKZ-3 Green Acres wetland (WKZ-3):
Conservation setback of 25 feet recommended. As discussed above, this wetland (WKZ-3) performs important water quality functions, provides wetland habitat and is publicly-owned. Based on these characteristics, this is a *moderately higher quality site.* The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(3) **Beltline Drainage Channel (E48 B); Ascot Park (E45 A-D):**
No protection measures are recommended for these sites (E48B, E45 A-D), as discussed in the analysis above.

(4) **County Farm Road (E73A, E73B, WKZ-10):**
No protection measures are recommended for these sites (E73A, E73B, WKZ-10), as discussed in the analysis above.

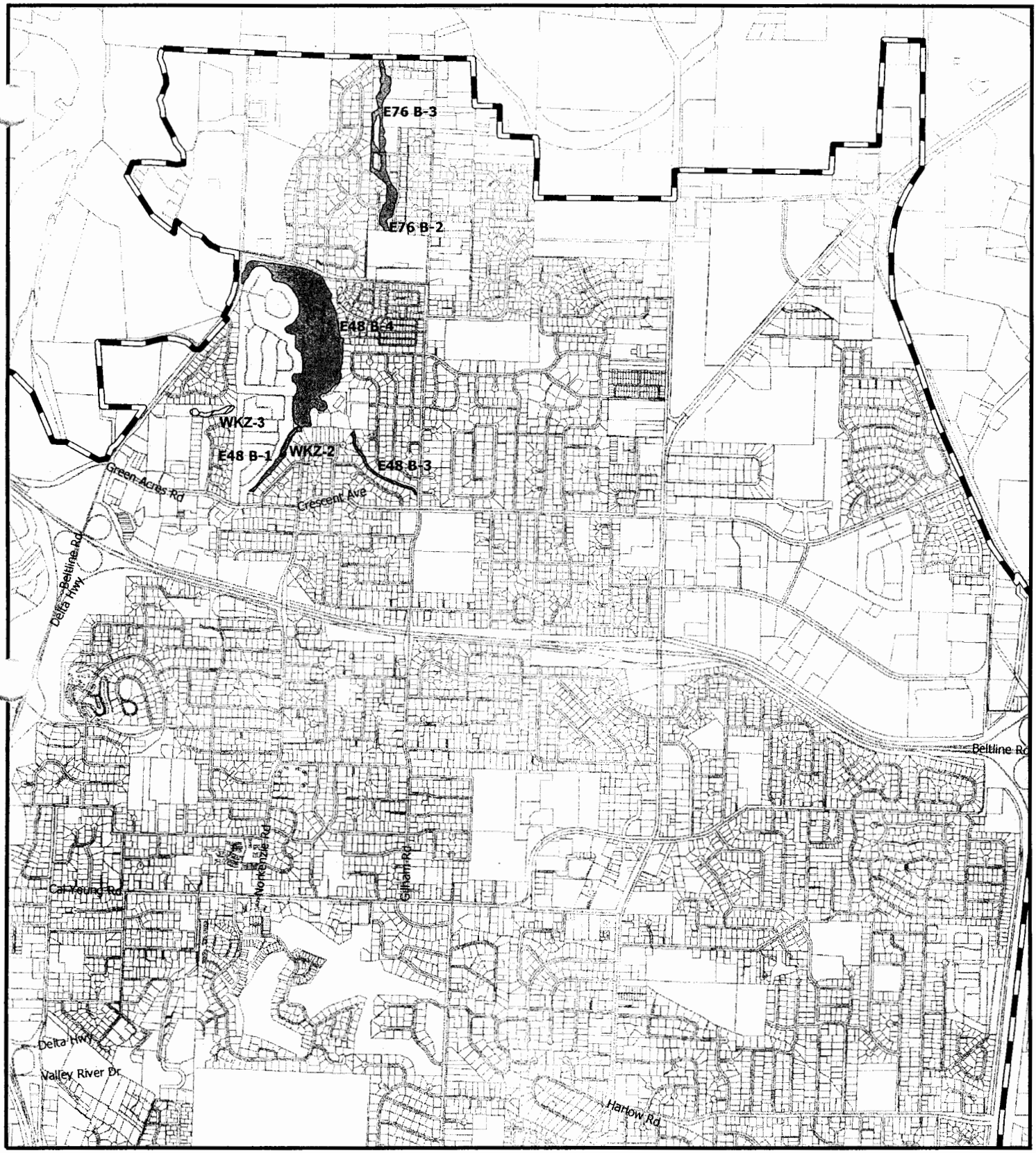
Table 14.5.2 Recommendations summary: North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road, and Willakenzie wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
North Gilham:						
E76 A	North Gilham at Honeywood Elementary	Fully allow conflicting uses	n/a	n/a	Public/private	All
E76 B-1	North Gilham at Ayres Road	Fully allow conflicting uses	n/a	n/a	Private	3/4
E76 B-2	North Gilham at Sterling Woods	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private	All
E76 B-3	North Gilham at Mirror Pond	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private/public	All
Ayres Pond/Dodson Slough:						
E48B-1	Dodson Slough west	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Private	All
E48B-3	Dodson Slough east	Limit conflicting uses	/WR Overlay Zone, Category C	20'	Public/private	All
E48B-4	Ayres Pond	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Private	All
E48B-5	Ayres Pond upland	Fully allow conflicting uses	n/a	n/a	Private	All
WKZ-2	Ayres Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private	All
WKZ-3	Green Acres wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	All
Beltline Drainage Channel; Ascot Park:						
E48A	Beltline Drainage Channel	Fully allow conflicting uses	n/a	n/a	Private	All
E45 A-D	Ascot Park	Fully allow conflicting uses	n/a	n/a	Private/public	All
County Farm Road:						
E73 A	County Farm Road at Fox Meadow	Fully allow conflicting uses	n/a	n/a	Private	All
E73 B	County Farm Road at Game Farm	Fully allow conflicting uses	n/a	n/a	Private	1/3
WKZ-10	County Farm wetland at Game Farm	Fully allow conflicting uses	n/a	n/a	Private	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 14

Map 14B

Goal 5 Protection Designations for North Gilham, Ayres Pond/Dodson Slough, Beltline Drainage Channel, Ascot Park, County Farm Road and Willakenzie Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

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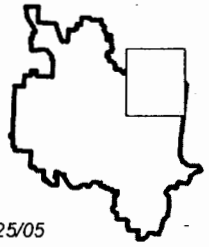


4/25/05

14.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E76 (North Gilham); E48B (Ayres Pond/Dodson Slough); E48A (Beltline Drainage Channel); E45 (Ascot Park); E73 (County Farm Road); WKZ-2; WKZ-3; WKZ-10 (Willakenzie wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

15. Supplemental Analysis

Debrick Slough, Willagillespie wetlands

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

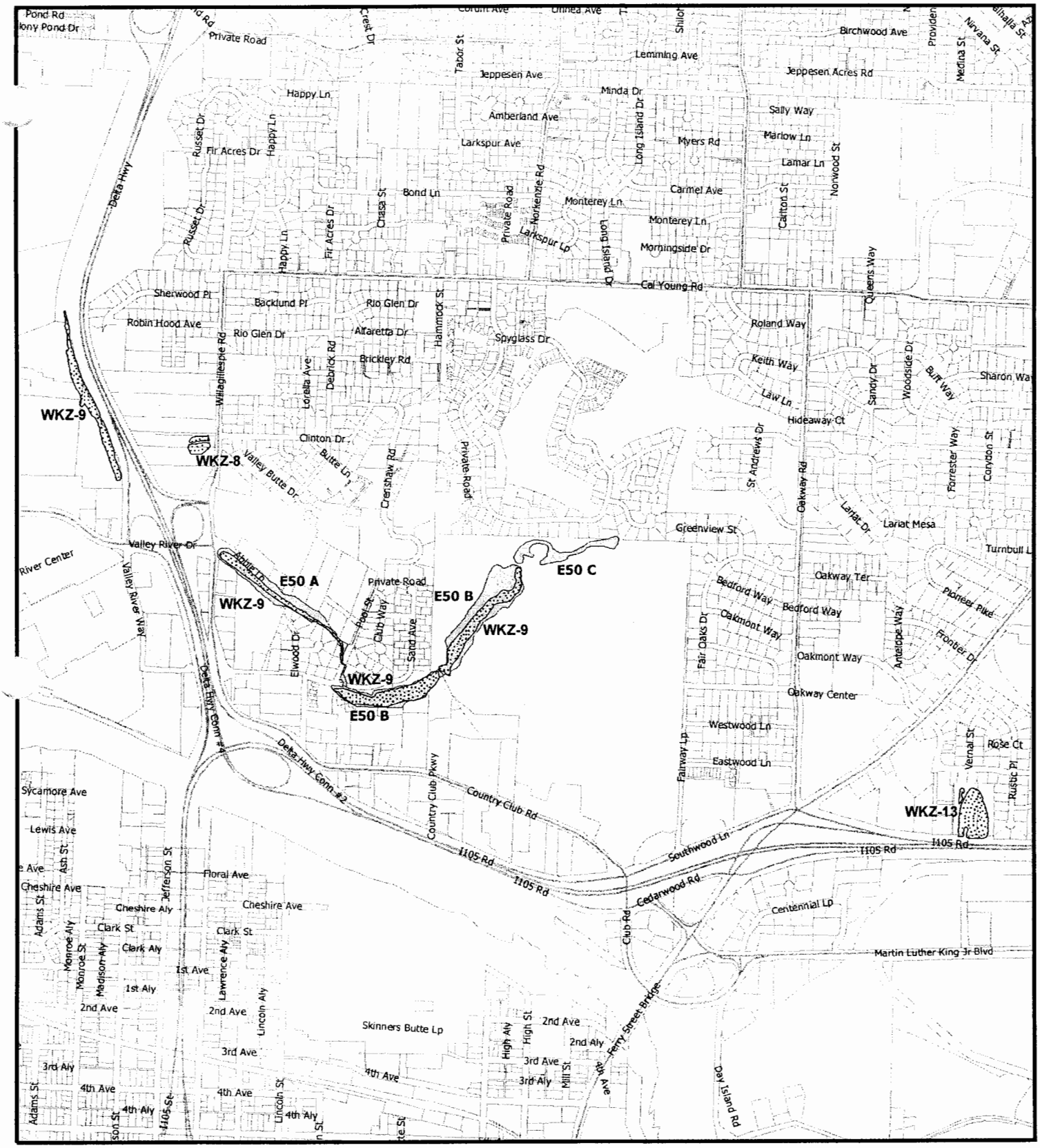
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 15.1 below lists the sites in this analysis group, their resource category and acreage. Map 15.A below shows the site(s) described in this analysis group.

Table 15.1 ESEE analysis group: Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Debrick Slough:				
E50A	Debrick Slough west	R	4.28	All
E50B	Debrick Slough east	R	10.32	All
E50C	Debrick Slough east	R	1.95	All
Willagillespie Wetlands:				
WKZ-9	Debrick Slough wetland	W	10.03	All
WKZ-13	Sorrel Pond wetland	W	2.69	All
WKZ-8	Willagillespie wetland	W	0.62	All

*Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

**Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 15

Significant Goal 5 Site Boundaries for Debrick Slough, Willagillespie Wetlands

Map 15A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 245 490 980 Feet

5/4/05

15.1 Site Description(s)

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

The sites in this analysis group are located in the Willagillespie area north of I-105, and west of the Delta Highway.

(1) Debrick Slough:

(a) Debrick Slough west and east:

This site (E50A, E50B) is on the south side of Gillespie Butte in the southern portion of the Willakenzie neighborhood. It is a long, broad channel that that runs through residential subdivisions and commercial areas. Between Willagillespie and approximately Sand Avenue (E50A), the slough has a wide channel bed, with steep banks dominated by primarily native willow, but including other native vegetation such as Oregon ash, big leaf maple and cottonwood. In open areas, Armenian blackberry is the dominant vegetation. Water levels vary, but for several months of the year the slough holds enough water to form a series of large, open ponds. East of Pool Street (at E50B), the riparian area is more disturbed. At Sand Avenue, the south side of the slough is bordered by commercial and high-density development located nearly at the top of the bank. The north side is bordered by the mowed lawns of the country club neighborhood. Within the golf course, the site is surrounded by manicured fairway. However, the banks of the eastern slough still contain a significant component of native vegetation. While Armenian blackberry is prevalent throughout the site, the banks of the slough are dotted with patches of native tree canopy, including Oregon ash and black cottonwood. Locally significant wetlands (portions of WKZ-9) occur within the channel banks along these portions of the slough. The site provides habitat for birds, mammals, and reptiles, including great blue heron and beaver, and aquatic animals (e.g., amphibians, macroinvertebrates). Although a freeway interchange has physically separated the channel from the Willamette River, the slough, and wetlands extending westward, provide additional habitat within close proximity to the river and Delta Ponds particularly for waterfowl and other birds.

(b) Debrick Slough north

The northern end of the slough (E50C) within the golf course contains very little riparian vegetation. There are scattered trees, such as Oregon ash, but the site is essentially a golf-course feature, surrounded by fairway turf. There are no wetlands in this portion of the slough.

(2) Willagillespie wetlands:

(a) Wetland WKZ-9

Wetland WKZ-9 is a locally significant wetland within Debrick slough, that extends from the golf course east to the edge of the Delta Ponds system. The portion of this site that extends along the highway to Delta Ponds, is separated from the east portion of the site by Delta Highway.

(b) Wetland WKZ-13

Wetland WKZ-13 is located at the north edge of the Beltline Highway, south of Country Club Road. It is occupies most of the 5-acre City-owned park, Sorrel Park. This wetland includes open water and emergent wetland habitat within a public park.

(c) Wetland WKZ-8

This site is located north of Debrick Slough, between Willagillespie Road and Delta Highway. The wetland is relatively small, approximately a half-acre in size, and is surrounded by commercial development.

Land uses within these sites are primarily commercial/office and residential uses. An area of high density townhomes occurs at the southeast end of Debrick Slough, but most other residential uses within these sites are single family residences. A large portion of Debrick Slough is located within a golf course. Wetland site WKZ-13 is situated within a City-owned park.

15.2 Impact Area

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 15.2 below lists the impact areas assigned to these Goal 5 sites.

Table 15.2 Impact Area Summary: Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

Site/ Sub-Site #	Site Name	Impact Area*
Debrick Slough:		
E50A	Debrick Slough west	Type D - 25' + mapped riparian vegetation
E50B	Debrick Slough east	Type D - 25' + mapped riparian vegetation
E50C	Debrick Slough north	Type D - 25' + mapped riparian vegetation
Willagillespie Wetlands:		
WKZ-9	Debrick Slough wetland	Type D - 25'
WKZ-13	Sorrel Pond wetland	Type D - 25'
WKZ-8	Willagillespie wetland	Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

15.3 Conflicting uses

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Commercial (C). A large portion of the Debrick Slough site (E50B) is zoned for High Density Residential (HDR) (but only a third of that is actually developed as high density residential, with the remainder developed as commercial and single family) A large portion of the Debrick Slough site is zoned for low density residential, but is developed as a golf course. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Commercial, and High Density Residential uses are determined to be conflicting uses for riparian corridors and wetlands. Table 15.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 15.3 Zoning within Impact Areas: Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Debrick Slough:					
E50A	Debrick Slough west		HDR	LDR, C	Private, public
E50B	Debrick Slough east		LDR, HDR	same	Private common
E50C	Debrick Slough north		LDR	same	Private common
Willagillespie Wetlands:					
WKZ-9	Debrick Slough wetland		HDR, C	LDR	Private, public
WKZ-13	Sorrel Pond wetland		LDR	same	Public
WKZ-8	Willagillespie wetland		LDR	C	Private, public

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = Zoning district of most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

15.4 ESEE Consequences Analysis

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 15.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

15.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 15.4.1 below. Some of these characteristics are further discussed below and in Section 15.1, Site Descriptions.

Table 15.4.1 Key resource characteristics: Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands) (See Key below Table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
Debrick Slough:							**WL HAB**	**Fish**	**WQ**	**Flood**		
E50A	Debrick Slough west	NO	NO	HI	MED	YES	---	---	---	---	YES	NO
E50B	Debrick Slough east	NO	NO	HI	LO-MED	YES	---	---	---	---	YES	NO
E50C	Debrick Slough north	NO	NO	HI	LO	NO	---	---	---	---		NO
Willagillespie Wetlands:												
WKZ-9	Debrick Slough wetland	NO	NO	HI	MED-HI	YES	SOME	DEGR	DEGR	INTACT	YES	NO
WKZ-13	Sorrel Pond wetland	NO	NO	LO	MED-HI	YES	SOME	DEGR	DEGR	INTACT	YES	NO
WKZ-8	Willagillespie wetland	NO	NO	LO	LO	YES	SOME	N/A	INTACT	INTACT	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

15.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 15.4.2 below list the paragraph number of applicable ESEE consequences.

Table 15.4.2 Summary of ESEE Consequences: Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4.0 (paragraph number)**			
Debrick Slough:				
	FULLY ALLOWING CONFLICTING USES			
E50A Debrick Slough west*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E50B Debrick Slough east*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E50C Debrick Slough north **	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
**Note: References to higher quality sites apply.*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
***Note: References to lower quality sites apply.*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Willagillespie Wetlands:				
	FULLY ALLOWING CONFLICTING USES			
WKZ-9 Debrick Slough wetland*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
WKZ-13 Sorrel Pond wetland*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
WKZ-8 Willagillespie wetland**	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
**Note: References to higher quality sites apply.*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
***Note: References to lower quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

15.5 ESEE Conclusions and Recommendations

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

15.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Debrick Slough:

(a) Debrick Slough west;
(b) Debrick Slough east:

Limiting conflicting uses recommended. Key resource characteristics indicate that these sites (E50A, E50B, WKZ-9) are relatively *higher quality habitat* areas. Although the encroachment of mowed lawn and blackberries has compromised the corridor's habitat value, the slough supports a viable native riparian plant community, and also

provides open water habitat and wetland values. Within the golf course, this portion of the slough still has a moderately high proportion of native vegetation. Although there is now a freeway between the slough and the Delta Ponds, it remains a viable part of that habitat complex for waterfowl and other birds, making it a valuable connector. Based on these key resource characteristics and the ESEE analysis discussed above, these resources have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Debrick Slough north:
Fully allowing conflicting uses recommended. This site at the northern end of the slough (E50C) within the golf course contains very little riparian vegetation, and has little habitat value other than open water. There are no wetlands mapped here. These characteristics indicate that this is a relatively *lower quality* site. Given these characteristics, and the ESEE analysis above, the positive consequences of protecting this lower quality site do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for this site.

(2) Willagillespie wetlands:

(a) Wetland WKZ-9;
(b) Wetland WKZ-13:
Limiting conflicting uses recommended. Key resource characteristics indicate that these sites (WKZ-9, WKZ-13) are relatively *higher quality habitat* areas. Site WKZ-9 has a relatively high quality plant community due to its location within the slough channel, and its connection to the Delta Ponds complex makes it a valuable connector between habitats. Wetland site WKZ-13 is already protected within a City-owned park managed as a natural area. Based on these key resource characteristics and the ESEE analysis discussed above, these resources have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative.

The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Wetland WKZ-8:
Fully allowing conflicting uses recommended. This wetland is small and isolated, with low connectivity and marginal habitat value. Based on these characteristics, and the ESEE analysis above, the positive consequences of protecting this *lower quality* site do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for this site.

15.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 15.5.2 below and Map 15.B summarize the recommendations for these sites.

(1) Debrick Slough:

(a) Debrick Slough west;
(b) Debrick Slough east:
Conservation setback of 20 feet recommended. As discussed above, these portions of Debrick Slough corridor (E50A, E50B) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites with Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Debrick Slough north:
No protection measures are recommended for this site (E50C), as discussed in the analysis above.

(2) Willagillespie wetlands:

(a) Wetland WKZ-9; and
(b) Wetland WKZ-13:
Conservation setback of 25 feet recommended. As discussed above, these wetland sites in the Willagillespie area (WKZ-9, WKZ-8, WKZ-13) are recommended for protection. The conservation measure proposed for these sites is the /WR Water

Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these wetland sites are recommended to be designated Category B Wetlands. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(c) Wetland WKZ-8:

No protection measures are recommended for this site (WKZ-8), as discussed in the analysis above.

Table 15.5.2 Recommendations summary: Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Debrick Slough:						
E50A	Debrick Slough west	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private, public	All
E50B	Debrick Slough east	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Private common	All
E50C	Debrick Slough north	Fully allow conflicting uses	n/a	n/a	Private common	All
Willagillespie Wetlands:						
WKZ-9	Debrick Slough wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private, public	All
WKZ-13	Sorrel Pond wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
WKZ-8	Willagillespie wetland	Fully allow conflicting uses	n/a	n/a	Private, public	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.

Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 15

Goal 5 Protection Designations
for Debrick Slough, Willagillespie Wetlands

Map 15B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 240 480 960 Feet

5/4/05

15.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E50 (Debrick Slough); WKZ-8; WKZ-9; WKZ-13 (Willagillespie wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

16. Supplemental Analysis

Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

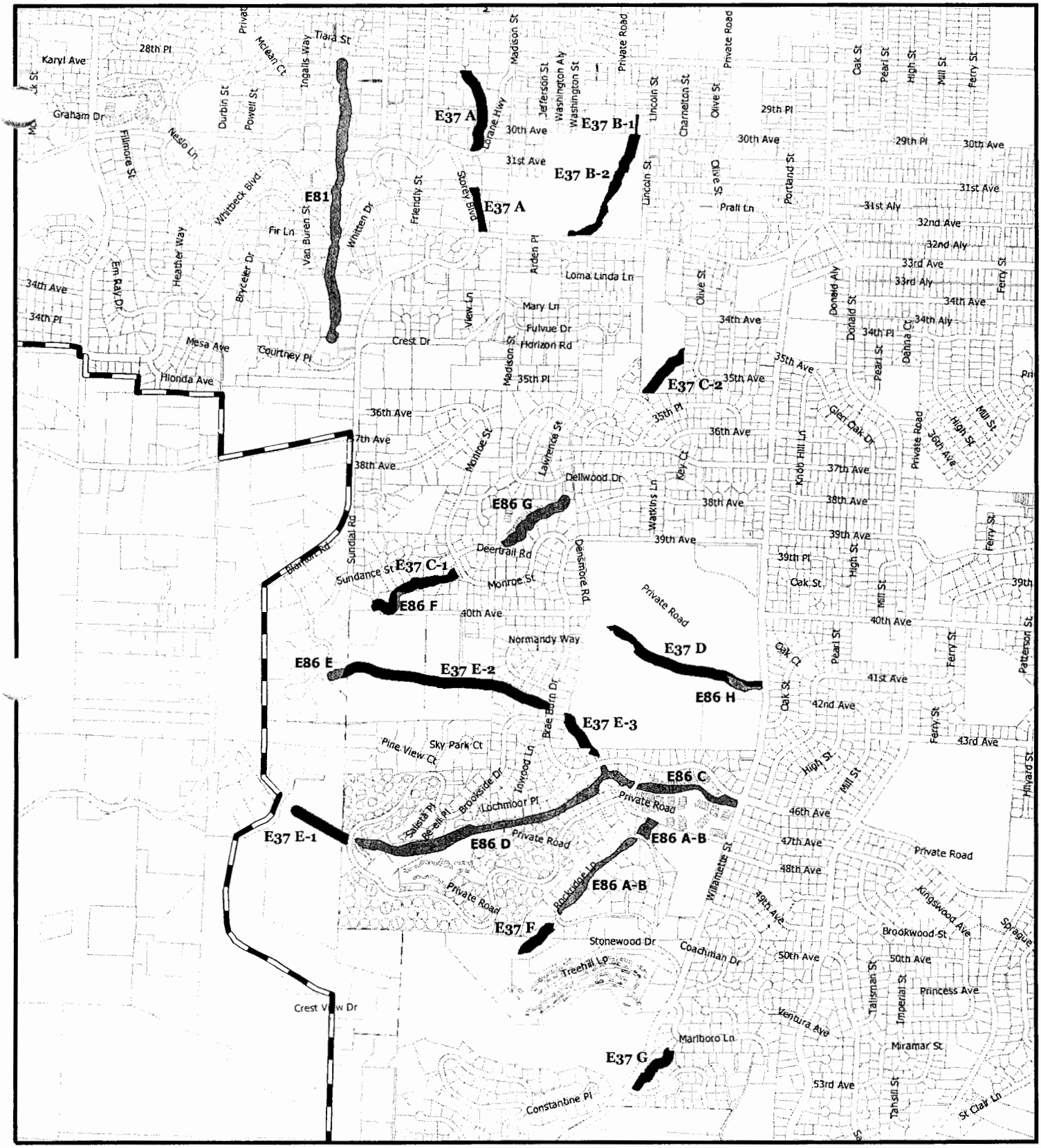
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 16.1 below lists the sites in this analysis group, their resource category and acreage. Map 16.A below shows the site(s) described in this analysis group.

Table 16.1 ESEE analysis group: Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

Site/Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Braeburn Riparian/SW Hills at Braeburn:				
E86 C	Braeburn Riparian at Braeburn townhomes	R	1.55	All
E86 D	Braeburn Riparian at Braeburn townhomes	R	5.69	All
E86 E	Braeburn Riparian at Braeburn townhomes	R	0.29	All
E37 E-1	SW Hills at Braeburn	U	1.40	1/10
E37 E-2	SW Hills at Braeburn	U	4.69	3/5
E37 E-3	SW Hills at Braeburn	U	0.99	All
Braeburn Riparian/SW Hills at Rockridge:				
E86 A, B	Braeburn Riparian at Rockridge	R	1.89	All
E37 F	SW Hills at Rockridge	U	0.90	All
SW Hills/Braeburn Riparian at Deertrail & Frederick Court:				
E37 C-1	SW Hills at Deertrail	U	2.01	99%
E37 C-2	SW Hills at Frederick Court	U	1.19	All
E86 F	Braeburn at 40th	R	0.13	All
E86 G	Braeburn at Deertrail	R	1.85	All
SW Hills/Braeburn Riparian at RestHaven:				
E37 D	SW Hills at RestHaven	U	3.01	All
E86H	Braeburn Riparian at RestHaven	R	0.46	All
SW Hills at Willamette:				
E37 G	SW Hills at Willamette	U	1.18	All
SW Hills at Storey & Lorane:				
E37 A	SW Hills at Storey and Lorane	U	2.65	All
SW Hills at Morse Ranch:				
E37 B-1	SW Hills at Morse Ranch/Minick	U	0.10	All
E37 B-2	SW Hills at Morse Ranch Park	U	2.25	All
Lorane Highway Riparian:				
E81	Lorane Highway Riparian	R	5.82	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits.



Site Boundaries

Significant Goal 5 ESEE Analysis Group 16

Map 16A

Significant Goal 5 Site Boundaries for Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet
0 280 560 840

4/25/05

16.1 Site Description(s)

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

The sites in this analysis group are located within the southwest hills of Eugene, west of, and along Willamette Street. These stream corridors are remnants of a mixed deciduous/coniferous forest of Douglas-fir, Oregon white oak, ponderosa pine and, in wetter areas, big leaf maple and Oregon ash. Structural and species diversity are generally high in most of these corridors. These corridors are generally characterized by steep stream gradients and/or steep surrounding topography. There are no Locally Significant Wetlands in these sites. Note that there are a number of different site labels, as well as two resource types (riparian and upland wildlife habitat), within a single stream in the original Inventory; these are grouped together here according the stream corridor they describe. There are eight stream corridors analyzed in this group.

(1) Braeburn Riparian/SW Hills at Braeburn (E37E-1, E37E-2, E37E-3, E86C, E86D, E86E:

The Braeburn Creek site (E37E-1, E37E-2, E37E-3, E86C, E86D, E86E) consists of two distinct channels that start near the ridgeline in Blanton Heights and flow east down to Braeburn Drive and Willamette Street. The riparian area of this site been constricted by adjacent residential development, and now forms a very narrow band on either side of the stream. In places the bank has been armored with stone or planks. Invasive English ivy is prevalent and, in some places dominates the understory. Despite these disturbances, this site is one of the more intact corridors in the Inventory, with high species and structural diversity. Overall, native species dominate, and common along the corridor are Oregon ash, Douglas fir, vine maple, and occasional black cottonwood. The length of the corridor, and the fact that it abuts publicly-owned habitat preserve areas (Ridgeline Trail parcels) greatly enhances its value as habitat, and as a wildlife corridor from the ridge to lower elevation habitats, such as Amazon Creek. The site provides important habitat for amphibians and the more common migrant and resident bird and resident mammal species.

(2) Braeburn Riparian/SW Hills at Rockridge (E86A-B, E37F):

This site (E86A-B, E37F) begins above Rockridge Drive near the Highland Condominiums, and extends through the Rockridge development down to Braeburn. Above Rockridge Drive, the site (E37F) is a shallow swale without a well-defined channel that may collect seepage from the surrounding slopes. The area has an open tree canopy, and includes mostly native species such as Douglas-fir, Oregon white oak, and sword fern. Below Rockridge Drive, the site has a well defined channel, but it has been greatly modified and cleared of most riparian vegetation. This portion of the stream flows through a series of large check dams, under driveways, and within 10-15 feet of building foundations. There are patches of native trees, such as bigleaf maple and Oregon ash; however, most of the understory vegetation has been replaced by landscaping. A willow thicket at the lower end is identified on the Eugene Local Wetland Inventory as a potential wetland, but is not mapped on the inventory, presumably due

to its small size. Much of the corridor has a steep gradient and steep side slopes, making the corridor more vulnerable to impacts of development (e.g. erosion), and making development vulnerable to slope failure. The extensive modification of this stream has greatly diminished its habitat value.

(3) SW Hills/Braeburn Riparian at Deertrail & Frederick Court (E37C-1, E37C-2, E86F, E86G):

These sites (E37C-1, E37C-2, E86F, E86G) are isolated segments of what was formerly a continuous corridor that flows from near the ridgeline down toward Willamette Street. The upper reach (E86F, E37C-1, E37G) extends from 40th Avenue to Monroe Street, then flows through several residential lots (as a non-Goal 5 drainage channel), and then drops steeply from Deertrail down to Braeburn Drive. The upper stream reach has been disturbed in places (particularly at Monroe and upper Deertrail), but overall the riparian area is relatively intact, with predominately native plants. Vegetative and structural (tree/shrub/groundcover layers) diversity is generally high, providing for a variety of wildlife species. The lowest segment of this stream at Frederick Court (E37C-2) is now connected to the upper reaches through a system of pipes. This segment flows from Frederick Court down to almost 35th Avenue. It crosses an undeveloped portion of the Mt. Calvary Cemetery site (which itself extends down to Morse Ranch). Although this lower stream segment is short (approx. 600 feet long), it has one of the more intact riparian habitat areas in the Inventory. The streams in this group of sites have steep gradients and/or steep surrounding topography, making them relatively vulnerable to impacts of adjacent uses, such as erosion.

(4) SW Hills/Braeburn Riparian at RestHaven (E37D, E86H):

This stream corridor (E37D, E86H) was once part of a more extensive corridor, but is now a relatively short corridor extending through the RestHaven cemetery down to Willamette Street. The corridor has been somewhat disturbed, and invasive plant species such as Armenian blackberry are prevalent. However, the corridor has a large component of native trees and shrubs, including Oregon white oak, ponderosa pine, Oregon ash and big leaf maple. It has a diversity of plant species, including riparian and upland species, and structural diversity (tree/shrub/groundcover layers), making the site valuable for a variety of wildlife species. A portion of the site at Willamette has been cleared. The site has steep, vegetated banks and a relatively steep gradient.

(5) SW Hills at Willamette (E37G):

This site (E37G) is an isolated remnant of a waterway that once may have extended some distance along Willamette Street. It begins as part of a roadside ditch along Willamette, with virtually no riparian vegetation, turns away from the road at Spencer's Crest and enters a remnant mixed forest of bigleaf maple, Oregon ash, Douglas-fir and filbert. The site is a short, steep corridor that drops down from Spencer's Crest for approximately 500 feet until it reaches a pipe at Marlboro Lane.

(6) SW Hills at Morse Ranch:

(a) SW Hills at Morse Ranch Park (E37 B-2): The upper stream corridor at Morse Ranch (E37 B-2) has been modified over the years by agricultural uses. It flows from Crest Drive through a willow thicket, and enters an open field, where the dominant

vegetation is reed canarygrass. However, as a feature of the park, it is now managed as a natural area, and native shrubs and trees, such as Oregon ash, are re-establishing. The lower portion of the stream flows through a mixed Oregon oak/Oregon ash forest, dropping steeply down to 30th Avenue. Although invasive English ivy is becoming well-established in the understory, the corridor here is highly intact, with predominantly native species. There is a high vegetative and structural diversity within the corridor, providing valuable habitat for a variety of wildlife species.

(b) SW Hills at Morse Ranch/Minick (E37B-1): At the north edge of the park, the Morse Ranch stream exits the park, and becomes a short drainage ditch (E37B-1), lined with invasive English ivy, along Minick Lane. The ditch extends for approximately 200 feet before it enters a pipe, and contains no riparian vegetation or habitat.

(7) SW Hills at Storey & Lorane (E37A):

Site E37A is comprised of two disconnected segments of what once was a longer corridor along Lorane Highway. The upper stream segment starts near Crest Drive, flows along Storey for approximately 400 feet, and then enters a piped system behind several houses. Below Lorane Highway, the second segment exits the piped system, and flows for approximately 900 feet to the end of Monroe Street. Both stream segments contain an overstory of predominantly native trees, including Oregon ash, Douglas-fir and, in the lower segment, mature black cottonwood trees. However, the understory of these corridors is primarily non-native, and in most of the site, invasive English ivy has become the predominate plant in the understory, which if left unchecked, will eventually kill most of the overstory trees. Another highly invasive plant, Japanese knotweed, is becoming established in the corridor. As a result, the habitat value of this already-fragmented site has been greatly diminished.

(8) Lorane Highway (E81):

The Lorane Highway riparian corridor (E81) is a seasonal stream that flows from approximately Crest Drive north to 29th Avenue. Although blackberries and English ivy are found throughout most of the corridor, with the exception of 2 or 3 parcels, the stream corridor is well-vegetated, with a large component of native trees and shrubs, and moderately high structural and species diversity. Native riparian vegetation present includes bigleaf maple, black cottonwood and Oregon ash with an understory of sword fern and snowberry. Much of the corridor has a steep gradient and steep surrounding slopes, making the corridor more vulnerable to erosion and channel degradation, and creating soil stability issues for development close to the top of bank. The site serves as a travel corridor for wildlife moving from the ridge to lower elevations, and is one of the only intact riparian corridors that connects the Southwest Hills to small habitat patches in lower elevations. As such, it provides habitat for some reptiles and amphibians that require seasonal water and cover, and for many of the region's resident and migrant bird species.

Land uses within the sites in this analysis group are primarily single family residential. A portion of the Braeburn Creek site (E86C) flows through the Braeburn townhome development, and a portion of Braeburn at Deertrail (E86G) is within the common area of the Densmore townhomes. Portions of these sites are located within cemeteries. A short reach of Braeburn Creek (E37E-3) runs through a corner of RestHaven cemetery. Site E37D/E86A is located entirely within RestHaven. The entire Deertrail/Frederick Court corridor is located on an undeveloped portion of the Mt. Calvary Cemetery. Some portions of these sites are located within publicly-owned park lands. A portion of the upper reach

of Braeburn Creek (E37E-1), and of Rockridge Creek (E37F), is located within the Ridgeline Trail park preserve. Site E37B-1 occurs entirely within Morse Ranch Park, and is managed as a natural area. Many of these sites run through subdivisions in which the stream corridor was dedicated as common open space. Along some parcels within the Lorane Riparian site (E81) there is an existing 30' EWEB sanitary sewer easement along the top of bank and within the stream corridor. With one exception, all of the sites in this analysis group are located within Eugene city limits. A portion (approximately 18-acres) of the north branch of Braeburn Creek (E37E-2) is located outside of city limits within the UGB.

16.2 Impact Area

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian and upland wildlife habitat sites is measured from the top of bank of the stream and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 16.2 below lists the impact areas assigned to these Goal 5 sites.

Table 16.2 Impact Area Summary: Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

Site/ Sub-Site #	Site Name	Impact Area*
Braeburn Riparian/SW Hills at Braeburn:		
E86 C	Braeburn Riparian at Braeburn townhomes	Type C - 50' + mapped riparian vegetation
E86 D	Braeburn Riparian at Braeburn townhomes	Type C - 50' + mapped riparian vegetation
E86 E	Braeburn Riparian at Braeburn townhomes	Type C - 50' + mapped riparian vegetation
E37 E-1	SW Hills at Braeburn	Type C - 50' + mapped riparian vegetation
E37 E-2	SW Hills at Braeburn	Type C - 50' + mapped riparian vegetation
E37 E-3	SW Hills at Braeburn	Type C - 50' + mapped riparian vegetation
SW Hills/Braeburn Riparian at Rockridge:		
E86 A, B	Braeburn Riparian at Rockridge	Type C - 50' + mapped riparian vegetation
E37 F	SW Hills at Rockridge	Type C - 50' + mapped riparian vegetation
SW Hills/Braeburn Riparian at Deertrail & Frederick Court:		
E37 C-1	SW Hills at Deertrail	Type C - 50' + mapped riparian vegetation
E37 C-2	SW Hills at Frederick Court	Type C - 50' + mapped riparian vegetation
E86 F	Braeburn at 40th	Type C - 50' + mapped riparian vegetation
E86 G	Braeburn at Deertrail	Type C - 50' + mapped riparian vegetation

SW Hills/Braeburn Riparian at RestHaven:		
E37 D	SW Hills at RestHaven	Type C - 50' + mapped riparian vegetation
E86H	Braeburn Riparian at RestHaven	Type C - 50' + mapped riparian vegetation
SW Hills at Willamette:		
E37 G	SW Hills at Willamette	Type C - 50' + mapped riparian vegetation
SW Hills at Storey & Lorane		
E37 A	SW Hills at Storey & Lorane	Type C - 50' + mapped riparian vegetation
SW Hills at Morse Ranch:		
E37 B-1	SW Hills at Morse Ranch/Minick	Type C - 50' + mapped riparian vegetation
E37 B-2	SW Hills at Morse Ranch Park	Type C - 50' + mapped riparian vegetation
Lorane Highway Riparian:		
E81	Lorane Highway Riparian	Type C - 50' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

16.3 Conflicting uses

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of the these sites is zoned primarily Low Density Residential (LDR) and Public Land (PL), with some Industrial (I) zoning (although land uses are primarily residential, schools, and public right-of-way). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land and Industrial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 16.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 16.3 Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
Braeburn Riparian/SW Hills at Braeburn:				
E86 C	Braeburn Riparian at Braeburn townhomes	LDR	---	Private common
E86 D	Braeburn Riparian at Braeburn townhomes	LDR	---	Private common
E86 E	Braeburn Riparian at Braeburn townhomes	LDR	---	Private
E37 E-1	SW Hills at Braeburn	LDR	---	Public, private
E37 E-2	SW Hills at Braeburn	LDR	---	Private/ Private common
E37 E-3	SW Hills at Braeburn	LDR	---	Private
Braeburn Riparian/SW Hills at Rockridge:				
E86 A, B	Braeburn Riparian at Rockridge	LDR	---	Private
E37 F	SW Hills at Rockridge	LDR	---	Private, public
SW Hills/Braeburn Riparian at Deertrail & Frederick Court:				
E37 C-1	SW Hills at Deertrail	LDR	---	Private
E37 C-2	SW Hills at Frederick Court	LDR	---	Private
E86 F	Braeburn at 40th	LDR	---	Private
E86 G	Braeburn at Deertrail	LDR	---	Private common
SW Hills/Braeburn Riparian at RestHaven:				
E37 D	SW Hills at RestHaven	LDR	---	Private
E86H	Braeburn Riparian at RestHaven	LDR	---	Private
SW Hills at Willamette:				
E37 G	SW Hills at Willamette	LDR	---	Private
SW Hills at Storey & Lorane:				
E37 A	SW Hills at Storey & Lorane	LDR	---	Private
SW Hills at Morse Ranch:				
E37 B-1	SW Hills at Morse Ranch/Minick	LDR	---	Private
E37 B-2	SW Hills at Morse Ranch Park	LDR	---	Public
Lorane Highway Riparian:				
E81	Lorane Highway Riparian	LDR	---	Private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

16.4 ESEE Consequences Analysis

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 16.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

16.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 16.4.1 below. Some of these characteristics are further discussed below and in Section 16.1, Site Descriptions.

Table 16.4.1 Key resource characteristics: Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors (See Key below Table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Braeburn Riparian/SW Hills at Braeburn:												
E86 C	Braeburn Riparian at Braeburn townhomes	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
E86 D	Braeburn Riparian at Braeburn townhomes	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
E86 E	Braeburn Riparian at Braeburn townhomes	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
E37 E-1	SW Hills at Braeburn	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
E37 E-2	SW Hills at Braeburn	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
E37 E-3	SW Hills at Braeburn	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
Braeburn Riparian/SW Hills at Rockridge:												
E86 A, B	Braeburn Riparian at Rockridge	NO	NO	MED	LO	NO	---	---	---	---	NO	YES
E37 F	SW Hills at Rockridge	NO	NO	MED	MED	NO	---	---	---	---	NO	YES
SW Hills/Braeburn Riparian at Deertrail & Frederick Court:												
E37 C-1	SW Hills at Deertrail	NO	NO	MED	MED	NO	---	---	---	---	NO	YES
E37 C-2	SW Hills at Frederick Court	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	NO
E86 F	Braeburn at 40th	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E86 G	Braeburn at Deertrail	NO	NO	MED	MED	NO	---	---	---	---	NO	YES
SW Hills/Braeburn Riparian at RestHaven:												
E37 D	SW Hills at RestHaven	NO	NO	LO	MED-HI	NO	---	---	---	---	NO	NO
E86H	Braeburn Riparian at RestHaven	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO
SW Hills at Willamette:												
E37 G	SW Hills at Willamette	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	YES
SW Hills at Storey & Lorane:												
E37 A	SW Hills at Storey & Lorane	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	YES

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
SW Hills at Morse Ranch:												
E37 B-1	SW Hills at Morse Ranch/Minick	NO	NO	LO	NON	NO	---	---	---	---	NO	NO
E37 B-2	SW Hills at Morse Ranch Park	NO	NO	LO	MED-HI	NO	---	---	---	---	NO	YES
Lorane Highway Riparian:												
E81	Lorane Highway Riparian	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
		Fish	T&E	Connect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

16.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 16.4.2 below list the paragraph number of applicable ESEE consequences.

Table 16.4.2 ESEE Consequences Analysis: Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4.0 (paragraph number)**			
Braeburn Riparian/SW Hills at Braeburn:	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E86 C Braeburn Riparian at Braeburn townhomes* E86 D Braeburn Riparian at Braeburn townhomes* E86 E Braeburn Riparian at Braeburn townhomes* E37 E-1,2,3 SW Hills at Braeburn*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
Braeburn Riparian/SW Hills at Rockridge:	*LIMITING CONFLICTING USES*			
E86 A, B Braeburn Riparian at Rockridge** E37F SW Hills at Rockridge**	*Economic* (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
SW Hills/Braeburn Riparian at Deertrail & Frederick Court:	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E37 C-1 SW Hills at Deertrail* E37 C-2 SW Hills at Frederick Ct* E86 F Braeburn at 40th* E86 G Braeburn at Deertrail*				
SW Hills/Braeburn Riparian at RestHaven:				
E37 D SW Hills at RestHaven* E86H Braeburn Riparian at RestHaven*				
SW Hills at Willamette:	*PROHIBITING CONFLICTING USES*			
E37 G SW Hills at Willamette**	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
SW Hills at Storey & Lorane:	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E37 A SW Hills at Storey & Lorane*				
SW Hills at Morse Ranch:				
E37 B-1 SW Hills at Morse Ranch/Minick** E37 B-2 SW Hills at Morse Ranch*				
Lorane Highway Riparian:				
E81 Lorane Highway Riparian*				
**Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*				

16.5 ESEE Conclusions and Recommendations

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

16.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Braeburn Riparian/SW Hills at Braeburn (E37E-1, E37E-2, E37E-3, E86C, E86D, E86E):

Limiting conflicting uses recommended. Based on key resource characteristics, the sites forming Braeburn Creek (E37E-1, E37E-2, E37E-3, E86C, E86D, E86E) are *higher quality* sites. These sites provide a relatively continuous corridor of native riparian vegetation with high diversity, and have moderately high connectivity due to the length of the creek and its role as a wildlife corridor between the preserved habitat areas at the ridgeline and lower elevation habitats. The steep stream gradient and steep surrounding slopes also make these sites valuable for protecting downstream water quality from sedimentation from erosion. Based on these resource characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The resource values provided by these sites are more important to the community as a whole, than the conflicting uses that would occur here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) Braeburn Riparian/SW Hills at Rockridge (E86A-B, E37F):

Fully allowing conflicting uses recommended. The sites that make up the creek at Rockridge (E86A-B, E37F) are *lower quality* sites, as indicated by key resource characteristics. The site above Rockridge Drive is a wet area during wet periods of the year, but lacks a well-defined stream channel; the remainder of the site is a well-defined creek channel that has been greatly modified by adjacent development and has little riparian vegetation remaining. Based on these resource characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively lower quality sites, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed here are more important than the lower resource values.

(3) SW Hills/Braeburn Riparian at Deertrail & Frederick Court (E37C-1, E37C-2, E86F, E86G):

Limiting conflicting uses recommended. As indicated by key resource characteristics, the sites comprising the Braeburn/Deertrail/Frederick Court stream corridor (E37C-1, E37C-2, E86F, E86G) are relatively *higher quality* sites. Although the riparian areas have been disturbed on the edges, and the corridor has been interrupted in two places by pipes and residential yards, the sites form a chain of native riparian habitat that is complemented by nearby private open space corridors, and extends from near the ridgeline to lower elevations, through the open space of the Mt. Calvary Cemetery (public/private ownership), and ultimately to habitat at Morse Ranch. The steep stream gradient and surrounding slopes also make the upper segments (E37C-1, E86F, E86G) valuable for protecting downstream water quality from sedimentation due to erosion. Based on these resource characteristics, and the ESEE analysis above, the importance of these sites is greater than the conflicting uses that would otherwise occur in the corridor. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(4) SW Hills/Braeburn Riparian at RestHaven (E37D, E86H):

Limiting conflicting uses recommended. Key resource characteristics for the sites in this stream corridor (E37D, E86H) indicate that these sites fall into the range of *medium- to higher-quality* sites. The stream does not have very high connectivity to other habitats, compared to other sites in the Inventory. The habitat value of the riparian area has been somewhat diminished by adjacent development and invasive plants. However, the overall quality of the riparian plant community is relatively high, with good species

diversity and vegetative structure. Based on these resource characteristics, and the ESEE analysis above, the resource value of these sites is somewhat more important than the conflicting uses that could occur within the corridor. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites slightly outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(5) SW Hills at Willamette (E37G):

Fully allowing conflicting uses recommended. Although this site (E37G) has a number of native riparian trees remaining, its overall habitat value is low due to the fact that it is a small, isolated fragment that starts as a roadside ditch and enters a pipe after a short distance. For these reasons, this is a *relatively lower quality* site. Based on these resource characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for this site. For this lower quality site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed in this site are more important than its lower resource values.

(6) SW Hills at Morse Ranch:

(a) SW Hills at Morse Ranch Park (E37 B-2):

Limiting conflicting uses recommended. The upper portion of the Morse Ranch site within the park (E37 B-2) has relatively little native vegetation along its length, but is being managed and restored as a natural riparian area. The lower portion of the stream, despite the prevalence of invasive English ivy, has a fairly high quality riparian area, with good species diversity and structural diversity. The site has relatively low connectivity, but is extensive enough to provide viable habitat on its own. These resource characteristics indicate that these sites are *higher quality* sites. Based on these resource characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The resource values provided by these sites are more important to the community as a whole, than the conflicting uses that would occur here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) SW Hills at Morse Ranch/Minick (E37B-1):

Fully allowing conflicting uses recommended. Although this portion of the Morse Ranch site (E37B-1) conveys water from the park, it is no longer a riparian corridor. It is approximately 10-15 feet wide, and contains primarily ornamental landscaping and invasive English ivy. It is evident from these characteristics that this is a *lower quality* site with minimal habitat value. Based on these resource characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For this lower quality site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed in this site are more important than its lower resource values.

(7) SW Hills at Storey & Lorane (E37A):

Fully allowing conflicting uses recommended. The two segments of this site (E37A) are relatively short, highly fragmented corridors. Habitat value has been further diminished by extensive English ivy and other non-native invasive plant species that have come to dominate the understory. Given these key resource characteristics, this is a *relatively lower quality* site. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for this site. For this lower quality site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed in this site are more important than its lower resource values.

(8) Lorane Highway (E81):

Limiting conflicting uses recommended. The Lorane Riparian site (E81) has a number characteristics that indicate it falls in the range of *medium- to higher-quality* sites. The site has moderate connectivity, providing one of the only remaining viable corridors of habitat in the Lorane drainage area. Although invasive species such as English ivy and Armenian blackberry are prevalent throughout the corridor, the riparian area has a relatively continuous canopy of native species, and moderately high species diversity. The steep stream gradient and surrounding slopes add to the corridor's value in moderating downstream impacts of flooding and erosion. Based on these resource characteristics, and the ESEE analysis above, the resource value of this site is somewhat more important than the conflicting uses that would occur within the corridor. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

16.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 16.5.2 below and Map 16.B summarize the recommendations for these sites.

(1) Braeburn Riparian/SW Hills at Braeburn (E37E-1, E37E-2, E37E-3, E86C, E86D, E86E):

Conservation setback of 40 feet recommended. As discussed above, these sites are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category C Streams. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Braeburn Riparian/SW Hills at Rockridge (E37F, E86A, E86 B):

No protection measures are recommended for these sites, as discussed in the analysis above.

(3) SW Hills/Braeburn Riparian at Deertrail & Frederick Court:

(a) Braeburn Riparian at Deertrail (E86 G):

Conservation setback of 40 feet recommended. As discussed above, this site is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) SW Hills at Frederick Court (E37 C-2):

Conservation setback of 20 feet recommended. As discussed above, this site is recommended for protection. However, this site is not characterized by steep slopes and,

therefore, is not as vulnerable to adverse impacts from conflicting uses. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category D Stream. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(4) SW Hills/Braeburn Riparian at RestHaven (E37 D, E86 H):
Conservation setback of 20 feet recommended. As discussed above, these sites are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated Category D Streams. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(5) SW Hills at Willamette (E37 G):
No protection measures are recommended for this site (E37G), as discussed in the analysis above.

(6) SW Hills at Morse Ranch:

(a) SW Hills at Morse Ranch Park (E37 B-2):
Conservation setback of 20 feet recommended. As discussed above, this site is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated Category D Streams. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) SW Hills at Morse Ranch/Minick (E37B-1):
No protection measures are recommended for this site (E37B-1), as discussed in the analysis above.

(7) SW Hills at Storey & Lorane (E37A):
No protection measures are recommended for this site (E37A), as discussed in the analysis above.

(8) Lorane Highway (E81):
Conservation setback of 40 feet recommended. As discussed above, this site is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on

the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

Table 16.5.2 Recommendations summary: Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	InsideCity Limits***
Braeburn Riparian/SW Hills at Braeburn:						
E86 C	Braeburn Riparian at Braeburn townhomes	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private common	All
E86 D	Braeburn Riparian at Braeburn townhomes	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private common	All
E86 E	Braeburn Riparian at Braeburn townhomes	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E37 E-1	SW Hills at Braeburn	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Public	All
E37 E-2	SW Hills at Braeburn	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private/ Private common	3/5
E37 E-3	SW Hills at Braeburn	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
Braeburn Riparian/SW Hills at Rockridge:						
E86 A, B	Braeburn Riparian at Rockridge	Fully allow conflicting uses	n/a	n/a	Private	All
E37 F	SW Hills at Rockridge	Fully allow conflicting uses	n/a	n/a	Public	All
SW Hills/Braeburn Riparian at Deertrail & Frederick Court:						
E37 C-1	SW Hills at Deertrail	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E37 C-2	SW Hills at Frederick Court	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Private	All
E86 F	Braeburn at 40th	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E86 G	Braeburn at Deertrail	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private common	All
SW Hills/Braeburn Riparian at RestHaven:						
E37 D	SW Hills at RestHaven	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Private	All
E86H	Braeburn Riparian at RestHaven	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Private	All
SW Hills at Willamette:						
E37 G	SW Hills at Willamette	Fully allow conflicting uses	n/a	n/a	Private	All
SW Hills at Storey & Lorane						
E37 A	SW Hills at Storey & Lorane	Fully allow conflicting uses	n/a	n/a	Private	All

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	InsideCity Limits***
SW Hills at Morse Ranch:						
E37 B-1	SW Hills at Morse Ranch/Minick	Fully allow conflicting uses	n/a	n/a	Private	All
E37 B-2	SW Hills at Morse Ranch	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Public	All
Lorane Highway Riparian:						
E81	Lorane Highway Riparian	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.

Sites Recommended for Protection **Map 16B**

Significant Goal 5 ESEE Analysis Group 16

Goal 5 Protection Designations

for Braeburn Riparian, Lorane Highway Riparian, and Portions of Southwest Hills Upland Habitat Stream Corridors

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 290 580 870 Feet

5/4/05

16.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E86 (Braeburn Riparian); E81 (Lorane Highway Riparian); E37A (SW Hills at Storey & Lorane); E37B (SW Hills at Morse Ranch); E37C (SW Hills at Deertrail & Frederick); E37D (SW Hills at RestHaven); E37E (SW Hills at Braeburn); E37F (SW Hills at Rockridge); E37G (SW Hills at Willamette)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

17. Supplemental Analysis

Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Portions of Upper Amazon Wetlands

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

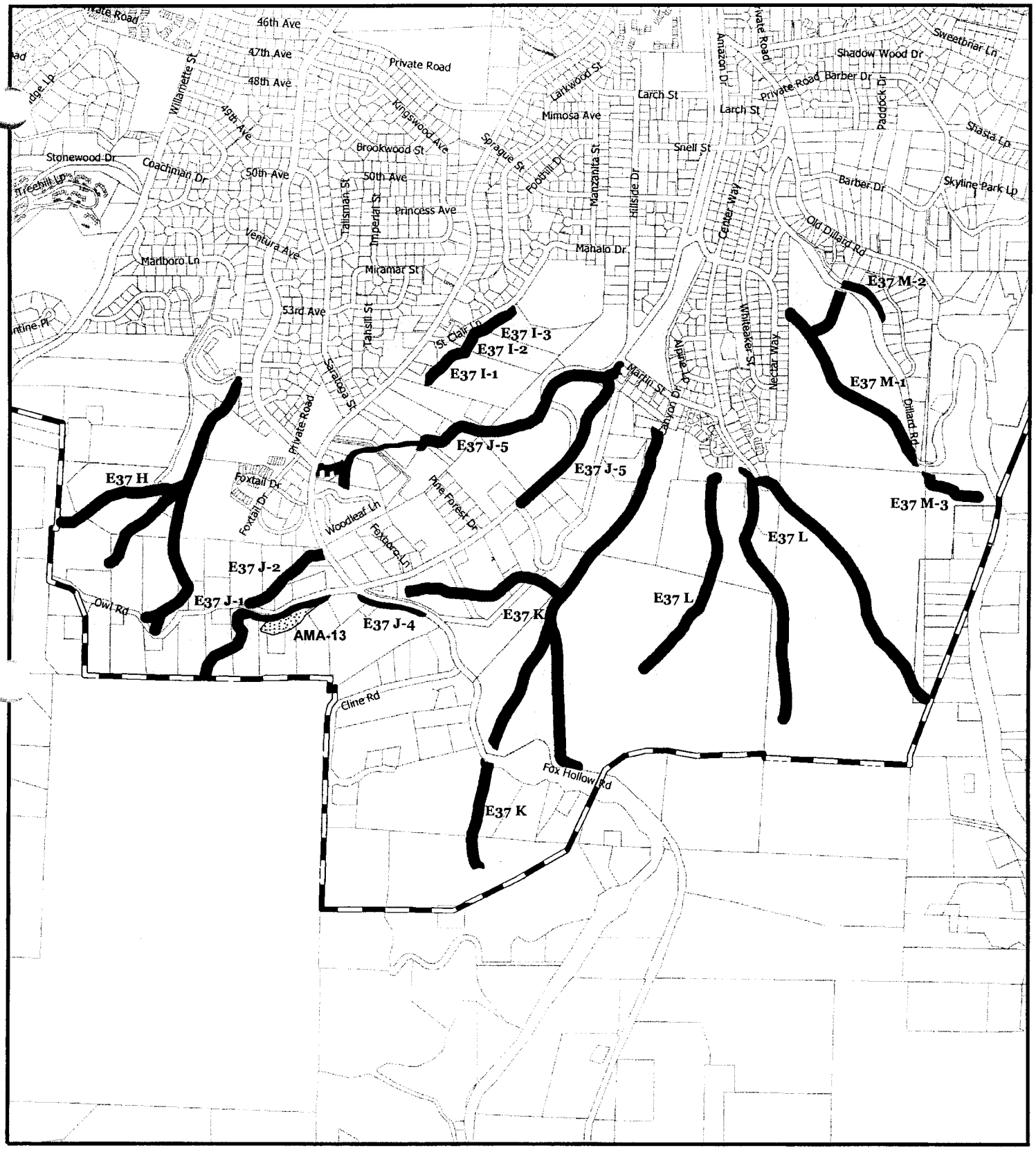
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 17.1 below lists the sites in this analysis group, their resource category and acreage. Map 17.A below shows the site(s) described in this analysis group.

Table 17.1 ESEE analysis group: Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Upper Amazon Wetlands

Site/Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
South Hills at Upper Owl Road:				
E37 H	S Hills at Upper Owl Road	U	11.20	All
South Hills at St. Clair Lane:				
E37 I-1	S Hills at St. Clair Lane	U	1.14	all
E37 I-2	S Hills at St. Clair Lane	U	.54	all
E37 I-3	S Hills at St. Clair Lane	U	.78	all
South Hills at Owl Road/Fox Hollow:				
E37 J-1	S Hills at Lower Owl Road south	U	2.91	99%
E37J-2	S Hills at Lower Owl Road north	U	2.00	All
AMA-13	Owl Road wetland	W	1.43	95%
E37 J-4	S Hills at Fox Hollow ditch	U	0.71	1/2
E37 J-5	S Hills at Donald/Fox Hollow	U	10.06	All
South Hills at Canyon Drive/Fox Hollow; South Hills at Center Way:				
E37 K	S Hills at Canyon/Fox Hollow	U	16.87	90%
E37 L	S Hills at Center Way	U	16.50	99%
South Hills at Dillard:				
E37 M-1	S Hills at Dillard Hollow	U	5.40	All
E37 M-2	S Hills at Dillard ditch	U	0.83	All
E37 M-3	S Hills at Dillard upper	U	1.40	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 17

Map 17A

Significant Goal 5 Site Boundaries for Portions of South Hills Upland Stream Corridors at Upper Amazon /Owl Road to Dillard & Upper Amazon Wetlands)

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

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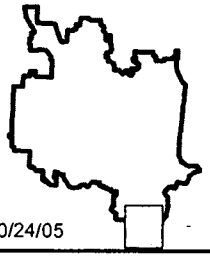


10/24/05

17.1 Site Description(s)

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

The sites in this analysis group are located within the south hills of Eugene, east of Willamette Street and west of Dillard Road. These stream corridors are remnants of a mixed deciduous/ coniferous forest of Douglas-fir, Oregon white oak, ponderosa pine, bigleaf maple and Oregon ash. Structural and species diversity are generally high in most of these sites. These corridors are generally characterized by steep stream gradients and/or steep surrounding topography.

(1) South Hills at Upper Owl Road (E37H):

This stream corridor (E37 H) begins at upper Owl Road, carries water from the steep surrounding slopes down to Donald Street. The majority of this site is located within the City-owned Spencer Butte natural area, part of the Ridgeline park system. The lower end of the site runs through land owned by the Huntington Heights Homeowners Association and the Woodridge Homeowners Association, and meets the end of Huntington Avenue. Most of the area surrounding the site is undeveloped. This is one of the more intact riparian corridors in the Inventory. The corridor has high species and structural diversity, and is dominated by native species, including Oregon ash, Douglas fir, vine maple, occasional black cottonwood, and native understory, such as osoberry and sword fern. The length of the corridor, and the fact that it abuts habitat preserve areas (Ridgeline Trail parcels), greatly enhance its value as habitat, and as a wildlife corridor from the ridge to lower elevation habitats. The site provides important habitat for amphibians and the more common resident and migrant songbird and mammal species.

(2) South Hills at St. Clair Lane (E37I):

This site (E37 I) drops down from Fox Hollow Road following St. Clair Lane, and ends at the Fox Hollow Elementary School property. The upper portion of the site (E37 I-1) has been disturbed by driveway crossings and clearing of vegetation, but retains most of its riparian attributes, including a dense overstory of Oregon ash, bigleaf maple, and Douglas-fir. A small area at the upper end of the site supports wetland plants such as bulrush, indicating that the site has some wetland functions, though it was not mapped on the Local Wetland Inventory. The middle portion of the site (E37 I-2), approximately 230 feet long, has lost most of its riparian vegetation due to previous clearing by the property owner. The riparian corridor here is only 2-3 feet wide, constrained by a retaining wall and adjacent home on one side, and a pasture created by extensive fill on the other side. In addition, the steep slopes characterizing the other portions of the stream corridor are not present along this section. Because of these characteristics, the quality of the middle section of Site E37I is markedly lower than that of the upper and lower reaches of the stream. At the lower end of the site near Fox Hollow Elementary School (E37 I-3), the corridor contains a greater mix of riparian and

upland species, including filbert, Oregon oak, and some old growth Douglas-fir. Much of the corridor has a steep gradient and steep side slopes, making the corridor valuable for preventing water quality impacts from erosion in downstream portions of Amazon Creek. At the end of Mahalo Drive, the creek enters the piped stormwater system that empties into Amazon Creek.

(3) South Hills at Owl Road/Fox Hollow (E37J, AMA-13):

(a) South Hills at Lower Owl Road (E37 J-1, E37 J-2); Owl Road wetland (AMA-13); South Hills at Donald/Fox Hollow (E37 J-5):

This group of sites (E37 J-1, E37 J-2, E37 J-5, AMA-13,) contains segments of one of the most extensive stream corridors in the South Hills, and forms one of the main headwater tributaries to Amazon Creek. The stream begins halfway up the steep north slope of Spencer's Butte (outside the UGB), drops down through a forest of primarily native Oregon ash and Oregon oak, and follows Owl Road down to Fox Hollow. Across Fox Hollow, the stream continues through the common area of Woodleaf Village (a non-Goal 5 segment), turns east near Donald Street through open fields and the BPA powerline easement. Here the corridor has been heavily cleared, and Armenian blackberry is rampant; however, the channel, which shows signs that it carries significant flow, is lined with thickets of native willow and spiraea. At the lower end of the powerline easement, the stream drops down the forested slope to join Amazon Creek at Martin Street. The eastern reach of this site starts at the upper end of Amazon Drive, flows across the BPA powerline easement, and drops down through a forested area to Martin Street. Portions of this corridor have been highly disturbed by logging, grazing and other impacts, such as the area at the Owl Road/Fox Hollow intersection, and the open area through the BPA easement. However, disturbed areas in the corridor generally have retained some riparian habitat, such as scattered native trees or thickets of willow. The majority of the corridor has a relatively intact riparian area of predominately native species, such as Oregon ash, bigleaf maple, Douglas fir, spiraea, an occasional black cottonwood, and willow. Closer to Amazon Creek, the corridor shows a greater mix of riparian and upland plant species. This group of sites is characterized by steep stream gradients and steep surrounding slopes, so it plays an important role in protecting the water quality in the Amazon Creek basin from erosion. From Spencer's Butte down to Amazon Creek, this corridor provides a nearly 2 mile long wildlife corridor that connects habitats in the Ridgeline Trail preserve to habitat in Amazon Creek on the valley floor.

(b) Owl Road wetland:

Wetland AMA-13 is located at the base of Spencer's Butte on along Owl Road. It occurs within and adjacent to the stream corridor that runs along the south side Owl Road. Water from this wetland and the stream meets Fox Hollow Road, flows in an open channel along Fox Hollow Road for a short distance, and then joins the main stream corridor. This wetland area contributes to the habitat diversity of this stream system, and is one of only two wetlands mapped in the South Hills.

(c) South Hills at Fox Hollow ditch:
This portion of the South Hills site (E37J-4) is a very narrow drainage channel that runs for a short distance along Fox Hollow Road near Owl Road. The channel contains virtually no riparian vegetation, and functions essentially as a roadside drainage ditch.

(4) South Hills at Canyon Drive/Fox Hollow (E37K); and
(5) South Hills at Center Way (E37L):

These two stream corridors (E37K and E37L) are both extensive corridors that extend from near the ridgeline down habitat areas at Amazon Creek, and, in addition to site E37J, form the primary headwaters of Amazon Creek. Site E37K is comprised of three stream reaches that flow through the forested areas of the Ridgeline Trail park system. The stream starts in a forested area above 1,000 feet, flows past Fox Hollow near the UGB, and continues down to Martin Street and Kinney Park at the Amazon. Portions of the site have been thinned or narrowed by adjacent development, such as at upper Amazon Drive. However, overall, the corridor is relatively intact. Native species are dominant, including Oregon ash, Douglas-fir and willow. This corridor is located almost entirely within City-owned Ridgeline Trail park land. Near Canyon Drive and Martin Street, the stream (a non-Goal 5 portion) enters a narrow channel that flows very close to houses and garages, with predominately native riparian species. The stream at Center Way (E37L) is located mostly on Ridgeline Trail park land. It begins near upper Dillard Road, and is comprised of three stream reaches that flow down steep slopes through a mixed deciduous/conifer forest, to the end of Center Way and the BPA powerline easement, where they enter a pipe. There are portions of the corridor, such as those near the BPA easement, where invasive species such as Armenian blackberry are prevalent. However, the corridor contains primarily native species, such as Oregon ash, big leaf maple ponderosa pine, willow, and red-osier dogwood. These sites are valuable for their diversity of plant species, including both riparian and upland species, and structural diversity (trees/shrubs/groundcover layers), making the sites valuable for a variety of wildlife species. Like other stream corridors within the South Hills, these two sites are characterized by steep stream gradients and steep surrounding topography, giving them a valuable role in water quality moderation within the Amazon basin.

(6) South Hills at Dillard (E37M):

(a) South Hills at Dillard Hollow:
This site (E37M-1, M-3) is one of the most pristine riparian corridors the Inventory. Unlike many other sites, this stream corridor is virtually free of non-native species. The site is actually two tributary streams that flow from near Dillard Road down a steep, forested slope and join just east of Nectar Way. The upper portion of the creek (E37M-3) starts above a "hairpin turn" on Dillard Road within the City-owned Amazon Headwaters Park, a part of the extensive Ridgeline Trail park system. The stream continues northwest (E37M-1) to Nectar Way, where it is joined by the other tributary. The site is a corridor of mixed deciduous/coniferous forest of native species, including Oregon ash, bigleaf maple, and Douglas-fir. Near the bottom of the slope, the streams join and flatten out into a low depressional broadleaf wetland area, consisting of ash, willow, and native understory. Although this portion of the site was not mapped as locally significant wetland, it exhibits wetland characteristics, such as wetland plant species. In addition to a very high quality riparian plant community, the site provides a

wildlife corridor between the large protected habitat areas in the extensive Ridgeline Trail park system and habitats at lower elevations.

(b) South Hills at Dillard ditch:
Across Dillard Road, and not connected to the Dillard Hollow stream, is a very narrow drainage channel (E37M-2). It collects drainage from the slope above, flowing along Dillard Road for a short distance below the Hunters Glen development. The channel contains virtually no riparian vegetation, and functions essentially as a roadside ditch.

Land uses within the sites in this analysis group are primarily single family residential. A small portion of the St. Clair Lane stream (E37 I) is located in an undeveloped area of a school site. Approximately 40% of this site as a whole is located within the City-owned Ridgeline Trail park system, which is managed as a natural area. Five of the six sites within this analysis group are crossed by the Bonneville Power Administration powerline easement. The uppermost ends of several stream corridors are just outside of city-limits. The short ditch at Fox Hollow (E37J-4), and approximately 1,000 feet of upper portion of E37K, are located entirely outside of city limits. The remaining sites in this analysis group are within city-limits.

17.2 Impact Area

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian and upland wildlife habitat sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 17.2 below lists the impact areas assigned to these Goal 5 sites.

Table 17.2 Impact Area Summary: Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Upper Amazon Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
South Hills at Upper Owl Road:			
E37 H	S Hills at Upper Owl Road		Type C - 50' + mapped riparian vegetation
South Hills at St. Clair Lane:			
E37 I-1	S Hills at St. Clair Lane		Type C - 50' + mapped riparian vegetation
E37 I-2	S Hills at St. Clair Lane		Type C - 50' + mapped riparian vegetation
E37 I-3	S Hills at St. Clair Lane		Type C - 50' + mapped riparian vegetation
South Hills at Owl Road/Fox Hollow:			
E37 J-1	S Hills at Lower Owl Road south		Type C - 50' + mapped riparian vegetation
E37J-2	S Hills at Lower Owl Road north		Type C - 50' + mapped riparian vegetation
AMA-13	Owl Road wetland		Type D - 25'
E37 J-4	S Hills at Fox Hollow ditch		Type C - 50' + mapped riparian vegetation
E37 J-5	S Hills at Donald/Fox Hollow		Type C - 50' + mapped riparian vegetation
South Hills at Canyon Drive/Fox Hollow, South Hills at Center Way:			
E37 K	S Hills at Canyon/Fox Hollow		Type C - 50' + mapped riparian vegetation
E37 L	S Hills at Center Way		Type C - 50' + mapped riparian vegetation
South Hills at Dillard:			
E37 M-1	S Hills at Dillard Hollow		Type C - 50' + mapped riparian vegetation
E37 M-2	S Hills at Dillard ditch		Type C - 50' + mapped riparian vegetation
E37 M-3	S Hills at Dillard upper		Type C - 50' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

17.3 Conflicting uses

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR). A very small percentage of the group, where sites cross the UGB line, has Agricultural (AG) zoning. One small area of a site is zoned Public Land (PL). In the conflicting use

analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural and Public Land uses are determined to be conflicting uses for riparian corridors and wetlands. Table 17.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 17.3 Zoning within Impact Areas: Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Upper Amazon Wetlands

Site/ Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
South Hills at Upper Owl Road:				
E37 H	S Hills at Upper Owl Road	LDR	---	Public, private
South Hills at St. Clair Lane:				
E37 I-1	S Hills at St. Clair Lane	LDR	LDR	Private
E37 I-2	S Hills at St. Clair Lane	LDR	LDR	Private
E37 I-3	S Hills at St. Clair Lane	LDR	PL	Public
South Hills at Owl Road/Fox Hollow:				
E37 J-1	S Hills at Lower Owl Road south	LDR	AG	Public
E37J-2	S Hills at Lower Owl Road north	LDR	---	Private
AMA-13	Owl Road wetland	LDR	AG	Private, public (R.O.W.)
E37 J-4	S Hills at Fox Hollow ditch	AG	---	Private, public (R.O.W.)
E37 J-5	S Hills at Donald/Fox Hollow	LDR	---	Private
South Hills at Canyon Drive/Fox Hollow; South Hills at Center Way:				
E37 K	S Hills at Canyon/Fox Hollow	LDR	AG	Public, private
E37 L	S Hills at Center Way	LDR	AG	Public, private
South Hills at Dillard:				
E37 M-1	S Hills at Dillard Hollow	LDR	---	Private
E37 M-2	S Hills at Dillard ditch	LDR	---	Private
E37 M-3	S Hills at Dillard upper	LDR	---	Public, private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

17.4 ESEE Consequences Analysis

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 17.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy

consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

17.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 17.4.1 below. Some of these characteristics are further discussed below and in Section 17.1, Site Descriptions.

Table 17.4.1 Key resource characteristics: Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Upper Amazon Wetlands (See Key below Table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
South Hills at Upper Owl Road:												
E37 H	S Hills at Upper Owl Road	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
South Hills at St. Clair Lane:											NO	YES
E37 I-1	S Hills at St. Clair Lane	NO	NO	LO-MED	MED-HI	NO	---	---	---	---	NO	YES
E37 I-2	S Hills at St. Clair Lane	NO	NO	LO-MED	LO	NO	---	---	---	---	NO	NO
E37 I-3	S Hills at St. Clair Lane	NO	NO	LO-MED	MED-HI	NO	---	---	---	---	NO	YES
South Hills at Owl Road/Fox Hollow:											NO	YES
E37 J-1	S Hills at Lower Owl Road south	NO	NO	HI	MED-HI	NO	---	---	---	---	NO	YES
E37J-2	S Hills at Lower Owl Road north	NO	NO	HI	LO-MED	YES	---	---	---	---	NO	YES
AMA-13	Owl Road wetland	NO	NO	HI	HI	YES	DIV	N/A	N/A	DEGR	NO	YES
E37 J-4	S Hills at Fox Hollow ditch	NO	NO	LO	LO	NO	---	---	---	---	NO	YES
E37 J-5	S Hills at Donald/Fox Hollow	NO	NO	HI	LO-HI	NO	---	---	---	---	NO	YES
South Hills at Canyon Drive/Fox Hollow; South Hills at Center Way:												
E37 K	S Hills at Canyon/Fox Hollow	NO	NO	HI	MED-HI	NO	---	---	---	---	NO	YES
E37 L	S Hills at Center Way	NO	NO	MED-HI	MED-HI	NO	---	---	---	---	NO	YES
South Hills at Dillard:											NO	YES
E37 M-1	S Hills at Dillard Hollow	NO	NO	MED	HI	NO	---	---	---	---	NO	YES
E37 M-2	S Hills at Dillard ditch	NO	NO	LO	LO	NO	---	---	---	---	NO	YES
E37 M-3	S Hills at Dillard upper	NO	NO	MED	MED	NO	---	---	---	---	NO	YES
		Fish	T&E	Connect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

17.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 17.4.2 below list the paragraph number of applicable ESEE consequences.

Table 17.4.2 ESEE Consequences Analysis: Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Upper Amazon Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
	FULLY ALLOWING CONFLICTING USES			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E37H S Hills at Upper Owl Road*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E37I-1, E37I-2, E37I-3 S Hills at St. Clair Lane*				
E37J-1 S Hills at Lower Owl Road south* E37J-2 S Hills at Lower Owl Road north* AMA-13 Owl Road wetland* E37J-4 S Hills at Fox Hollow ditch** E37J-5 S Hills at Donald/Fox Hollow*	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E37K S Hills at Canyon/Fox Hollow* E37L S Hills at Center Way*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
E37M-1 S Hills at Dillard Hollow* E37M-2 S Hills at Dillard ditch** E37M-3 S Hills at Dillard upper*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
**Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*				

17.5 ESEE Conclusions and Recommendations

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

17.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) South Hills at Upper Owl Road (E37H):

Limiting conflicting uses recommended. Based on key resource characteristics, this site (E37H) is a relatively *higher quality* site. The riparian area is relatively intact, with primarily native species, and high vegetative and structural diversity. The steepness of the riparian area also makes it valuable for erosion control and protection of downstream water quality. The three segments of the stream make the site relatively lengthy, but it is no longer a continuous habitat to the Amazon. Based on these resource characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for this site. The resource values provided by the site are more important to the community as a whole, than the conflicting uses that would occur here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) South Hills at St. Clair Lane (E37I-1, I-2, I-3):

Limiting conflicting uses recommended. Although portions of the riparian area in this site (E37 I) have been disturbed by clearing and driveways, it provides viable riparian habitat, including a canopy of native trees, a moderately intact riparian understory. The steepness of the surrounding slopes also makes this riparian area valuable for protecting downstream water quality in Amazon Creek from sedimentation. The site by itself is not lengthy, but it ends approximately 2 blocks from Amazon Creek, where the undeveloped portion of the school property extends down to the creek. Based on these key resource characteristics, Site E37I is a relatively *higher quality* site. Based on these factors, and the ESEE analysis above, the importance of the site is greater than the

conflicting uses that would otherwise occur in the corridor. Due to previous clearing and extensive fill, and its relatively flat gradient and surrounding terrain, the middle portion of the site, E37 I-2, does not have habitat values as high as other portions of the site. In addition, the channel has been confined to a narrow 2-3-foot corridor by the placement of a large volume of fill and adjacent retaining wall, resulting in relatively few existing constraints to development compared to other portions of Site E37 I, and compared to other stream corridors in the South Hills. For this reason, the economic values for this segment (E37 I-2) are somewhat higher in relation to the resource values than for other portions of this site and other similar sites. Nonetheless, for the site as a whole, the negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within all portions of the site outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within the site outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for this site.

(3) South Hills at Owl Road/Fox Hollow (E37J, AMA-13):

(a) South Hills at Lower Owl Road (E37 J-1, E37 J-2); South Hills at Donald/Fox Hollow (E37J-5);
(b) Owl Road wetland (AMA-13):

Limiting conflicting uses recommended. Key resource characteristics for the sites in this stream corridor (E37 J-1, E37 J-2, J-5, AMA-13) indicate that these sites are *higher-quality* sites. The group has high connectivity and comprises one of the most extensive stream corridors in the South Hills, connecting wildlife habitat at Spencer's Butte and the extensive Ridgeline Trail park system to Amazon Creek almost 2 miles away. Although portions of this corridor have been highly disturbed by logging, grazing and powerline clearing, the corridor still provides a relatively continuous corridor of habitat with predominately native plant species. The steep slopes of the stream and the surrounding area increase the value of the riparian area for protecting downstream areas from erosion and water quality degradation. Wetland AMA-13, as part of this riparian habitat complex, is *a medium- to higher quality* site. Based on these resource characteristics, and the ESEE analysis above, the resource value of these sites is more important to the community at large than the conflicting uses that would occur within these corridors. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) South Hills at Fox Hollow ditch (E37 J-4):

Fully allowing conflicting uses recommended. This portion of the South Hills complex (E37J-4) is a short, narrow drainage channel with virtually no riparian vegetation. From these resource characteristics, it is evident that this segment is a *lower quality* site. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for this site. For this lower quality site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed in this site are more important than its lower resource values.

(4) South Hills at Canyon Drive/Fox Hollow (E37K); and
(5) South Hills at Center Way (E37L):

Limiting conflicting uses recommended. These stream corridors (E37K and E37L) have resource characteristics that make them *higher quality* sites. Although portions of the sites have been thinned or constricted by adjacent development, and have open areas where invasive species are established, the riparian habitat in these corridors is still relatively intact Overall, they are dominated by primarily native species, and have a moderately high diversity of riparian and upland plants. The steep slopes of the stream and the surrounding area increase the value of the riparian area for protecting downstream areas from erosion and water quality degradation. These sites are also valuable for their connectivity, as they connect the higher forested areas of the Ridgeline Trail park system to lower elevation habitats. Based on these key resource characteristics, and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The resource values provided by these sites are more important to the broader community, than the conflicting uses that would occur here. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(6) South Hills at Dillard:

(a) South Hills at Dillard Hollow:

Limiting conflicting uses recommended. This site (E37M-1, M-3) is one of the most intact stream corridors the South Hills. The riparian area is dominated by native plants, including riparian, upland, and wetland plant species, and has high structural (tree/shrub/groundcover layers) diversity. In addition to having a high quality riparian plant community, the site has high connectivity, providing a wildlife corridor between the extensive Ridgeline Trail park system and habitats at lower elevations. Therefore this site is a *higher quality site*. Based on these key resource characteristics and the ESEE analysis above, this site is more important to the broader community than the conflicting uses that would occur within the two reaches of this stream. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately

protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) South Hills at Dillard ditch:

Fully allowing conflicting uses recommended. This portion of the South Hills site (E37M-2) is a *lower quality* site, as indicated by its key resource characteristics. It is a short, narrow drainage channel that contains virtually no riparian vegetation, and functions essentially as a roadside ditch. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For this lower quality site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed in this site are more important than its lower resource values.

17.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 17.5.2 below and Map 17.B summarize the recommendations for these sites.

(1) South Hills at Upper Owl Road (E37H):

Conservation setback of 40 feet recommended. As discussed above, this site (E37H) is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, (2) high connectivity values, and (3) the presence of steep channel gradients and steep surrounding slopes which make this site more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) South Hills at St. Clair Lane (E37I):

(a) South Hills at St. Clair Lane upper portion (E37I-1) and

(b) South Hills at St. Clair Lane lower portion (E37I-3):

Conservation setback of 40 feet recommended. As discussed above, all of Site E37I is recommended for protection. The conservation measure proposed for E37I-1 and E37I-3 is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These

segments of this riparian site are recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, (2) medium connectivity values, and (3) the presence of steep channel gradients and steep surrounding slopes which make this site more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) South Hills at St. Clair Lane middle portion (E37I-2):
Conservation setback of 20 feet recommended. All of Site E37I is recommended for protection. However, as discussed above, this middle section of the riparian corridor (E37I-2) has somewhat lower habitat value and greater economic constraints than the upper and lower portions of the site (E37I-1 and E37I-3). This middle section, almost one-fourth of the E37I site, has very little riparian vegetation, and is a narrow corridor only 2-3 feet wide, constrained by a retaining wall and extensive fill. In addition, the corridor here is nearly flat. However, three-fourths of Site E37I contain high quality riparian habitat, the lower portion has steep slopes, and the waterway provides important water quality functions for Amazon Creek. Therefore, it is important to protect the hydrologic functions of this middle section, in order to maintain the viability of upstream and downstream habitat. The conservation measure proposed for E37I-2 is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This portion of the site is recommended to be designated a Category D Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the marginal quality of riparian habitat, (2) medium connectivity value relative to the entire riparian site, and (3) the presence of steep channel gradients and steep surrounding slopes above and below this segment, which make downstream areas more vulnerable to channel erosion, and makes this portion important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. A Category D conservation area would reflect existing conditions on this section while maintaining the viability of the overall stream corridor.

(3) South Hills at Owl Road/Fox Hollow (E37J, AMA-13):

(a) South Hills at Lower Owl Road; South Hills at Donald/Fox Hollow:
Conservation setback of 40 feet recommended. As discussed above, these sites (E37J-1, E37J-2, E37J-5) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, (2) high connectivity values, (3) diversity of habitat types, and (4) the presence of steep channel gradients and steep surrounding slopes which make this site more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat

sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Owl Road wetland:
Conservation setback of 25 feet recommended. As discussed above, this site (AMA-13) is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Based on the habitat quality and connectivity value, this wetland site is recommended to be designated a Category B Wetland. For wetland sites designated Category B Wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 25 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) South Hills at Fox Hollow ditch:
No protection measures are recommended for this site (E37J-4), as discussed in the analysis above.

(4) South Hills at Canyon Drive/Fox Hollow (E37K); and
(5) South Hills at Center Way (E37L):
Conservation setback of 40 feet recommended. As discussed above, these sites (E37K, E37L) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). These riparian sites are recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, (2) high connectivity values, and (3) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(6) South Hills at Dillard (E37M):

(a) South Hills at Dillard Hollow:
Conservation setback of 40 feet recommended. As discussed above, this site (E37M-1, M-2) is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, (2) high connectivity values, and (3) the presence of steep channel gradients and steep surrounding slopes which make this site more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation

setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) E37 M-2 S Hills at Dillard ditch:
No protection measures are recommended for this site (E37M-2), as discussed in the analysis above.

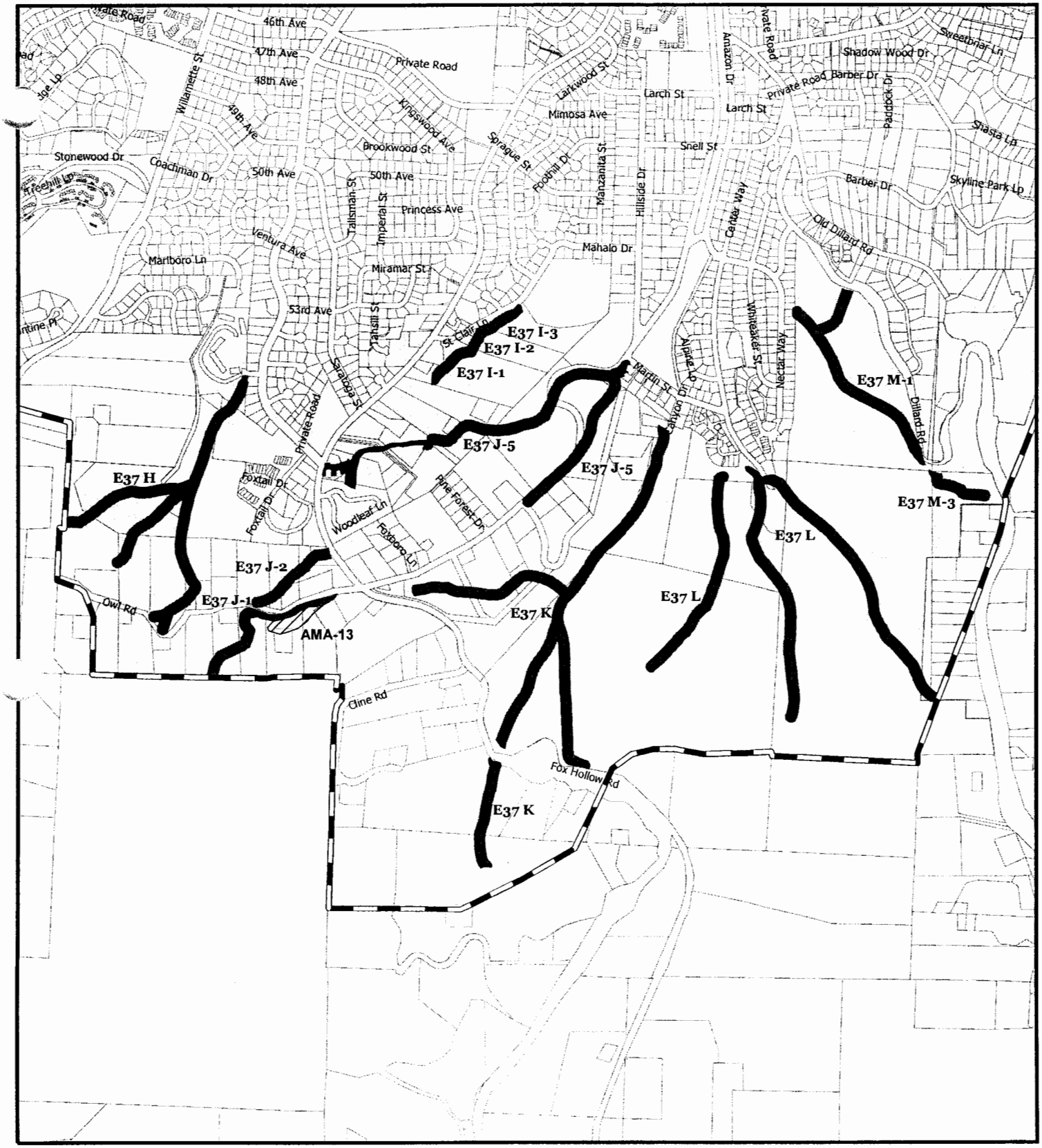
Table 17.5.2 Recommendations summary: Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard) & Upper Amazon Wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits***
South Hills at Upper Owl Road:						
E37 H	S Hills at Upper Owl Road	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Public, private	All
South Hills at St. Clair Lane:						
E37 I-1	S Hills at St. Clair Lane	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private, public	all
E37 I-2	S Hills at St. Clair Lane	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Private, public	all
E37 I-3	S Hills at St. Clair Lane	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private, public	all
South Hills at Owl Road/Fox Hollow:						
E37 J-1	S Hills at Lower Owl Road south	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Public	99%
E37J-2	S Hills at Lower Owl Road north	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
AMA-13	Owl Road wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private, public (R.O.W.)	95%
E37 J-4	S Hills at Fox Hollow ditch	Fully allow conflicting uses	n/a	n/a	Private, public (R.O.W.)	1/2
E37 J-5	S Hills at Donald/Fox Hollow	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
South Hills at Canyon Drive/Fox Hollow; South Hills at Center Way:						
E37 K	S Hills at Canyon/Fox Hollow	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Public, private	90%
E37 L	S Hills at Center Way	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Public, private	99%
South Hills at Dillard:						
E37 M-1	S Hills at Dillard Hollow	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E37 M-2	S Hills at Dillard ditch	Fully allow conflicting uses	n/a	n/a	Private	All
E37 M-3	S Hills at Dillard upper	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Public, private	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection **Map 17B**

Significant Goal 5 ESEE Analysis Group 17

Goal 5 Protection Designations for Portions of South Hills Upland Stream Corridors at Upper Amazon (Owl Road to Dillard & Upper Amazon Wetlands)

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 340 680 1,020

10/24/05

17.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E37 H (S Hills at Upper Owl Road); E37I (S Hills at St. Clair Lane); E37J (S Hills at Lower Owl Road/Fox Hollow); E37K (S Hills at Canyon Drive/Fox Hollow), E37L (S Hills at Center Way); E37M (S Hills at Dillard); AMA-13 (Owl Road wetland)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

18. Supplemental Analysis

Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

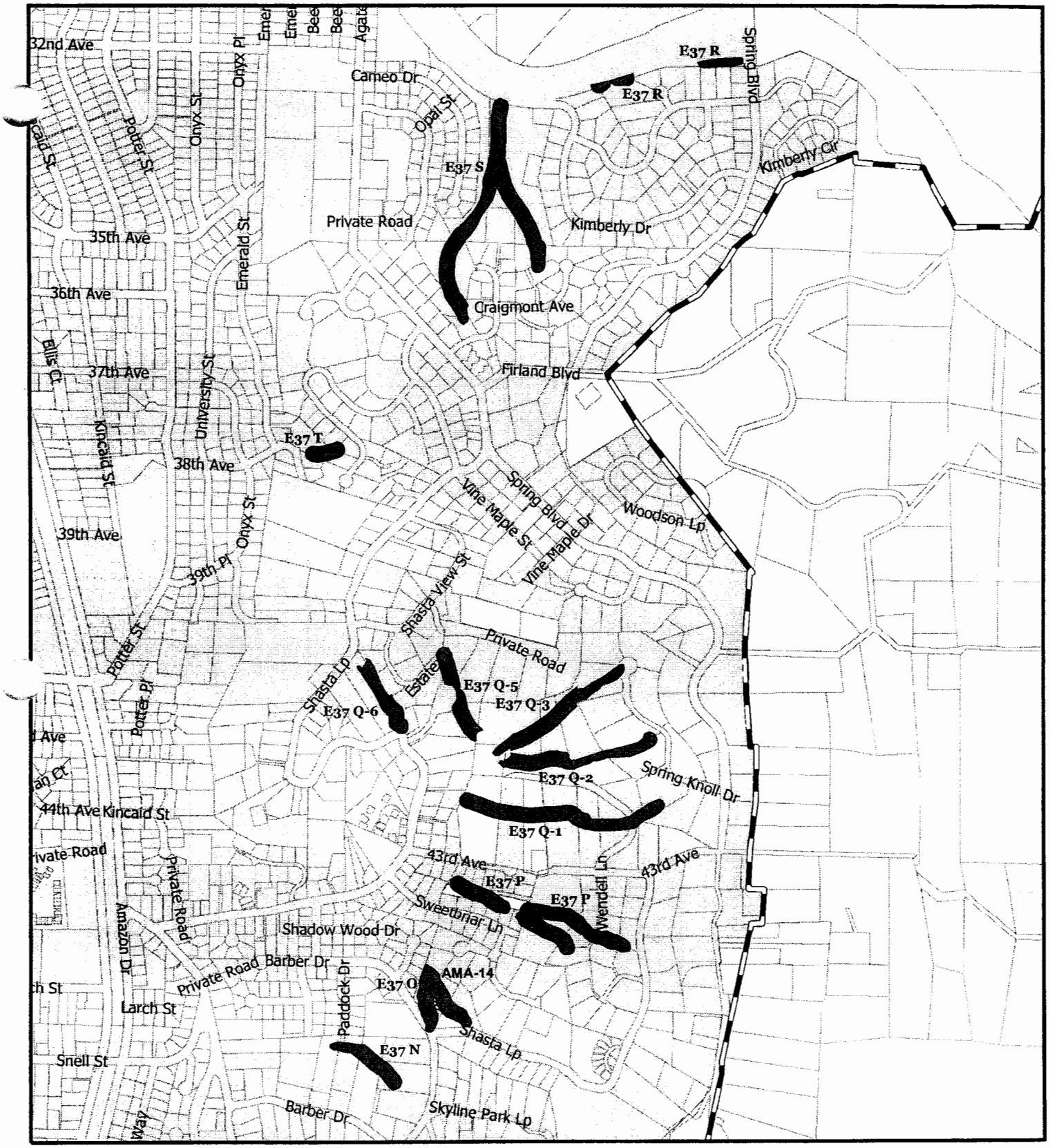
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 18.1 below lists the sites in this analysis group, their resource category and acreage. Map 18.A below shows the site(s) described in this analysis group.

Table 18.1 ESEE analysis group: Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

Site/Sub-Site #	Site Name	Resource Type*	Sub Site Acres	Inside City Limits**
Southeast Hills at Paddock:				
E37 N	SE Hills at Paddock	U	1.10	all
Southeast Hills at Barber:				
E37 O	SE Hills at Barber	U	1.74	all
AMA-14	Barber wetland	W	0.86	all
Southeast Hills at Sweetbriar & Spring Knoll:				
E37 P	SE Hills at 43rd/Sweetbriar	U	3.58	all
E37 Q-1	SE Hills at Spring Knoll	U	3.01	3/4
E37 Q-2	SE Hills at Spring Knoll	U	1.88	all
E37 Q-3	SE Hills at Spring Knoll	U	1.93	all
E37 Q-5	SE Hills at Estate Dr	U	1.28	all
E37 Q-6	SE Hills at Spring Knoll/Lower Shasta Loop	U	1.12	all
Southeast Hills at 30th & Kimberly:				
E37 R	SE Hills at 30th	U	0.69	all
E37 S	SE Hills at Kimberly	U	5.04	all
Southeast Hills at Pine Canyon:				
E37 T	SE Hills at Pine Canyon	U	0.56	all

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits.



Site Boundaries

Significant Goal 5 ESEE Analysis Group 18

Map 18A

Significant Goal 5 Site Boundaries for Portions of Southeast Hills
Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 250 500 750 Feet

4/25/05

18.1 Site Description(s)

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

The sites in this analysis group are located within the southeast hills of Eugene, east of East Amazon Drive, between Barber Drive and 30th Avenue. As a group, they comprise the last of the original system of streams that carries water from the southeast ridgeline down to Amazon Creek. These corridors are generally characterized by steep stream gradients and/or steep surrounding topography. The riparian areas along these streams are remnants of what was once a widespread mixed deciduous/coniferous forest of Douglas-fir, Oregon white oak, ponderosa pine, bigleaf maple and Oregon ash. Structural and species diversity are moderately high in many sections; however, many of the corridors have been greatly fragmented by logging and intervening development.

(1) Southeast Hills at Paddock (E37N)

This site (E37N) is a portion of a small stream that flows through a mixed deciduous/coniferous forest. Although there is a relatively continuous, native tree canopy, most of the riparian understory within the site has been cleared. The understory that remains is mostly native sword fern. This is a relatively short, isolated site.

(2) Southeast Hills at Barber (E37O); Barber wetland (AMA-14):

(a) Southeast Hills at Barber (E37O)

This site (and its associated wetland) collects water from the hillside below Suncatcher Way and Shasta Loop, and from the roadside ditch that flows down Shasta Loop. Although relatively small, the site has a fairly intact riparian corridor that includes Oregon ash, bigleaf maple, native understory, and a dense thicket of willows at the lower end. Because it is one of the few areas with dense willows in the upper hills, the site provides important habitat for amphibians, birds and small mammals.

(b) Barber wetland (AMA-14)

This wetland is located at the lower end of Shasta Loop, where it meets the end of Barber Drive. As the receiving area for drainage off of the hills above and the Shasta Loop roadway, this wetland area provides water quality benefits as well as contributing diversity of habitat to the stream system in the upper Amazon basin.

(3) Southeast Hills at Sweetbriar (E37P); and Southeast Hills at Spring Knoll (E37Q)

(a) Southeast Hills at 43rd/Sweetbriar (E37P); Southeast Hills at Spring Knoll (E37Q):

These sites (E37P, E37Q-1, E37Q-2, E37Q-3) consist of a series of streams that begin near the ridgeline at Spring Knoll and drop down the steep ridge into the valley at North Shasta Loop and 43rd Avenue. The upper portions of the streams in E37Q (at Spring Knoll) have been greatly disturbed by previous logging, and clearing for new homes and driveway crossings. The corridors are very narrow, lack an overstory tree layer, and invasive species, such as Armenian blackberry, are prevalent. However, the riparian areas still contain a moderate proportion of native species, including smaller Oregon ash, bigleaf maple, and

some willow. In the lower portions of these corridors, below Wendell Lane and at the lower end of Wendell Lane, riparian habitat is relatively intact, with a moderate level of diversity in species and vegetative structure. Although invasive species are present, the corridors are dominated by native species, and contain a diversity of riparian and upland species, including Oregon ash, bigleaf maple, Oregon oak, and Douglas-fir. Site E37P is relatively more intact. The upper portion of this stream has been thinned, but retains a riparian corridor dominated by native species, including wetland species such as willow, checkermallow and rush. From there, the stream flows down a moderately steep ravine along Sweetbriar Lane, through a mixed deciduous/coniferous forest of primarily Douglas-fir, bigleaf maple and Oregon oak. At the lower end of the slope, the stream enters a broad riparian area dominated by Oregon ash and wetland species including rushes. At their lower ends, the corridors have higher species and structural diversity, and are dominated by native species, including Oregon ash, Douglas fir, vine maple, occasional black cottonwood, and native understory, such as osoberry and sword fern. These corridors generally have steep stream bed gradients, and are surrounded by steep slopes. At the bottom of the hill at 43rd Avenue and Shasta Loop, these streams enter pipes, and their flow is piped from there to Amazon Creek.

(b) Southeast Hills at Estate Dr (E37Q-5); Southeast Hills at Lower Shasta (E37Q-6):

These two sites are shorter streams that flow from the ridge at North Shasta Loop down to 43rd Avenue. The stream at Estate Drive (E37Q-5) has been disturbed and constricted by intervening development, resulting in a relatively short corridor, disconnected from other habitat. The Lower Shasta site (E37Q-6) contains predominately native species, with a canopy of primarily Douglas-fir and some bigleaf maple. However, the corridor is essentially an upland, not riparian, area. The stream channel is mostly a grassy swale that extends for a short distance through this woodland, before entering a storm drain at the roadway. It is disconnected from other habitat areas.

(4) Southeast Hills at 30th (E37R); Southeast Hills at Kimberly (E37S):

(a) Southeast Hills at 30th (E37R):

This is a short, steep corridor (E37R) that flows along the Spring Boulevard off-ramp. For a short distance, at Spring Boulevard, the site contains riparian plant species, such as bigleaf maple and Oregon ash. However, most of this corridor is now piped, and is so highly fragmented that its habitat value is greatly diminished.

(b) Southeast Hills at Kimberly (E37S):

This site (E37S) is comprised of two stream corridors that begin near the ridgeline at Spring Boulevard and Agate Street, flow northward down the ridge, join together near the midpoint, and drop down a relatively steep ravine to the end of Kimberly Drive and 30th Avenue. At 30th Avenue, the stream enters a pipe. Some areas of the corridor have been thinned or have more prevalent non-native species, such as the area adjacent to 30th Avenue. However, overall, the corridor is one of the more intact riparian corridors in the southeast hills area. The stream flows down relatively steep, forested slopes that contain a mix of upland and riparian species. Corridor vegetation is predominately native, and has relatively high vegetative and structural diversity (tree/shrub/groundcover layers). Oregon ash, bigleaf maple, and Douglas-fir are the dominant canopy trees. As with other stream corridors surrounded by steep topography, these riparian corridors play a valuable role in intercepting stormwater

flows and minimizing erosion , thus reducing sedimentation impacts on downstream water quality within the Amazon basin.

(5) **Southeast Hills at Pine Canyon (E37T):**
The stream corridor at Pine Canyon (E37T) is one of the smallest of the south hills stream corridors. At one time, it is likely that the stream extended from the ridge at Spring Boulevard down through the canyon to Amazon Creek. The existing stream is now approximately 140 feet long, with a piped system on either end. Although the site is dominated by native woodland and riparian species, it is highly isolated, and therefore of minimal habitat value.

Land uses within the sites in this analysis group are primarily single family residential. Most of these stream corridors flow through newer residential subdivisions with relatively large lots. With one exception, all of the sites are located within city limits. Approximately one-fourth of the stream corridor at E37Q-1, below Wendell Lane, is undeveloped land outside of city limits.

18.2 Impact Area

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian and upland wildlife habitat sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 18.2 below lists the impact areas assigned to these Goal 5 sites.

Table 18.2 Impact Area Summary: Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
Southeast Hills at Paddock:			
E37 N	SE Hills at Paddock		Type C - 50' + mapped riparian vegetation
Southeast Hills at Barber:			
E37 O	SE Hills at Barber		Type C - 50' + mapped riparian vegetation
AMA-14	Barber wetland		Type D - 25'
Southeast Hills at Sweetbriar & Spring Knoll:			
E37 P	SE Hills at 43rd/Sweetbriar		Type C - 50' + mapped riparian vegetation
E37 Q-1	SE Hills at Spring Knoll		Type C - 50' + mapped riparian vegetation
E37 Q-2	SE Hills at Spring Knoll		Type C - 50' + mapped riparian vegetation
E37 Q-3	SE Hills at Spring Knoll		Type C - 50' + mapped riparian vegetation
E37 Q-5	SE Hills at Estate Dr		Type C - 50' + mapped riparian vegetation
E37 Q-6	SE Hills at Spring Knoll/Lower Shasta Loop		Type C - 50' + mapped riparian vegetation
Southeast Hills at 30th & Kimberly:			
E37 R	SE Hills at 30th		Type C - 50' + mapped riparian vegetation
E37 S	SE Hills at Kimberly		Type C - 50' + mapped riparian vegetation
Southeast Hills at Pine Canyon:			
E37 T	SE Hills at Pine Canyon		Type C - 50' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

18.3 Conflicting uses

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR). A very small percentage of the group, where sites cross the UGB line, has Agricultural (AG) zoning. One small area of a site is zoned Public Land (PL). In the conflicting use

analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural and Public Land uses are determined to be conflicting uses for riparian corridors and wetlands. Table 18.3 below lists the zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 18.3 Zoning within Impact Areas: Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

Site/Sub-Site #	Site Name	Primary Zoning*	Secondary Zoning	Ownership**
Southeast Hills at Paddock:				
E37 N	SE Hills at Paddock	LDR	same	private
Southeast Hills at Barber:				
E37 O	SE Hills at Barber	LDR	same	private
AMA-14	Barber wetland	LDR	same	private
Southeast Hills at Sweetbriar & Spring Knoll:				
E37 P	SE Hills at 43rd/Sweetbriar	LDR	same	private
E37 Q-1	SE Hills at Spring Knoll	LDR	same	private
E37 Q-2	SE Hills at Spring Knoll	LDR	same	private
E37 Q-3	SE Hills at Spring Knoll	LDR	same	private
E37 Q-5	SE Hills at Estate Dr	LDR	same	private
E37 Q-6	SE Hills at Spring Knoll/Lower Shasta Loop	LDR	same	private
Southeast Hills at 30th & Kimberly:				
E37 R	SE Hills at 30th	LDR	same	private
E37 S	SE Hills at Kimberly	LDR	same	private
Southeast Hills at Pine Canyon:				
E37 T	SE Hills at Pine Canyon	LDR	same	private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first

18.4 ESEE Consequences Analysis

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 18.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

18.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated in part through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 18.4.1 below. Some of these characteristics are further discussed below and in Section 18.1, Site Descriptions.

Table 18.4.1 Key resource characteristics: Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands (See key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
Southeast Hills at Paddock:							WL HAB	Fish	WQ	Flood		
E37 N	SE Hills at Paddock	NO		LO	MED	NO	---	---	---	---	NO	YES
Southeast Hills at Barber:												
E37 O	SE Hills at Barber	NO	NO	LO	HIGH	YES	---	---	---	---	NO	YES
AMA-14	Barber wetland	NO	NO	LO	HIGH	YES	SOME	N/A	INTACT	DEGR	NO	YES
Southeast Hills at Sweetbriar & Spring Knoll:												
E37 P	SE Hills at 43rd/Sweetbriar	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E37 Q-1	SE Hills at Spring Knoll	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E37 Q-2	SE Hills at Spring Knoll	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E37 Q-3	SE Hills at Spring Knoll	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E37 Q-5	SE Hills at Estate Dr	NO	NO	LO	MED	NO	---	---	---	---	NO	YES
E37 Q-6	SE Hills at Spring Knoll/Lower Shasta Loop	NO	NO	LO	LO	NO	---	---	---	---	NO	YES
Southeast Hills at 30th & Kimberly:												
E37 R	SE Hills at 30th	NO	NO	LO	LO	NO	---	---	---	---	NO	YES
E37 S	SE Hills at Kimberly	NO	NO	MED	HI	NO	---	---	---	---	NO	YES
Southeast Hills at Pine Canyon:												
E37 T	SE Hills at Pine Canyon	NO	NO	LO	MED	NO	---	---	---	---	NO	YES
			T&E	Con-nect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

18.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 18.4.2 below list the paragraph number of applicable ESEE consequences.

Table 18.4.2 ESEE Consequences Analysis: Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
	FULLY ALLOWING CONFLICTING USES			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E37N SE Hills at Paddock**	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E37O SE Hills at Barber* AMA-14 Barber wetland*				
E37P SE Hills at 43rd/Sweetbriar* E37Q-1 SE Hills at Spring Knoll* E37Q-2 SE Hills at Spring Knoll* E37Q-3 SE Hills at Spring Knoll* E37Q-5 SE Hills at Estate Dr** E37Q-6 SE Hills at Spring Knoll/Lower Shasta Loop**	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Economic* (Section 4.3.1)	*Economic* (Section 4.3.1)	*Economic* (Section 4.3.1)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E37R SE Hills at 30th** E37S SE Hills at Kimberly*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
E37T SE Hills at Pine Canyon**	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
**Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*				

18.5 ESEE Conclusions and Recommendations

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

18.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Southeast Hills at Paddock (E37N):

Fully allowing conflicting uses recommended. Although this site (E37N) contains primarily native species, it lacks riparian species, and is a relatively short, isolated site. Based on these key resource characteristics, this site falls in the range of *lower to more moderate quality* sites. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for this site. For this site, conflicting uses that would be allowed in this site are more important than its more moderate resource values. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(2) Southeast Hills at Barber (E37O); Barber wetland (AMA-14):

(a) Southeast Hills at Barber (E37O);
(b) Barber wetland (AMA-14):
Limiting conflicting uses recommended. The Barber site (E37O) and its associated wetland (AMA-14) are relatively *higher quality* sites, based in part on key resource characteristics. Although relatively small, the riparian plant community here is high quality, providing dense riparian and wetland vegetation that provides important and uncommon habitat for amphibians and birds at various life stages. The wetland site is one of the few wetlands identified in the southeast hills, and performs valuable water quality functions for the Amazon Creek system. Based on these characteristics and the ESEE analysis above, these resources sites have greater importance to the community than the conflicting uses that could occur here if the resources were not protected. Although there are some negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences of *fully allowing* conflicting use. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the

negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) Southeast Hills at Sweetbriar (E37P); and Southeast Hills at Spring Knoll (E37Q):

(a) Southeast Hills at 43rd/Sweetbriar (E37P); Southeast Hills at Spring Knoll (E37Q):

Limiting conflicting uses recommended. Although sections of the riparian areas in these sites (E37P, E37Q-1, E37Q-2, E37Q-3) have been greatly disturbed by logging and residential development, overall the corridors provide *moderate-to higher quality habitat.* The more disturbed portions of Site E37Q still provide viable riparian habitat, with a high ratio of native riparian species; lower portions of these corridors are relatively intact, with primarily native species, and moderate vegetative and structural diversity. Site E37P provides a high level of diversity in a riparian plant community that ranges from mixed deciduous/coniferous forest and ash wetland. In addition, the steepness of the surrounding terrain makes these riparian areas valuable for minimizing erosion and protecting downstream water quality in the Amazon. Based on these resource characteristics, and the ESEE analysis above, the importance of these sites to the larger community is greater than the conflicting uses that would otherwise occur within the corridors. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) Southeast Hills at Estate Dr (E37Q-5); Southeast Hills at Lower Shasta (E37Q-6):

Fully allowing conflicting uses recommended. These sites (E37Q-5, E37Q-6) are relatively short, isolated segments within fragmented corridors. Based on key resource characteristics, these sites fall in the range of *lower- to moderate* quality sites. Based on these resource characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for these two sites. Conflicting uses that would be allowed here are more important than the relatively lower resource values provided by these sites. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

4) Southeast Hills at 30th (E37R); Southeast Hills at Kimberly (E37S):

(a) Southeast Hills at 30th (E37R):

Fully allowing conflicting uses recommended. This portion of the South Hills site (E37R) is a *lower quality* site, as indicated by its key resource characteristics. It is composed of two short fragments of a channel that runs along the base of Spring Boulevard off-ramp. Based on resource characteristics and the ESEE analysis above, fully allowing conflicting uses is recommended for this site. For this lower quality site, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses that would be allowed in this site are more important than its lower resource values.

(b) Southeast Hills at Kimberly (E37S):

Limiting conflicting uses recommended. Key resource characteristics for this site (E37S) indicate that this stream is a *higher-quality* site. The stream has only moderate connectivity, compared to larger creek systems in the Inventory, but it is one of the more extensive and intact riparian corridors in the southeast hills. The corridor provides a relatively continuous corridor of habitat with high vegetative and structural diversity, and predominately native plant species. The steep slopes of the stream and the surrounding area increase the value of this riparian area in protecting downstream areas from erosion and water quality degradation. Based on these resource characteristics, and the ESEE analysis above, the resource value of this site is more important to the community at large than the conflicting uses that would occur within the corridor. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within the site outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(5) Southeast Hills at Pine Canyon (E37T):

Fully allowing conflicting uses recommended. Based on key resource characteristics, the stream corridor at Pine Canyon (E37T) is a *lower quality* site. While it contains a moderately intact riparian area, with predominately native species, the site is disconnected from other habitat areas. In addition, the site is so small that it is questionable whether the site will remain a viable riparian corridor. Based on that, and the ESEE analysis above, fully allowing conflicting uses is recommended for the site. Conflicting uses that would be allowed here are more important than the relatively lower resource values here. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

18.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 18.5.2 below and Map 18.A summarize the recommendations for these sites.

(1) Southeast Hills at Paddock (E37N):

No protection measures are recommended for this site (E37N), as discussed in the analysis above.

(2) Southeast Hills at Barber (E37O); Barber wetland (AMA-14):

(a) Southeast Hills at Barber (E37O):
Conservation setback of 40 feet recommended. As discussed above, this site (E37O) and its associated wetland is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian and wetland habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make this site more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Barber wetland (AMA-14):
Conservation setback of 25 feet recommended. As discussed above, this site (AMA-14) is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This wetland site is recommended to be designated a Category B Wetland. For wetland sites designated Category B Wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 25 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(3) Southeast Hills at Sweetbriar (E37P); and Southeast Hills at Spring Knoll (E37Q)

(a) Southeast Hills at 43rd/Sweetbriar (E37P); Southeast Hills at Spring Knoll (E37Q):
Conservation setback of 40 feet recommended. As discussed above, these sites (E37P, E37Q-1, E37Q-2, E37Q-3) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR

overlay zone). These riparian sites are recommended to be designated Category C Streams. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Southeast Hills at Estate Dr (E37Q-5); Southeast Hills at Lower Shasta (E37Q-6):

No protection measures are recommended for these sites (E37Q-5, E37Q-6), as discussed in the analysis above.

(4) Southeast Hills at 30th (E37R); Southeast Hills at Kimberly (E37S):

(a) Southeast Hills at 30th (E37R):

No protection measures are recommended for this site (E37R), as discussed in the analysis above.

(b) Southeast Hills at Kimberly (E37S):

Conservation setback of 40 feet recommended. As discussed above, this site (E37S) is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian and wetland habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make this site more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(5) Southeast Hills at Pine Canyon (E37T):

No protection measures are recommended for this site (E37T), as discussed in the analysis above.

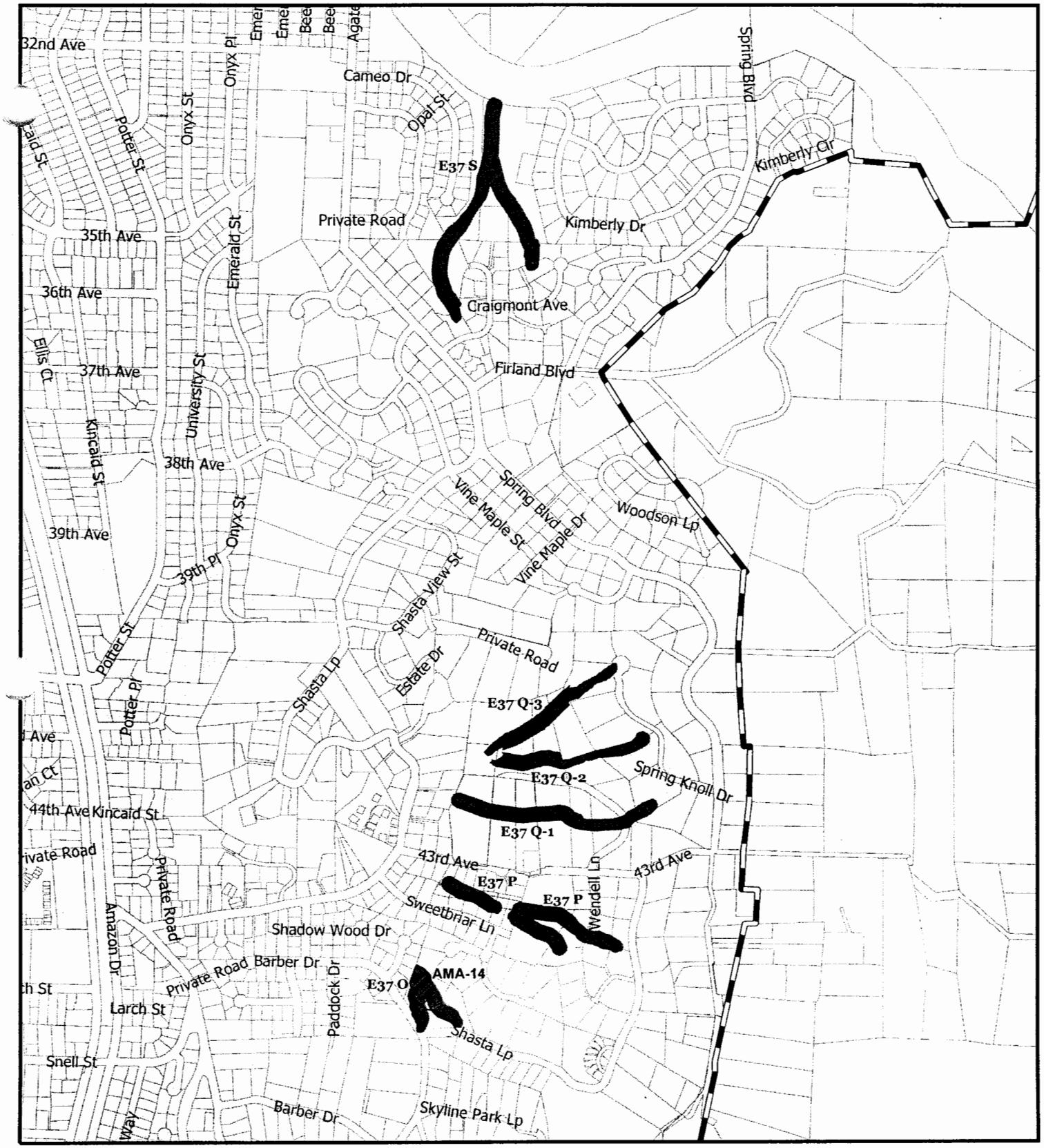
Table 18.5.2 Recommendations summary: Portions of Southeast Hills Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

Site/ Sub-Site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Southeast Hills at Paddock:						
E37 N	Southeast Hills at Paddock	Fully allow conflicting uses	n/a	n/a	Private	All
Southeast Hills at Barber:						
E37 O	SE Hills at Barber	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
AMA-14	Barber wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	All
Southeast Hills at Sweetbriar & Spring Knoll:						
E37 P	SE Hills at 43rd/Sweetbriar	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E37 Q-1	SE Hills at Spring Knoll	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	3/4
E37 Q-2	SE Hills at Spring Knoll	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E37 Q-3	SE Hills at Spring Knoll	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
E37 Q-5	SE Hills at Estate Dr	Fully allow conflicting uses	n/a	n/a	Private	All
E37 Q-6	SE Hills at Spring Knoll/Lower Shasta Loop	Fully allow conflicting uses	n/a	n/a	Private	All
Southeast Hills at 30th & Kimberly:						
E37 R	SE Hills at 30th	Fully allow conflicting uses	n/a	n/a	Private	All
E37 S	SE Hills at Kimberly	Limit conflicting uses	/WR Overlay Zone, Stream Category C	40'	Private	All
Southeast Hills at Pine Canyon:						
E37 T	SE Hills at Pine Canyon	Fully allow conflicting uses	n/a	n/a	Private	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection **Map 18B**

Significant Goal 5 ESEE Analysis Group 18

Goal 5 Protection Designations for Portions of Southeast Hills
Upland Stream Corridors at East Amazon (Barber to 30th) & East Amazon Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 240 480 720 Feet

4/25/05

18.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E37 N (SE Hills at Paddock); E37 O (SE Hills at Barber); E37 P (SE Hills at 43rd/Sweetbriar); E37 Q (SE Hills at Spring Knoll/Estate Dr/South Shasta Loop); E37 R 30th (SE Hills at 30th); E37 S (SE Hills at Kimberly); E37 T (SE Hills at Pine Canyon); AMA-14 (Barber wetland)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

19. Supplemental Analysis

Laurel Hill Upland Stream Corridors & Augusta Creek

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78 A-B (Augusta Creek at Floral Hill); E78 D-F (Augusta Creek at Riverview); E78 G-I (August Creek at Augusta)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

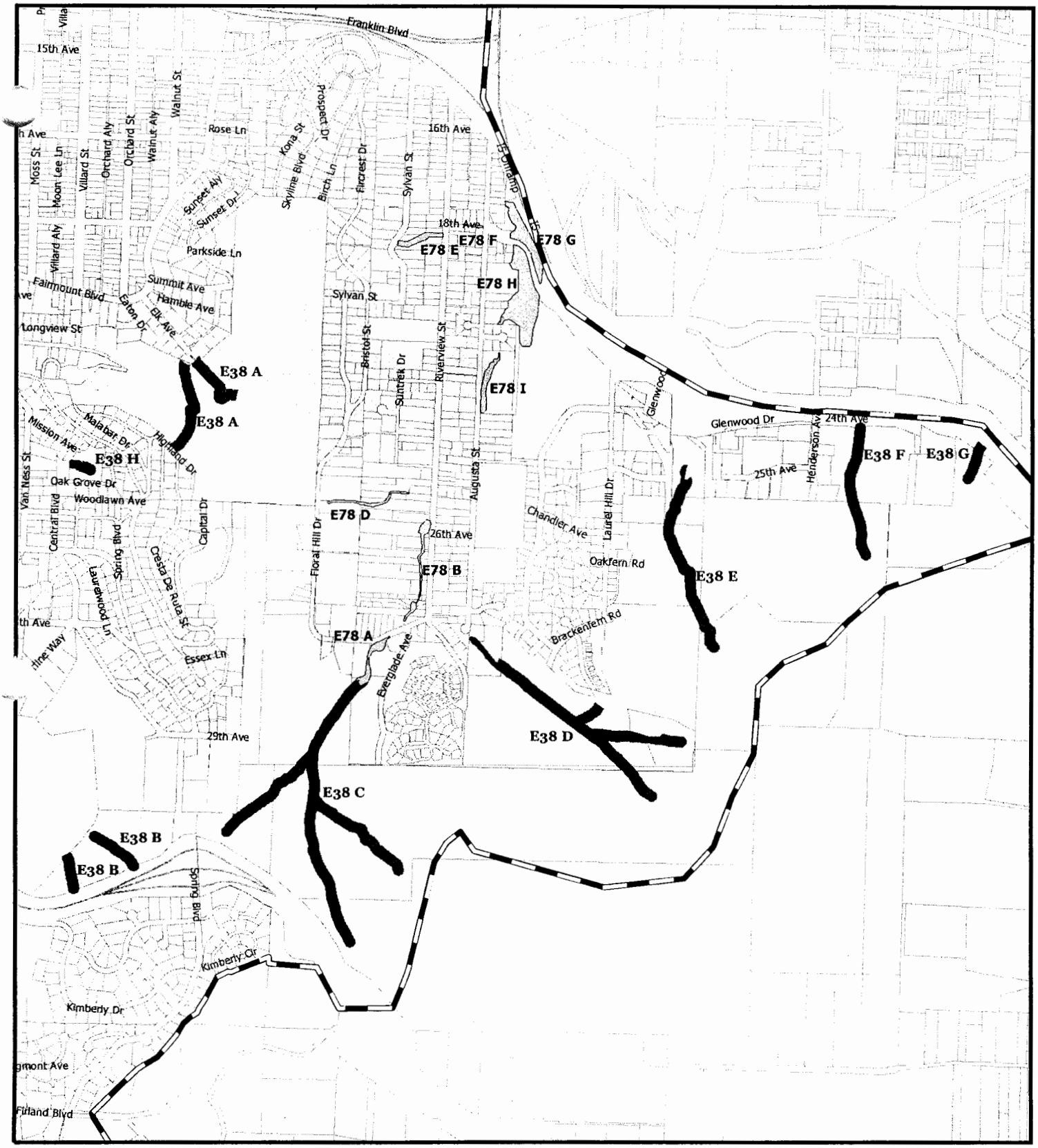
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 19.1 below lists the sites in this analysis group, their resource category and acreage. Map 19.A below shows the site(s) described in this analysis group.

Table 19.1 ESEE analysis group: Laurel Hill Upland Stream Corridors & Augusta Creek

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Laurel Hill Upland Stream Corridors:				
E38 A	Laurel Hill Upland at Hendricks Park	U	3.42	All
E38 B	Laurel Hill Upland at golf course	U	2.06	All
E38 C	Laurel Hill Upland at Floral/30th	U	11.04	95%
E38 D	Laurel Hill Upland at Eastridge	U	7.09	95%
E38 E	Laurel Hill Upland at Glenwood	U	4.22	All
E38 F	Laurel Hill Upland at 25th	U	2.98	1/2
E38 G	Laurel Hill Upland at I-5	U	0.89	None
E38 H	Laurel Hill Upland at Mission Park	U	0.51	All
Augusta Creek:				
E78 A-B	Augusta Creek at Floral Hill	R	1.27	All
E78 D,E,F	Augusta Creek at Riverview	R	0.92	All
E78 G,H,I	August Creek at Augusta	R	6.04	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Approximate proportion of site within city limits



Site Boundaries

Map 19A

Significant Goal 5 ESEE Analysis Group 19

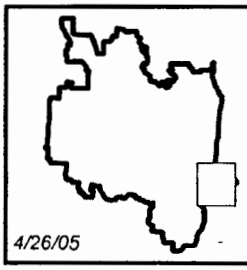
Significant Goal 5 Site Boundaries for Laurel Hill Upland Stream Corridors & Augusta Creek

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 350 700 1,050



4/26/05

19.1 Site Description(s)

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78A-B (Augusta Creek at Floral Hill); E78D- F (Augusta Creek at Riverview); E78G-I (August Creek at Augusta)

The riparian corridors and upland stream corridors in this analysis group are located in the Laurel Hill area between 30th Avenue and I-5.

(1) Laurel Hill Upland Stream Corridors:

(a) Laurel Hill Upland at Hendricks Park (E38 A):

This site (E38A) is comprised of 2 stream segments that flow down steep hillsides in Hendricks Park, then into a piped system as they exit the park. The streams are surrounded by steep topography, and flow through natural woodlands where native woodland species, such as Douglas-fir, bigleaf maple, and swordfern are dominant. As in many urban riparian corridors, invasive English ivy is prevalent.

(b) Laurel Hill Upland at golf course (E38B):

This site (E38B) consists of two short, isolated stream segments located in the Laurelwood Golf Course, entirely within woodland areas that are not developed as fairway or greens. The streams both have relatively intact riparian corridors, with predominately native species, such as bigleaf maple, ash, willow, and occasional Douglas-fir. Most of each stream corridor is steep, taking drainage down the slope from 30th Avenue, but flattening out as it reaches the golf course, and entering a pipe at the edge of the fairway.

(c) Laurel Hill Upland at Floral/30th (E38 C);
(d) Laurel Hill Upland at Eastridge (E38 D);
(f) Laurel Hill Upland at 25th (E38 F):

The two stream corridors sites E38C and E38D are relatively extensive corridors that extend from near the ridgeline down to Laurel Valley. The western corridor, Site E38C, begins at 30th Avenue as the upland wildlife habitat portion of Augusta Creek, flows down steep wooded hillsides through undeveloped lands in the UGB, including a portion of the Ridgeline Trail park system, and connects to remaining portions of the creek below Floral Hill Drive (within riparian site E78). Stream E38D flows through primarily undeveloped woodlands near Moon Mountain, down to Augusta Street, where it enters a pipe. Stream E38F extends from near the ridgeline at Moon Mountain park down a steep ravine to the Interstate 5 corridor near 25th Avenue. All

of these streams are characterized by primarily native vegetation, such as Oregon ash, bigleaf maple, black cottonwood, Douglas-fir and, in wetter areas, native willow. All streams have steep gradients and are surrounded by steep topography. As with other stream corridors surrounded by steep topography, these riparian corridors play a valuable role in intercepting stormwater flows and minimizing erosion impacts on downstream water quality.

(e) Laurel Hill Upland at Glenwood (E38 E);
(g) Laurel Hill Upland at I-5 (E38 G);
(h) Laurel Hill Upland at Mission Park (E38 H):

These sites (E38E, E38G, E38H) are unconnected remnants of what were once longer stream corridors. All of these sites are characterized by steep stream gradients and/or steep slopes. Site E38E flows through primarily undeveloped land near Moon Mountain, down to the Glenwood Blvd/I-5 interchange. This corridor has been highly modified by construction in the interchange area and forest thinning over the years. Site E38 G, at I-5 to the east, is a very small stream segment that collects water from the steep hillside above it down to the I-5 freeway embankment. It also contains primarily native vegetation. The site is the upper end of the stream system that flows into Glenwood Slough and eventually into the Willamette River. Mission Park contains one of the smaller sites in the Inventory, Site E38H. The riparian corridor here consists primarily of orchard grass with some native vegetation, such as Oregon ash and cattail. While all of these stream corridors are dominated by native vegetation, they are relatively short stream segments that are somewhat isolated from other habitat areas by the freeway.

(2) Augusta Creek:

(a) Augusta at Floral Hill (E78 A-B); and
(b) Augusta Creek at Riverview (E78 D, E78 E, E78 F):

These sites (E78A-B, E78D-F) are highly disturbed fragments of what once used to be Augusta Creek and its small tributary streams. This lower portion of the corridor begins at the bottom of Hendricks Hill at Floral Hill Drive. Site E78A-B runs through a series of short open channels and pipes that extends through residential yards along Riverview to approximately 26th Avenue. (North of 26th Avenue, the channel becomes a non-Goal 5 roadside ditch.) Where the channel is open, it is highly disturbed, and often only one to two feet wide. Vegetation within much of the corridor consists primarily of non-native species and ornamental landscaping, such as mowed lawn. There are a few segments, such as at 26th Avenue and Floral Hill, that have a large component of native vegetation, including Oregon ash, black cottonwood and osoberry. However, even in these short segments, Armenian blackberry is prevalent. Site E78D is a narrow, grassy swale that flows down the slope from Floral Hill Drive to Riverview. With the exception of one or two trees, there is virtually no riparian vegetation within this site. Sites E78E and E78F are short fragments of a stream that once flowed from the forested hillside at Hendricks Park, past Sylvan, down to Riverview. They are small, degraded channels between yards and driveways that are no longer connected to other corridors. With the exception of a

patch of Oregon ash and native woodland plants at Riverview, these sites have very little riparian vegetation. There are no locally significant wetlands within these sites.

(c) August Creek at Augusta (E78 G, E78 H, E78 I):

These sites (E78G, E78H and E78I) are the more intact portions of the Augusta Creek system. Site E78I is the creek corridor that flows through the Oak Creek Townhomes site. The corridor is very disturbed, with low vegetative and structural (trees/shrubs/groundcover) diversity. There is a relatively continuous canopy of Oregon ash and Oregon white oak, but little native understory. Water from this site is piped a short distance to the large riparian sites E78G and E78 H. Sites E78G and E78 H are broad riparian corridors at the base of Laurel Hill that have patches of wetland vegetation (but were not mapped as Locally Significant Wetlands). The corridor is relatively intact, with predominately native riparian species, and some wetland species, such as Oregon ash, willow and bulrush.

The sites in this analysis group are located both within city limits and outside city limits within the UGB. Land uses within these sites are primarily low density residential uses. A portion of Site E78 is developed in townhomes. Areas outside of city limits are mostly undeveloped, with some low density residential. Portions of Site E38 are located within Hendricks Park, and the Moon Mountain park area.

19.2 Impact Area

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78A-B (Augusta Creek at Floral Hill); E78D-F (Augusta Creek at Riverview); E78G-I (Augusta Creek at Augusta)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 19.2 below lists the impact areas assigned to these Goal 5 sites.

Table 19.2 Impact Area Summary: Laurel Hill Upland Stream Corridors & Augusta Creek

Site/ Sub-Site #	Site Name		Impact Area*
Laurel Hill Upland Stream Corridors:			
E38 A	Laurel Hill Upland at Hendricks Park		Type C - 50' + mapped riparian vegetation
E38 B	Laurel Hill Upland at golf course		Type C - 50' + mapped riparian vegetation
E38 C	Laurel Hill Upland at Floral/30th		Type C - 50' + mapped riparian vegetation
E38 D	Laurel Hill Upland at Eastridge		Type C - 50' + mapped riparian vegetation
E38 E	Laurel Hill Upland at Glenwood		Type C - 50' + mapped riparian vegetation
E38 F	Laurel Hill Upland at 25th		Type C - 50' + mapped riparian vegetation
E38 G	Laurel Hill Upland at I-5		Type C - 50' + mapped riparian vegetation
E38 H	Laurel Hill Upland at Mission Park		Type C - 50' + mapped riparian vegetation
Augusta Creek:			
E78 A-B	Augusta Creek at Floral Hill		Type D - 25' + mapped riparian vegetation
E78 D,E,F	Augusta Creek at Riverview		Type D - 25' + mapped riparian vegetation
E78 G,H,I	Augusta Creek at Augusta		Type D - 25' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

19.3 Conflicting Uses

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78A-B (Augusta Creek at Floral Hill); E78D-F (Augusta Creek at Riverview); E78G-I (Augusta Creek at Augusta)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High-Density Residential" means R-3 or R-4; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR), and Agricultural (AG) outside of city limits. Site E38A in Hendricks Park is zoned

Public Land (PL). The lower end of Site E38E at Glenwood is zoned Commercial (C). Major portions of Sites E78G-H are owned by EWEB or within public right of way. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural, Public Land and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 19.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 19.3 Zoning within Impact Areas: Laurel Hill Upland Stream Corridors & Augusta Creek

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Laurel Hill Upland Stream Corridors:					
E38 A	Laurel Hill Upland at Hendricks Park		PL	LDR	Public, private
E38 B	Laurel Hill Upland at golf course		LDR	---	Private, public
E38 C	Laurel Hill Upland at Floral/30th		AG	LDR	Private, public
E38 D	Laurel Hill Upland at Eastridge		LDR	AG	Private, public
E38 E	Laurel Hill Upland at Glenwood		LDR, C	GO	Private, public
E38 F	Laurel Hill Upland at 25th		AG, LDR	---	Private
E38 G	Laurel Hill Upland at I-5		AG	---	Private
E38 H	Laurel Hill Upland at Mission Park		LDR	---	Public, private
Augusta Creek:					
E78 A-B	Augusta Creek at Floral Hill		LDR	---	Private
E78 D,E,F	Augusta Creek at Riverview		LDR	---	Private
E78 G,H,I	Augusta Creek at Augusta		LDR	---	Private, public (R.O.W.)

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

19.4 ESEE Consequences

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78A-B (Augusta Creek at Floral Hill); E78D-F (Augusta Creek at Riverview); E78G-I (August a Creek at Augusta)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 19.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

19.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 19.4.1 below. Some of these characteristics are further discussed below and in Section 19.1, Site Descriptions.

Table 19.4.1 Key resource characteristics: Laurel Hill Upland Stream Corridors & Augusta Creek (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland Characteristics				Open	Steep
							WL HAB	Fish	WQ	Flood		
Laurel Hill Upland Stream Corridors:												
E38 A	Laurel Hill Upland at Hendricks Park	NO	NO	MED	MED	NO	---	---	---	---	NO	YES
E38 B	Laurel Hill Upland at golf course	NO	NO	LO	MED	NO	---	---	---	---	NO	YES
E38 C	Laurel Hill Upland at Floral/30th	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E38 D	Laurel Hill Upland at Eastridge	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	YES
E38 E	Laurel Hill Upland at Glenwood	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	YES
E38 F	Laurel Hill Upland at 25th	NO	NO	MED	HI	NO	---	---	---	---	NO	YES
E38 G	Laurel Hill Upland at I-5	NO	NO	LO	MED-HI	NO	---	---	---	---	NO	YES
E38 H	Laurel Hill Upland at Mission Park	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO
Augusta Creek:												
E78 A-B	Augusta Creek at Floral Hill	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
E78 D,E,F	Augusta Creek at Riverview	NO	NO	LO	LO	NO	---	---	---	---	NO	NO
E78 G,H,I	Augusta Creek at Augusta	NO	NO	MED	MED-HI	NO	---	---	---	---	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

19.4.2 ESEE Consequences of Fully Allowing/Limiting/Prohibiting Conflicting Uses

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 19.4.2 below list the paragraph number of applicable ESEE consequences.

Table 19.4.2 Summary of ESEE Consequences: Laurel Hill Upland Stream Corridors & Augusta Creek

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Laurel Hill Upland Stream Corridors				
	FULLY ALLOWING CONFLICTING USES			
E38 A Laurel Hill Upland at Hendricks Park*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E38 B Laurel Hill Upland at golf course**	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
E38 C Laurel Hill Upland at Floral/30th*	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
E38 D Laurel Hill Upland at upper Eastridge*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E38 E Laurel Hill Upland at Glenwood**	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
E38 F Laurel Hill Upland at 25th*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E38 G Laurel Hill Upland at I-5**				
E38 H Laurel Hill Upland at Mission Park**				
**Note: References to higher quality sites apply.*				
***Note: References to lower quality sites apply.*				

Augusta Creek:				
	FULLY ALLOWING CONFLICTING USES			
E78 A-B Augusta Creek at Floral Hill**	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E78 D,E,F Augusta Creek at Riverview**	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E78 G,H,I Augusta Creek at Augusta*	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
**Note: References to higher quality sites apply.*	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
***Note: References to lower quality sites apply.*				

19.5 ESEE Conclusions and Recommendations

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78A-B (Augusta Creek at Floral Hill); E78D- F (Augusta Creek at Riverview); E78G- I (Augusta Creek at Augusta)

19.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Laurel Hill Upland Stream Corridors:

(a) Laurel Hill Upland at Hendricks Park (E38 A):

Limiting conflicting uses recommended. This site (E38A), as indicated by key resource characteristics, has a high quality riparian plant community, with primarily native species. The corridor is steep, so that it is vulnerable to channel erosion, and therefore plays a valuable role in protecting downstream water quality from sedimentation. Its location within a larger habitat area adds to its connectivity. Based on these characteristics, the site is a relatively *higher quality site*. Based on that, and the ESEE analysis above, limiting most conflicting uses is recommended for these sites. The location of the corridor within a park managed as a natural area makes the importance of the resource slightly greater than importance of potential conflicting uses. The negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) E38 B Laurel Hill Upland at golf course:

Fully allowing conflicting uses recommended. The two stream corridors in this site (E38B) provide *lower quality* habitat areas, due to the fact that they are relatively short corridors disconnected from other habitat areas. Although the quality of the riparian plant community is moderately high, low connectivity reduces the overall habitat value of these sites. There are no locally significant wetlands present on these sites. Based on these key characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these sites, the resource is of lesser importance than conflicting uses. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(c) E38 C Laurel Hill Upland at Floral/30th;
(d) E38 D Laurel Hill Upland at Eastridge;
(f) E38 F Laurel Hill Upland at 25th:

Limiting conflicting uses recommended. Key resource characteristics for these sites (E38C, E38D, E38F) indicate that they are *higher quality* sites. The corridors are relatively intact and contain primarily native vegetation, and, due to steep slopes, are vulnerable to channel erosion, and therefore play a valuable role in protecting downstream water quality from sedimentation. In addition, these sites have medium- to

high connectivity, extending from near the ridgeline down to Laurel Valley. Based on these resource characteristics and the ESEE analysis above, the resource values provided by these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(e) E38 E Laurel Hill Upland at Glenwood;
(g) E38 G Laurel Hill Upland at I-5;
(h) E38 H Laurel Hill Upland at Mission Park:

Fully allowing conflicting uses recommended. These sites (E38E, E38G, E38H) are *lower quality* sites, primarily due to the fact that they are relatively short corridors disconnected from other habitat areas. Although the quality of the riparian plant community is moderately high, low connectivity reduces the overall habitat value of these sites. There are no locally significant wetlands present on these sites. Based on these key characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. For these relatively *lower quality* sites, the importance of the resource is low compared to the importance of conflicting uses. The positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(2) Augusta Creek:

(a) E78 A-B (Augusta at Floral Hill; and
(b) E78 D, E, F (Augusta Creek at Riverview):

Fully allowing conflicting uses recommended. Although there are portions of these sites (E78A-B, E78D-F) that contain some native vegetation, overall these are *lower quality* sites. The corridor has been highly modified; it changes several times along its short length from narrow open channel, to pipe, to roadside ditch. Because of this fragmentation and minimal native vegetation, habitat value and connectivity are greatly diminished. There are no locally significant wetlands within these sites. Based on these key characteristics indicating low resource values, and the ESEE analysis above, the resource is of lesser importance than the conflicting uses that could occur within these sites. Fully allowing conflicting uses is recommended for these sites. Given the low resource values here, the positive consequences of protecting the resource are not great enough to outweigh the negative consequences of prohibiting or limiting conflicting uses.

(c) E78 G, H, I (August Creek at Augusta):

Limiting conflicting uses recommended. Key resource characteristics indicate that these sites (E78G, E78H and E78I) fall in the range of *moderate to higher* quality sites. E78G and E78H have high quality riparian plant communities, providing dense lowland riparian habitat valuable to a diversity of birds and other wildlife. Site E78I is a shorter corridor, with much of the understory vegetation removed, diminishing habitat value in the corridor. However, the corridor provides a continuous section of habitat that is hydrologically connected to, and is in close proximity to the habitat at Sites E78G and E78H. Based on these resource characteristics and the ESEE analysis above, the resource values provided by these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

19.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 19.5.2 below and Map 19.B summarize the recommendations for these sites.

(1) Laurel Hill Upland Stream Corridors:

(a) Laurel Hill Upland at Hendricks Park (E38 A):

Conservation setback of 40 feet recommended. As discussed above, this site (E38A) is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category C Stream. This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make this site

more vulnerable to channel erosion, and makes it more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Laurel Hill Upland at golf course (E38 B):

No protection measures are recommended for this site (E38B), as discussed in the analysis above.

(c) Laurel Hill Upland at Floral/30th (E38 C);
(d) Laurel Hill Upland at Eastridge (E38 D);
(f) Laurel Hill Upland at 25th (E38 F):

Conservation setback of 50 feet recommended. As discussed above, these sites (E38C, E38D, E38F) are recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This recommendation is based on the ESEE analysis above, and on these factors: (1) the quality of riparian habitat, and (2) the presence of steep channel gradients and steep surrounding slopes which make these sites more vulnerable to channel erosion, and makes them more important for protecting downstream water quality from sedimentation. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(e) E38 E Laurel Hill Upland at Glenwood;
(g) E38 G Laurel Hill Upland at I-5;
(h) E38 H Laurel Hill Upland at Mission Park:

No protection measures are recommended for these sites (E38E, E38G, E38H), as discussed in the analysis above.

(2) Augusta Creek:

(a) E78 A-B (Augusta at Floral Hill; and
(b) E78 D, E, F (Augusta Creek at Riverview):

No protection measures are recommended for these sites ((E78A-B, E78D-F), as discussed in the analysis above.

(c) E78 G, H, I (August Creek at Augusta):

Conservation setback of 20 feet recommended. As discussed above, these sites (E78G, E78H and E78) are recommended for protection. However, these sites are not characterized by steep slopes and, therefore, are not as vulnerable as the other sites to adverse impacts, such as erosion. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). This riparian site is recommended to be designated a Category D Stream. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

Table 19.5.2 Recommendations Summary: Laurel Hill Upland Stream Corridors & Augusta Creek

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Laurel Hill Upland Stream Corridors:						
E38 A	Laurel Hill Upland at Hendricks Park	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	Public, private	All
E38 B	Laurel Hill Upland at golf course	Fully Allow Conflicting Uses	n/a	n/a	Private, public	All
E38 C	Laurel Hill Upland at Floral/30th	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	Private, public	95%
E38 D	Laurel Hill Upland at upper Eastridge	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	Private, public	95%
E38 E	Laurel Hill Upland at Glenwood	Fully Allow Conflicting Uses	n/a	n/a	Private, public	All
E38 F	Laurel Hill Upland at 25th	Limit Conflicting Uses	/WR Overlay Zone, Category C	40'	Private	1/2
E38 G	Laurel Hill Upland at I-5	Fully Allow Conflicting Uses	n/a	n/a	Private	None
E38 H	Laurel Hill Upland at Mission Park	Fully Allow Conflicting Uses	n/a	n/a	Public, private	All
Augusta Creek:						
E78 A-B	Augusta Creek at Floral Hill	Fully Allow Conflicting Uses	n/a	n/a	Private	All
E78 D,E,F	Augusta Creek at Riverview	Fully Allow Conflicting Uses	n/a	n/a	Private	All
E78 G,H,I	Augusta Creek at Augusta	Limit Conflicting Uses	/WR Overlay Zone, Category D	20'	Private, public (R.O.W.)	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.

Sites Recommended for Protection **Map 19B**

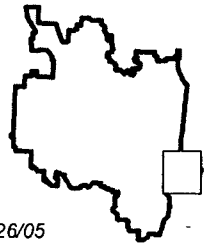
Significant Goal 5 ESEE Analysis Group 19

Goal 5 Protection Designations
for Laurel Hill Upland Stream Corridors & Augusta Creek

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 350 700 1,050



4/26/05

19.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E38A (Laurel Hill Upland at Hendricks Park); E38B (Laurel Hill Upland at golf course); E38C (Laurel Hill Upland at Floral/30th); E38D (Laurel Hill Upland at Eastridge); E38E (Laurel Hill Upland at Glenwood); E38F (Laurel Hill Upland at 25th); E38G (Laurel Hill Upland at I-5); E38H (Laurel Hill Upland at Mission Park); E78A-B (Augusta Creek at Floral Hill); E78D- F (Augusta Creek at Riverview); E78G- I (Augusta Creek at Augusta)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

20. Supplemental Analysis

Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

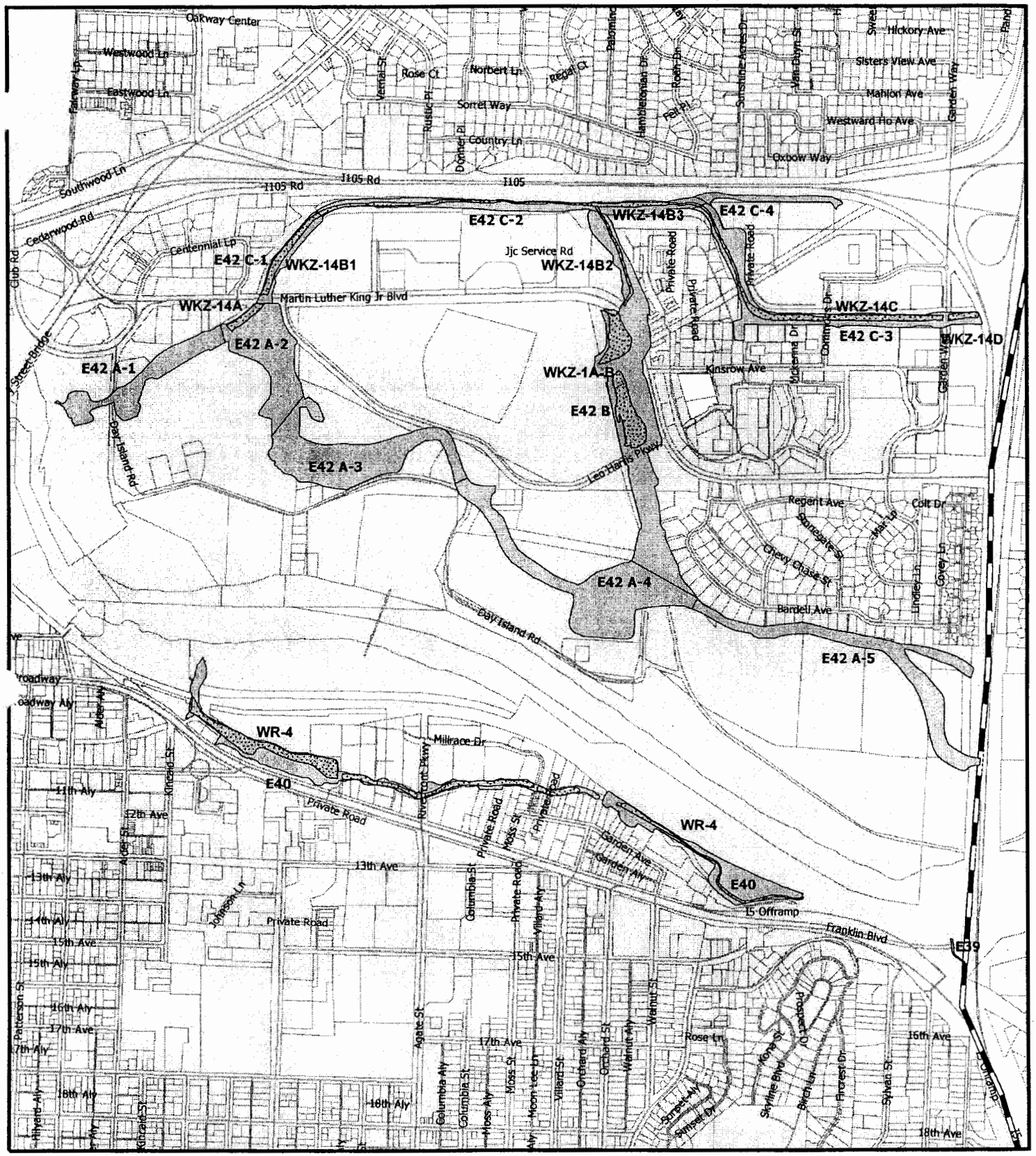
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 20.1 below lists the sites in this analysis group, their resource category and acreage. Map 20.A below shows the site(s) described in this analysis group.

Table 20.1 ESEE analysis group: Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Alton Baker Riparian:				
	Alton Baker duck ponds:			
E42 A-1	Alton Baker Riparian at duckponds	R	6.75	All
	Canoe Canal/Patterson Slough:			All
E42 A2-A-5	Alton Baker Riparian at Canoe Canal	R	49.59	All
E42 B	Alton Baker Riparian at Patterson Slough	R	22.32	All
WKZ-1A-B	Patterson Slough wetland	W	4.11	All
WKZ-14B2	Alton Baker wetland at Patterson Slough	W	0.46	All
	Q-Street Channel:			All
E42C-1	Alton Baker Riparian at MLK Blvd	R	2.46	All
WKZ-14A	Alton Baker wetland at Q Street/Canoe Canal	W	0.54	All
WKZ-14B1	Alton Baker wetland at Q Street	W	1.18	All
E42C2-C3	Alton Baker Riparian at Q Street Channel	R	16.66	All
WKZ-14B3	Alton Baker wetland at Q Street	W	3.51	All
WKZ-14C,D	Alton Baker wetland at Q Street	W	1.60	All
E42C-4	Alton Baker Riparian at Q Street Channel	R	1.68	All
Riverfront Park/Millrace Riparian:				
E40	Riverfront Park/Millrace at Franklin	R	16.85	All
WR-4	Riverfront Park/Millrace wetland	W	6.30	All
Glenwood Slough:				
E39	Glenwood Slough (Eugene portion)	R	0.10	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 20

Significant Goal 5 Site Boundaries for Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Map 20A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 225 450 900 Feet

5/4/05

20.1 Site Description(s)

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

(1) Alton Baker Riparian:

This site is located along the north bank of the Willamette River within Alton Baker Park. The site includes the "duck pond" area at the Day Island Road entrance to the park, the Canoe Canal and Walnut Pond, Patterson Slough, and the Q-Street Channel along the Beltline Highway to the north. The riparian corridors along these waterways range from non-riparian, manicured lawns at human-made ponds, to the engineered Q-Street Channel along the freeway, to relatively pristine riparian forests. This system of sloughs is influenced by Willamette River hydrology. Fish are present in most portions of the site, and the federally-listed threatened species, upper Willamette Spring Chinook salmon, is believed to have access to many of the waterways during its juvenile life stage. Big-leaf maple, black cottonwood, willow, Oregon ash, and alder are the dominant overstory vegetation along the waterways. Rush, sedges and other wetland plants are common in the channels and along the water's edge. Armenian blackberry is prevalent in more open areas, and there are several areas with a monoculture of reed canarygrass. Overall, the high vegetative and structural diversity in this site provide habitat for many different wildlife species. The proximity of this site to the Willamette makes it a valuable part of the river's extensive system of habitat, providing food, cover, perching, and nesting habitat. Being adjacent to the Willamette River, this is also a very important site for wildlife use and as a migration corridor.

(a) Alton Baker duck ponds (E42A-1):
This portion of the Alton Baker site (E42A-1) has no riparian vegetation, and is lined with concrete. Despite that, this area has an essential function in the overall habitat complex of the site in that it connects directly to the Willamette River. It has been documented as supporting fish, and it is an essential link between the river and fish habitat elsewhere in the Alton Baker site.

(b) Canoe Canal (E42A-2 thru A-5); Patterson Slough (E42B); WKZ-1:
The Canoe Canal and Patterson Slough (E42A-2 thru A-5, E42B) contain some of the higher quality habitat areas within the Alton Baker site. Along most of these corridors, the riparian area is relatively intact, with a predominance of native vegetation, including Oregon ash, big-leaf maple, black cottonwood, and willow. These areas have high species and structural diversity, and include significant riparian forests, open ponds, and wetlands. Riparian areas in more popular spots in the park are more disturbed, and lack understory vegetation, or have a higher ratio of non-native species. Fish have been documented in the Canoe Canal and Patterson Slough. As a whole, the site provides an extensive habitat complex for a variety of birds, mammals, reptiles, and aquatic animals (fish, amphibians, macroinvertebrates). Its value is accentuated by the fact that it is

connected to the Willamette River habitat system. Wetland site WKZ-1, makes up most of Patterson Slough.

(c) Q Street Channel:

(i) Q Street Channel west (E42C-1, WKZ-14A; WKZ-14B1): North of Martin Luther King Jr. Boulevard (MLK Blvd), the site has a very different character, within the Q Street Channel. The Q Street Channel at MLK Blvd (E42C-1) is an engineered channel, and has been much modified over the years. The channel is steep-banked, and narrow, with a predominance of invasive species such as blackberry and reed canarygrass. The west bank of the channel at MLK Blvd has virtually no riparian vegetation. However, this portion of the channel, up to approximately the Beltline, has been documented as containing fish. In addition, there are locally significant wetlands (WKZ-14A; WKZ-14B1) within the channel at this location.

(ii) Q Street Channel east (E42C-2 thru C-3; WKZ-14B3; WKZ-14C,D): The remainder of the Q Street Channel corridor (E42C-2 ,C-3, WKZ-14B3, WKZ-14C) extending along the Beltline Highway down to Commons Drive and Garden Way, and out to I-5, has also been engineered and modified. However, it has a relatively continuous canopy of primarily native species, including Douglas-fir, Oregon ash and bigleaf maple, and provides a lengthy corridor of habitat that connects to the Canoe Canal, Patterson Slough and, ultimately, the Willamette River. It is not known whether these portions of the channel contain fish. Wetland WKZ-14 occurs along the length of the Q Street Channel (except in E42C-4), and in portions of the Canoe Canal and Patterson Slough.

(d) Q Street Channel (E42C-4): At its east end along the Beltline Highway, the Q Street Channel (E42C-4) becomes narrower and drier, becoming a grassy swale with virtually no native riparian vegetation or structural diversity. There are no locally significant wetlands in this portion of the channel.

(2) Riverfront Park/Millrace (E40; WR-4):

This riparian corridor and its associated wetland (E40; WR-4) are located on the south bank of the Willamette River, north of the University of Oregon. The Riverfront Park/Millrace site is adjacent to, and hydrologically connected to the Willamette River, though most of the flow in the Millrace is pumped from the river. Portions of the riparian corridor, such as at Riverfront Research Park, have been highly modified, and native understory vegetation has been replaced by mowed lawn and non-native plants. However, there is a relatively continuous tree canopy throughout the corridor. Some areas in the corridor have fairly intact riparian forests such as the area at Franklin Park (near Glenwood). In virtually every reach of the stream corridor, invasive species such as Armenian blackberry and English ivy are present. As a whole, the site provides habitat for a diversity of birds, small mammals, reptiles, and amphibians. Fish have been documented in the channel by ODFW. The proximity of this site to the Willamette makes it a valuable extension of the habitat complex found along the river. Wetland site WR-4 occurs throughout the stream corridor.

(3) **Glenwood Slough:**
A small portion of the Glenwood Slough (E39) (with the remainder mostly in Springfield) is included Eugene. This small segment is located adjacent to Interstate 5 and the Southern Pacific Railroad tracks just west of the Glenwood area. While the slough within Springfield city limits contains extensive riparian vegetation, the portion within Eugene contains virtually no riparian vegetation. It is mostly a concrete-lined channel that extends for a very short distance from the cleared railroad right of way, along the freeway bridge abutments, and out toward the river. The site boundary does not extend to the river, but meets the site boundary of the Willamette River site, which does contain riparian vegetation.

The land uses within these sites are primarily park uses associated with Alton Baker Park and institutional/business park uses at Riverfront Research Park, low density residential (e.g. along the north side of the Canoe Canal, Garden Avenue at the Millrace), and commercial uses (at the Millrace). All of these sites are within city limits.

20.2 Impact Area

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 20.2 below lists the impact areas assigned to these Goal 5 sites.

Table 20.2 Impact Area Summary: Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Site/ Sub-Site #	Site Name	Impact Area*
Alton Baker Riparian:		
	Alton Baker duck ponds:	
E42 A-1	Alton Baker Riparian at duckponds	Site boundary
	Canoe Canal/Patterson Slough:	
E42 A2-A-5	Alton Baker Riparian at Canoe Canal	Type C - 50' + mapped riparian vegetation
E42 B	Alton Baker Riparian at Patterson Slough	Type C - 50' + mapped riparian vegetation
WKZ-1A-B	Patterson Slough wetland	Type C - 50'
WKZ-14B2	Alton Baker wetland at Patterson Slough	Type C - 50'
	Q-Street Channel:	
E42C-1	Alton Baker Riparian at MLK Blvd	Type C - 50' + mapped riparian vegetation
WKZ-14A	Alton Baker wetland at Q Street/Canoe Canal	Type C - 50'
WKZ-14B1	Alton Baker wetland at Q Street	Type C - 50'
E42C2-C3	Alton Baker Riparian at Q Street Channel	Type D - 25' + mapped riparian vegetation
WKZ-14B3	Alton Baker wetland at Q Street	Type D - 25'
WKZ-14C,D	Alton Baker wetland at Q Street	Type D - 25'
E42C-4	Alton Baker Riparian at Q Street Channel	Type D - 25' + mapped riparian vegetation
Riverfront Park/Millrace Riparian:		
E40	Riverfront Park/Millrace	Type C - 50' + mapped riparian vegetation
WR-4	Riverfront Park/Millrace wetland	Type C - 50'
Glenwood Slough:		
E39	Glenwood Slough (I-5 portion)	Site boundary

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

20.3 Conflicting uses

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in

each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of the Alton Baker sites is zoned primarily Public Land (PL), Low Density Residential (LDR), and Agricultural (AG) (although land uses in AG are primarily residential). Other sites in this group include Special Area Zones for the Chase Node area (S-CN) and the Riverfront Research Park (S-RP), and Commercial (C). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential and Agricultural uses are determined to be conflicting uses for riparian corridors and wetlands. Table 20.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 20.3 Zoning within Impact Areas: Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Alton Baker Riparian:					
	Alton Baker duck ponds:				
E42 A-1	Alton Baker Riparian at duckponds		PL, C	LDR	Public, private
	Canoe Canal/Patterson Slough:				
E42 A2-A-5	Alton Baker Riparian at Canoe Canal		LDR	C, PL	Public, private
E42 B	Alton Baker Riparian at Patterson Slough		PL, LDR	HDR, SAZ	Public, private
WKZ-1A-B	Patterson Slough wetland		PL	---	Public
WKZ-14B2	Alton Baker wetland at Patterson Slough		PL	---	Public, private
	Q-Street Channel:				
E42C-1	Alton Baker Riparian at MLK Blvd		PL, C	LDR	Public
WKZ-14A	Alton Baker wetland at Q Street/Canoe Canal		LDR	C	Public, private
WKZ-14B1	Alton Baker wetland at Q Street		PL, C	---	Public, private
E42C2-C3	Alton Baker Riparian at Q Street Channel		HDR, SAZ	C, AG	Public, private
WKZ-14B3	Alton Baker wetland at Q Street		HDR, SAZ	C, AG	Public, private
WKZ-14C,D	Alton Baker wetland at Q Street		SAZ	AG	Public
E42C-4	Alton Baker Riparian at Q Street Channel		SAZ	AG	Public
Riverfront Park/Millrace Riparian:					
E40	Riverfront Park/Millrace		SAZ, C	I	Public, private
WR-4	Riverfront Park/Millrace wetland		SAZ, C	I	Public, private
Glenwood Slough:					
E39	Glenwood Slough (Eugene portion)		PL	---	Public (R.O.W.)

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

20.4 ESEE Consequences

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 20.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

20.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 20.4.1 below. Some of these characteristics are further discussed below and in Section 20.1, Site Descriptions.

Table 20.4.1 Key resource characteristics: Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
	Alton Baker Riparian:											
	Alton Baker duck ponds:											
E42 A-1	Alton Baker Riparian at duckponds	YES	NO	HI	LO	NO	---	---	---	---	HI	NO
	Canoe Canal/Patterson Slough:											
E42 A2-A-5	Alton Baker Riparian at Canoe Canal	YES	NO	MED-HI	MED	NO	---	---	---	---	HI	NO
E42 B	Alton Baker Riparian at Patterson Slough	YES	NO	HI	MED-HI	YES	---	---	---	---	HI	NO
WKZ-1A-B	Patterson Slough wetland	YES	NO	HI	N/A	YES	DIV	DEGR	DEGR	INTACT	HI	NO
WKZ-14B2	Alton Baker wetland at Patterson Slough	YES	NO	HI	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
	Q-Street Channel:											
E42C-1	Alton Baker Riparian at MLK Blvd	YES	NO	HI	LO-MED	YES	---	---	---	---	NO	NO
WKZ-14A	Alton Baker wetland at Q Street/Canoe Canal	YES	NO	HI	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
WKZ-14B1	Alton Baker wetland at Q Street	YES	NO	HI	N/A	YES					NO	NO
E42C2-C3	Alton Baker Riparian at Q Street Channel	NO	NO	HI	MED	YES	---	---	---	---	NO	NO
WKZ-14B3	Alton Baker wetland at Q Street	NO	NO	HI	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
WKZ-14C,D	Alton Baker wetland at Q Street	NO	NO	HI	N/A	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E42C-4	Alton Baker Riparian at Q Street Channel	NO	NO	MED	LO	NO	---	---	---	---	NO	NO
	Riverfront Park/Millrace Riparian:											
E40	Riverfront Park/Millrace	YES	NO	HI	LO-MED	YES	---	---	---	---	HI	NO
WR-4	Riverfront Park/Millrace wetland	YES	NO	HI	N/A	YES	SOME	DEGR	DEGR	INTACT	IH	NO
	Glenwood Slough:											
E39	Glenwood Slough (Eugene portion)	NO	NO	LO	LO	NO	---	---	---	---	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

20.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 20.4.2 below list the paragraph number of applicable ESEE consequences.

Table 20.4.2 Summary of ESEE Consequences: Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Alton Baker Riparian: **Alton Baker duck ponds:** E42 A-1 Alton Baker Riparian at duckponds* **Canoe Canal/Patterson Slough:** E42 A2-A-5 Alton Baker Riparian at Canoe Canal* E42 B Alton Baker Riparian at Patterson Slough* WKZ-1A-B Patterson Slough wetland* WKZ-14B2 Alton Baker wetland at Patterson Slough* **Q-Street Channel:** E42C-1 Alton Baker Riparian at MLK Blvd* WKZ-14A Alton Baker wetland at Q Street/Canoe Canal* WKZ-14B1 Alton Baker wetland at Q Street* E42C2-C3 Alton Baker Riparian at Q Street Channel* WKZ-14B3 Alton Baker wetland at Q Street* WKZ-14C,D Alton Baker wetland at Q Street* E42C-4 Alton Baker Riparian at Q Street Channel** **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Site/Sub-Site #	Applicable ESEE Consequences discussed in Section 4 (paragraph number)			
	FULLY ALLOWING CONFLICTING USES			
Riverfront Park/Millrace Riparian: E40 Riverfront Park/Millrace* WR-4 Riverfront Park/Millrace wetland*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
Glenwood Slough: E39 Glenwood Slough (Eugene portion)**	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
**Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

20.5 ESEE Conclusions and Recommendations

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

20.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Alton Baker Riparian:

(a) Alton Baker duck ponds (E42A-1);

(b) Canoe Canal (E42A-2 thru A-5); Patterson Slough (E42B; WKZ-1A-B; WKZ-14B2);

(c) Q Street Channel west (E42C-1, WKZ-14A; WKZ-14B1); Q Street Channel east (E42C-2 thru C-3; WKZ-14B3; WKZ-14C,D):

Limiting conflicting uses recommended.
The key resource characteristics of these sites (E42A-1; E42A-2 thru A-5; E42B; WKZ-1A-B; WKZ-14B2; E42C-1, WKZ-14A; WKZ-14B1; E42C-2 thru C-3; WKZ-14B-3; WKZ-14C,D) indicate that they provide *relatively high quality* wildlife habitat. The riparian plant community is relatively intact in most of these sites. With the exception of the east end of the Q Street Channel (E42C-2, C-3; WKZ-14B3, WKZ-14C, D) they all are documented as containing fish. Although portions of the east end of the Q Street Channel may support fish, their presence has not been documented. Emergent wetlands within the channel contribute diversity in habitat to the riparian corridor. These sites due to their combined length and direct connection to the Willamette River have high connectivity. Based on these resource characteristics and the ESEE analysis discussed above, these sites have greater importance to the community as a whole than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting*

conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(d) Q Street Channel (E42C-4):

Fully allowing conflicting uses recommended. As indicated by key resource characteristics, this east end of the Q Street Channel at the Beltline Highway (E42C-4) provides no more habitat value than a grassy swale. It is of *much lower habitat quality* than other parts of this complex. Based on these resource characteristics and the ESEE analysis above, the positive consequences of protecting this lower quality site do not outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for this site.

(2) Riverfront Park/Millrace (E40; WR-4):

Limiting conflicting uses recommended. Key resource characteristics indicate that these sites (E40, WR-4) are *higher quality sites*. Although portions of the riparian corridor have been modified, and diversity in the riparian plant community is diminished, the site provides a relatively continuous corridor of habitat that connects at either end to the Willamette River. Due to the fact that it is adjacent to the river, the site has high connectivity, providing a corridor used by wildlife (including fish) that also use the river corridor. Based on these resource characteristics, and the ESEE analysis above, resource values in these sites are of greater importance to the broader community than the conflicting uses that would occur in the corridor. Although there are negative economic consequences to protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) Glenwood Slough (E39):

Fully allowing conflicting uses recommended. The very small portion of this site located within Eugene (E39) does not contain a viable riparian area. It is primarily a concrete-lined channel. As a result, it provides virtually no riparian habitat. Given these resource characteristics, this is a *lower quality* site. Based on that, and the ESEE analysis above, the positive consequences of protecting this lower quality site do not outweigh the negative consequences of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for this site.

20.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 20.5.2 below and Map 20.B summarize the recommendations for these sites.

(1) Alton Baker Riparian:

(a) Alton Baker duck ponds (E42A-1):

Protected, with no setback recommended. As discussed above, this area is a concrete-lined channel, but provides an essential connection between the Willamette River and habitat in the Alton Baker site. Therefore, although this reach has little habitat value in and of itself, protecting the site from further encroachment is recommended to maintain the surface water connection to the river. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this site is recommended to be designated a Category E Stream. For Category E streams, the conservation area is the area between the high banks, with no additional conservation setback.

(b) Canoe Canal (E42A-2 thru A-5); Patterson Slough (E42B; WKZ-1A-B; WKZ-14B2):

Conservation setback of 40/50 feet recommended. As discussed above, these riparian corridors and wetlands (E42A-2 thru A-5; E42B; WKZ-1A-B; WKZ-14B2) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the high quality of habitat, connectivity to the Willamette River, and the presence of fish, these riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Q Street Channel:

(i) Q Street Channel west (E42C-1, WKZ-14A; WKZ-14B1):
Conservation setback of 40/50 feet recommended. As discussed above, these riparian areas and wetlands (E42C-1, WKZ-14A; WKZ-14B1) contain fish, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the high quality of habitat and the presence of fish, these riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(ii) Q Street Channel east (E42C-2 thru C-3; WKZ-14B3; WKZ-14C, WKZ-14D):
Conservation setback of 20/25 feet recommended. As discussed above, this portion of the Q Street Channel and its associated wetlands (E42C-2 thru C-3; WKZ-14B-3; WKZ-14C, WKZ-14D) are recommended for protection. However, these portions have not been documented to contain fish. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these riparian sites are recommended to be designated Category D Streams, and the wetland sites as Category B Wetlands. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(d) Q Street Channel (E42C-4):
No protection measures are recommended for this site, as discussed in the analysis above.

(2) **Riverfront Park/Millrace (E40; WR-4):**

Conservation setback of 40/50 feet recommended. As discussed above, this riparian site and its associated wetland site (E40, WR-4) have high connectivity, contain fish, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the high quality of habitat, connectivity to the Willamette River and the presence of fish, this riparian site is recommended to be designated Category C Streams, and the wetland site as a Category A Wetland. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(3) **Glenwood Slough (E39):**
No protection measures are recommended for this site, as discussed in the analysis above.

Table 20.5.2 Recommendations Summary: Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Alton Baker Riparian:						
	Alton Baker duck ponds:					
E42 A-1	Alton Baker Riparian at duckponds	Limit conflicting uses	/WR Overlay Zone, Category E	0'	Public, private	All
	Canoe Canal/Patterson Slough:					
E42 A2-A-5	Alton Baker Riparian at Canoe Canal	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Public, private	All
E42 B	Alton Baker Riparian at Patterson Slough	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Public, private	All
WKZ-1A-B	Patterson Slough wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
WKZ-14B2	Alton Baker wetland at Patterson Slough	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
	Q-Street Channel:					
E42C-1	Alton Baker Riparian at MLK Blvd	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Public	All
WKZ-14A	Alton Baker wetland at Q Street/Canoe Canal	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
WKZ-14B1	Alton Baker wetland at Q Street	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
E42C2-C-3	Alton Baker Riparian at Q Street	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public, private	All
WKZ-14B3	Alton Baker wetland at Q Street	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public, private	All
WKZ-14C,D	Alton Baker wetland at Q Street	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
E42C-4	Alton Baker Riparian at Q Street	Fully allow conflicting uses	n/a	n/a	Public	All
Riverfront Park/Millrace Riparian:						
E40	Riverfront Park/Millrace	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Public, private	All
WR-4	Riverfront Park/Millrace wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
Glenwood Slough:						
E39	Glenwood Slough (Eugene portion)	Fully allow conflicting uses	n/a	n/a	Public (R.O.W.)	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.

Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 20

Goal 5 Protection Designations for Alton Baker Riparian; Riverfront Park/Millrace; Glenwood Slough; Alton Baker wetlands

Map 20B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection

N

0 225 450 900 Feet

5/4/05

20.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E42 (Alton Baker Riparian); E40 (Riverfront Park/Millrace); E39 (Glenwood Slough); WKZ-1; WKZ-14; WR-4 (Alton Baker wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

21. Supplemental Analysis

Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

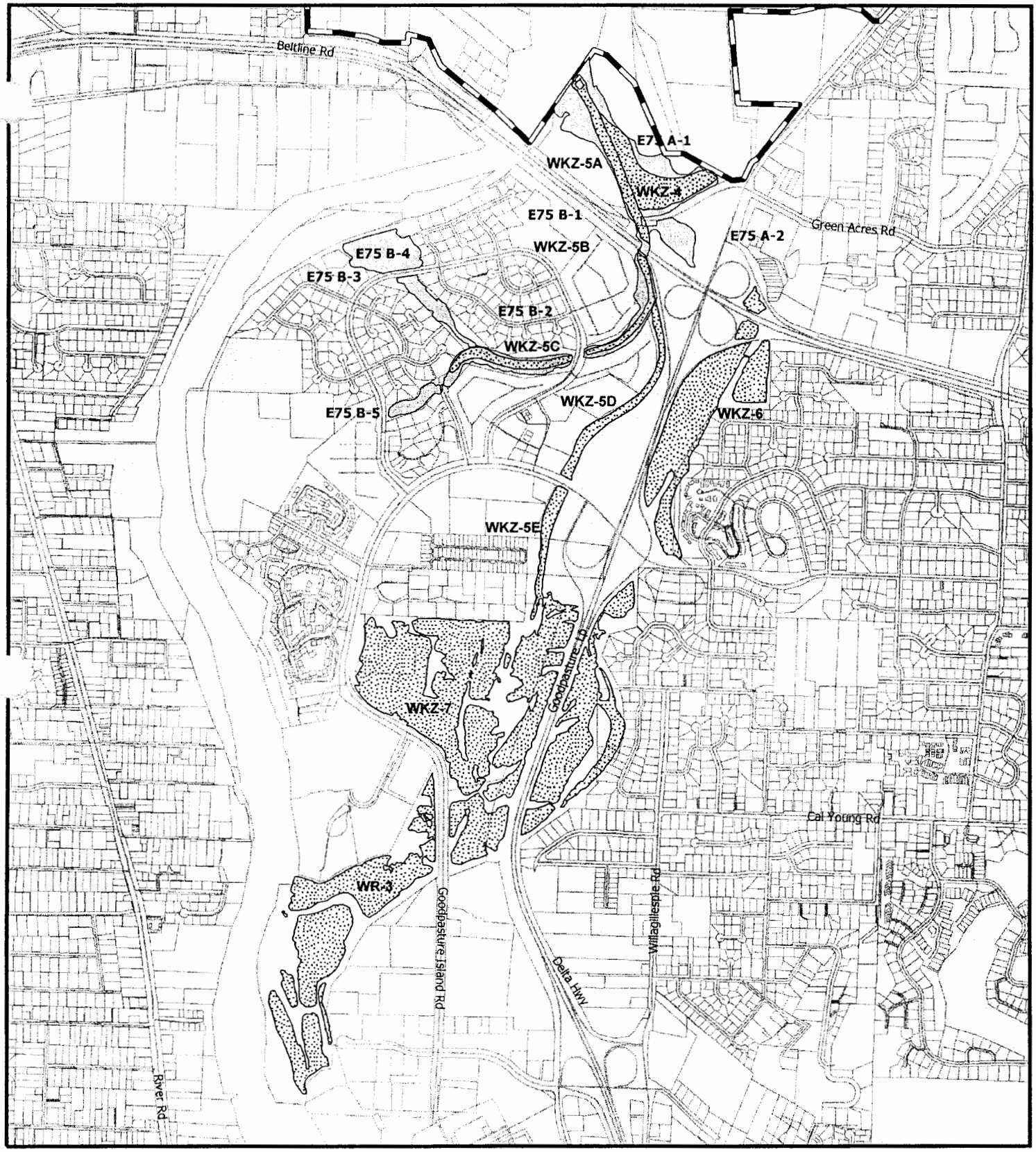
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 21.1 below lists the sites in this analysis group, their resource category and acreage. Map 21.A below shows the site(s) described in this analysis group.

Table 21.1 ESEE analysis group: Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Goodpasture/Beltline:				
E75A-1	Goodpasture Island Slough at Beltline	R	17.07	All
WKZ-4	Goodpasture Island Slough wetland at Beltline	W	6.58	All
WKZ-5 A	Goodpasture Island Slough wetland at Beltline	W	3.61	All
E75A-2	Goodpasture Island Slough forest at Beltline	R	3.23	All
Goodpasture Loop:				
E75B-1, B-2	Goodpasture Island Slough at Goodpasture Loop east	R	8.18	All
WKZ-5 B	Goodpasture wetland at Goodpasture Loop	W	1.75	All
WKZ-5 C	Goodpasture wetland at Goodpasture Loop	W	2.35	All
E75B-3, B-5	Goodpasture Island Slough at Goodpasture Loop west	R	3.69	All
E75B-4	Goodpasture Loop forest	R	5.14	All
Delta Ponds:				
WKZ-5D, 5E	Goodpasture Island Slough at Delta Ponds	W	5.99	All
WR-3	Delta Ponds	W	25.46	All
WKZ-7	Delta Ponds	W	65.54	All
Kingfisher/Beltline:				
WKZ-6	Goodpasture wetland at Kingfisher/Beltline	W	18.95	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 21

Significant Goal 5 Site Boundaries for Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Map 21A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 230 460 920 Feet

4/25/05

21.1 Site Description(s)

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

Goodpasture Island Slough is a slough of the Willamette River system that now runs through residential subdivisions and commercial areas on Goodpasture Island. Delta Ponds and the other large ponds in the area are old borrow pits created in riparian areas of a former river channel. Portions of these sites have primarily native vegetation, while other portions have been highly disturbed. Armenian (Himalayan) blackberry is a dominant understory vegetation in many of these sites, while City habitat restoration have removed the blackberries from large areas where it once dominated. Most areas in this group have a native riparian overstory of Oregon ash, black cottonwood, and big-leaf maple. With a complex system of sloughs, wetlands, islands and open water, these sites provide habitat for a diversity of birds, mammals, reptiles and aquatic animals (e.g., amphibians, fish, macroinvertebrates). The sites provide important habitat for cavity nesting species, raptors such as osprey, and nesting colonies of great blue heron. Many portions of these sites contain fish.

(1) Goodpasture/Beltline:

(a) Goodpasture Island Slough at Beltline (E75A-1);
(b) Goodpasture Island Slough wetlands at Beltline (WKZ-4; WKZ-5A);
(c) Goodpasture Island Slough forest at Beltline (E75A-2):

This complex of riparian and wetland sites (E75A-1; WKZ-4; WKZ-5A; E75A-2) forms the Goodpasture Island Slough near the Beltline Highway/Delta Highway interchange. The site contains open water, wetlands, and riparian habitats. The riparian habitat here is more intact than most in the Inventory. Although invasive blackberry is prevalent in many of the more open areas, most of the riparian area is dominated by native plants, including Oregon ash, black cottonwood, bigleaf maple, and riparian understory. The riparian forest in this site provides habitat for a variety of raptors, songbirds and other wildlife that use the Willamette River corridor. Wetlands in this area occur within the open slough channel (WKZ-5A), and throughout the site (WKZ-4). This habitat complex also includes a small riparian forest (E75A-2, and portion of wetland WKZ-5A) just south of the Beltline on-ramp. The hydrologic connection with, and proximity to, the Willamette River makes most of these sites important for salmonids.

(2) Goodpasture Loop:

(a) Goodpasture Island Slough at Goodpasture Loop east (E75B-1, B-2);
(b) Goodpasture wetlands at Goodpasture Loop (WKZ-5B, 5C);
(c) Goodpasture Island Slough at Goodpasture Loop west (E75B-3, B-5);
(d) Goodpasture Loop forest (E75B-4):

Several portions of Goodpasture Island Slough are located within residential subdivisions at Goodpasture Loop and RiverPlace. The eastern portions of the slough (E75B1, B2; WKZ-5B, WKZ-5C) are directly connected to the Willamette River (north of the Beltline). These sites have a relatively intact riparian area, with high vegetative and structural diversity and predominately native species, such as Oregon ash, bigleaf maple and a number of larger black cottonwood that provide habitat for cavity nesting species. The slough here also provides valuable open water habitat adjacent to riparian forest. Wetlands within the slough (WKZ-5B, WKZ-5C) contribute emergent wetland habitat to the slough system. The western portions of this site (E75B-3, B-4), however, contain very little riparian vegetation. Open ponds are surrounded by manicured lawns and non-native, ornamental landscaping. Between Goodpasture Loop and Edgewater Drive, the site contains a native tree canopy of primarily Oregon ash, but has an understory of mowed lawn. This area no longer appears to be hydrologically connected to the rest of the Goodpasture Island Slough corridor, due to intervening development or changes in local hydrology. The most westerly portion of this site (E75B-4) is a riparian forest of primarily native species, such as bigleaf maple and Oregon ash. Although this small forest is hydrologically disconnected from the Goodpasture Island Slough corridor, it provides valuable riparian habitat adjacent to the Willamette River.

(3) Delta Ponds:
(a) Goodpasture Island Slough at Delta Ponds (WKZ-5D, WKZ-55E)
(b) Delta Ponds (WR-3, WKZ-7):

The Delta Ponds habitat complex includes the portion of Goodpasture Island Slough that extends from the ponds to the river (WKZ-5D, WKZ-5E), and the locally significant wetlands that make up the ponds themselves (WR-3, WKZ-7). These are riparian areas of a former Willamette River channel that have been highly disturbed over time, beginning as borrow pits for aggregate extraction. In most of the riparian area, invasive species, such as Armenian blackberry, are prevalent. In a number of the more open areas, invasive blackberry is the dominant understory vegetation. However, this group of sites has significant areas with a relatively continuous tree canopy dominated by native species, such as Oregon ash, bigleaf maple and black cottonwood. Lands in public ownership within the site have been the subject of major restoration efforts in recent years, and many areas with predominately invasive species have been restored with native species and other habitat enhancements. Overall, the complex provides an extensive system of open water, riparian forest, and wetland habitats, providing for a high diversity of wildlife species. Many portions of these sites contain fish. These sites provide one of the few areas in the Inventory with mature black cottonwood trees, which not only provide nesting cavities for wood duck and other species, but provide scaffolding for nests in the only recently active great blue heron rookery in the Inventory.

The sites have very high connectivity, as they are adjacent to, and connected to the extensive habitat system of the Willamette River.

(4) Goodpasture wetland at Kingfisher/Beltline (WKZ-6):

This large wetland complex (WKZ-6) is located on the east side of Delta Highway, between the Goodpasture Island exit and the Beltline Highway. The wetland is rimmed by a relatively intact, riparian forest of primarily native species, including Oregon ash, and black cottonwood. It is one of the few areas that provides dense thickets of willow. Although it is cut off from the Goodpasture Island Slough/Delta Ponds sites by the freeway, it is an important part of the complex of ponds and wetlands in this area. This site is not documented to contain fish.

Most sites in this analysis group are located within low-density residential neighborhoods, and adjacent to several high density residential developments, such as those at Darlene Lane and at Goodpasture Loop. Most of the Delta Ponds complex to the west of Delta Highway is located on publicly-owned park land, managed as a natural preserve. Along Delta Highway and at Valley River Center, the Goodpasture Island Slough and Delta Ponds are located in areas of dense commercial development. Sites that abut Delta Highway have significant portions located within State right-of-way, either adjacent to highway lanes or adjacent to vacant right-of-way.

21.2 Impact Area

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 21.2 below lists the impact areas assigned to these Goal 5 sites.

Table 21.2 Impact Area Summary: Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Site/ Sub-Site #	Site Name	Impact Area*
Goodpasture/Beltline:		
E75A-1	Goodpasture Island Slough at Beltline	Type B - 75' + mapped riparian vegetation
WKZ-4	Goodpasture Island Slough wetland at Beltline	Type C - 50'
WKZ-5 A	Goodpasture Island Slough wetland at Beltline	Type C - 50'
E75A-2	Goodpasture Island Slough forest at Beltline	Type D - 25' + mapped riparian vegetation
Goodpasture Loop:		
E75B-1, B-2	Goodpasture Island Slough at Goodpasture Loop east	Type C - 50' + mapped riparian vegetation
WKZ-5 B	Goodpasture wetland at Goodpasture Loop	Type C - 50'
WKZ-5 C	Goodpasture wetland at Goodpasture Loop	Type C - 50'
E75B-3, B-5	Goodpasture Island Slough at Goodpasture Loop west	Type D - 25' + mapped riparian vegetation
E75B-4	Goodpasture Loop forest	Type E - Site boundary
Delta Ponds:		
WKZ-5D, 5E	Goodpasture Island Slough at Delta Ponds	Type C - 50'
WR-3	Delta Ponds	Type C - 50'
WKZ-7	Delta Ponds	Type C - 50'
Kingfisher/Beltline:		
WKZ-6	Goodpasture wetland at Kingfisher/Beltline	Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

21.3 Conflicting uses

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones (C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR), Commercial (C), and Public Land (PL), with some undeveloped areas outside of city limits being zoned Agricultural (AG) (primarily undeveloped right-of-way or private undeveloped). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Agricultural, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 21.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 21.3 Zoning within Impact Areas: Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Goodpasture/Beltline:					
E75A-1	Goodpasture Island Slough at Beltline		AG		Private
WKZ-4	Goodpasture Island Slough wetland at Beltline		AG		Private
WKZ-5 A	Goodpasture Island Slough wetland at Beltline		AG		Private
E75A-2	Goodpasture Island Slough forest at Beltline		AG		Public
Goodpasture Loop:					
E75B-1, B-2	Goodpasture Island Slough at Goodpasture Loop east		LDR		Private common
WKZ-5 B	Goodpasture wetland at Goodpasture Loop		LDR	AG	Private common
WKZ-5 C	Goodpasture wetland at Goodpasture Loop		LDR		Private common
E75B-3, B-5	Goodpasture Island Slough at Goodpasture Loop west		LDR		Private common
E75B-4	Goodpasture Loop forest		LDR		Private common
Delta Ponds:					
WKZ-5D, 5E	Goodpasture Island Slough at Delta Ponds		AG	LDR, C	Public, private
WR-3	Delta Ponds		PL, LDR	C	Public, private
WKZ-7	Delta Ponds		PL	LDR	Public, private
Kingfisher/Beltline:					
WKZ-6	Goodpasture wetland at Kingfisher/Beltline		LDR	C	Public, private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

21.4 ESEE Consequences

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 21.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

21.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 21.4.1 below. Some of these characteristics are further discussed below and in Section 21.1, Site Descriptions.

Table 21.4.1 Key resource characteristics: Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands (See Key below Table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL-HAB	Fish	WQ	Flood		
Goodpasture/Beltline:												
E75A-1	Goodpasture Island Slough at Beltline	YES	YES	V HI	HI	YES	---	---	---	---	HI	NO
WKZ-4	Goodpasture Island Slough wetland at Beltline	YES	YES	V HI	HI	YES	SOME	N/A	INTACT	INTACT	HI	NO
WKZ-5 A	Goodpasture Island Slough wetland at Beltline	YES	YES	V HI	HI	YES	SOME	DEGR	INTACT	INTACT	NO	NO
E75A-2	Goodpasture Island Slough forest at Beltline	NO		V HI	MED	YES	---	---	---	---	NO	NO
Goodpasture Loop:												
E75B-1, B-2	Goodpasture Island Slough at Goodpasture Loop east	YES	NO	V HI	HI	YES	---	---	---	---	HI	NO
WKZ-5 B	Goodpasture wetland at Goodpasture Loop	YES	NO	V HI	HI	YES	SOME	DEGR	INTACT	INTACT	NO	NO
WKZ-5 C	Goodpasture wetland at Goodpasture Loop	YES	NO	V HI	HI	YES	SOME	DEGR	INTACT	INTACT	HI	NO
E75B-3, B-5	Goodpasture Island Slough at Goodpasture Loop west	NO	NO	LO	LO	NO	---	---	---	---	NO, HI	NO
E75B-4	Goodpasture Loop forest	NO	NO	V HI	MED	NO	---	---	---	---	NO	NO
Delta Ponds:												
WKZ-5D, 5E	Goodpasture Island Slough at Delta Ponds	YES	NO	V HI	LO-HI	YES	SOME	DEGR	INTACT	INTACT	NO	NO
WR-3	Delta Ponds	YES	NO	V HI	LO-HI	YES	DIV	DEGR	DEGR	INTACT	HI	NO
WKZ-7	Delta Ponds	YES	NO	V HI	LO-HI	YES	DIV	DEGR	DEGR	INTACT	HI	NO

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions				Open	Steep
Kingfisher/Beltline:							WL HAB	Fish	WQ	Flood		
WKZ-6	Goodpasture wetland at Kingfisher/Beltline	NO	NO	V HI	HI	YES	SOME	INTACT	DEGR	INTACT	HI	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

21.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 21.4.2 below list the paragraph number of applicable ESEE consequences.

Table 21.4.2 Summary of ESEE Consequences: Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Goodpasture/Beltline:				
	FULLY ALLOWING CONFLICTING USES			
E75A-1 Goodpasture Island Slough at Beltline*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
WKZ-4 Goodpasture Island Slough wetland at Beltline*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
WKZ-5 A Goodpasture Island Slough wetland at Beltline*	*LIMITING CONFLICTING USES*			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
E75A-2 Goodpasture Island Slough forest at Beltline*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
Note: References to higher quality sites apply.	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Goodpasture Loop:				
E75B-1, B-2 Goodpasture Island Slough at Goodpasture Loop east* WKZ-5 B Goodpasture wetland at Goodpasture Loop* WKZ-5 C Goodpasture wetland at Goodpasture Loop* E75B-3, B-5 Goodpasture Island Slough at Goodpasture Loop west** E75B-4 Goodpasture Loop forest* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Delta Ponds:				
WKZ-5D, 5E Goodpasture Island Slough at Delta Ponds* WR-3 Delta Ponds* WKZ-7 Delta Ponds* **Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
Kingfisher/Beltline:				
WKZ-6 Goodpasture wetland at Kingfisher/Beltline* **Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

21.5 ESEE Conclusions and Recommendations

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

21.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Goodpasture/Beltline:

(a) Goodpasture Island Slough at Beltline (E75A-1);
(b) Goodpasture Island Slough wetlands at Beltline (WKZ-4; WKZ-5A);
(c) Goodpasture Island Slough forest at Beltline (E75A-2):
Limiting conflicting uses recommended.
The key resource characteristics of these riparian sites and their associated wetlands (E75A-1; WKZ-4; WKZ-5A; E75A-2) indicate that they are *higher quality* sites. The slough here is one of the more intact sites in the inventory, providing open water, wetland, and riparian habitats. The slough also provides mature riparian forest, and valuable habitat for juvenile salmonids, including the federally-listed threatened species, upper Willamette Spring Chinook salmon. The sites have very high connectivity due their connection to the Willamette River. Based on these resource characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) Goodpasture Loop:

(a) Goodpasture Island Slough at Goodpasture Loop east (E75B-1, B-2);
(b) Goodpasture wetlands at Goodpasture Loop (WKZ-5B, KZ-5C):
Limiting conflicting uses recommended. This portion of Goodpasture Island Slough along Goodpasture Loop (E75B-1, B-2; WKZ-5B, WKZ-5C) contains a relatively intact riparian corridor, with predominately native riparian species and high vegetative and structural diversity, and providing riparian forest, open water and wetland habitats. Fish are also present. Due to their direct connection to the extensive Willamette River habitat system, these sites have very high connectivity value. Based on these resource characteristics, these are *higher quality* sites. Based on these characteristics, and the ESEE analysis above, the resource value of these sites is of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Goodpasture Island Slough at Goodpasture Loop west (E75B-3, E75B-5);
Fully allowing conflicting uses recommended. The western end of Goodpasture Island Slough (E75B-3, B-5) has been cleared of most of its riparian vegetation, and its hydrological connection to the rest of the slough has been interrupted by intervening development. As these resource characteristics suggest, these sites are of *much lower quality* than other sites in the adopted Inventory. Based on these resource characteristics and the ESEE analysis above, the positive consequences of protecting these lower quality sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Conflicting uses are more important relative to the lower resource values here. Therefore, fully allowing conflicting uses is recommended for these sites.

(d) Goodpasture Loop forest (E75B-4):
Limiting conflicting uses recommended. The most westerly portion of the Goodpasture Island Slough site (E75B-4) is a forested area that is somewhat disconnected from the slough itself, and is more a part of the riparian habitat adjacent to the Willamette River. Although invasive blackberries are prevalent, the site contains primarily native species, providing a relatively continuous canopy of trees, and a mix of upland and riparian understory. Its proximity to the river makes this forested area a valuable part of the river's extensive habitat system. Based on these resource characteristics, this is a *relatively higher quality* site. Based on these characteristics, and the ESEE analysis above, resource values in this site are of somewhat greater importance

to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) Delta Ponds:

(a) Goodpasture Island Slough at Delta Ponds (WKZ-5D, WKZ-5E)

(b) Delta Ponds (WR-3, WKZ-7):

Limiting conflicting uses recommended. Based on key resource characteristics, these wetland sites (WKZ-5D, WKZ-5E, WR-3, WKZ-7) are higher quality sites. Despite the fact that the sites have been highly disturbed and contain a high ratio of invasive species, such as Armenian blackberry, as a group, these sites form the largest complex of open water, island, wetland and riparian habitat in the Inventory. The slough here and the ponds contain fish. Because of a direct connection to the extensive Willamette River system, these sites have very high connectivity. Based on these key resource characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(4) Goodpasture wetland at Kingfisher/Beltline (WKZ-6):

Limiting conflicting uses recommended. This wetland (WKZ-6), located on the east side of Delta Highway, is a *higher quality* site, as indicated by key resource characteristics. The site provides a relatively intact riparian area of primarily native species, dense willow thickets, and valuable open water habitat. Due to its proximity to the extensive habitat of the Delta Ponds and the Willamette River, the site has high connectivity. Based on these key resource characteristics and the ESEE analysis discussed above, the site has greater importance to the community than the conflicting

uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within the site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within the site somewhat outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

21.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 21.5.2 below and Map 21.B summarize the recommendations for these sites.

(1) Goodpasture/Beltline:

(a) Goodpasture Island Slough at Beltline (E75A-1):
Conservation setback of 60 feet recommended. As discussed above, this northern portion Goodpasture Island Slough (E75A-1) is recommended for protection. It is one of the more valuable resource sites in the Inventory and provides important habitat for juvenile salmonids. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality of habitat, presence of fish, and connectivity to the Willamette River, under the proposed /WR overlay zone provisions, this riparian site is recommended to be designated Category B Streams. For riparian and upland wildlife habitat sites designated Category B Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 60 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Goodpasture Island Slough wetland at Beltline (WKZ-4; WKZ-5A):
Conservation setback of 50 feet recommended. As discussed above, these wetlands associated with Goodpasture Island Slough (WKZ-4; WKZ-5A) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality and diversity of habitat, and their role in supporting juvenile salmon, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category

A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Goodpasture Island Slough forest at Beltline (E75A-2):
Conservation setback of 20 feet recommended. As discussed above, this riparian forest (E75A-2) adjacent to the slough is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Goodpasture Loop:

(a) Goodpasture Island Slough at Goodpasture Loop east (E75B-1, B-2);
(b) Goodpasture wetlands at Goodpasture Loop (WKZ-5B, 5C):
Conservation setback of 40/50 feet recommended. As discussed above, these eastern segments of Goodpasture Island Slough (E75B1, B2), and wetlands located within the slough (WKZ-5B, 5C) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the presence of fish, high quality riparian habitat, and high connectivity value, these riparian sites are recommended to be designated Category C Streams, and the wetland sites as Category A Wetlands. For riparian and upland wildlife habitat sites designated Category C Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 40 feet measured from the top of bank of the stream. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Goodpasture Island Slough at Goodpasture Loop west (E75B-3, B-5):
No protection measures are recommended for these sites (E75B-3, B-5), as discussed in the analysis above.

(d) Goodpasture Loop forest (E75B-4):
Protected, with no setback recommended. As discussed above, this site (E75B-4): provides riparian habitat at the river, and is recommended for protection. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this site is recommended to be designated a Category E Stream. For Category E streams, the

conservation area is the area within the resource site boundary, with no additional conservation setback.

(3) **Delta Ponds:**

(a) Goodpasture Island Slough at Delta Ponds (WKZ-5D, WKZ-5E)

(b) Delta Ponds (WR-3, WKZ-7):

Conservation setback of 50 feet recommended. As discussed above, the Delta Ponds wetlands and their connecting slough (WR-3, WKZ-7, WKZ-5D, WKZ-5E) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality and diversity of habitat, and their connection to a regionally important corridor, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(4) **Goodpasture wetland at Kingfisher/Beltline (WKZ-6):**

Conservation setback of 25 feet recommended. As discussed above, this large wetland complex (WKZ-6) is recommended for protection, but does not contain fish, as do the other Delta Pond area wetlands. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this wetland site is recommended to be designated a Category B Wetland, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

Table 21.5.2 Recommendations Summary: Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Goodpasture/Beltline:						
E75A-1	Goodpasture Island Slough at Beltline	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Private	All
WKZ-4	Goodpasture Island Slough wetland at Beltline	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private	All
WKZ-5 A	Goodpasture Island Slough wetland at Beltline	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private	All
E75A-2	Goodpasture Island Slough forest at Beltline	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	All
Goodpasture Loop:						
E75B-1, B-2	Goodpasture Island Slough at Goodpasture Loop east	Limit conflicting uses	/WR Overlay Zone, Category C	40'	Private common	All
WKZ-5 B	Goodpasture wetland at Goodpasture Loop	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private common	All
WKZ-5 C	Goodpasture wetland at Goodpasture Loop	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Private common	All
E75B-3, B-5	Goodpasture Island Slough at Goodpasture Loop west	Fully allow conflicting uses	n/a	n/a	Private common	All
E75B-4	Goodpasture Loop forest	Limit conflicting uses	/WR Overlay Zone, Category E	-0-	Private common	All
Delta Ponds:						
WKZ-5D, 5E	Goodpasture Island Slough at Delta Ponds	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
WR-3	Delta Ponds	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
WKZ-7	Delta Ponds	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
Kingfisher/Beltline:						
WKZ-6	Goodpasture wetland at Kingfisher/Beltline	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public, private	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits..

Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 21

Goal 5 Protection Designations for Goodpasture Island Slough, Delta Ponds and Goodpasture Island Wetlands

Map 21B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

0 245 490 980 Feet

4/25/05

21.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E75A (Goodpasture Island Slough at Beltline); E75B (Goodpasture Island Slough at Goodpasture Loop); WR-3; WKZ-7 (Delta Ponds); WKZ-4; WKZ-5; WKZ-6 (Goodpasture Island Wetlands)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

22. Supplemental Analysis

Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the Oregon Administrative Rules (OARs) allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 22.1 below lists the sites in this analysis group, their resource category and acreage. Map 22.A below shows the site(s) described in this analysis group.

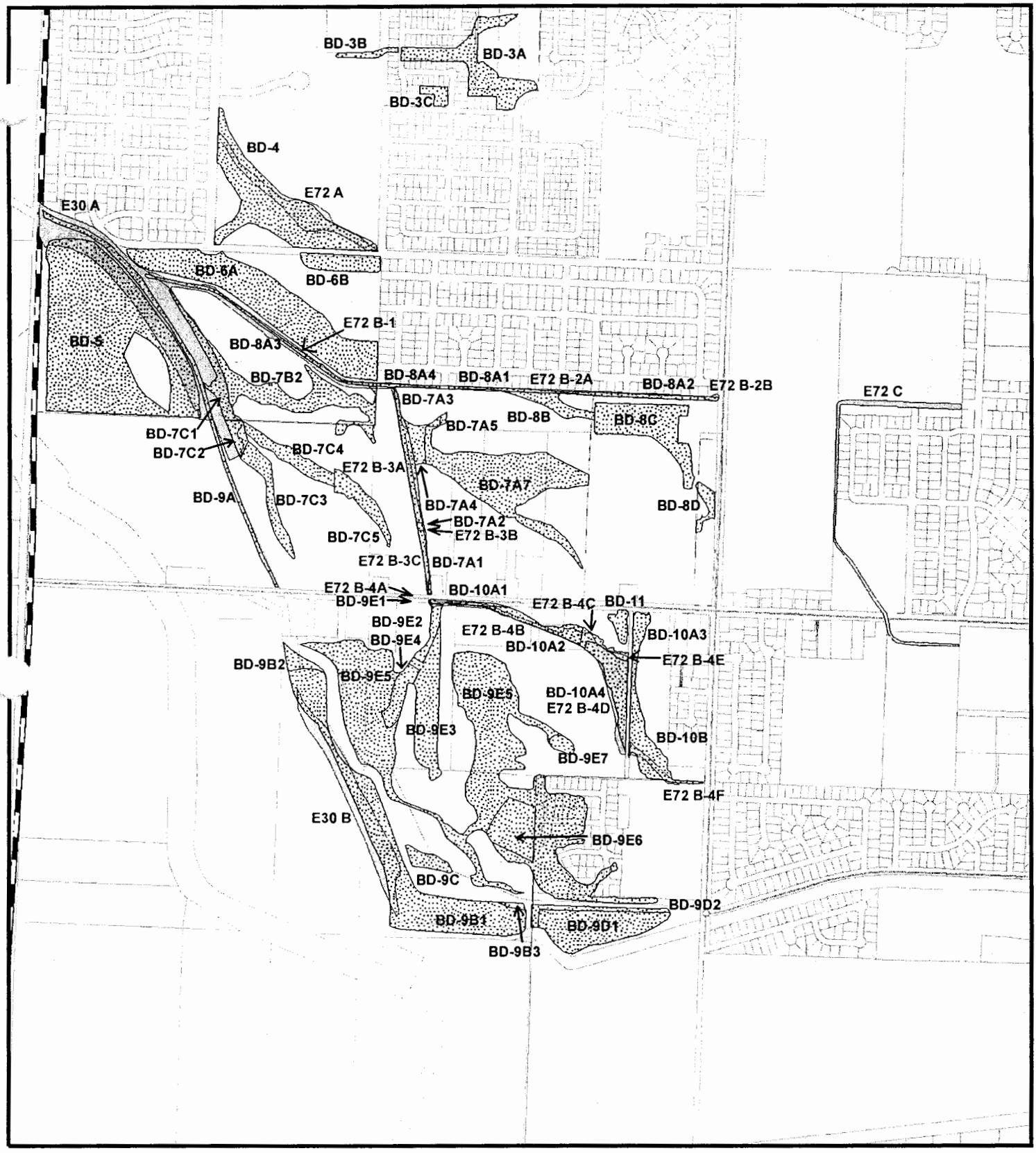
Table 22.1 ESEE analysis group: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub-site #	Site name	Resource Type*	Sub-Site Acres	Inside City Limits**
(1) Marshall/Greenhill Tributary:				
E72B-1	Marshal/Greenhill Tributary north	R	2.3	All
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	R	0.7	All
BD-8A2	Royal Avenue wetland at Donohoe	R	0.6	All
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	R	0.9	All
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal Node Specific Plan	R	1.1	None
BD-8A1	Royal Node wetland at Donohoe within Royal Node Specific Plan	W	0.5	None
BD-8A4	Royal Node wetland at Donohoe within Royal Node Specific Plan	W	0.2	None
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	R	4.4	None
E72A	Bethel Park	R	2.6	All
BD-4	Royal Avenue wetland at Bethel Park	W	9.1	All
E72C	Candlelight, Royal	R	2.0	All
E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	R	1.1	None
(2) Lower Amazon:				
E30 A	Amazon Creek Royal to Greenhill	R	14.1	90%
E30 B	Amazon Creek Roosevelt to Royal	R	5.2	None
BD9-A1	Amazon Creek wetland outside Royal Node	W	1.7	All
BD9-A2	Amazon Creek wetland within Royal Node	W	0.8	None
BD-7C1	Amazon Creek wetland outside Royal Node	W	1.5	All
BD-7C2	Amazon Creek wetland within Royal Node	W	0.6	None
(3) Royal Node Plan wetlands:				
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	0.4	None
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	3.6	None
BD-9E2	Royal Ave wetland/Royal Node wetland	W	0.7	None
BD-9E4	Royal Ave wetland/Royal Node wetland	W	1.2	None
BD-9E6	Royal Ave wetland/Royal Node wetland	W	2.8	None
BD-9E7	Royal Ave wetland/Royal Node wetland	W	0.4	None

Site/Sub-site #	Site name	Resource Type*	Sub-Site Acres	Inside City Limits**
BD-10A2	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	1.1	None
BD-10A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	2.1	None
(4) Amazon Creek wetlands				
BD-5	Royal Avenue wetland	W	24.0	None
BD-9B1	Royal Avenue wetland	W	12.9	None
BD-9D1	Royal Avenue wetland (south)	W	5.1	All
(5) Other Royal Avenue wetlands				
BD-3A,B,C	Royal Avenue wetland at Barger	W	5.7	80%
BD-6A	Royal Avenue wetland at Bethel/Donohoe	W	12.2	All
BD-6B	Royal Avenue wetland at Bethel	W	1.7	All
BD-7A2	Royal Avenue wetland	W	0.1	None
BD-7B2	Royal Avenue wetland west Donohoe	W	4.9	90%
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	W	5.1	None
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	W	9.5	None
BD-8B	Royal Avenue wetland southeast Donohoe	W	1.2	None
BD-8C	Royal Avenue wetland southeast Donohoe	W	4.8	All
BD-8D	Royal Avenue wetland northeast	W	0.6	5%
BD-9B2	Royal Avenue wetland southwest	W	0.6	None
BD-9B3	Royal Avenue wetland southwest	W	0.2	None
BD-9C	Royal Avenue wetland southwest	W	0.8	None
BD-9D2	Royal Avenue wetland southwest	W	0.9	All
BD-9E1	Royal Avenue wetland southwest	W	0.01	None
BD-9E3	Royal Avenue wetland southwest	W	3.9	None
BD-9E5	Royal Avenue wetland southwest	W	29.2	25%
BD-10A1	Royal Avenue wetland east Marshall	W	0.3	None
BD-10A3	Royal Avenue wetland east Marshall	W	0.5	None
BD-10B	Royal Avenue wetland east Marshall	W	3.3	5%
BD-11	Royal Avenue wetland east Marshall	W	0.6	5%

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 22

Map 22A

Significant Goal 5 Site Boundaries for Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 250 500 750

5/4/05

22.1 Site Description(s)

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

The sites in this analysis group are located in the area of Royal Avenue and Greenhill Road in West Eugene. Amazon Creek flows through this area, from the West Eugene Wetlands Plan (WEWP) area to the south, across Royal, and northwest past the UGB toward Fern Ridge Reservoir. (The portion of the creek in this analysis group is that portion located outside of the WEWP area.) This area is characterized by old flood plain deposits and hydric soils, and a number of locally significant wetlands occur here. Most of these wetlands are in agricultural fields, and the plant community within them has been modified over the years by agriculture and grazing to the extent that wetland functions are marginal and native wetland plants are scarce or absent. Most of the sites in this analysis group are located within the Royal Node Specific Plan boundary, a special planning area within which a master plan for future mixed use development was created and adopted, including specific locations of new infrastructure development, land uses and natural resource protection. The Royal Node Specific Plan comprises nearly 200 acres between Roosevelt Boulevard and Donohoe Avenue.

(1) Marshall/Greenhill Tributary:

(a) Marshall/Greenhill Tributary north (E72B-1, B-2B; BD-8A2, BD-8A3);
(b) Marshall/Greenhill Tributary south within Royal Node Specific Plan—protect designations (E72B-2A, E72B-3A, E72B-3C, E72B-4B, E72B-4D; BD-8A1, BD-8A4)
(c) Marshall/Greenhill Tributary at Bethel Park (E72A, BD-4);
(d) Marshall/Greenhill Tributary at Candlelight, Royal (E72C);
(e) Marshall/Greenhill Tributary south within Royal Node Specific Plan—road/development designations (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F):

The Marshall/Greenhill Tributary is a series of small drainages and old agricultural ditches that flows from Terry Avenue northwest past Royal Avenue, and flows into the Amazon near Greenhill Road. Flow is seasonal. The site is generally a narrow, steep-banked ditch generally four to six feet wide. Locally significant wetlands occur within the bottom of the channel for most of its length. Most of the channel is characterized by relatively little riparian vegetation, and a predominance of invasive species, such as Armenian (Himalayan) blackberry and reed canarygrass. Occasional patches of young willow and black cottonwood occur along the channel near Donohoe Avenue, where the habitat in the channel is being restored by the City, and numerous small native trees and shrubs are beginning to establish near the top of the bank. The portion of the channel that is being restored is within a channel easement owned by the City.

Other portions of the Marshall/Greenhill Tributary group are remnants of old agricultural drainages that may have once been tributaries to Amazon Creek, but are no longer connected. The site at Bethel Park (E72A) contains a small, isolated grove of

Oregon ash, along with a locally significant wetland site (BD-4). However, due to changes in the hydrology of the area and intervening development, there is no surface flow at this site, and riparian functions are not likely to be sustained over the long term. Near Candlelight Park, Royal Avenue and Royal Creek Subdivision (E72C), the site has a very narrow area of riparian vegetation with a higher proportion of native species in some portions (including young black cottonwood, Oregon ash, and willow), but which is interrupted by open stretches with little vegetation or primarily invasive species. As a complex of riparian areas, Marshall/Greenhill Tributary provides some habitat value for songbirds, small mammals, reptiles, and amphibians. The majority of the site is located within the Royal Node Specific Plan area.

Several portions of this channel system are designated for roads or development in the Royal Node Specific Plan (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F).

(2) Lower Amazon Creek at Royal/Greenhill:

(a) Amazon Creek Royal to Greenhill (E30A) & Roosevelt to Royal (E30B);
(b) Amazon Creek wetlands (BD-9A1, BD-9A2, BD-7C1, BD-7C2):
These portions of lower Amazon Creek are the most westerly portions of the creek within Eugene's UGB. Both are located within publicly-owned conservation areas. The channel within site E30B, south of Royal Avenue, has been re-contoured and restored with native vegetation within the Meadowlark Prairie restoration project. North of Royal Avenue, within site E30 A, the channel is being restored as part of the Dragonfly Bend habitat restoration project. In both areas, there is currently very little riparian vegetation, as previous vegetation was removed as part of the restoration project. Invasive species such as blackberry are being actively managed, and new plantings of willow, black cottonwood and other native species are beginning to establish along the banks.

(3) Royal Node Plan wetlands (BD-7A1, BD-7A3, BD-7A4, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4):

These wetlands are located within the Royal Node Specific Plan area. The Royal Node Specific Plan was adopted in January 2003, and establishes the pattern for future land uses, infrastructure development and natural resource preservation within the plan area. As part of that planning effort, natural resources within the Royal Node were inventoried and evaluated. The Royal Node Specific Plan integrated drainage corridor protection, wetland restoration and wetland mitigation into an overall plan for developing a mixed use center with effective mass transit connections.

(4) Amazon Creek wetlands (BD-5, BD-9B1, BD-9D1):
Several large wetlands in this area occur adjacent to the Amazon channel. These wetlands lie just outside the Royal Node Specific Plan area, and adjoin the boundary of the West Eugene Wetlands Plan. All three are owned by the West Eugene Wetlands Program Partnership, and are being managed and restored as wetland mitigation sites as part of the West Eugene Wetlands Mitigation Bank Program. Sites BD-9B1 and BD-9D1 are publicly owned and are within the large Meadowlark Prairie restoration

project, and are south of the berm and bike path that separates the restoration project from the Royal Node Specific Plan area.

(5) Other Royal Avenue wetlands:
A number of other wetland sites occur within the area between Roosevelt Boulevard, Barger Drive and Greenhill Road. These wetlands (BD-3A, BD-B, BD-C, BD-6A , BD-6B , BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3 , BD-10B , BD-11) are mostly wetlands in old agricultural fields that have been greatly altered by human activity over time. As a result, wetland values in these sites are marginal and crop plants or other non-native plants dominate. Sites BD-9B2, BD-9B3, BD-9C and BD-9D2 are mapped within the area where the Amazon Bank path was constructed in 1993, and no longer exist.

Land uses within the sites in this analysis group are primarily low density residential and parks/conservation area uses. Much of the area is former agricultural or pasture land that has developed in recent years as residential subdivisions. Parks/conservation area uses occur along Amazon Creek, and along Marshall/Greenhill Tributary at Bethel Park and at Candlelight Park. The adopted Royal Node area plan identifies future land uses as low density residential, high density residential, and commercial uses.

22.2 Impact Area

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: (1) surrounding allowed uses; (2) potentially adverse effects of those uses, and (3) the relative vulnerability of the sites to such adverse affects. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 22.2 below lists the impact areas assigned to these Goal 5 sites.

Table 22.2 Impact Area Summary: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub -site #	Site name	Impact Area*
(1) Marshall/Greenhill Tributary:		
E72B-1	Marshal/Greenhill Tributary north	Type D - 25' + mapped riparian vegetation
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	Type D - 25' + mapped riparian vegetation
BD-8A2	Royal Avenue wetland at Donohoe	Type D - 25'
BD-8A3	Royal Ave wetland at Marshall/Greenhill Tributary north	Type D - 25'
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal	Type D - 25' + mapped riparian vegetation
BD-8A1	Royal Node wetland at Donohoe within Royal	Type D - 25'
BD-8A4	Royal Node wetland at Donohoe within Royal	Type D - 25'
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	Type D - 25' + mapped riparian vegetation
E72A	Bethel Park	Type D - 25' + mapped riparian vegetation
BD-4	Royal Avenue wetland at Bethel Park	Type D - 25'
E72C	Candlelight, Royal	Type D - 25' + mapped riparian vegetation
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	Type D - 25' + mapped riparian vegetation
(2) Lower Amazon:		
E30 A	Amazon Creek Royal to Greenhill	Type B - 75' + mapped riparian vegetation
E30 B	Amazon Creek Roosevelt to Royal	Type B - 75' + mapped riparian vegetation
BD9-A1	Amazon Creek wetland	Type C - 50'
BD9-A2	Amazon Creek wetland	Type C - 50'
BD-7C1	Amazon Creek wetland	Type D - 25'
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	Type D - 25'
(3) Royal Node Plan wetlands:		
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Type D - 25'
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	Type D - 25'
BD-9E2	Royal Ave wetland/Royal Node /Royal Node wetland	Type D - 25'
BD-9E4	Royal Ave wetland/Royal Node/Royal Node	Type D - 25'
BD-9E6	Royal Ave wetland/Royal Node /Royal Node	Type D - 25'
BD-9E7	Royal Ave wetland/Royal Node /Royal Node	Type D - 25'
BD-10A2	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	Type D - 25'
BD-10A4	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	Type D - 25'

(4) Amazon Creek wetlands		
BD-5	Royal Avenue wetland	Type C - 50'
BD-9B1	Royal Avenue wetland	Type D - 25'
BD-9D1	Royal Avenue wetland (south)	Type D - 25'
(5) Other Royal Avenue wetlands		
BD-3A,B,C	Royal Avenue wetland at Barger	Type D - 25'
BD-6A	Royal Avenue wetland at Bethel/Donohoe	Type D - 25'
BD-6B	Royal Avenue wetland at Bethel	Type D - 25'
BD-7A2	Royal Avenue wetland	Type D - 25'
BD-7B2	Royal Avenue wetland west Donohoe	Type D - 25'
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	Type D - 25'
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	Type D - 25'
BD-8B	Royal Avenue wetland southeast Donohoe	Type D - 25'
BD-8C	Royal Avenue wetland southeast Donohoe	Type D - 25'
BD-8D	Royal Avenue wetland northeast	Type D - 25'
BD-9B2	Royal Avenue wetland southwest	Type D - 25'
BD-9B3	Royal Avenue wetland southwest	Type D - 25'
BD-9C	Royal Avenue wetland southwest	Type D - 25'
BD-9D2	Royal Avenue wetland southwest	Type D - 25'
BD-9E1	Royal Avenue wetland southwest	Type D - 25'
BD-9E3	Royal Avenue wetland southwest	Type D - 25'
BD-9E5	Royal Avenue wetland southwest	Type D - 25'
BD-10A1	Royal Avenue wetland east Marshall	Type D - 25'
BD-10A3	Royal Avenue wetland east Marshall	Type D - 25'
BD-10B	Royal Avenue wetland east Marshall	Type D - 25'
BD-11	Royal Avenue wetland east Marshall	Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

22.3 Conflicting uses

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Agricultural (AG). Many of the sites within parks/conservation areas are zoned LDR, with one area at Amazon Creek zoned Natural Resource (NR). Approximately 40 feet of the end of Marshall/Greenhill Tributary at Royal abuts a Commercial (C) zone. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 22.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 22.3 Zoning within Impact Areas: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub-site #	Site name	Primary Zoning*	Secondary Zoning	Ownership**
(1) Marshall/Greenhill Tributary:				
E72B-1	Marshal/Greenhill Tributary north	LDR	AG	Private
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	LDR	AG	Public/school
BD-8A2	Royal Avenue wetland at Donohoe	LDR	AG	Public/school
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	LDR	AG	Private
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal	LDR, AG	---	Private
BD-8A1	Royal Node wetland at Donohoe within Royal	LDR, AG	---	Private
BD-8A4	Royal Node wetland at Donohoe within Royal	LDR, AG	---	Private
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	AG	---	Private
E72A	Bethel Park	LDR	---	Public
BD-4	Royal Avenue wetland at Bethel Park	LDR	---	Public

E72C	Candlelight, Royal	LDR	C	Public/private
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	AG	---	Private
(2) Lower Amazon:				
E30 A	Amazon Creek Royal to Greenhill	LDR	AG	Public/private
E30 B	Amazon Creek Roosevelt to Royal	NR	AG	Public
BD9-A1	Amazon Creek wetland	AG	---	Public/private
BD9-A2	Amazon Creek wetland	AG	---	Public/private
BD-7C1	Amazon Creek wetland	LDR	---	Private
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	AG	---	Private
(3) Royal Node Plan wetlands:				
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	AG	---	Private
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	AG	---	Private
BD-9E2	Royal Ave wetland/Royal Node /Royal Node wetland	AG	---	Private
BD-9E4	Royal Ave wetland/Royal Node/Royal Node	AG	---	Private
BD-9E6	Royal Ave wetland/Royal Node /Royal Node	AG	---	Private
BD-9E7	Royal Ave wetland/Royal Node /Royal Node	AG	---	Private
BD-10A2	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	AG	---	Private
BD-10A4	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	AG	---	Private
(4) Amazon Creek wetlands:				
BD-5	Royal Avenue wetland	LDR, AG	---	Public
BD-9B1	Royal Avenue wetland	NR	AG	Public
BD-9D1	Royal Avenue wetland (south)	AG	---	Public
(4) Other Royal Avenue wetlands:				
BD-5	Royal Avenue wetland at Barger	LDR	AG	Private
BD-6A	Royal Avenue wetland at Bethel/Donohoe	LDR	---	Private
BD-6B	Royal Avenue wetland at Bethel	LDR	---	Private
BD-7A2	Royal Avenue wetland	AG	---	Private
BD-7B2	Royal Avenue wetland west Donohoe	LDR	---	Private
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	AG	---	Private
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	AG	---	Private
BD-8B	Royal Avenue wetland southeast Donohoe	AG	---	Private
BD-8C	Royal Avenue wetland southeast Donohoe	LDR	---	Private
BD-8D	Royal Avenue wetland northeast	AG	---	Private
BD-9B2	Royal Avenue wetland southwest	AG	---	Private
BD-9B3	Royal Avenue wetland southwest	AG	---	Private
BD-9C	Royal Avenue wetland southwest	NR	AG	Public/private
BD-9D2	Royal Avenue wetland southwest	AG	---	Private
BD-9E1	Royal Avenue wetland southwest	AG	---	Private
BD-9E3	Royal Avenue wetland southwest	AG	---	Private

BD-9E5	Royal Avenue wetland southwest	AG	LDR	Private/public
BD-10A1	Royal Avenue wetland east Marshall	AG	---	Private
BD-10A3	Royal Avenue wetland east Marshall	AG	---	Private
BD-10B	Royal Avenue wetland east Marshall	AG	---	Private
BD-11	Royal Avenue wetland east Marshall	AG	---	Private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district of most of remaining site area. See Section 3, Conflicting Uses for definitions

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

22.4 ESEE Consequences

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 22.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

22.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 22.4.1 below. Some of these characteristics are further discussed below and in Section 22.1, Site Descriptions.

Table 22.4.1 Key resource characteristics: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands (See Key Below Table)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions*				Open	Steep
							WL HAB	Fish	WQ	Flood		
(1) Marshall/Greenhill Tributary:												
E72B-1	Marshal/Greenhill Tributary north	NO	NO	V HI	LO-MED	YES	---	---	---	---	NO	NO
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	NO	NO	HI	LO	YES	---	---	---	---	NO	NO
BD-8A2	Royal Avenue wetland at Donohoe	NO	NO	HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal Node Specific Plan	NO	NO	HI	LO	YES	---	---	---	---	NO	NO
BD-8A1	Royal Node wetland at Donohoe within Royal Node Specific Plan	NO	NO	HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-8A4	Royal Node wetland at Donohoe within Royal Node Specific Plan	NO	NO	HI	NES	YES	NES	NES	NES	NES	NO	NO
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	NO	NO	V HI	LO	YES	---	---	---	---	NO	NO
E72A	Bethel Park	NO	NO	LO	MED	YES	---	---	---	---	NO	NO
BD-4	Royal Avenue wetland at Bethel Park	NO	NO	LO	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
E72C	Candlelight, Royal	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	NO	NO	V HI	LO	YES	---	---	---	---	NO	NO
(2) Lower Amazon:												
E30 A	Amazon Creek Royal to Greenhill	YES	NO	V HI	LO-MED	YES	---	---	---	---	NO	NO
E30 B	Amazon Creek Roosevelt to Royal	YES	NO	V HI	LO-MED	YES	---	---	---	---	NO	NO
BD9-A1	Amazon Creek wetland	YES	NO	V HI	LO-MED	YES	NES	NES	NES	NES	NO	NO
BD9-A2	Amazon Creek wetland	YES	NO	V HI	LO-MED	YES	NES	NES	NES	NES	NO	NO
BD-7C1	Amazon Creek wetland	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO

(3) Royal Node Plan wetlands:												
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E2	Royal Ave wetland/Royal Node wetland	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E4	Royal Ave wetland/Royal Node	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E6	Royal Ave wetland/Royal Node	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E7	Royal Ave wetland/Royal Node	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A2	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
(4) Amazon Creek wetlands:												
BD-5	Royal Avenue wetland	NO	NO	V HI	N/A	YES	SOME	N/A	DEGR	DEGR	NO	NO
BD-9B1	Royal Avenue wetland	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-9D1	Royal Avenue wetland (south)	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
(5) Other Royal Avenue wetlands:												
BD-3A,B,C	Royal Avenue wetland at Barger	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-6A	Royal Avenue wetland at Bethel/Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-6B	Royal Avenue wetland at Bethel	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7A2	Royal Avenue wetland (small portion within Royal Node)	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7B2	Royal Avenue wetland west Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-8B	Royal Avenue wetland southeast Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-8C	Royal Avenue wetland southeast Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-8D	Royal Avenue wetland northeast	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9B2	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9B3	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO

BD-9C	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9D2	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E1	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E3	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E5	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A1	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A3	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-10B	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-11	Royal Avenue wetland east Marshall	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	DEGR	NO	NO
		Fish	T&E	Con-nect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length. *Where wetland is adjacent to a Goal 5 riparian corridor, connectivity = V HI (very high).*
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, N/A = not evaluated, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

*Wetland functions and values were evaluated for entire sites only. Functions and values were not assessed separately within each of the sub-site sections listed above. For this reason, the assessment is not considered accurate at the sub-site level.

22.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 22.4.2 below list the paragraph number of applicable ESEE consequences.

Table 22.4.2 Summary of ESEE Consequences: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
1: Marshall/Greenhill Tributary:				
	FULLY ALLOWING CONFLICTING USES			
E72B-1 Marshal/Greenhill Tributary north*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E72B-2B Marshal/Greenhill Tributary north (along Donohoe)*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
BD-8A2 Royal Avenue wetland at Donohoe*				
BD-8A3 Royal Avenue wetland at Marshall Greenhill Tributary north*				
E72B-2A Marshal/Greenhill Tributary north (along Donohoe) within Royal*	*LIMITING CONFLICTING USES*			
BD-8A1 Royal Node wetland at Donohoe within Royal Node Specific Plan*	*Economic* (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
BD-8A4 Royal Node wetland at Donohoe within Royal Node Specific Plan*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E72B-3A, E72B-3C, E72B-4B, E72B-4D Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations**	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E72A Bethel Park**				
BD-4 Royal Avenue wetland at Bethel Park**				
E72C Candlelight, Royal**				
**Note: References to higher quality sites apply.*				
***Note: References to lower quality sites apply.*				

2. Lower Amazon				
E30 A Amazon Creek Royal to Greenhill* E30 B Amazon Creek Roosevelt to Royal* BD9-A1 Amazon Creek wetland outside Royal Node Specific Plan* BD9-A2 Amazon Creek wetland within Royal Node Specific Plan* BD-7C1 Amazon Creek wetland* BD-7C2 Amazon Creek wetland within Royal Node Specific Plan* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
3. Royal Node Plan wetlands:				
BD-7A1 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* BD-7A3, BD-7A4,BD-7B1 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* BD-9E2 Royal Ave wetland/Royal Node wetland* BD-9E4 Royal Ave wetland/Royal Node wetland* BD-9E6 Royal Ave wetland/Royal Node wetland* BD-9E7 Royal Ave wetland/Royal Node wetland* BD-10A2 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* BD-10A4 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

(4) Amazon Creek wetlands:				
BD-5 Royal Avenue wetland* BD-9B1 Royal Avenue wetland* BD-9D1 Royal Avenue wetland* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4:4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
	FULLY ALLOWING CONFLICTING USES	*FULLY ALLOWING CONFLICTING USES*	*FULLY ALLOWING CONFLICTING USES*	*FULLY ALLOWING CONFLICTING USES*
Other Royal Avenue wetlands:				
BD-3A,B,C Royal Avenue wetland** BD-6A Royal Avenue wetland** BD-6B Royal Avenue wetland** BD-7A2 Royal Avenue wetland** BD-7B2 Royal Avenue wetland** BD-7C3, C4, C5 Royal Avenue wetland** BD-7A5, A6, A7 Royal Avenue wetland** BD-8B Royal Avenue wetland** BD-8C Royal Avenue wetland** BD-8D Royal Avenue wetland** BD-9B2 Royal Avenue wetland** BD-9B3 Royal Avenue wetland** BD-9C Royal Avenue wetland** BD-9D2 Royal Avenue wetland** BD-9E1 Royal Avenue wetland** BD-9E3 Royal Avenue wetland** BD-9E5 Royal Avenue wetland** BD-10A1 Royal Avenue wetland** BD-10A3 Royal Avenue wetland** BD-10B Royal Avenue wetland** BD-11 Royal Avenue wetland**	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4:2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A
	LIMITING CONFLICTING USES	*LIMITING CONFLICTING USES*	*LIMITING CONFLICTING USES*	*LIMITING CONFLICTING USES*
	Economic (Section 4.3.1)	*Economic* (Section 4.3.1)	*Economic* (Section 4.3.1)	*Economic* (Section 4.3.1)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K,

*Note: References to higher quality sites apply. **Note: References to lower quality sites apply.				4.3.1L, 4.3.5A
	PROHIBITING CONFLICTING USES	*PROHIBITING CONFLICTING USES*	*PROHIBITING CONFLICTING USES*	*PROHIBITING CONFLICTING USES*
	Economic (Section 4.4.1)	*Economic* (Section 4.4.1)	*Economic* (Section 4.4.1)	*Economic* (Section 4.4.1)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A

22.5 ESEE Conclusions and Recommendations

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

22.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations for the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

1) **Marshall/Greenhill Tributary:**

(a) Marshall/Greenhill Tributary north (E72B-1, E72B-2B; BD-8A2, BD-8A3);
(b) Marshall/Greenhill Tributary south within Royal Node Specific Plan—protect designations (E72B-2A, E72B-3A, E72B-3C, E72B-4B, E72B-4D; BD-8A1, BD-8A4):
Limiting conflicting uses recommended.
The key resource characteristics of the Marshall/Greenhill Tributary its associated wetlands (E72B-1, E72B-2B; BD-8A2, BD-8A3) indicate that these are *higher quality* sites. Although the corridor has been highly disturbed over the years, the City is actively restoring riparian habitat in and adjacent to the channel and managing invasive

species. In addition, the site has very high connectivity, due to its direct connection to Amazon Creek. The portion of the channel that is being restored (from Terry Street, west to the old Amazon Creek Channel) is within a channel easement owned by the City. Based on these characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur within them. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Marshall/Greenhill Tributary at Bethel Park (E72A, BD-4);
(d) Marshall/Greenhill Tributary at Candlelight, Royal (E72C):
Fully allowing conflicting uses recommended. These sites are remnants of old agricultural drainages that are no longer connected to the larger stream/wetland system in the area, and have low connectivity value. The riparian habitat in these sites is highly disturbed and fragmented. Based on these characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. The resource is not as important as the conflicting uses that would occur within these corridors. The positive consequences of protecting the resource do not outweigh the negative consequences of prohibiting or limiting conflicting uses.

(e) Marshall/Greenhill Tributary south within Royal Node Specific Plan—road/development designations (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F):
Fully allowing conflicting uses recommended. These portions of riparian corridor are within old agricultural fields and eliminating most native plants. Based on that, and the ESEE analysis above, the positive consequences of protecting the resources at these sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. With assistance of the U.S. Army Corps of Engineers, and involvement from the Bureau of Land Management, U.S. Fish and Wildlife Service, and the Oregon Department of State Lands (which regulates wetlands in Oregon), the Royal Node Specific Plan process evaluated wetlands and drainage channels in this area, and evaluated their relative quality, and their role within an urban, developed landscape. The Specific Plan designated wetlands and riparian areas along the key drainage corridors for conservation and restoration, while designating these portions (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F) for roads or development, establishing a balance within a plan aimed at minimizing overall environmental impacts while enhancing the quality of the built environment. Conflicting uses allowed under the current zoning, and future land uses designated in the Royal Node Specific Plan, are more important relative to the

lower resource wetland values here. For these reasons, fully allowing conflicting uses is recommended for these sites.

(2) Lower Amazon Creek at Royal/Greenhill:

(a) Amazon Creek Royal to Greenhill (E30A) & Roosevelt to Royal (E30B):
(b) Amazon Creek wetlands (BD-9A1, BD-9A2, BD-7C1, BD-7C2):
Limiting conflicting uses recommended.
The key resource characteristics of Lower Amazon Creek and its associated wetlands (E30A, E30B, BD-9A1, BD-9A2 BD-7C1, 7C2) indicate that they are *higher quality* sites. Although the corridor here has been highly modified and disturbed in the past, these areas of the creek are under primarily public ownership, and are being restored and actively managed for natural resource values. In addition, Amazon Creek and its wetlands have very high connectivity, having one of the most extensive drainage basins and habitat systems in the metro area. Based on these characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur within them. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) Royal Node Plan wetlands (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4):
Limiting conflicting uses recommended.
These wetlands are identified in the Royal Node Specific Plan to be preserved and enhanced (see Paragraph (4)(b) below), and therefore are already designated for protection within the context of a highly detailed development master plan. These wetlands provide valuable wetland functions, such as flood storage and wetland habitat. and their location adjacent to or near Amazon Creek or Marshall/Greenhill Tributary gives them relatively high connectivity value. Based on these characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for these wetland sites. These wetland sites provide resource functions that are more important than the conflicting uses that would be allowed here, within the context of the Royal Node Specific Plan. With assistance of the U.S. Army Corps of Engineers, and involvement from the Bureau of Land Management, US Fish and Wildlife Service, and the Oregon Department of State Lands (which regulates wetlands in Oregon), the Royal Node Specific Plan process evaluated wetlands and drainage channels in this area, and evaluated their relative quality, and their role within an urban, developed landscape. The Specific Plan designated a large proportion of the lower quality wetland as future

development areas, while setting aside the wetlands here (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4) for conservation and restoration, establishing a balance within a plan aimed at minimizing overall environmental impacts while enhancing the quality of the built environment. Given this large planning context and evaluation, and the analysis and discussion above, the negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(4) Amazon Creek wetlands (BD-5, BD-9B1, BD-9D1):
Limiting conflicting uses recommended. Wetland sites (BD-5, BD-9B1, BD-9D1) are within the area being actively managed and restored by the West Eugene Wetlands Partnership. As restoration sites that are part of the West Eugene Wetlands Mitigation Bank Program, and as sites with very high connectivity value, being adjacent to the Amazon Channel, they are important wetland resources. Based on these characteristics and the ESEE analysis above, resource values in these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(5) Other Royal Avenue wetlands:
Fully allowing conflicting uses recommended. A number of wetlands in this area (BD-3A, BD-B, BD-C, BD-6A , BD-6B , BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3 , BD-10B , BD-11) are *relatively lower value* sites. These wetlands are within old agricultural fields which have been greatly disturbed over time, altering hyrdrology and decreasing or eliminating native wetland plants. Generally, these wetlands are not located along riparian corridors, have low connectivity value, have little wetland or riparian vegetation. Based on that, and the ESEE analysis above, the positive consequences of protecting the resources at these sites do not outweigh the negative consequences,

particularly the economic consequences, of prohibiting or limiting conflicting uses. With assistance of the U.S. Army Corps of Engineers, and involvement from the Bureau of Land Management, U.S. Fish and Wildlife Service, and the Oregon Department of State Lands (which regulates wetlands in Oregon), the Royal Node Specific Plan process evaluated wetlands and drainage channels in this area, and evaluated their relative quality, and their role within an urban, developed landscape. The Specific Plan designated wetlands along the key drainage corridors for conservation and restoration, while designating these wetlands (BD-3A, BD-B, BD-C, BD-6A , BD-6B , BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3 , BD-10B , BD-11) for development, establishing a balance within a plan aimed at minimizing overall environmental impacts while enhancing the quality of the built environment. Conflicting uses allowed under the current zoning, and future land uses designated in the Royal Node Specific Plan, are more important relative to the lower resource wetland values here. For these reasons, fully allowing conflicting uses is recommended for these sites.

22.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 22.5.2 below and Map 22.B summarize the recommendations for these sites.

(1) Marshall/Greenhill Tributary:

(a) Marshall/Greenhill Tributary north (E72B-1, E72B-2B; BD-8A2, BD-8A3): Conservation setback of 20/25 feet recommended. As discussed above, these sites (E72B-1, 72B-2B; BD-8A2, BD-8A3) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) Marshall/Greenhill Tributary south within Royal Node Specific Plan—protect designations (E72B-2A, E72B-3A, E72B-3C, E72B-4B, E72B-4D; BD-8A1, BD-8A4):

Conservation recommended, with no conservation setback. As discussed above, these portions of Marshall/Greenhill Tributary (E72B-2A, B-3A, B-3C, B-4B, B-4D; BD-8A1, BD-8A4) are tributary to the regionally significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category E Streams, and the wetland sites are recommended to be designated Category C Wetlands. Both of these categories define the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(c) Marshall/Greenhill Tributary at Bethel Park (E72A, BD-4);

(d) Marshall/Greenhill Tributary at Candlelight, Royal (E72C);

(e) Marshall/Greenhill Tributary south within Royal Node Specific Plan—road/development designations (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F):

No protection measures are recommended for these sites, as discussed in the analysis above.

(2) Lower Amazon Creek at Royal/Greenhill:

(a) Amazon Creek Royal to Greenhill (E30A), Roosevelt to Royal (E30B) (*outside* Royal Node Specific Plan area):

Conservation setback of 60 feet recommended. As discussed above, Amazon Creek (E30A, E30B) is one of the most extensive habitat systems in the metro area, and is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category B Streams. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, (2) the presence of one of the most extensive habitat systems in the metro area, and (3) their regional significance as a migration and wildlife movement corridor. For riparian and upland wildlife habitat sites designated Category B Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 60 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) Amazon Creek wetlands (BD-9A1) (*outside* Royal Node Specific Plan area): Conservation setback of 50 feet recommended. As discussed above, these wetlands (BD-9A) occur within the channel of regionally-significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, (2) the presence of one of the most extensive habitat systems in the metro area, and (3) their regional significance as a migration and wildlife movement corridor. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(c) Amazon Creek wetlands (BD-7C1):
Conservation setback of 50 feet recommended. As discussed above, these wetlands (BD-7C1) occur within the channel of regionally-significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, and (2) its connection to one of the most extensive habitat systems in the metro area. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(d) Amazon Creek Royal to Greenhill (E30A) (*inside* Royal Node Specific Plan area):
Conservation recommended, with no conservation setback. As discussed above, this site is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated a Category E Stream. This stream category defines the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(e) Amazon Creek wetlands (BD-9A2) (*inside* Royal Node Specific Plan area):
Conservation recommended, with no conservation setback. As discussed above, this site is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated a Category C Wetland. This wetland category defines the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(3) Royal Node Plan wetlands (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4):
Conservation recommended, with no conservation setback. As discussed above, these wetland sites (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these wetland sites are recommended to be designated Category C Wetlands. This wetland category defines the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(4) Amazon Creek wetlands:

(a) Amazon Creek wetlands (BD-5):
Conservation setback of 50 feet recommended. As discussed above, this wetland site (BD-5) is a large wetland adjacent to regionally-significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, and (2) its connection to one of the most extensive habitat systems in the metro area. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) Amazon Creek wetlands (BD-9B1, BD-9D1):

Conservation setback of 25 feet recommended. As discussed above, these sites (BD-9B1, BD-9D1) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category B Wetlands. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(5) Other Royal Avenue wetlands:

No protection measures are recommended for the following sites, as discussed in the analysis above: BD-3A, BD-B, BD-C, BD-6A , BD-6B, BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3, BD-10B , BD-11.

Table 22.5.2 Recommendations Summary: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits**
(1) Marshall/Greenhill Tributary:						
E72B-1	Marshal/Greenhill Tributary north	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Private	All
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Public/school	All
BD-8A2	Royal Avenue wetland at Donohoe	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public/school	All
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	All
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Stream Category E	-0-	Private	None
BD-8A1	Royal Node wetland at Donohoe within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-8A4	Royal Node wetland at Donohoe within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	Limit conflicting uses	/WR Overlay Zone, Stream Category E	-0-	Private	None
E72A	Bethel Park	Fully allow conflicting uses	n/a	n/a	Public	All
BD-4	Royal Avenue wetland at Bethel Park	Fully allow conflicting uses	n/a	n/a	Public	All
E72C	Candlelight, Royal	Fully allow conflicting uses	n/a	n/a	Public/private	All
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	Fully allow conflicting uses	n/a	n/a	Private	None

(2) Lower Amazon:						
E30 A	Amazon Creek Royal to Greenhill	Limit conflicting uses	/WR Overlay Zone, Stream Category B	60'	Public/private	None
E30 B	Amazon Creek Roosevelt to Royal	Limit conflicting uses	/WR Overlay Zone, Stream Category B	60'	Public	None
BD9-A1	Amazon Creek wetland outside Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public/private	None
BD9-A2	Amazon Creek wetland within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category E	0'	Public/private	None
BD-7C1	Amazon Creek wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	None
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limit

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits**
(3) Royal Node Plan wetlands:						
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-7A3	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-7A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E2	Royal Ave wetland/Royal Node wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E4	Royal Ave wetland/Royal Node	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E6	Royal Ave wetland/Royal Node	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E7	Royal Ave wetland/Royal Node	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-10A2	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-10A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

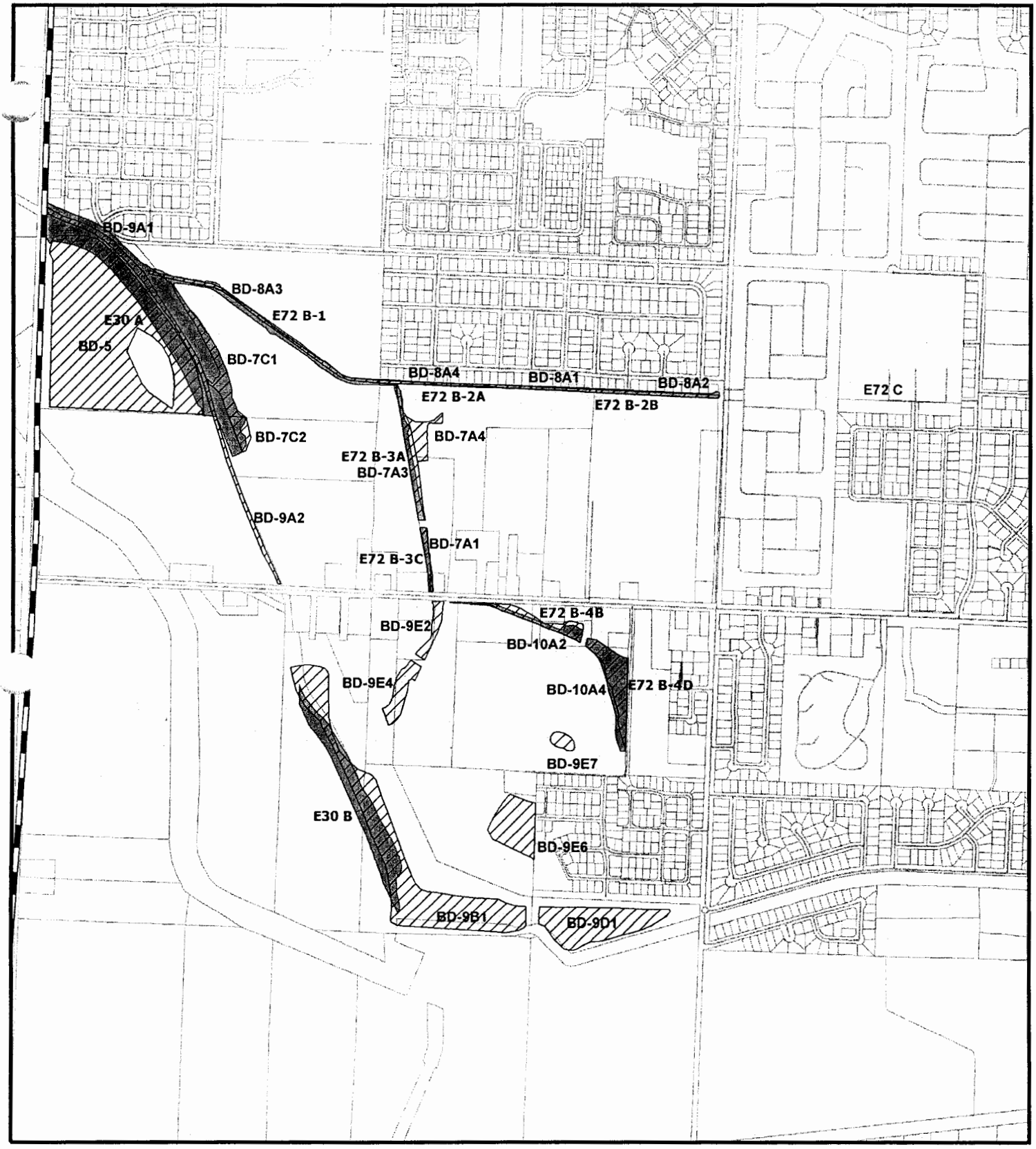
*** Approximate proportion of site within city limit

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits**
(4) Amazon Creek Wetlands						
BD-5	Royal Avenue wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	None
BD-9B1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Public	None
BD-9D1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Public	All
(5) Other Royal Avenue wetlands:						
BD-3A,B,C	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	80%
BD-6A	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-6B	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-7A2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-7B2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	90%
BD-7C3, C4, C5	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-7A5, A7	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-8B	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-8C	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-8D	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	5%
BD-9B2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9B3	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9C	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Public/private	None
BD-9D2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-9E1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9E3	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9E5	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private/public	25%
BD-10A1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-10A3	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-10B	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	5%
BD-11	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	5%

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection

Significant Goal 5 ESEE Analysis Group 22

Goal 5 Protection Designations
for Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Map 22B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 250 500 750

5/4/05

23. Supplemental Analysis

Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

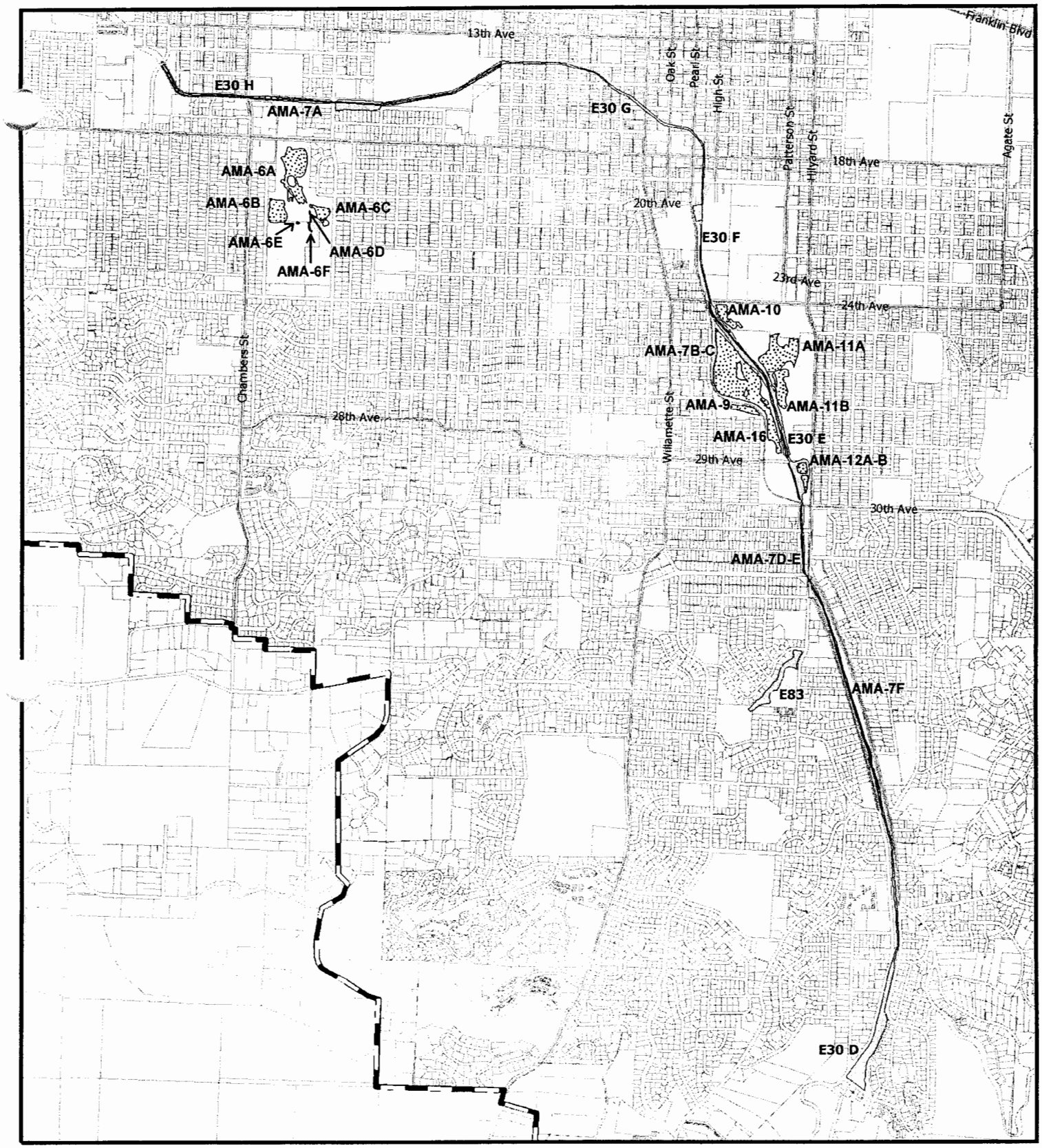
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 23.1 below lists the sites in this analysis group, their resource category and acreage. Map 23.A below shows the site(s) described in this analysis group.

Table 13.1 ESEE analysis group: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Lower Amazon Creek:				
	Lower Amazon Martin - 30th:			
E30 D	Lower Amazon at Martin to 30th	R	11.37	All
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th	W	2.21	All
	Lower Amazon at Amazon Park:			
E30 E	Lower Amazon at 30th-24th (park)	R	9.12	All
AMA-7B,C	Amazon channel wetland 30th-24th (park)	W	1.86	All
	Lower Amazon 24th -Fairgrounds:			
E30 F,G	Lower Amazon at 24th - Fairgrounds	R	4.64	All
	Lower Amazon Fairgrounds - Arthur:			
E30 H	Lower Amazon at Fairgrounds to Arthur	R	10.48	All
AMA-7A	Amazon channel wetland Fairgrounds to Arthur	W	3.62	All
Amazon Park wetlands:				
AMA-16	Amazon park wetland prairie	W	0.89	All
AMA-9	Amazon park wetland ash grove	W	14.84	All
AMA-10	Amazon park wetland 24th	W	1.42	All
AMA-11B	Amazon park wetland pool	W	2.78	All
AMA-12A,B	Amazon park wetland 29th	W	1.09	All
AMA-11A	Amazon park wetland ballfield	W	5.58	All
Westmoreland wetlands:				
AMA-6B, C	Westmoreland wetland prairie	W	3.58	All
AMA-	Westmoreland wetlands	W	5.82	All
Tugman Riparian				
E83	Tugman Riparian at Tugman Park	R	3.18	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries
Significant Goal 5 ESEE Analysis Group 23

Significant Goal 5 Site Boundaries for Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Map 23A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 620 1,240 1,860 Feet

4/25/05

23.1 Site Description(s)

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

Amazon Creek originates in Eugene's south hills and flows along Amazon Parkway from Martin Street north through Amazon Park and Community Center, through downtown Eugene, Lane County Fairgrounds, West Eugene and the West Eugene Wetlands Plan Area, and continues northwest to Fern Ridge Reservoir. The limits of this site analysis group are Martin Street to Arthur Street, where the Amazon enters the West Eugene Wetlands Plan Area (where Goal 5 process already completed). Portions of the creek corridor, particularly at the south end where it follows Amazon Parkway, contain a relatively intact riparian corridor with primarily native trees and understory. In other areas, most of the riparian area along the creek has been cleared, or replaced by buildings and parking lots. Despite these areas of compromised habitat, Amazon Creek forms one of the most extensive habitat systems in the metro area. It provides habitat for a diversity of wildlife, including waterfowl, shorebirds, reptiles, amphibians, mammals, and fish species. The creek flows through hydric soils its entire length, and several remnant wetlands are found in lower areas near the channel and within the channel. These wetland areas add to the diversity of habitat types found along the Amazon, and, on three sites, provide habitat for endangered plants. Amazon Creek has very high connectivity not only due to its overall length, but also due to the wetlands adjacent to it, and its connection to forested habitat in the South Hills. It serves as a regionally important habitat corridor, reaching from higher elevation habitat in the south hills down to lower elevations, through otherwise developed areas, and out to the extensive habitat of Fern Ridge Reservoir.

(1) Lower Amazon Creek:

(a) Lower Amazon channel Martin to Arthur (E30D, E30E, E30H);
(b) Lower Amazon wetlands (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F);
(c) Lower Amazon 24th to Fairgrounds (E30F,G):

Lower Amazon Martin to 30th (E30D; AMA-7D, AMA-7E, AMA-7F):

From Martin Street at the foot of the South Hills, the Amazon (E30D) flows northward through Kinney Park and along Amazon Parkway. The riparian area here is relatively intact, with high vegetative and structural diversity. Although invasive species, such as Armenian blackberry and reed canarygrass are prevalent (and dominate some open areas), the riparian plant community consists of primarily native species, such as Oregon ash, ponderosa pine, black cottonwood, and willow. The riparian area is narrow for a creek of this size, constrained by streets on either side, as well as high voltage power lines. From approximately Fox Hollow north to Amazon Park, this portion of the creek also contains wetlands (AMA-7D, AMA-7E, AMA-7F).

Lower Amazon at Amazon Park (E30E; AMA-7B, AMA-7C):
The portion of the creek corridor at Amazon Park has some of the more intact riparian areas in the site. With the exception of some open stretches, where reed canarygrass dominates channel banks, the riparian plant community here is dominated by native species. This portion of the creek also contains wetlands (AMA-7B, AMA-7C) within the channel.

Lower Amazon 24th to Fairgrounds (E30F, E30G):
This portion of Amazon Creek is a concrete-lined channel (E30F,G). Most riparian vegetation has been removed, and the area surrounding the top of the channel wall has been developed into, typically, parking areas and ornamental landscaping associated with adjacent homes and businesses. While these areas do not provide viable riparian habitat, numerous small trees are scattered along the channel, including bigleaf maple and Oregon ash. A few areas are wide enough to support groups of trees, including large black cottonwoods. These scattered trees contribute little to the creek, but do provide some shading of the channel, and some input of organic material, food for aquatic animals. In one location within this site boundary, there is a small population of the endangered wet prairie plant, Bradshaw's lomatium, within land owned by the City of Eugene and School District 4-J. There are no locally significant wetlands in this portion of the creek.

Lower Amazon at Fairgrounds (E30H; AMA-7A):
As the creek enters the Fairgrounds (E30H), the riparian area is noticeably wider, more intact, and contains large patches of native vegetation, such as willow. Similarly to other sections of Amazon Creek where riparian trees and shrubs are established, numerous species of songbirds use this area, especially during migration. The Amazon channel here also contains wetlands (AMA-7A).

(2) Amazon Park wetlands:

(a) Amazon Park wetland prairie (AMA-16), Amazon ash grove (AMA-9):
These two wetland sites contain remnants of rare Willamette Valley Wet Prairie. Both sites contain significant populations of the federally listed endangered wet prairie plant, Brashaw's lomatium. Wet prairie habitat, which historically occupied thousands of acres in the Willamette Valley, is now represented only by small remnants such as these. The large Oregon ash grove adjacent to the wet prairie area and Amazon Creek within Amazon Park contributes important wildlife habitat to this habitat system.

(b) Amazon park wetlands (AMA-10, AMA-11B, AMA-12A,B):
Wetland AMA-10 is a small ash wetland located at 24th Avenue, partly within the park, and partly on property owned by School District 4-J. Like the ash grove within site AMA-16, this grove contributes to the habitat structure and adversity adjacent to Amazon Creek. Wetland AMA-11B, located near the pool, is a recently restored wetland created in part as mitigation for wetlands filled within Tugman Park. Wetland AMA-12, located near 29th &Hilyard Street, is another Oregon ash grove adjacent to Amazon Creek, which contributes habitat and structural diversity to the habitat system of upper Amazon Creek.

(c) Amazon park wetlands in ballfield (AMA-11A):
This wetland (AMA-11A), located near the pool, is part of the mowed area used as a sports field during much of the year. Although the site has wetland characteristics, and is near to Amazon Creek, it no longer supports native plants and therefore has very low habitat value.

(3) Westmoreland wetlands:

(a) Westmoreland wetland prairie (AMA-6B, AMA-6C):
The group of wetland sites within Westmoreland Park includes remnants of once common and now rare Willamette Valley Wet Prairie habitat. Of the 6 locally significant wetlands within Westmoreland Park, these 2 wetland areas (AMA-6B and AMA-6C) still contain a large percentage of native wet prairie species. Many butterfly, amphibian, bird, and plant species of the Willamette Valley are dependent on this type of habitat. The site also provides an important source of seed for wet prairie plants for use in restoration projects.

(b) Westmoreland wetlands (AMA-6A, AMA-6D, AMA-6E, AMA-6F):
The other three wetland areas in Westmoreland Park are part of the mowed area used as a frisbee golf field during most of the year. These areas no longer support native plants and therefore have very low habitat value.

(4) Tugman Riparian (E83):

The Tugman Riparian area is a small stream that carries water from the bottom of Elliot Hill down through Tugman Park to Hilyard Street. The stream is narrow, with little structural diversity of riparian vegetation. The upper portion of the stream flows through a woodland that has minimal native riparian understory, but has a native tree canopy. The lower portion of the stream has recently been re-routed and restored with native plantings, and the young riparian vegetation has not yet established a viable riparian plant community. However, the stream is located entirely within the City-owned park, where its riparian functions are being actively managed and restored.

Land uses within the sites in this analysis group are primarily parks and open space and low density residential, with a few areas of commercial uses. Commercial uses occur primarily in the 6-block area between High Street and Lincoln. Extensive areas along the creek are in park uses, such as the area along Amazon Parkway, Amazon Park, and Westmoreland Park. At the north end of this site, the creek flows through the large Lane County Fairgrounds site.

23.2 Impact Area

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 23.2 below lists the impact areas assigned to these Goal 5 sites.

Table 23.2 Impact Area Summary: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-Site #	Site Name		Impact Area*
Lower Amazon Creek:			
	Lower Amazon Martin - 30th:		
E30 D	Lower Amazon at Martin to 30th		Type B - 75' + mapped riparian vegetation
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th		Type C - 50'
	Lower Amazon at Amazon Park:		
E30 E	Lower Amazon at 30th-24th (park)		Type B - 75' + mapped riparian vegetation
AMA-7B,C	Amazon channel wetland 30th-24th (park)		Type C - 50'
	Lower Amazon 24th - Fairgrounds:		
E30 F,G	Lower Amazon at 24th - Fairgrounds		Type E - Site boundary
	Lower Amazon Fairgrounds - Arthur:		
E30 H	Lower Amazon at Fairgrounds to Arthur		Type B - 75' + mapped riparian vegetation
AMA-7A	Amazon channel wetland Fairgrounds to Arthur		Type C - 50'
Amazon Park wetlands:			
AMA-16	Amazon park wetland prairie		Type C - 50'
AMA-9	Amazon park wetland ash grove		Type C - 50'
AMA-10	Amazon park wetland 24th		Type D - 25'
AMA-11B	Amazon park wetland pool		Type D - 25'
AMA-12A,B	Amazon park wetland 29th		Type D - 25'
AMA-11A	Amazon park wetland ballfield		Type D - 25'
Westmoreland wetlands:			
AMA-6B, C	Westmoreland wetland prairie		Type C- 50'
AMA-6A,D,E,F	Westmoreland wetlands		Type D - 25'
Tugman Riparian			
E83	Tugman Riparian at Tugman Park		Type D - 25' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

23.3 Conflicting uses

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Public Land (PL), including school sites, parks, and the fairgrounds. Commercial (C) zoning occurs in the area between High Street and Lincoln. In a few areas adjacent to the corridor, there is High Density Residential (HDR) zoning. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 23.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 23.3 Zoning within Impact Areas: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Lower Amazon Creek:					
	Lower Amazon Martin - 30th:				
E30 D	Lower Amazon at Martin to 30th		LDR	C, HDR, PL	Public
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th		LDR, PL	---	Public
	Lower Amazon at Amazon Park:				
E30 E	Lower Amazon at 30th-24th (park)		PL	HDR, LDR	Public
AMA-7B,C	Amazon channel wetland 30th-24th (park)		PL	LDR, HDR	Public
	Lower Amazon 24th - Fairgrounds:				
E30 F,G	Lower Amazon at 24th - Fairgrounds		PL, LDR, C	HDR	Private
	Lower Amazon Fairgrounds - Arthur:				
E30 H	Lower Amazon at Fairgrounds to Arthur		PL, LDR	HDR, C	Public, private
AMA-7A	Amazon channel wetland Fairgrounds to Arthur		LDR, PL	C, HDR	Public, private

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership (majority ownership listed first)**
Amazon Park wetlands:					
AMA-16	Amazon park wetland prairie		PL	---	Public
AMA-9	Amazon park wetland ash grove		PL	HDR	Public
AMA-10	Amazon park wetland 24th		PL	---	Public
AMA-11B	Amazon park wetland pool		PL	---	Public
AMA-12A,B	Amazon park wetland 29th		PL	---	Public
AMA-11A	Amazon park wetland ballfield		PL	---	Public
Westmoreland wetlands:					
AMA-6B, C	Westmoreland wetland prairie		PL	---	Public
AMA-6A,D,E,F	Westmoreland wetlands		PL	---	Public (part school)
Tugman Riparian					
E83	Tugman Riparian at Tugman Park		PL, LDR	---	Public

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

23.4 ESEE Consequences

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 23.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

23.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites include those given in Table 23.4.1 below. Some of these characteristics are further discussed below and in Section 23.1, Site Descriptions.

Table 23.4.1 Key resource characteristics: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Lower Amazon Creek:												
	Lower Amazon Martin - 30th:											
E30 D	Lower Amazon at Martin to 30th	YES	NO	V HI	HIGH	YES	---	---	---	---	NO	NO
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th	YES	NO	V HI	HIGH	YES	SOME	DEGR	DEGR	INTACT	NO	NO
	Lower Amazon at Amazon Park:											
E30 E	Lower Amazon at 30th-24th (park)	YES	NO	V HI	HIGH	YES	---	---	---	---	NO	NO
AMA-7B,C	Amazon channel wetland 30th-24th (park)	YES	NO	V HI	HIGH	YES	SOME	DEGR	DEGR	INTACT	NO	NO
	Lower Amazon 24th to Fairgrounds:											
E30 F,G	Lower Amazon at 24th - Fairgrounds	YES	YES	V HI	LO	NO	---	---	---	---	NO	NO
	Lower Amazon at Fairgrounds:											
E30 H	Lower Amazon at Fairgrounds to Arthur	YES	NO	V HI	HIGH	YES	---	---	---	---	NO	NO
AMA-7A	Amazon channel wetland Fairgrounds to Arthur	YES	NO	V HI	HIGH	YES	SOME	DEGR	DEGR	INTACT	NO	NO
Amazon Park wetlands:												
AMA-16	Amazon park wetland prairie	NO	YES	MED	HIGH	YES	SOME	N/A	INTACT	DEGR	NO	NO
AMA-9	Amazon park wetland ash grove	NO	YES	HI	HIGH	YES	SOME	N/A	INTACT	INTACT	NO	NO
AMA-10	Amazon park wetland 24th	NO	NO	HI	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
AMA-11B	Amazon park wetland pool	NO	NO	HI	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
AMA-12A,B	Amazon park wetland 29th	NO	NO	HI	MED	YES	SOME	N/A	DEGR	DEGR	NO	NO
AMA-11A	Amazon park wetland ballfield	NO	NO	LO	LO	YES	SOME	N/A	INTACT	INTACT	NO	NO
Westmoreland wetlands:												
AMA-6B, C	Westmoreland wetland prairie	NO	NO	LO	HI	YES	SOME	N/A	DEGR	INTACT	NO	NO
AMA-6A,D,E,F	Westmoreland wetlands	NO	NO	LO	LO	YES	SOME	N/A	DEGR	INTACT	NO	NO
		Fish	**T&E**	**Con-nect**	**NatVeg**	**LSWet**	**WL HAB**	**Fish**	**WQ**	**Flood**	**Open**	**Steep**

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Tugman Riparian												
E83	Tugman Riparian at Tugman Park	NO		LO		NO	---	---	---	---	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

23.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 23.4.2 below list the paragraph number of applicable ESEE consequences.

Table 23.4.2 Summary of ESEE Consequences: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Lower Amazon Creek:				
E30 D Lower Amazon at Martin to 30th* AMA-7D,E,F Amazon channel wetland Fox Hollow-30th* E30 E Lower Amazon at 30th-24th* AMA-7B,C Amazon channel wetland 30th-24th* E30 F,G Lower Amazon at 24th - Fairgrounds* E30 H Lower Amazon at Fairgrounds to Arthur* AMA-7A Amazon channel wetland Fairgrounds to Arthur* **Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Amazon Park wetlands:				
AMA-16 Amazon park wetland prairie* AMA-9 Amazon park wetland ash grove* AMA-10 Amazon park wetland 24th* AMA-11B Amazon park wetland pool* AMA-12A,B Amazon park wetland 29th* AMA-11A Amazon park wetland ballfield** *Note: References to higher quality sites apply. **Note: References to lower quality sites apply.	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
Westmoreland wetlands:				
AMA-6B, C Westmoreland wetland prairie* AMA-6A,D,E,F Westmoreland wetlands** *Note: References to higher quality sites apply. **Note: References to lower quality sites apply.	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Tugman Riparian				
E83 Tugman Riparian at Tugman Park*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
**Note: References to higher quality sites apply.*	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

23.5 ESEE Conclusions and Recommendations

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

23.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Lower Amazon Creek:

(a) Lower Amazon channel Martin to Arthur (E30D, E30E, E30H);
(b) Lower Amazon wetlands (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F);
(c) Lower Amazon 24th to Fairgrounds (E30F, E30G):

Limiting conflicting uses recommended. The key resource characteristics of Lower Amazon Creek and its associated wetlands (E30D; AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F) indicate that they are *higher quality* sites. The corridor has been highly modified and disturbed, and invasive species, such as Armenian blackberry and reed canarygrass dominate some many of the more open areas. One section, approximately 10 blocks long in the downtown area, is lined with concrete. Other portions of the corridor have a relatively intact riparian area. While the quality of its riparian plant community is quite variable, Amazon Creek provides one of the most extensive habitat waterway systems in the Metro area. It is regionally significant for the size of its drainage area, and for its role as a connector between extensive wildlife habitat in the South Hills and other, lower elevation habitat, such as that found in the West Eugene Wetlands area and Fern Ridge Reservoir. Based on these characteristics and the ESEE analysis discussed above, these sites have greater importance to the community at large than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) Amazon Park wetlands:

(a) Amazon Park wetland prairie (AMA-16), Amazon ash grove (AMA-9);
(b) Amazon park wetlands (AMA-10, AMA-11B, AMA-12A,B):
Limiting conflicting uses recommended. Key resource characteristics indicate that these wetland sites (AMA-16; AMA-9; AMA-10; AMA-11B; AMA-12A,B) are some of the more valuable wetlands in the Inventory. They provide a diversity of wetland types, such as wet prairie and ash wetland, and have high connectivity, being adjacent to the Amazon Channel. Due to these resource characteristics, these are *relatively higher quality* sites. Based on that, and the ESEE analysis above, resource values in these sites are of greater importance to the community than the conflicting uses that would occur

here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Amazon park wetlands at ballfield (AMA-11A):
Fully allowing conflicting uses recommended. This wetland (AMA-11A) located within the ballfield area at the park is a *relatively lower quality site* based on key resource characteristics. As a locally significant wetland, it provides some wetland values, such as water quality moderation for a relatively large area. However, based on resource characteristics and the ESEE analysis above, the conflicting uses that would occur here are more important than the moderately valuable resource. The positive consequences of protecting this resource do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended for this site.

(3) Westmoreland wetlands:

(a) Westmoreland wetland prairie (AMA-6B, AMA-6C):
Limiting conflicting uses recommended. These two wetland sites (AMA-6B,C) are *higher quality* sites, as indicated by their key resource characteristics. These sites contain rare Willamette Valley wet prairie habitats. Based on these resource characteristics and the ESEE analysis above, the resource values provided by these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) Westmoreland wetlands (AMA-6A, AMA-6D, AMA-6E, AMA-6F):
Fully allowing conflicting uses recommended. As indicated by their key resource characteristics, other wetland areas in Westmoreland are relatively *lower quality sites.*

Based on these resource characteristics and the ESEE analysis above, the conflicting uses that would occur here are more important than the resource. The positive consequences of protecting the resource do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended for this site.

(4) Tugman Riparian (E83):

Limiting conflicting uses recommended. Based on key resource characteristics, the Tugman Park stream (E83) is a lower quality site. The riparian area has been cleared of much of its vegetation, and the stream has low connectivity. However, it is located entirely within a City-owned park and is being managed as a natural area, which would result in few conflicting uses. Based on that, and the ESEE analysis above, the resource values are slightly more important than the few conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within the site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site *somewhat* outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

23.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 23.5.2 below and Map 23.B summarize the recommendations for these sites.

(1) Lower Amazon Creek:

(a) Lower Amazon channel Martin to Arthur (E30D, E30E, E30H): Conservation setback of 60 feet recommended. As discussed above, Lower Amazon Creek (E30D, E30E, E30H) is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality of habitat, the presence of one of the most extensive habitat systems in the metro area, and their regional significance as a migration and wildlife movement corridor, under the proposed /WR overlay zone provisions, these

riparian sites are recommended to be designated Category B Streams. For riparian and upland wildlife habitat sites designated Category B Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 60 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Lower Amazon wetlands Martin to Arthur (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F):
Conservation setback of 50 feet recommended. As discussed above, these wetlands (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F) occur within the channel of regionally- significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality and diversity of habitat, and their regional significance as a connecting corridor, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Lower Amazon 24th to Fairgrounds (E30F, E30G):
Protected, with no setback recommended. As discussed above, this portion of Amazon Creek (E30F, E30G) is an essential part of the regionally significant Amazon Creek, and is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these sites are recommended to be designated Category E Streams, and would receive no conservation setback beyond the site boundary. This setback reflects the fact that the creek in this area is within a concrete channel, but protects the creek and the adjacent Bradshaw's lomatium site from further encroachment.

(2) Amazon Park wetlands:

(a) Amazon Park wetland prairie (AMA-16), Amazon ash grove (AMA-9):
Conservation setback of 50 feet recommended. As discussed above, these wetlands (AMA-16, AMA-9) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality and diversity of habitat, the presence of a federally listed endangered plant, and their connection to a regional connecting corridor, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Amazon park wetlands (AMA-10, AMA-11B, AMA-12A,B):
Conservation setback of 25 feet recommended. As discussed above, these wetland sites (AMA-10, AMA-11B, AMA-12A,B) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these wetland sites are recommended to be designated as Category B Wetlands. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Amazon park wetlands at ballfield (AMA-11A):
No protection measures are recommended for this site (AMA-11A), as discussed in the analysis above.

(3) Westmoreland wetlands:

(a) Westmoreland wetland prairie (AMA-6B, AMA-6C):
Protective development setback of 50 feet recommended. As discussed above, these wetlands (AMA-6B,C) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality habitat, and the rarity of the Willamette Valley wet prairie habitat, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Westmoreland wetlands (AMA-6A,D,E,F):
No protection measures are recommended for these sites (AMA-6A,D,E,F), as discussed in the analysis above.

(4) Tugman Riparian (E83):

Conservation setback of 25 feet recommended. As discussed above, this site (E83) is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

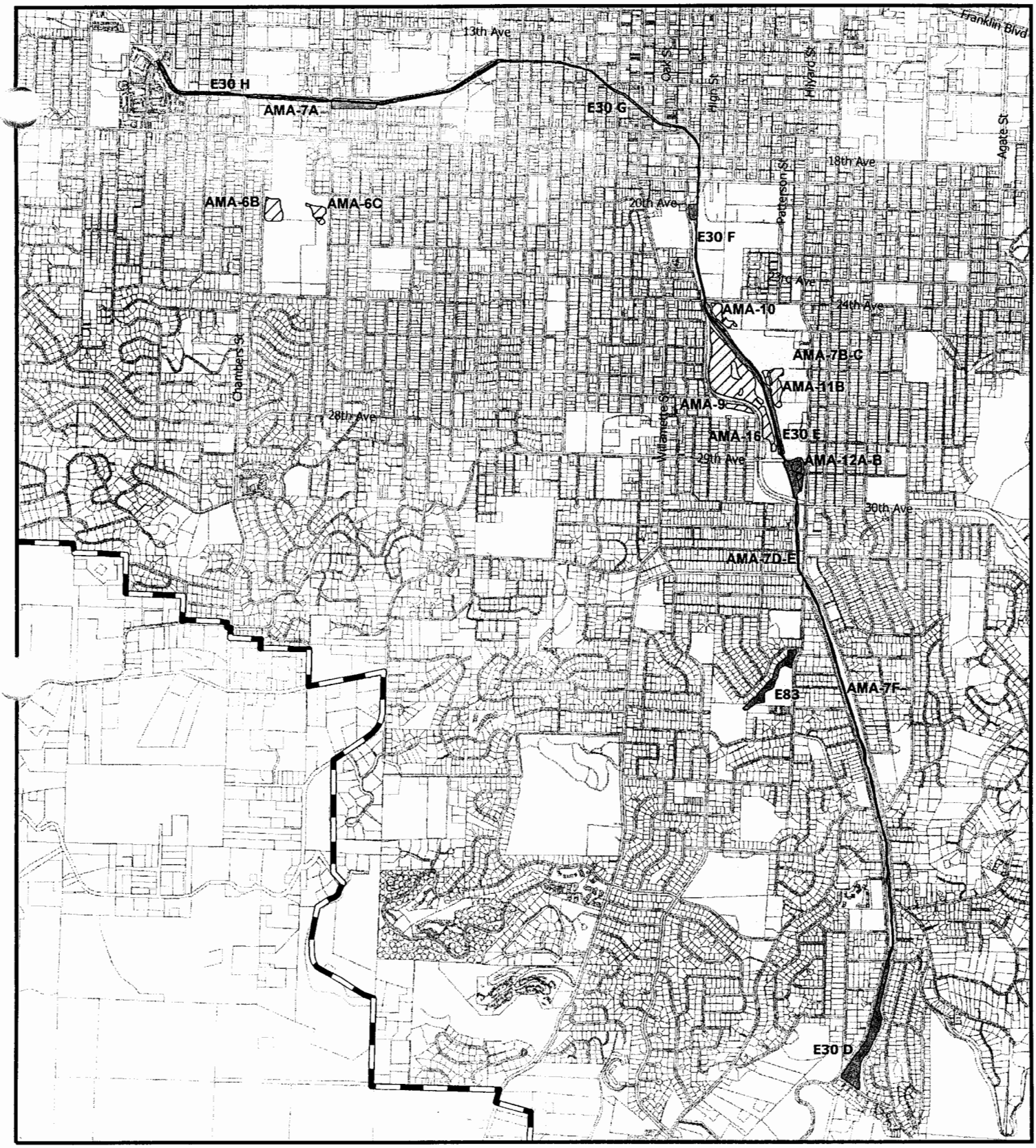
Table 23.5.2 Recommendations Summary: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Lower Amazon Creek:						
E30 D	Lower Amazon at Martin to 30th	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Public	All
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
E30 E	Lower Amazon at 30th-24th (park)	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Public	All
AMA-7B,C	Amazon channel wetland 30th-24th (park)	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
E30 F,G	Lower Amazon at 24th - Fairgrounds	Limit conflicting uses	/WR Overlay Zone, Category E	-0-	Private	All
E30 H	Lower Amazon at Fairgrounds to Arthur	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Public, private	All
AMA-7A	Amazon channel wetland Fairgrounds to Arthur	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
Amazon Park wetlands:						
AMA-16	Amazon park wetland prairie	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
AMA-9	Amazon park wetland ash grove	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
AMA-10	Amazon park wetland 24th	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
AMA-11B	Amazon park wetland pool	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
AMA-12A,B	Amazon park wetland 29th	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
AMA-11A	Amazon park wetland ballfield	Fully allow conflicting uses	n/a	n/a	Public	All
Westmoreland wetlands:						
AMA-6B, C	Westmoreland wetland prairie	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
AMA-6A,D,E,F	Westmoreland wetlands	Fully allow conflicting uses	n/a	n/a	Public (part school)	All
Tugman Riparian:						
E83	Tugman Riparian at Tugman Park	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 23

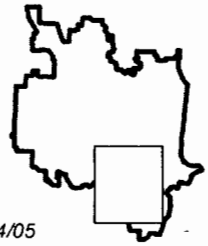
Map 23B

Goal 5 Protection Designations for Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 620 1,240 1,860



5/4/05

23.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

24. Supplemental Analysis

Willamette River, Willamette River Wetlands

Sites WA/WB (Willamette River); WR-1; WR-2; WR-5 (Willamette River Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

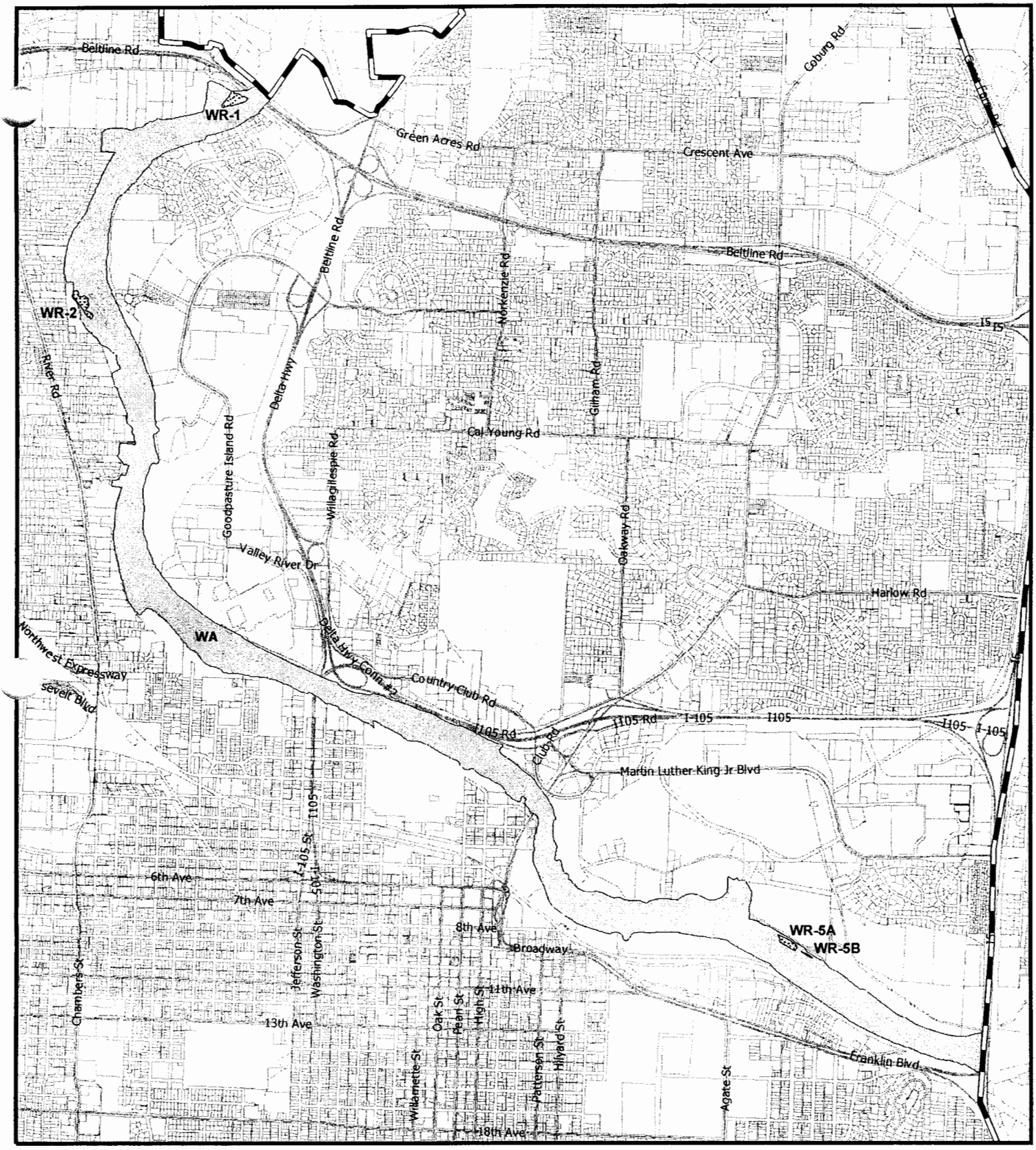
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 24.1 below lists the sites in this analysis group, their resource category and acreage. Map 24.A below shows the site(s) described in this analysis group.

Table 24.1 ESEE analysis group: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Site Acres	Inside City Limits**
Willamette River:				
WA/WB	Willamette River	R	453.49	All
Willamette River wetlands:				
WR-1	Willamette River wetland River Avenue	W	1.94	All
WR-2	Willamette River wetland Greenleaf Pond	W	1.79	All
WR-5	Willamette River wetland south	W	1.17	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 24

Significant Goal 5 Site Boundaries for Willamette River, Willamette River Wetlands

Map 24A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 725 1,450 2,175 Feet

5/4/05

24.1 Site Description(s)

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf Pond); WR-5A, B (Willamette River wetlands south)

(1) Willamette River (WA/WB):

The Willamette is the most important river system in the region. The corridor provides a diverse range of habitat types, including riparian, wetland, open water, and island habitats, that support a wide range of terrestrial and aquatic wildlife species. The riparian plant community along the river is the largest and one of the most intact in the Inventory, and includes black cottonwood, Oregon ash, Pacific willow, red-osier dogwood, red alder, white alder, and bigleaf maple. It is one of the few riparian corridors in the inventory that contains stands of mature black cottonwood, important trees for raptors, great blue heron, cavity nesting species, and for providing downed wood and snags. Wetland plants, such as rush species (*Juncus* spp., *Scirpus* spp.) and sedge species (*Carex* spp.) occur along the waterline. Although invasive species, such as Armenian (Himalayan) blackberry and reed canarygrass are prevalent, the plant community is made up of primarily native species. The Willamette River is one of the most extensive wildlife travel corridors and migration routes in the state. Numerous wildlife species use the corridor to move between habitat patches, and it is a significant migration corridor for migrant songbirds. Belted kingfisher, great blue heron, green heron, and osprey are commonly seen fishing and perching along the river. Swallows and warbler species frequent the riparian edge in spring and summer. Shorebirds, beaver, turtles, reptiles, and amphibians utilize the water's edge and downed trees in the riparian area. The river provides important resting and rearing habitat for juvenile spring Chinook salmon, and a migration corridor for adult Chinook. This species is listed as threatened under the federal Endangered Species Act. The Willamette River also harbors a diverse native fish community, including: cutthroat trout, rainbow trout, mountain whitefish, chiselmouth, mountain sucker, largescale sucker, redside shiner, sculpin, northern pikeminnow, peamouth, sand roller, and dace (Aquatic and Riparian Habitat Assessment for the Eugene Springfield Area, Chip Andrus and Jenny Walsh, 2002).

(2) Willamette River wetlands River Avenue (WR-1); Willamette River wetlands Greenleaf Pond (WR-2); Willamette River wetlands south (WR-5A, WR-5B):

Numerous locally significant wetlands occur within the Willamette riparian corridor. Three of these wetland sites are included in this analysis group (other wetlands are discussed in other analysis groups). Wetlands WR-1, WR-2 and WR-5 are all located within and adjacent to the river channel. All contain forested wetland habitat with primarily native Oregon ash. Wetland WR-1 is a 2-acre forested ash wetland located near River Avenue and the Beltline Highway. Wetland WR-2 is the pond located at the west bank park along the river at the end of Greenleaf Avenue. It is provides nearly 2 acres of open water wetland habitat directly off the main river channel. Wetland site WR-5 is a smaller, approximately 1 acre site located within Alton Baker Park, near

Walnut Pond. These wetland areas add to the diversity of habitat type along the river corridor and, provide resting and rearing habitat for juvenile salmonids (including the federally listed upper Willamette Spring Chinook) and other fish during winter high flows.

Land uses surrounding the Willamette River corridor and the wetlands in this analysis group range from low density residential uses, to high intensity commercial uses. Major areas of commercial uses occur in the downtown Eugene area and at Valley River Center. Several miles of the corridor along both sides of the river are in park uses, such as areas in the River Road/Santa Clara neighborhoods and Alton Baker Park. In addition to these major land uses, there are institutional uses, such as schools and part of the university campus; public facilities, such as treatment plants; and high density residential uses.

24.2 Impact Area

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf pond); WR-5A, WR-5B (Willamette River wetlands south)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 24.2 below lists the impact areas assigned to these Goal 5 sites.

Table 24.2 Impact Area Summary: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
Willamette River:			
WA/WB	Willamette River		Type A - 120' + mapped riparian vegetation
Willamette River wetlands:			
WR-1	Willamette River wetland River Avenue		Type C - 50'
WR-2	Willamette River wetland Greenleaf Pond		Type C - 50'
WR-5	Willamette River wetland south		Type C - 50'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

24.3 Conflicting uses

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf pond); WR-5A, WR-5B (Willamette River wetlands south)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of the Willamette River and the wetlands in this group is zoned primarily Low Density Residential (LDR) and Public Land (PL), including parks and public facilities. Remaining areas are zoned primarily Commercial (C), with a few areas of Agricultural (AG) zoning, High Density Residential (HDR) zoning, and Industrial (I) zoning. A portion of the corridor at Riverfront Research Park has a Special Area Zone (SAZ). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land, Commercial, High Density Residential, Industrial, and Special Area Zone uses are determined to be conflicting uses for riparian corridors and wetlands. Table 24.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 24.3 Zoning within Impact Areas: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Willamette River:					
WA/WB	Willamette River		LDR, PL	C, AG, HDR, I, SAZ	Private, public
Willamette River wetlands:					
WR-1	Willamette River wetland River Avenue		PL	-	Public
WR-2	Willamette River wetland Greenleaf Pond		PL	LDR	Public, private
WR-5	Willamette River wetland south		PL	LDR	Public

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

24.4 ESEE Consequences

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf pond); WR-5A, WR-5B (Willamette River wetlands south)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 24.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

24.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 24.4.1 below. Some of these characteristics are further discussed below and in Section 24.1, Site Descriptions.

Table 24.4.1 Key resource characteristics: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Willamette River:												
WA/WB	Willamette River	YES	YES	V HI	MED-V HI	YES	---	---	---	---	HI	NO
Willamette River wetlands:												
WR-1	Willamette River wetland River Avenue	YES	YES	V HI	V HI	YES	SOME	N/A	INTACT	INTACT	NO	NO
WR-2	Willamette River wetland Greenleaf Pond	YES	YES	V HI	HI	YES	SOME	DEGR	DEGR	DEGR	HI	NO
WR-5	Willamette River wetland south	YES	YES	V HI	V HI	YES	SOME	DEGR	INTACT	DEGR	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

24.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 24.4.2 below list the paragraph number of applicable ESEE consequences.

Table 24.4.2 Summary of ESEE Consequences: Willamette River, Willamette River Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Willamette River				
WA/WB Willamette River*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
**Note: References to higher quality sites apply.*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Willamette River wetlands:				
WR-1 Willamette River wetland River Avenue* WR-2 Willamette River wetland Greenleaf Pond* WR-5 Willamette River wetland south* **Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

24.5 ESEE Conclusions and Recommendations

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf Pond); WR-5A, B (Willamette River wetlands south)

24.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Willamette River (WA/WB):

Limiting conflicting uses recommended.
The key resource characteristics of the Willamette River (WA/WB) indicate that it is one of the *highest quality sites* in the Inventory. This site is the largest stream in the region, including all of the Eugene UGB area, and has significant economic, social and environmental importance to the region. Although many portions of the riparian area have been disturbed, and invasive species such as Armenian blackberry and reed canarygrass are established, overall, the corridor contains a highly intact riparian plant community with a mature forest canopy that supports a wide range of terrestrial and aquatic wildlife species. It has very high connectivity, providing one of the most extensive and diverse habitat systems and wildlife corridors in the region. The river also provides habitat for state- and federally-listed species, as well as numerous native fish species. Based on these key resource characteristics and the ESEE analysis discussed above, the resource value provided by this site is of greater importance to the community and the region than the conflicting uses that would occur within the corridor. Although there are negative consequences of protecting this site, particularly negative economic consequences, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would

result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) Willamette River wetlands River Avenue (WR-1); Willamette River wetlands Greenleaf Pond (WR-2); Willamette River wetlands south (WR-5A, WR-5B):

Limiting most conflicting uses recommended. Based on key resource characteristics these wetland sites along the river (WR-1, WR-2, WR-5A, B) are *higher quality* sites. The sites contain relatively higher quality plant communities, dominated by native vegetation and riparian forest. Their proximity and direct connection to the river give these sites very high connectivity, and they provide important winter habitat for juvenile Chinook salmon. Based on these characteristics and the ESEE analysis above, these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

24.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 24.5.2 below and Map 24.B summarize the recommendations for these sites.

(1) Willamette River (WA/WB):

Conservation setback of 100 feet recommended. As discussed above, the Willamette River (WA/WB) is recommended for protection, as it provides one of the most extensive, intact wildlife corridors in the region, providing habitat for a diversity of wildlife species, including state- and federally-listed species. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category A Stream. This recommendation is based upon the ESEE analysis above, and these factors:

(1) it is one of the *highest quality sites* in the Inventory, (2) it is the largest stream in the region, (3) the corridor contains a highly intact riparian plant community with a mature forest canopy that supports a wide range of terrestrial and aquatic wildlife species, (4) it has very high connectivity value, providing one of the most extensive and diverse habitat systems and wildlife corridors in the region, (5) it provides habitat for state- and federally-listed species, and (6) it provides habitat for numerous native fish species. For riparian and upland wildlife habitat sites, the conservation area for Category A Streams includes the area within the resource site boundary, plus the area within a conservation setback of 100 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Willamette River wetlands River Avenue (WR-1); Willamette River wetlands Greenleaf Pond (WR-2); Willamette River wetlands south (WR-5A, WR-5B):

Conservation setback of 50 feet recommended. As discussed above, these wetlands (WR-1, WR-2, WR-5A, WR-5B) occur within the riparian area of the regionally-significant Willamette River, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these wetland sites are recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above, and these factors: (1) they contain native-dominated plant communities and riparian forest, (2) their proximity and direct connection to the river give these sites very high connectivity value, and (3) they provide important winter habitat for juvenile Chinook salmon. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

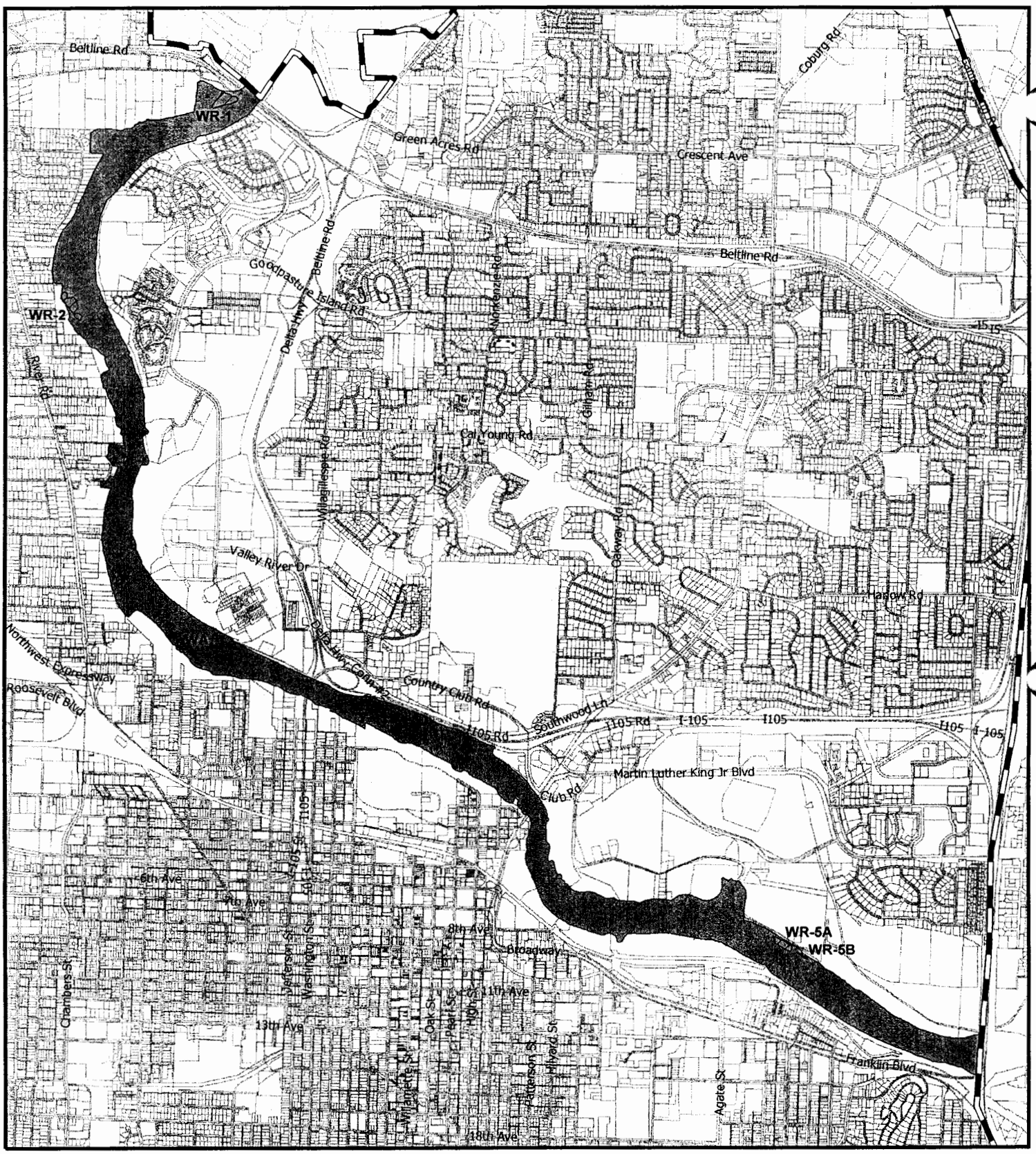
Table 24.5.2 Recommendations Summary: Willamette River, Willamette River Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	City Limits***
Willamette River:						
WA/WB	Willamette River	Limit conflicting uses	/WR Overlay Zone, Category A	100'	Private, public	All
Willamette River wetlands:						
WR-1	Willamette River wetland River Avenue	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
WR-2	Willamette River wetland Greenleaf Pond	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
WR-5	Willamette River wetland south	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection **Map 24B**

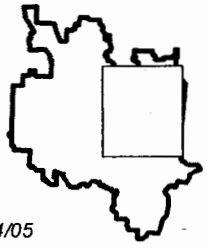
Significant Goal 5 ESEE Analysis Group 24

Goal 5 Protection Designations
for Willamette River, Willamette River Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 730 1,460 2,190



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24.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf Pond); WR-5A, B (Willamette River wetlands south)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

22. Supplemental Analysis

Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the Oregon Administrative Rules (OARs) allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 22.1 below lists the sites in this analysis group, their resource category and acreage. Map 22.A below shows the site(s) described in this analysis group.

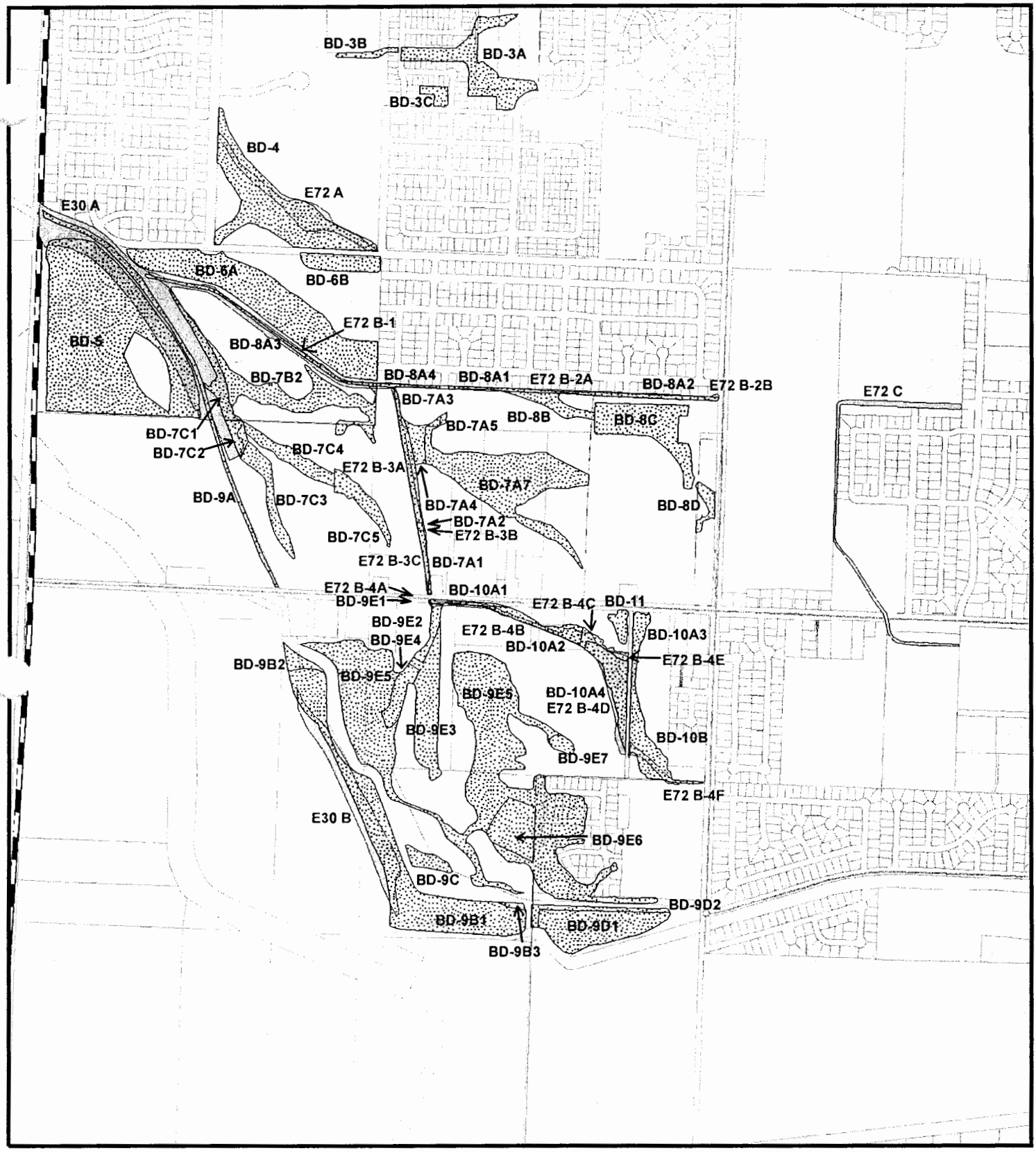
Table 22.1 ESEE analysis group: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub-site #	Site name	Resource Type*	Sub-Site Acres	Inside City Limits**
(1) Marshall/Greenhill Tributary:				
E72B-1	Marshal/Greenhill Tributary north	R	2.3	All
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	R	0.7	All
BD-8A2	Royal Avenue wetland at Donohoe	R	0.6	All
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	R	0.9	All
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal Node Specific Plan	R	1.1	None
BD-8A1	Royal Node wetland at Donohoe within Royal Node Specific Plan	W	0.5	None
BD-8A4	Royal Node wetland at Donohoe within Royal Node Specific Plan	W	0.2	None
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	R	4.4	None
E72A	Bethel Park	R	2.6	All
BD-4	Royal Avenue wetland at Bethel Park	W	9.1	All
E72C	Candlelight, Royal	R	2.0	All
E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	R	1.1	None
(2) Lower Amazon:				
E30 A	Amazon Creek Royal to Greenhill	R	14.1	90%
E30 B	Amazon Creek Roosevelt to Royal	R	5.2	None
BD9-A1	Amazon Creek wetland outside Royal Node	W	1.7	All
BD9-A2	Amazon Creek wetland within Royal Node	W	0.8	None
BD-7C1	Amazon Creek wetland outside Royal Node	W	1.5	All
BD-7C2	Amazon Creek wetland within Royal Node	W	0.6	None
(3) Royal Node Plan wetlands:				
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	0.4	None
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	3.6	None
BD-9E2	Royal Ave wetland/Royal Node wetland	W	0.7	None
BD-9E4	Royal Ave wetland/Royal Node wetland	W	1.2	None
BD-9E6	Royal Ave wetland/Royal Node wetland	W	2.8	None
BD-9E7	Royal Ave wetland/Royal Node wetland	W	0.4	None

Site/Sub-site #	Site name	Resource Type*	Sub-Site Acres	Inside City Limits**
BD-10A2	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	1.1	None
BD-10A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	W	2.1	None
(4) Amazon Creek wetlands				
BD-5	Royal Avenue wetland	W	24.0	None
BD-9B1	Royal Avenue wetland	W	12.9	None
BD-9D1	Royal Avenue wetland (south)	W	5.1	All
(5) Other Royal Avenue wetlands				
BD-3A,B,C	Royal Avenue wetland at Barger	W	5.7	80%
BD-6A	Royal Avenue wetland at Bethel/Donohoe	W	12.2	All
BD-6B	Royal Avenue wetland at Bethel	W	1.7	All
BD-7A2	Royal Avenue wetland	W	0.1	None
BD-7B2	Royal Avenue wetland west Donohoe	W	4.9	90%
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	W	5.1	None
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	W	9.5	None
BD-8B	Royal Avenue wetland southeast Donohoe	W	1.2	None
BD-8C	Royal Avenue wetland southeast Donohoe	W	4.8	All
BD-8D	Royal Avenue wetland northeast	W	0.6	5%
BD-9B2	Royal Avenue wetland southwest	W	0.6	None
BD-9B3	Royal Avenue wetland southwest	W	0.2	None
BD-9C	Royal Avenue wetland southwest	W	0.8	None
BD-9D2	Royal Avenue wetland southwest	W	0.9	All
BD-9E1	Royal Avenue wetland southwest	W	0.01	None
BD-9E3	Royal Avenue wetland southwest	W	3.9	None
BD-9E5	Royal Avenue wetland southwest	W	29.2	25%
BD-10A1	Royal Avenue wetland east Marshall	W	0.3	None
BD-10A3	Royal Avenue wetland east Marshall	W	0.5	None
BD-10B	Royal Avenue wetland east Marshall	W	3.3	5%
BD-11	Royal Avenue wetland east Marshall	W	0.6	5%

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 22

Map 22A

Significant Goal 5 Site Boundaries for Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

Feet

0 250 500 750

5/4/05

22.1 Site Description(s)

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

The sites in this analysis group are located in the area of Royal Avenue and Greenhill Road in West Eugene. Amazon Creek flows through this area, from the West Eugene Wetlands Plan (WEWP) area to the south, across Royal, and northwest past the UGB toward Fern Ridge Reservoir. (The portion of the creek in this analysis group is that portion located outside of the WEWP area.) This area is characterized by old flood plain deposits and hydric soils, and a number of locally significant wetlands occur here. Most of these wetlands are in agricultural fields, and the plant community within them has been modified over the years by agriculture and grazing to the extent that wetland functions are marginal and native wetland plants are scarce or absent. Most of the sites in this analysis group are located within the Royal Node Specific Plan boundary, a special planning area within which a master plan for future mixed use development was created and adopted, including specific locations of new infrastructure development, land uses and natural resource protection. The Royal Node Specific Plan comprises nearly 200 acres between Roosevelt Boulevard and Donohoe Avenue.

(1) Marshall/Greenhill Tributary:

(a) Marshall/Greenhill Tributary north (E72B-1, B-2B; BD-8A2, BD-8A3);
(b) Marshall/Greenhill Tributary south within Royal Node Specific Plan—protect designations (E72B-2A, E72B-3A, E72B-3C, E72B-4B, E72B-4D; BD-8A1, BD-8A4)
(c) Marshall/Greenhill Tributary at Bethel Park (E72A, BD-4);
(d) Marshall/Greenhill Tributary at Candlelight, Royal (E72C);
(e) Marshall/Greenhill Tributary south within Royal Node Specific Plan—road/development designations (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F):

The Marshall/Greenhill Tributary is a series of small drainages and old agricultural ditches that flows from Terry Avenue northwest past Royal Avenue, and flows into the Amazon near Greenhill Road. Flow is seasonal. The site is generally a narrow, steep-banked ditch generally four to six feet wide. Locally significant wetlands occur within the bottom of the channel for most of its length. Most of the channel is characterized by relatively little riparian vegetation, and a predominance of invasive species, such as Armenian (Himalayan) blackberry and reed canarygrass. Occasional patches of young willow and black cottonwood occur along the channel near Donohoe Avenue, where the habitat in the channel is being restored by the City, and numerous small native trees and shrubs are beginning to establish near the top of the bank. The portion of the channel that is being restored is within a channel easement owned by the City.

Other portions of the Marshall/Greenhill Tributary group are remnants of old agricultural drainages that may have once been tributaries to Amazon Creek, but are no longer connected. The site at Bethel Park (E72A) contains a small, isolated grove of

Oregon ash, along with a locally significant wetland site (BD-4). However, due to changes in the hydrology of the area and intervening development, there is no surface flow at this site, and riparian functions are not likely to be sustained over the long term. Near Candlelight Park, Royal Avenue and Royal Creek Subdivision (E72C), the site has a very narrow area of riparian vegetation with a higher proportion of native species in some portions (including young black cottonwood, Oregon ash, and willow), but which is interrupted by open stretches with little vegetation or primarily invasive species. As a complex of riparian areas, Marshall/Greenhill Tributary provides some habitat value for songbirds, small mammals, reptiles, and amphibians. The majority of the site is located within the Royal Node Specific Plan area.

Several portions of this channel system are designated for roads or development in the Royal Node Specific Plan (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F).

(2) Lower Amazon Creek at Royal/Greenhill:

(a) Amazon Creek Royal to Greenhill (E30A) & Roosevelt to Royal (E30B);
(b) Amazon Creek wetlands (BD-9A1, BD-9A2, BD-7C1, BD-7C2):
These portions of lower Amazon Creek are the most westerly portions of the creek within Eugene's UGB. Both are located within publicly-owned conservation areas. The channel within site E30B, south of Royal Avenue, has been re-contoured and restored with native vegetation within the Meadowlark Prairie restoration project. North of Royal Avenue, within site E30 A, the channel is being restored as part of the Dragonfly Bend habitat restoration project. In both areas, there is currently very little riparian vegetation, as previous vegetation was removed as part of the restoration project. Invasive species such as blackberry are being actively managed, and new plantings of willow, black cottonwood and other native species are beginning to establish along the banks.

(3) Royal Node Plan wetlands (BD-7A1, BD-7A3, BD-7A4, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4):

These wetlands are located within the Royal Node Specific Plan area. The Royal Node Specific Plan was adopted in January 2003, and establishes the pattern for future land uses, infrastructure development and natural resource preservation within the plan area. As part of that planning effort, natural resources within the Royal Node were inventoried and evaluated. The Royal Node Specific Plan integrated drainage corridor protection, wetland restoration and wetland mitigation into an overall plan for developing a mixed use center with effective mass transit connections.

(4) Amazon Creek wetlands (BD-5, BD-9B1, BD-9D1):
Several large wetlands in this area occur adjacent to the Amazon channel. These wetlands lie just outside the Royal Node Specific Plan area, and adjoin the boundary of the West Eugene Wetlands Plan. All three are owned by the West Eugene Wetlands Program Partnership, and are being managed and restored as wetland mitigation sites as part of the West Eugene Wetlands Mitigation Bank Program. Sites BD-9B1 and BD-9D1 are publicly owned and are within the large Meadowlark Prairie restoration

project, and are south of the berm and bike path that separates the restoration project from the Royal Node Specific Plan area.

(5) Other Royal Avenue wetlands:
A number of other wetland sites occur within the area between Roosevelt Boulevard, Barger Drive and Greenhill Road. These wetlands (BD-3A, BD-B, BD-C, BD-6A , BD-6B , BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3 , BD-10B , BD-11) are mostly wetlands in old agricultural fields that have been greatly altered by human activity over time. As a result, wetland values in these sites are marginal and crop plants or other non-native plants dominate. Sites BD-9B2, BD-9B3, BD-9C and BD-9D2 are mapped within the area where the Amazon Bank path was constructed in 1993, and no longer exist.

Land uses within the sites in this analysis group are primarily low density residential and parks/conservation area uses. Much of the area is former agricultural or pasture land that has developed in recent years as residential subdivisions. Parks/conservation area uses occur along Amazon Creek, and along Marshall/Greenhill Tributary at Bethel Park and at Candlelight Park. The adopted Royal Node area plan identifies future land uses as low density residential, high density residential, and commercial uses.

22.2 Impact Area

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: (1) surrounding allowed uses; (2) potentially adverse effects of those uses, and (3) the relative vulnerability of the sites to such adverse affects. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 22.2 below lists the impact areas assigned to these Goal 5 sites.

Table 22.2 Impact Area Summary: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub -site #	Site name	Impact Area*
(1) Marshall/Greenhill Tributary:		
E72B-1	Marshal/Greenhill Tributary north	Type D - 25' + mapped riparian vegetation
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	Type D - 25' + mapped riparian vegetation
BD-8A2	Royal Avenue wetland at Donohoe	Type D - 25'
BD-8A3	Royal Ave wetland at Marshall/Greenhill Tributary north	Type D - 25'
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal	Type D - 25' + mapped riparian vegetation
BD-8A1	Royal Node wetland at Donohoe within Royal	Type D - 25'
BD-8A4	Royal Node wetland at Donohoe within Royal	Type D - 25'
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	Type D - 25' + mapped riparian vegetation
E72A	Bethel Park	Type D - 25' + mapped riparian vegetation
BD-4	Royal Avenue wetland at Bethel Park	Type D - 25'
E72C	Candlelight, Royal	Type D - 25' + mapped riparian vegetation
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	Type D - 25' + mapped riparian vegetation
(2) Lower Amazon:		
E30 A	Amazon Creek Royal to Greenhill	Type B - 75' + mapped riparian vegetation
E30 B	Amazon Creek Roosevelt to Royal	Type B - 75' + mapped riparian vegetation
BD9-A1	Amazon Creek wetland	Type C - 50'
BD9-A2	Amazon Creek wetland	Type C - 50'
BD-7C1	Amazon Creek wetland	Type D - 25'
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	Type D - 25'
(3) Royal Node Plan wetlands:		
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Type D - 25'
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	Type D - 25'
BD-9E2	Royal Ave wetland/Royal Node /Royal Node wetland	Type D - 25'
BD-9E4	Royal Ave wetland/Royal Node/Royal Node	Type D - 25'
BD-9E6	Royal Ave wetland/Royal Node /Royal Node	Type D - 25'
BD-9E7	Royal Ave wetland/Royal Node /Royal Node	Type D - 25'
BD-10A2	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	Type D - 25'
BD-10A4	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	Type D - 25'

(4) Amazon Creek wetlands		
BD-5	Royal Avenue wetland	Type C - 50'
BD-9B1	Royal Avenue wetland	Type D - 25'
BD-9D1	Royal Avenue wetland (south)	Type D - 25'
(5) Other Royal Avenue wetlands		
BD-3A,B,C	Royal Avenue wetland at Barger	Type D - 25'
BD-6A	Royal Avenue wetland at Bethel/Donohoe	Type D - 25'
BD-6B	Royal Avenue wetland at Bethel	Type D - 25'
BD-7A2	Royal Avenue wetland	Type D - 25'
BD-7B2	Royal Avenue wetland west Donohoe	Type D - 25'
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	Type D - 25'
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	Type D - 25'
BD-8B	Royal Avenue wetland southeast Donohoe	Type D - 25'
BD-8C	Royal Avenue wetland southeast Donohoe	Type D - 25'
BD-8D	Royal Avenue wetland northeast	Type D - 25'
BD-9B2	Royal Avenue wetland southwest	Type D - 25'
BD-9B3	Royal Avenue wetland southwest	Type D - 25'
BD-9C	Royal Avenue wetland southwest	Type D - 25'
BD-9D2	Royal Avenue wetland southwest	Type D - 25'
BD-9E1	Royal Avenue wetland southwest	Type D - 25'
BD-9E3	Royal Avenue wetland southwest	Type D - 25'
BD-9E5	Royal Avenue wetland southwest	Type D - 25'
BD-10A1	Royal Avenue wetland east Marshall	Type D - 25'
BD-10A3	Royal Avenue wetland east Marshall	Type D - 25'
BD-10B	Royal Avenue wetland east Marshall	Type D - 25'
BD-11	Royal Avenue wetland east Marshall	Type D - 25'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

22.3 Conflicting uses

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Agricultural (AG). Many of the sites within parks/conservation areas are zoned LDR, with one area at Amazon Creek zoned Natural Resource (NR). Approximately 40 feet of the end of Marshall/Greenhill Tributary at Royal abuts a Commercial (C) zone. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 22.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 22.3 Zoning within Impact Areas: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub-site #	Site name	Primary Zoning*	Secondary Zoning	Ownership**
(1) Marshall/Greenhill Tributary:				
E72B-1	Marshal/Greenhill Tributary north	LDR	AG	Private
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	LDR	AG	Public/school
BD-8A2	Royal Avenue wetland at Donohoe	LDR	AG	Public/school
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	LDR	AG	Private
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal	LDR, AG	---	Private
BD-8A1	Royal Node wetland at Donohoe within Royal	LDR, AG	---	Private
BD-8A4	Royal Node wetland at Donohoe within Royal	LDR, AG	---	Private
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	AG	---	Private
E72A	Bethel Park	LDR	---	Public
BD-4	Royal Avenue wetland at Bethel Park	LDR	---	Public

E72C	Candlelight, Royal	LDR	C	Public/private
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	AG	---	Private
(2) Lower Amazon:				
E30 A	Amazon Creek Royal to Greenhill	LDR	AG	Public/private
E30 B	Amazon Creek Roosevelt to Royal	NR	AG	Public
BD9-A1	Amazon Creek wetland	AG	---	Public/private
BD9-A2	Amazon Creek wetland	AG	---	Public/private
BD-7C1	Amazon Creek wetland	LDR	---	Private
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	AG	---	Private
(3) Royal Node Plan wetlands:				
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	AG	---	Private
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	AG	---	Private
BD-9E2	Royal Ave wetland/Royal Node /Royal Node wetland	AG	---	Private
BD-9E4	Royal Ave wetland/Royal Node/Royal Node	AG	---	Private
BD-9E6	Royal Ave wetland/Royal Node /Royal Node	AG	---	Private
BD-9E7	Royal Ave wetland/Royal Node /Royal Node	AG	---	Private
BD-10A2	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	AG	---	Private
BD-10A4	Royal Ave wetland/Royal Node /Royal Node - Marshall/Greenhill Tributary	AG	---	Private
(4) Amazon Creek wetlands:				
BD-5	Royal Avenue wetland	LDR, AG	---	Public
BD-9B1	Royal Avenue wetland	NR	AG	Public
BD-9D1	Royal Avenue wetland (south)	AG	---	Public
(4) Other Royal Avenue wetlands:				
BD-5	Royal Avenue wetland at Barger	LDR	AG	Private
BD-6A	Royal Avenue wetland at Bethel/Donohoe	LDR	---	Private
BD-6B	Royal Avenue wetland at Bethel	LDR	---	Private
BD-7A2	Royal Avenue wetland	AG	---	Private
BD-7B2	Royal Avenue wetland west Donohoe	LDR	---	Private
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	AG	---	Private
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	AG	---	Private
BD-8B	Royal Avenue wetland southeast Donohoe	AG	---	Private
BD-8C	Royal Avenue wetland southeast Donohoe	LDR	---	Private
BD-8D	Royal Avenue wetland northeast	AG	---	Private
BD-9B2	Royal Avenue wetland southwest	AG	---	Private
BD-9B3	Royal Avenue wetland southwest	AG	---	Private
BD-9C	Royal Avenue wetland southwest	NR	AG	Public/private
BD-9D2	Royal Avenue wetland southwest	AG	---	Private
BD-9E1	Royal Avenue wetland southwest	AG	---	Private
BD-9E3	Royal Avenue wetland southwest	AG	---	Private

BD-9E5	Royal Avenue wetland southwest	AG	LDR	Private/public
BD-10A1	Royal Avenue wetland east Marshall	AG	---	Private
BD-10A3	Royal Avenue wetland east Marshall	AG	---	Private
BD-10B	Royal Avenue wetland east Marshall	AG	---	Private
BD-11	Royal Avenue wetland east Marshall	AG	---	Private

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district of most of remaining site area. See Section 3, Conflicting Uses for definitions

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

22.4 ESEE Consequences

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 22.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

22.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 22.4.1 below. Some of these characteristics are further discussed below and in Section 22.1, Site Descriptions.

Table 22.4.1 Key resource characteristics: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands (See Key Below Table)

Site/ Sub-Site #	Site Name	Fish	T&E	Connect	NatVeg	LSWet	Wetland functions*				Open	Steep
							WL HAB	Fish	WQ	Flood		
(1) Marshall/Greenhill Tributary:												
E72B-1	Marshal/Greenhill Tributary north	NO	NO	V HI	LO-MED	YES	---	---	---	---	NO	NO
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	NO	NO	HI	LO	YES	---	---	---	---	NO	NO
BD-8A2	Royal Avenue wetland at Donohoe	NO	NO	HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal Node Specific Plan	NO	NO	HI	LO	YES	---	---	---	---	NO	NO
BD-8A1	Royal Node wetland at Donohoe within Royal Node Specific Plan	NO	NO	HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-8A4	Royal Node wetland at Donohoe within Royal Node Specific Plan	NO	NO	HI	NES	YES	NES	NES	NES	NES	NO	NO
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	NO	NO	V HI	LO	YES	---	---	---	---	NO	NO
E72A	Bethel Park	NO	NO	LO	MED	YES	---	---	---	---	NO	NO
BD-4	Royal Avenue wetland at Bethel Park	NO	NO	LO	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
E72C	Candlelight, Royal	NO	NO	LO	LO-MED	NO	---	---	---	---	NO	NO
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	NO	NO	V HI	LO	YES	---	---	---	---	NO	NO
(2) Lower Amazon:												
E30 A	Amazon Creek Royal to Greenhill	YES	NO	V HI	LO-MED	YES	---	---	---	---	NO	NO
E30 B	Amazon Creek Roosevelt to Royal	YES	NO	V HI	LO-MED	YES	---	---	---	---	NO	NO
BD9-A1	Amazon Creek wetland	YES	NO	V HI	LO-MED	YES	NES	NES	NES	NES	NO	NO
BD9-A2	Amazon Creek wetland	YES	NO	V HI	LO-MED	YES	NES	NES	NES	NES	NO	NO
BD-7C1	Amazon Creek wetland	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO

(3) Royal Node Plan wetlands:												
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-7A3, BD-7A4, BD-7B1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E2	Royal Ave wetland/Royal Node wetland	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E4	Royal Ave wetland/Royal Node	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E6	Royal Ave wetland/Royal Node	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E7	Royal Ave wetland/Royal Node	NO	NO	MED	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A2	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
(4) Amazon Creek wetlands:												
BD-5	Royal Avenue wetland	NO	NO	V HI	N/A	YES	SOME	N/A	DEGR	DEGR	NO	NO
BD-9B1	Royal Avenue wetland	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
BD-9D1	Royal Avenue wetland (south)	NO	NO	V HI	NES	YES	NES	NES	NES	NES	NO	NO
(5) Other Royal Avenue wetlands:												
BD-3A,B,C	Royal Avenue wetland at Barger	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-6A	Royal Avenue wetland at Bethel/Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-6B	Royal Avenue wetland at Bethel	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7A2	Royal Avenue wetland (small portion within Royal Node)	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7B2	Royal Avenue wetland west Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7C3, BD-7C4, BD-7C5	Royal Avenue wetland west Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-7A5, BD-7A6, BD-7A7	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-8B	Royal Avenue wetland southeast Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-8C	Royal Avenue wetland southeast Donohoe	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-8D	Royal Avenue wetland northeast	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9B2	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9B3	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO

BD-9C	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9D2	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E1	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E3	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-9E5	Royal Avenue wetland southwest	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A1	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-10A3	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-10B	Royal Avenue wetland east Marshall	NO	NO	LO	NES	YES	NES	NES	NES	NES	NO	NO
BD-11	Royal Avenue wetland east Marshall	NO	NO	LO	N/A	YES	SOME	N/A	INTACT	DEGR	NO	NO
		Fish	T&E	Con-nect	NatVeg	LSWet	WL HAB	Fish	WQ	Flood	Open	Steep

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length. *Where wetland is adjacent to a Goal 5 riparian corridor, connectivity = V HI (very high).*
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, N/A = not evaluated, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

*Wetland functions and values were evaluated for entire sites only. Functions and values were not assessed separately within each of the sub-site sections listed above. For this reason, the assessment is not considered accurate at the sub-site level.

22.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 22.4.2 below list the paragraph number of applicable ESEE consequences.

Table 22.4.2 Summary of ESEE Consequences: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
1: Marshall/Greenhill Tributary:				
	FULLY ALLOWING CONFLICTING USES			
E72B-1 Marshal/Greenhill Tributary north*	*Economic* (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
E72B-2B Marshal/Greenhill Tributary north (along Donohoe)*	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
BD-8A2 Royal Avenue wetland at Donohoe*				
BD-8A3 Royal Avenue wetland at Marshall Greenhill Tributary north*				
E72B-2A Marshal/Greenhill Tributary north (along Donohoe) within Royal*	*LIMITING CONFLICTING USES*			
BD-8A1 Royal Node wetland at Donohoe within Royal Node Specific Plan*	*Economic* (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
BD-8A4 Royal Node wetland at Donohoe within Royal Node Specific Plan*	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
E72B-3A, E72B-3C, E72B-4B, E72B-4D Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations**	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
E72A Bethel Park**				
BD-4 Royal Avenue wetland at Bethel Park**				
E72C Candlelight, Royal**				
**Note: References to higher quality sites apply.*				
***Note: References to lower quality sites apply.*				

2. Lower Amazon				
E30 A Amazon Creek Royal to Greenhill* E30 B Amazon Creek Roosevelt to Royal* BD9-A1 Amazon Creek wetland outside Royal Node Specific Plan* BD9-A2 Amazon Creek wetland within Royal Node Specific Plan* BD-7C1 Amazon Creek wetland* BD-7C2 Amazon Creek wetland within Royal Node Specific Plan* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
3. Royal Node Plan wetlands:				
BD-7A1 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* BD-7A3, BD-7A4,BD-7B1 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* BD-9E2 Royal Ave wetland/Royal Node wetland* BD-9E4 Royal Ave wetland/Royal Node wetland* BD-9E6 Royal Ave wetland/Royal Node wetland* BD-9E7 Royal Ave wetland/Royal Node wetland* BD-10A2 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* BD-10A4 Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

(4) Amazon Creek wetlands:	[illegible]			
BD-5 Royal Avenue wetland* BD-9B1 Royal Avenue wetland* BD-9D1 Royal Avenue wetland* **Note: References to higher quality sites apply.* ***Note: References to lower quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4:4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
	FULLY ALLOWING CONFLICTING USES	*FULLY ALLOWING CONFLICTING USES*	*FULLY ALLOWING CONFLICTING USES*	*FULLY ALLOWING CONFLICTING USES*
Other Royal Avenue wetlands:	[illegible]	[illegible]	[illegible]	[illegible]
BD-3A,B,C Royal Avenue wetland** BD-6A Royal Avenue wetland** BD-6B Royal Avenue wetland** BD-7A2 Royal Avenue wetland** BD-7B2 Royal Avenue wetland** BD-7C3, C4, C5 Royal Avenue wetland** BD-7A5, A6, A7 Royal Avenue wetland** BD-8B Royal Avenue wetland** BD-8C Royal Avenue wetland** BD-8D Royal Avenue wetland** BD-9B2 Royal Avenue wetland** BD-9B3 Royal Avenue wetland** BD-9C Royal Avenue wetland** BD-9D2 Royal Avenue wetland** BD-9E1 Royal Avenue wetland** BD-9E3 Royal Avenue wetland** BD-9E5 Royal Avenue wetland** BD-10A1 Royal Avenue wetland** BD-10A3 Royal Avenue wetland** BD-10B Royal Avenue wetland** BD-11 Royal Avenue wetland**	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)	*Economic* (Section 4.2.1)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4:2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A
	LIMITING CONFLICTING USES	*LIMITING CONFLICTING USES*	*LIMITING CONFLICTING USES*	*LIMITING CONFLICTING USES*
	Economic (Section 4.3.1)	*Economic* (Section 4.3.1)	*Economic* (Section 4.3.1)	*Economic* (Section 4.3.1)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K,

*Note: References to higher quality sites apply. **Note: References to lower quality sites apply.				4.3.1L, 4.3.5A
	PROHIBITING CONFLICTING USES	*PROHIBITING CONFLICTING USES*	*PROHIBITING CONFLICTING USES*	*PROHIBITING CONFLICTING USES*
	Economic (Section 4.4.1)	*Economic* (Section 4.4.1)	*Economic* (Section 4.4.1)	*Economic* (Section 4.4.1)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A

22.5 ESEE Conclusions and Recommendations

Sites E72 (Marshall/Greenhill Tributary); E30 (Portion of Amazon Creek at Royal); BD-9 (Amazon Creek wetland at Royal); BD-4, BD-5, BD-6, BD-7, BD-8, BD-10, BD-11 (Royal Avenue Wetlands)

22.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations for the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

1) **Marshall/Greenhill Tributary:**

(a) Marshall/Greenhill Tributary north (E72B-1, E72B-2B; BD-8A2, BD-8A3);
(b) Marshall/Greenhill Tributary south within Royal Node Specific Plan—protect designations (E72B-2A, E72B-3A, E72B-3C, E72B-4B, E72B-4D; BD-8A1, BD-8A4):
Limiting conflicting uses recommended.
The key resource characteristics of the Marshall/Greenhill Tributary its associated wetlands (E72B-1, E72B-2B; BD-8A2, BD-8A3) indicate that these are *higher quality* sites. Although the corridor has been highly disturbed over the years, the City is actively restoring riparian habitat in and adjacent to the channel and managing invasive

species. In addition, the site has very high connectivity, due to its direct connection to Amazon Creek. The portion of the channel that is being restored (from Terry Street, west to the old Amazon Creek Channel) is within a channel easement owned by the City. Based on these characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur within them. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Marshall/Greenhill Tributary at Bethel Park (E72A, BD-4);
(d) Marshall/Greenhill Tributary at Candlelight, Royal (E72C):
Fully allowing conflicting uses recommended. These sites are remnants of old agricultural drainages that are no longer connected to the larger stream/wetland system in the area, and have low connectivity value. The riparian habitat in these sites is highly disturbed and fragmented. Based on these characteristics, and the ESEE analysis above, fully allowing conflicting uses is recommended for these sites. The resource is not as important as the conflicting uses that would occur within these corridors. The positive consequences of protecting the resource do not outweigh the negative consequences of prohibiting or limiting conflicting uses.

(e) Marshall/Greenhill Tributary south within Royal Node Specific Plan—road/development designations (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F):
Fully allowing conflicting uses recommended. These portions of riparian corridor are within old agricultural fields and eliminating most native plants. Based on that, and the ESEE analysis above, the positive consequences of protecting the resources at these sites do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. With assistance of the U.S. Army Corps of Engineers, and involvement from the Bureau of Land Management, U.S. Fish and Wildlife Service, and the Oregon Department of State Lands (which regulates wetlands in Oregon), the Royal Node Specific Plan process evaluated wetlands and drainage channels in this area, and evaluated their relative quality, and their role within an urban, developed landscape. The Specific Plan designated wetlands and riparian areas along the key drainage corridors for conservation and restoration, while designating these portions (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F) for roads or development, establishing a balance within a plan aimed at minimizing overall environmental impacts while enhancing the quality of the built environment. Conflicting uses allowed under the current zoning, and future land uses designated in the Royal Node Specific Plan, are more important relative to the

lower resource wetland values here. For these reasons, fully allowing conflicting uses is recommended for these sites.

(2) Lower Amazon Creek at Royal/Greenhill:

(a) Amazon Creek Royal to Greenhill (E30A) & Roosevelt to Royal (E30B):
(b) Amazon Creek wetlands (BD-9A1, BD-9A2, BD-7C1, BD-7C2):
Limiting conflicting uses recommended.
The key resource characteristics of Lower Amazon Creek and its associated wetlands (E30A, E30B, BD-9A1, BD-9A2 BD-7C1, 7C2) indicate that they are *higher quality* sites. Although the corridor here has been highly modified and disturbed in the past, these areas of the creek are under primarily public ownership, and are being restored and actively managed for natural resource values. In addition, Amazon Creek and its wetlands have very high connectivity, having one of the most extensive drainage basins and habitat systems in the metro area. Based on these characteristics and the ESEE analysis discussed above, these sites have greater importance to the community than the conflicting uses that would occur within them. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(3) Royal Node Plan wetlands (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4):
Limiting conflicting uses recommended.
These wetlands are identified in the Royal Node Specific Plan to be preserved and enhanced (see Paragraph (4)(b) below), and therefore are already designated for protection within the context of a highly detailed development master plan. These wetlands provide valuable wetland functions, such as flood storage and wetland habitat. and their location adjacent to or near Amazon Creek or Marshall/Greenhill Tributary gives them relatively high connectivity value. Based on these characteristics and the ESEE analysis above, limiting most conflicting uses is recommended for these wetland sites. These wetland sites provide resource functions that are more important than the conflicting uses that would be allowed here, within the context of the Royal Node Specific Plan. With assistance of the U.S. Army Corps of Engineers, and involvement from the Bureau of Land Management, US Fish and Wildlife Service, and the Oregon Department of State Lands (which regulates wetlands in Oregon), the Royal Node Specific Plan process evaluated wetlands and drainage channels in this area, and evaluated their relative quality, and their role within an urban, developed landscape. The Specific Plan designated a large proportion of the lower quality wetland as future

development areas, while setting aside the wetlands here (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4) for conservation and restoration, establishing a balance within a plan aimed at minimizing overall environmental impacts while enhancing the quality of the built environment. Given this large planning context and evaluation, and the analysis and discussion above, the negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. The positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweigh the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(4) Amazon Creek wetlands (BD-5, BD-9B1, BD-9D1):
Limiting conflicting uses recommended. Wetland sites (BD-5, BD-9B1, BD-9D1) are within the area being actively managed and restored by the West Eugene Wetlands Partnership. As restoration sites that are part of the West Eugene Wetlands Mitigation Bank Program, and as sites with very high connectivity value, being adjacent to the Amazon Channel, they are important wetland resources. Based on these characteristics and the ESEE analysis above, resource values in these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(5) Other Royal Avenue wetlands:
Fully allowing conflicting uses recommended. A number of wetlands in this area (BD-3A, BD-B, BD-C, BD-6A , BD-6B , BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3 , BD-10B , BD-11) are *relatively lower value* sites. These wetlands are within old agricultural fields which have been greatly disturbed over time, altering hyrdrology and decreasing or eliminating native wetland plants. Generally, these wetlands are not located along riparian corridors, have low connectivity value, have little wetland or riparian vegetation. Based on that, and the ESEE analysis above, the positive consequences of protecting the resources at these sites do not outweigh the negative consequences,

particularly the economic consequences, of prohibiting or limiting conflicting uses. With assistance of the U.S. Army Corps of Engineers, and involvement from the Bureau of Land Management, U.S. Fish and Wildlife Service, and the Oregon Department of State Lands (which regulates wetlands in Oregon), the Royal Node Specific Plan process evaluated wetlands and drainage channels in this area, and evaluated their relative quality, and their role within an urban, developed landscape. The Specific Plan designated wetlands along the key drainage corridors for conservation and restoration, while designating these wetlands (BD-3A, BD-B, BD-C, BD-6A , BD-6B , BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3 , BD-10B , BD-11) for development, establishing a balance within a plan aimed at minimizing overall environmental impacts while enhancing the quality of the built environment. Conflicting uses allowed under the current zoning, and future land uses designated in the Royal Node Specific Plan, are more important relative to the lower resource wetland values here. For these reasons, fully allowing conflicting uses is recommended for these sites.

22.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 22.5.2 below and Map 22.B summarize the recommendations for these sites.

(1) Marshall/Greenhill Tributary:

(a) Marshall/Greenhill Tributary north (E72B-1, E72B-2B; BD-8A2, BD-8A3): Conservation setback of 20/25 feet recommended. As discussed above, these sites (E72B-1, 72B-2B; BD-8A2, BD-8A3) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category D Streams, and the wetland sites are recommended to be designated Category B Wetlands. For riparian and upland wildlife habitat sites designated Category D Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) Marshall/Greenhill Tributary south within Royal Node Specific Plan—protect designations (E72B-2A, E72B-3A, E72B-3C, E72B-4B, E72B-4D; BD-8A1, BD-8A4):

Conservation recommended, with no conservation setback. As discussed above, these portions of Marshall/Greenhill Tributary (E72B-2A, B-3A, B-3C, B-4B, B-4D; BD-8A1, BD-8A4) are tributary to the regionally significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category E Streams, and the wetland sites are recommended to be designated Category C Wetlands. Both of these categories define the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(c) Marshall/Greenhill Tributary at Bethel Park (E72A, BD-4);

(d) Marshall/Greenhill Tributary at Candlelight, Royal (E72C);

(e) Marshall/Greenhill Tributary south within Royal Node Specific Plan—road/development designations (E72B-3B, E72B-3D, E72B-4A, E72B-4C, E72B-4E, E72B-4F):

No protection measures are recommended for these sites, as discussed in the analysis above.

(2) Lower Amazon Creek at Royal/Greenhill:

(a) Amazon Creek Royal to Greenhill (E30A), Roosevelt to Royal (E30B) (*outside* Royal Node Specific Plan area):

Conservation setback of 60 feet recommended. As discussed above, Amazon Creek (E30A, E30B) is one of the most extensive habitat systems in the metro area, and is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these riparian corridor sites are recommended to be designated Category B Streams. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, (2) the presence of one of the most extensive habitat systems in the metro area, and (3) their regional significance as a migration and wildlife movement corridor. For riparian and upland wildlife habitat sites designated Category B Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 60 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) Amazon Creek wetlands (BD-9A1) (*outside* Royal Node Specific Plan area): Conservation setback of 50 feet recommended. As discussed above, these wetlands (BD-9A) occur within the channel of regionally-significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, (2) the presence of one of the most extensive habitat systems in the metro area, and (3) their regional significance as a migration and wildlife movement corridor. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(c) Amazon Creek wetlands (BD-7C1):
Conservation setback of 50 feet recommended. As discussed above, these wetlands (BD-7C1) occur within the channel of regionally-significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, and (2) its connection to one of the most extensive habitat systems in the metro area. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(d) Amazon Creek Royal to Greenhill (E30A) (*inside* Royal Node Specific Plan area):
Conservation recommended, with no conservation setback. As discussed above, this site is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated a Category E Stream. This stream category defines the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(e) Amazon Creek wetlands (BD-9A2) (*inside* Royal Node Specific Plan area):
Conservation recommended, with no conservation setback. As discussed above, this site is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated a Category C Wetland. This wetland category defines the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(3) Royal Node Plan wetlands (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4):
Conservation recommended, with no conservation setback. As discussed above, these wetland sites (BD-7A1, BD-7A3, BD-7A4, BD-7B1, BD-9E2, BD-9E4, BD-9E6, BD-9E7, BD-10A2, BD-10A4) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these wetland sites are recommended to be designated Category C Wetlands. This wetland category defines the conservation area as the area designated for protection in the Royal Node Specific Plan and the S-RN Royal Node Special Area Zone, Eugene Code 9.3800 to 9.3823. This conservation area definition is designed to be consistent with the policies and recommendations in the Specific Plan and the provisions in S-RN zone, in order to avoid conflicts with those existing policies and provisions, that would require revisions to those policies and provisions. The Royal Node Specific Plan and the S-RN zone establish protected corridors that range from approximately 65 feet wide to more than 120 feet wide. These protection areas are judged adequate to protect the resource from conflicting uses.

(4) Amazon Creek wetlands:

(a) Amazon Creek wetlands (BD-5):
Conservation setback of 50 feet recommended. As discussed above, this wetland site (BD-5) is a large wetland adjacent to regionally-significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above and on these factors: (1) the quality of habitat, and (2) its connection to one of the most extensive habitat systems in the metro area. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(b) Amazon Creek wetlands (BD-9B1, BD-9D1):

Conservation setback of 25 feet recommended. As discussed above, these sites (BD-9B1, BD-9D1) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, this wetland site is recommended to be designated Category B Wetlands. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

(5) Other Royal Avenue wetlands:

No protection measures are recommended for the following sites, as discussed in the analysis above: BD-3A, BD-B, BD-C, BD-6A , BD-6B, BD-7A2 , BD-7B2 , BD-7C3, BD-7C4, BD-7C5 , BD-7A5, BD-7A6, BD-7A7 , BD-8B, BD-8C , BD-8D , BD-9B2 , BD-9B3 , BD-9C , BD-9D2, BD-9E1 , BD-9E3 , BD-9E5 , BD-10A1 , BD-10A3, BD-10B , BD-11.

Table 22.5.2 Recommendations Summary: Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits**
(1) Marshall/Greenhill Tributary:						
E72B-1	Marshal/Greenhill Tributary north	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Private	All
E72B-2B	Marshal/Greenhill Tributary north (along Donohoe)	Limit conflicting uses	/WR Overlay Zone, Stream Category D	20'	Public/school	All
BD-8A2	Royal Avenue wetland at Donohoe	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public/school	All
BD-8A3	Royal Avenue wetland at Marshall Greenhill Tributary north	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	All
E72B-2A	Marshal/Greenhill Tributary north (along Donohoe) within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Stream Category E	-0-	Private	None
BD-8A1	Royal Node wetland at Donohoe within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-8A4	Royal Node wetland at Donohoe within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
E72B-3A, E72B-3C, E72B-4B, E72B-4D	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—protect designations	Limit conflicting uses	/WR Overlay Zone, Stream Category E	-0-	Private	None
E72A	Bethel Park	Fully allow conflicting uses	n/a	n/a	Public	All
BD-4	Royal Avenue wetland at Bethel Park	Fully allow conflicting uses	n/a	n/a	Public	All
E72C	Candlelight, Royal	Fully allow conflicting uses	n/a	n/a	Public/private	All
E72B-3B, E72B-4A, E72B-4C, E72B-4E, E72B-4F	Marshal/Greenhill Tributary south (Donohoe to Roosevelt) within Royal Node Specific Plan—road/development designations	Fully allow conflicting uses	n/a	n/a	Private	None

(2) Lower Amazon:						
E30 A	Amazon Creek Royal to Greenhill	Limit conflicting uses	/WR Overlay Zone, Stream Category B	60'	Public/private	None
E30 B	Amazon Creek Roosevelt to Royal	Limit conflicting uses	/WR Overlay Zone, Stream Category B	60'	Public	None
BD9-A1	Amazon Creek wetland outside Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public/private	None
BD9-A2	Amazon Creek wetland within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category E	0'	Public/private	None
BD-7C1	Amazon Creek wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	None
BD-7C2	Amazon Creek wetland within Royal Node Specific Plan	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Private	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limit

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits**
(3) Royal Node Plan wetlands:						
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-7A3	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-7A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E2	Royal Ave wetland/Royal Node wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E4	Royal Ave wetland/Royal Node	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E6	Royal Ave wetland/Royal Node	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-9E7	Royal Ave wetland/Royal Node	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-10A2	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-10A4	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None
BD-7A1	Royal Ave wetland/Royal Node - Marshall/Greenhill Tributary	Limit conflicting uses	/WR Overlay Zone, Wetland Category C	-0-	Private	None

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

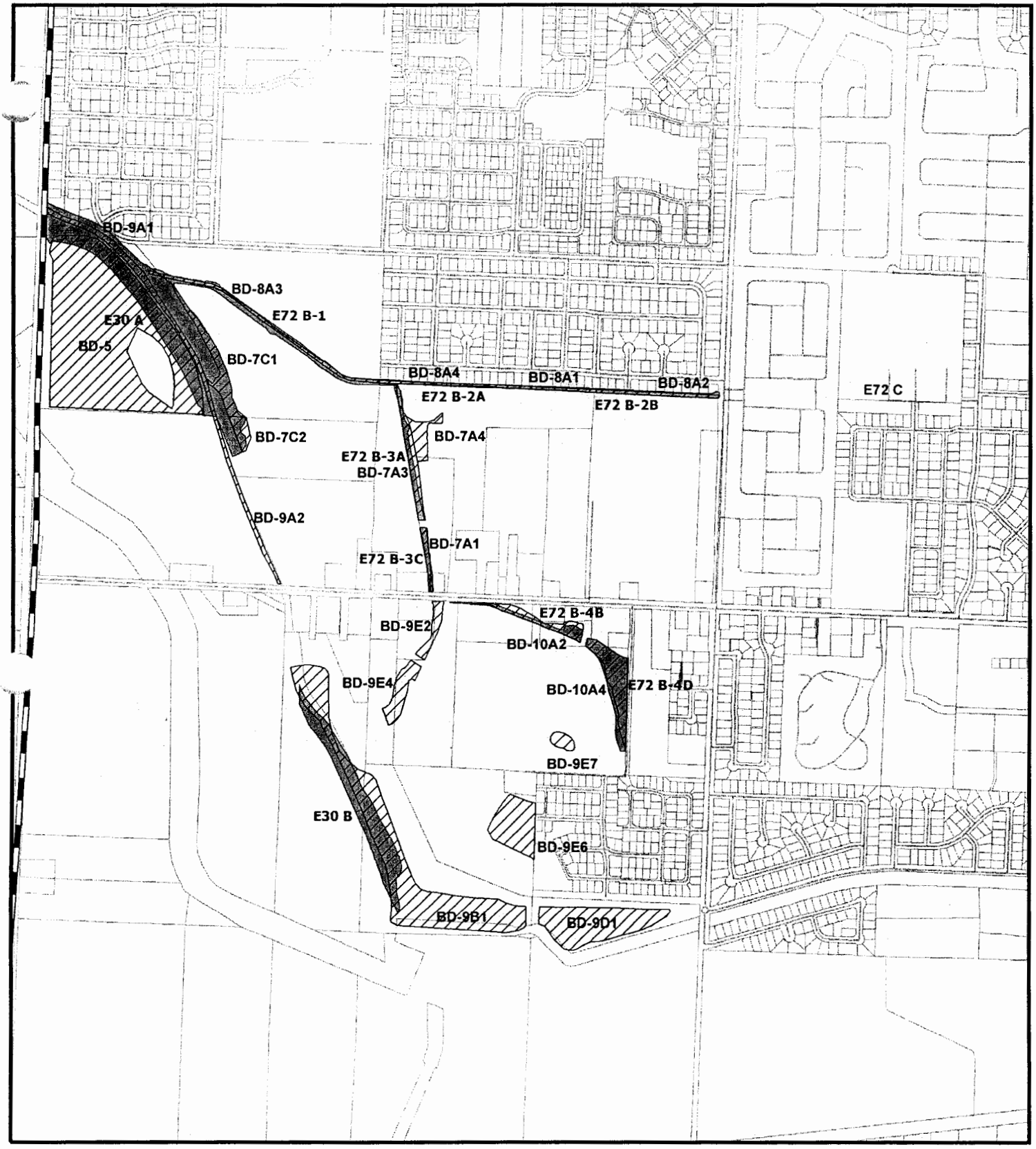
*** Approximate proportion of site within city limit

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure*	Set-back*	Ownership**	Inside City Limits**
(4) Amazon Creek Wetlands						
BD-5	Royal Avenue wetland	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	None
BD-9B1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Public	None
BD-9D1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Public	All
(5) Other Royal Avenue wetlands:						
BD-3A,B,C	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	80%
BD-6A	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-6B	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-7A2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-7B2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	90%
BD-7C3, C4, C5	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-7A5, A7	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-8B	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-8C	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-8D	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	5%
BD-9B2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9B3	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9C	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Public/private	None
BD-9D2	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	All
BD-9E1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9E3	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-9E5	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private/public	25%
BD-10A1	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-10A3	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	None
BD-10B	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	5%
BD-11	Royal Avenue wetland	Fully allow conflicting uses	n/a	n/a	Private	5%

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection

Significant Goal 5 ESEE Analysis Group 22

Goal 5 Protection Designations
for Marshall/Greenhill Tributary, Lower Amazon at Royal; Royal Avenue Wetlands

Map 22B

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 250 500 750

5/4/05

23. Supplemental Analysis

Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's adopted Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

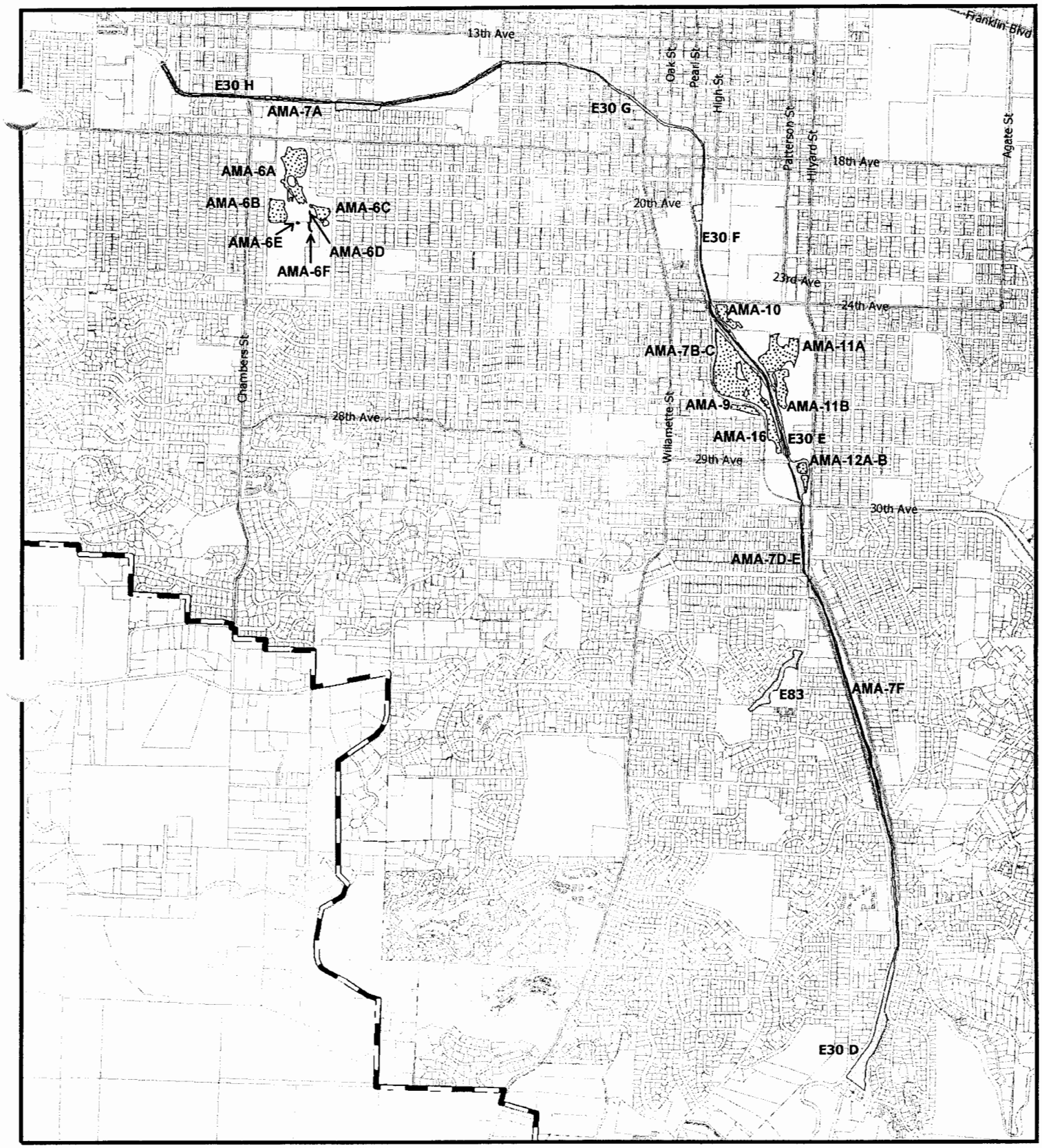
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 23.1 below lists the sites in this analysis group, their resource category and acreage. Map 23.A below shows the site(s) described in this analysis group.

Table 13.1 ESEE analysis group: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-Site #	Site Name	Resource Type*	Sub-Site Acres	Inside City Limits**
Lower Amazon Creek:				
	Lower Amazon Martin - 30th:			
E30 D	Lower Amazon at Martin to 30th	R	11.37	All
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th	W	2.21	All
	Lower Amazon at Amazon Park:			
E30 E	Lower Amazon at 30th-24th (park)	R	9.12	All
AMA-7B,C	Amazon channel wetland 30th-24th (park)	W	1.86	All
	Lower Amazon 24th -Fairgrounds:			
E30 F,G	Lower Amazon at 24th - Fairgrounds	R	4.64	All
	Lower Amazon Fairgrounds - Arthur:			
E30 H	Lower Amazon at Fairgrounds to Arthur	R	10.48	All
AMA-7A	Amazon channel wetland Fairgrounds to Arthur	W	3.62	All
Amazon Park wetlands:				
AMA-16	Amazon park wetland prairie	W	0.89	All
AMA-9	Amazon park wetland ash grove	W	14.84	All
AMA-10	Amazon park wetland 24th	W	1.42	All
AMA-11B	Amazon park wetland pool	W	2.78	All
AMA-12A,B	Amazon park wetland 29th	W	1.09	All
AMA-11A	Amazon park wetland ballfield	W	5.58	All
Westmoreland wetlands:				
AMA-6B, C	Westmoreland wetland prairie	W	3.58	All
AMA-	Westmoreland wetlands	W	5.82	All
Tugman Riparian				
E83	Tugman Riparian at Tugman Park	R	3.18	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries
Significant Goal 5 ESEE Analysis Group 23

Significant Goal 5 Site Boundaries for Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Map 23A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 620 1,240 1,860 Feet

4/25/05

23.1 Site Description(s)

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

Amazon Creek originates in Eugene's south hills and flows along Amazon Parkway from Martin Street north through Amazon Park and Community Center, through downtown Eugene, Lane County Fairgrounds, West Eugene and the West Eugene Wetlands Plan Area, and continues northwest to Fern Ridge Reservoir. The limits of this site analysis group are Martin Street to Arthur Street, where the Amazon enters the West Eugene Wetlands Plan Area (where Goal 5 process already completed). Portions of the creek corridor, particularly at the south end where it follows Amazon Parkway, contain a relatively intact riparian corridor with primarily native trees and understory. In other areas, most of the riparian area along the creek has been cleared, or replaced by buildings and parking lots. Despite these areas of compromised habitat, Amazon Creek forms one of the most extensive habitat systems in the metro area. It provides habitat for a diversity of wildlife, including waterfowl, shorebirds, reptiles, amphibians, mammals, and fish species. The creek flows through hydric soils its entire length, and several remnant wetlands are found in lower areas near the channel and within the channel. These wetland areas add to the diversity of habitat types found along the Amazon, and, on three sites, provide habitat for endangered plants. Amazon Creek has very high connectivity not only due to its overall length, but also due to the wetlands adjacent to it, and its connection to forested habitat in the South Hills. It serves as a regionally important habitat corridor, reaching from higher elevation habitat in the south hills down to lower elevations, through otherwise developed areas, and out to the extensive habitat of Fern Ridge Reservoir.

(1) Lower Amazon Creek:

(a) Lower Amazon channel Martin to Arthur (E30D, E30E, E30H);
(b) Lower Amazon wetlands (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F);
(c) Lower Amazon 24th to Fairgrounds (E30F,G):

Lower Amazon Martin to 30th (E30D; AMA-7D, AMA-7E, AMA-7F):

From Martin Street at the foot of the South Hills, the Amazon (E30D) flows northward through Kinney Park and along Amazon Parkway. The riparian area here is relatively intact, with high vegetative and structural diversity. Although invasive species, such as Armenian blackberry and reed canarygrass are prevalent (and dominate some open areas), the riparian plant community consists of primarily native species, such as Oregon ash, ponderosa pine, black cottonwood, and willow. The riparian area is narrow for a creek of this size, constrained by streets on either side, as well as high voltage power lines. From approximately Fox Hollow north to Amazon Park, this portion of the creek also contains wetlands (AMA-7D, AMA-7E, AMA-7F).

Lower Amazon at Amazon Park (E30E; AMA-7B, AMA-7C):
The portion of the creek corridor at Amazon Park has some of the more intact riparian areas in the site. With the exception of some open stretches, where reed canarygrass dominates channel banks, the riparian plant community here is dominated by native species. This portion of the creek also contains wetlands (AMA-7B, AMA-7C) within the channel.

Lower Amazon 24th to Fairgrounds (E30F, E30G):
This portion of Amazon Creek is a concrete-lined channel (E30F,G). Most riparian vegetation has been removed, and the area surrounding the top of the channel wall has been developed into, typically, parking areas and ornamental landscaping associated with adjacent homes and businesses. While these areas do not provide viable riparian habitat, numerous small trees are scattered along the channel, including bigleaf maple and Oregon ash. A few areas are wide enough to support groups of trees, including large black cottonwoods. These scattered trees contribute little to the creek, but do provide some shading of the channel, and some input of organic material, food for aquatic animals. In one location within this site boundary, there is a small population of the endangered wet prairie plant, Bradshaw's lomatium, within land owned by the City of Eugene and School District 4-J. There are no locally significant wetlands in this portion of the creek.

Lower Amazon at Fairgrounds (E30H; AMA-7A):
As the creek enters the Fairgrounds (E30H), the riparian area is noticeably wider, more intact, and contains large patches of native vegetation, such as willow. Similarly to other sections of Amazon Creek where riparian trees and shrubs are established, numerous species of songbirds use this area, especially during migration. The Amazon channel here also contains wetlands (AMA-7A).

(2) Amazon Park wetlands:

(a) Amazon Park wetland prairie (AMA-16), Amazon ash grove (AMA-9):
These two wetland sites contain remnants of rare Willamette Valley Wet Prairie. Both sites contain significant populations of the federally listed endangered wet prairie plant, Brashaw's lomatium. Wet prairie habitat, which historically occupied thousands of acres in the Willamette Valley, is now represented only by small remnants such as these. The large Oregon ash grove adjacent to the wet prairie area and Amazon Creek within Amazon Park contributes important wildlife habitat to this habitat system.

(b) Amazon park wetlands (AMA-10, AMA-11B, AMA-12A,B):
Wetland AMA-10 is a small ash wetland located at 24th Avenue, partly within the park, and partly on property owned by School District 4-J. Like the ash grove within site AMA-16, this grove contributes to the habitat structure and adversity adjacent to Amazon Creek. Wetland AMA-11B, located near the pool, is a recently restored wetland created in part as mitigation for wetlands filled within Tugman Park. Wetland AMA-12, located near 29th &Hilyard Street, is another Oregon ash grove adjacent to Amazon Creek, which contributes habitat and structural diversity to the habitat system of upper Amazon Creek.

(c) Amazon park wetlands in ballfield (AMA-11A):
This wetland (AMA-11A), located near the pool, is part of the mowed area used as a sports field during much of the year. Although the site has wetland characteristics, and is near to Amazon Creek, it no longer supports native plants and therefore has very low habitat value.

(3) Westmoreland wetlands:

(a) Westmoreland wetland prairie (AMA-6B, AMA-6C):
The group of wetland sites within Westmoreland Park includes remnants of once common and now rare Willamette Valley Wet Prairie habitat. Of the 6 locally significant wetlands within Westmoreland Park, these 2 wetland areas (AMA-6B and AMA-6C) still contain a large percentage of native wet prairie species. Many butterfly, amphibian, bird, and plant species of the Willamette Valley are dependent on this type of habitat. The site also provides an important source of seed for wet prairie plants for use in restoration projects.

(b) Westmoreland wetlands (AMA-6A, AMA-6D, AMA-6E, AMA-6F):
The other three wetland areas in Westmoreland Park are part of the mowed area used as a frisbee golf field during most of the year. These areas no longer support native plants and therefore have very low habitat value.

(4) Tugman Riparian (E83):

The Tugman Riparian area is a small stream that carries water from the bottom of Elliot Hill down through Tugman Park to Hilyard Street. The stream is narrow, with little structural diversity of riparian vegetation. The upper portion of the stream flows through a woodland that has minimal native riparian understory, but has a native tree canopy. The lower portion of the stream has recently been re-routed and restored with native plantings, and the young riparian vegetation has not yet established a viable riparian plant community. However, the stream is located entirely within the City-owned park, where its riparian functions are being actively managed and restored.

Land uses within the sites in this analysis group are primarily parks and open space and low density residential, with a few areas of commercial uses. Commercial uses occur primarily in the 6-block area between High Street and Lincoln. Extensive areas along the creek are in park uses, such as the area along Amazon Parkway, Amazon Park, and Westmoreland Park. At the north end of this site, the creek flows through the large Lane County Fairgrounds site.

23.2 Impact Area

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 23.2 below lists the impact areas assigned to these Goal 5 sites.

Table 23.2 Impact Area Summary: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-Site #	Site Name		Impact Area*
Lower Amazon Creek:			
	Lower Amazon Martin - 30th:		
E30 D	Lower Amazon at Martin to 30th		Type B - 75' + mapped riparian vegetation
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th		Type C - 50'
	Lower Amazon at Amazon Park:		
E30 E	Lower Amazon at 30th-24th (park)		Type B - 75' + mapped riparian vegetation
AMA-7B,C	Amazon channel wetland 30th-24th (park)		Type C - 50'
	Lower Amazon 24th - Fairgrounds:		
E30 F,G	Lower Amazon at 24th - Fairgrounds		Type E - Site boundary
	Lower Amazon Fairgrounds - Arthur:		
E30 H	Lower Amazon at Fairgrounds to Arthur		Type B - 75' + mapped riparian vegetation
AMA-7A	Amazon channel wetland Fairgrounds to Arthur		Type C - 50'
Amazon Park wetlands:			
AMA-16	Amazon park wetland prairie		Type C - 50'
AMA-9	Amazon park wetland ash grove		Type C - 50'
AMA-10	Amazon park wetland 24th		Type D - 25'
AMA-11B	Amazon park wetland pool		Type D - 25'
AMA-12A,B	Amazon park wetland 29th		Type D - 25'
AMA-11A	Amazon park wetland ballfield		Type D - 25'
Westmoreland wetlands:			
AMA-6B, C	Westmoreland wetland prairie		Type C- 50'
AMA-6A,D,E,F	Westmoreland wetlands		Type D - 25'
Tugman Riparian			
E83	Tugman Riparian at Tugman Park		Type D - 25' + mapped riparian vegetation

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

23.3 Conflicting uses

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of these sites is zoned primarily Low Density Residential (LDR) and Public Land (PL), including school sites, parks, and the fairgrounds. Commercial (C) zoning occurs in the area between High Street and Lincoln. In a few areas adjacent to the corridor, there is High Density Residential (HDR) zoning. In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land, and Commercial uses are determined to be conflicting uses for riparian corridors and wetlands. Table 23.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 23.3 Zoning within Impact Areas: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Lower Amazon Creek:					
	Lower Amazon Martin - 30th:				
E30 D	Lower Amazon at Martin to 30th		LDR	C, HDR, PL	Public
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th		LDR, PL	---	Public
	Lower Amazon at Amazon Park:				
E30 E	Lower Amazon at 30th-24th (park)		PL	HDR, LDR	Public
AMA-7B,C	Amazon channel wetland 30th-24th (park)		PL	LDR, HDR	Public
	Lower Amazon 24th - Fairgrounds:				
E30 F,G	Lower Amazon at 24th - Fairgrounds		PL, LDR, C	HDR	Private
	Lower Amazon Fairgrounds - Arthur:				
E30 H	Lower Amazon at Fairgrounds to Arthur		PL, LDR	HDR, C	Public, private
AMA-7A	Amazon channel wetland Fairgrounds to Arthur		LDR, PL	C, HDR	Public, private

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership (majority ownership listed first)**
Amazon Park wetlands:					
AMA-16	Amazon park wetland prairie		PL	---	Public
AMA-9	Amazon park wetland ash grove		PL	HDR	Public
AMA-10	Amazon park wetland 24th		PL	---	Public
AMA-11B	Amazon park wetland pool		PL	---	Public
AMA-12A,B	Amazon park wetland 29th		PL	---	Public
AMA-11A	Amazon park wetland ballfield		PL	---	Public
Westmoreland wetlands:					
AMA-6B, C	Westmoreland wetland prairie		PL	---	Public
AMA-6A,D,E,F	Westmoreland wetlands		PL	---	Public (part school)
Tugman Riparian					
E83	Tugman Riparian at Tugman Park		PL, LDR	---	Public

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

23.4 ESEE Consequences

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 23.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

23.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites include those given in Table 23.4.1 below. Some of these characteristics are further discussed below and in Section 23.1, Site Descriptions.

Table 23.4.1 Key resource characteristics: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian (See Key below table.)

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Lower Amazon Creek:												
	Lower Amazon Martin - 30th:											
E30 D	Lower Amazon at Martin to 30th	YES	NO	V HI	HIGH	YES	---	---	---	---	NO	NO
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th	YES	NO	V HI	HIGH	YES	SOME	DEGR	DEGR	INTACT	NO	NO
	Lower Amazon at Amazon Park:											
E30 E	Lower Amazon at 30th-24th (park)	YES	NO	V HI	HIGH	YES	---	---	---	---	NO	NO
AMA-7B,C	Amazon channel wetland 30th-24th (park)	YES	NO	V HI	HIGH	YES	SOME	DEGR	DEGR	INTACT	NO	NO
	Lower Amazon 24th to Fairgrounds:											
E30 F,G	Lower Amazon at 24th - Fairgrounds	YES	YES	V HI	LO	NO	---	---	---	---	NO	NO
	Lower Amazon at Fairgrounds:											
E30 H	Lower Amazon at Fairgrounds to Arthur	YES	NO	V HI	HIGH	YES	---	---	---	---	NO	NO
AMA-7A	Amazon channel wetland Fairgrounds to Arthur	YES	NO	V HI	HIGH	YES	SOME	DEGR	DEGR	INTACT	NO	NO
Amazon Park wetlands:												
AMA-16	Amazon park wetland prairie	NO	YES	MED	HIGH	YES	SOME	N/A	INTACT	DEGR	NO	NO
AMA-9	Amazon park wetland ash grove	NO	YES	HI	HIGH	YES	SOME	N/A	INTACT	INTACT	NO	NO
AMA-10	Amazon park wetland 24th	NO	NO	HI	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
AMA-11B	Amazon park wetland pool	NO	NO	HI	MED	YES	SOME	N/A	INTACT	INTACT	NO	NO
AMA-12A,B	Amazon park wetland 29th	NO	NO	HI	MED	YES	SOME	N/A	DEGR	DEGR	NO	NO
AMA-11A	Amazon park wetland ballfield	NO	NO	LO	LO	YES	SOME	N/A	INTACT	INTACT	NO	NO
Westmoreland wetlands:												
AMA-6B, C	Westmoreland wetland prairie	NO	NO	LO	HI	YES	SOME	N/A	DEGR	INTACT	NO	NO
AMA-6A,D,E,F	Westmoreland wetlands	NO	NO	LO	LO	YES	SOME	N/A	DEGR	INTACT	NO	NO
		Fish	**T&E**	**Con-nect**	**NatVeg**	**LSWet**	**WL HAB**	**Fish**	**WQ**	**Flood**	**Open**	**Steep**

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Tugman Riparian												
E83	Tugman Riparian at Tugman Park	NO		LO		NO	---	---	---	---	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

23.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 23.4.2 below list the paragraph number of applicable ESEE consequences.

Table 23.4.2 Summary of ESEE Consequences: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Lower Amazon Creek:				
E30 D Lower Amazon at Martin to 30th* AMA-7D,E,F Amazon channel wetland Fox Hollow-30th* E30 E Lower Amazon at 30th-24th* AMA-7B,C Amazon channel wetland 30th-24th* E30 F,G Lower Amazon at 24th - Fairgrounds* E30 H Lower Amazon at Fairgrounds to Arthur* AMA-7A Amazon channel wetland Fairgrounds to Arthur* **Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Amazon Park wetlands:				
AMA-16 Amazon park wetland prairie* AMA-9 Amazon park wetland ash grove* AMA-10 Amazon park wetland 24th* AMA-11B Amazon park wetland pool* AMA-12A,B Amazon park wetland 29th* AMA-11A Amazon park wetland ballfield** *Note: References to higher quality sites apply. **Note: References to lower quality sites apply.	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A
Westmoreland wetlands:				
AMA-6B, C Westmoreland wetland prairie* AMA-6A,D,E,F Westmoreland wetlands** *Note: References to higher quality sites apply. **Note: References to lower quality sites apply.	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Tugman Riparian				
E83 Tugman Riparian at Tugman Park*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
**Note: References to higher quality sites apply.*	*Economic* (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

23.5 ESEE Conclusions and Recommendations

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

23.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Lower Amazon Creek:

(a) Lower Amazon channel Martin to Arthur (E30D, E30E, E30H);
(b) Lower Amazon wetlands (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F);
(c) Lower Amazon 24th to Fairgrounds (E30F, E30G):

Limiting conflicting uses recommended. The key resource characteristics of Lower Amazon Creek and its associated wetlands (E30D; AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F) indicate that they are *higher quality* sites. The corridor has been highly modified and disturbed, and invasive species, such as Armenian blackberry and reed canarygrass dominate some many of the more open areas. One section, approximately 10 blocks long in the downtown area, is lined with concrete. Other portions of the corridor have a relatively intact riparian area. While the quality of its riparian plant community is quite variable, Amazon Creek provides one of the most extensive habitat waterway systems in the Metro area. It is regionally significant for the size of its drainage area, and for its role as a connector between extensive wildlife habitat in the South Hills and other, lower elevation habitat, such as that found in the West Eugene Wetlands area and Fern Ridge Reservoir. Based on these characteristics and the ESEE analysis discussed above, these sites have greater importance to the community at large than the conflicting uses that would occur here. Although there are negative economic consequences of protecting these sites, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites somewhat outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) Amazon Park wetlands:

(a) Amazon Park wetland prairie (AMA-16), Amazon ash grove (AMA-9);
(b) Amazon park wetlands (AMA-10, AMA-11B, AMA-12A,B):
Limiting conflicting uses recommended. Key resource characteristics indicate that these wetland sites (AMA-16; AMA-9; AMA-10; AMA-11B; AMA-12A,B) are some of the more valuable wetlands in the Inventory. They provide a diversity of wetland types, such as wet prairie and ash wetland, and have high connectivity, being adjacent to the Amazon Channel. Due to these resource characteristics, these are *relatively higher quality* sites. Based on that, and the ESEE analysis above, resource values in these sites are of greater importance to the community than the conflicting uses that would occur

here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(c) Amazon park wetlands at ballfield (AMA-11A):
Fully allowing conflicting uses recommended. This wetland (AMA-11A) located within the ballfield area at the park is a *relatively lower quality site* based on key resource characteristics. As a locally significant wetland, it provides some wetland values, such as water quality moderation for a relatively large area. However, based on resource characteristics and the ESEE analysis above, the conflicting uses that would occur here are more important than the moderately valuable resource. The positive consequences of protecting this resource do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended for this site.

(3) Westmoreland wetlands:

(a) Westmoreland wetland prairie (AMA-6B, AMA-6C):
Limiting conflicting uses recommended. These two wetland sites (AMA-6B,C) are *higher quality* sites, as indicated by their key resource characteristics. These sites contain rare Willamette Valley wet prairie habitats. Based on these resource characteristics and the ESEE analysis above, the resource values provided by these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(b) Westmoreland wetlands (AMA-6A, AMA-6D, AMA-6E, AMA-6F):
Fully allowing conflicting uses recommended. As indicated by their key resource characteristics, other wetland areas in Westmoreland are relatively *lower quality sites.*

Based on these resource characteristics and the ESEE analysis above, the conflicting uses that would occur here are more important than the resource. The positive consequences of protecting the resource do not outweigh the negative consequences, particularly the economic consequences, of prohibiting or limiting conflicting uses. Therefore, fully allowing conflicting uses is recommended for this site.

(4) Tugman Riparian (E83):

Limiting conflicting uses recommended. Based on key resource characteristics, the Tugman Park stream (E83) is a lower quality site. The riparian area has been cleared of much of its vegetation, and the stream has low connectivity. However, it is located entirely within a City-owned park and is being managed as a natural area, which would result in few conflicting uses. Based on that, and the ESEE analysis above, the resource values are slightly more important than the few conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within the site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site *somewhat* outweighs the negative consequences. However, *limiting* most conflicting uses would adequately protect the resource while allowing for some uses with minimal impacts to the resource. Therefore, the positive economic, social, environmental and energy consequences of *limiting* conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of *limiting* conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

23.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 23.5.2 below and Map 23.B summarize the recommendations for these sites.

(1) Lower Amazon Creek:

(a) Lower Amazon channel Martin to Arthur (E30D, E30E, E30H): Conservation setback of 60 feet recommended. As discussed above, Lower Amazon Creek (E30D, E30E, E30H) is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality of habitat, the presence of one of the most extensive habitat systems in the metro area, and their regional significance as a migration and wildlife movement corridor, under the proposed /WR overlay zone provisions, these

riparian sites are recommended to be designated Category B Streams. For riparian and upland wildlife habitat sites designated Category B Streams, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 60 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Lower Amazon wetlands Martin to Arthur (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F):
Conservation setback of 50 feet recommended. As discussed above, these wetlands (AMA-7A, AMA-7B, AMA-7C, AMA-7D, AMA-7E, AMA-7F) occur within the channel of regionally- significant Amazon Creek, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality and diversity of habitat, and their regional significance as a connecting corridor, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Lower Amazon 24th to Fairgrounds (E30F, E30G):
Protected, with no setback recommended. As discussed above, this portion of Amazon Creek (E30F, E30G) is an essential part of the regionally significant Amazon Creek, and is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these sites are recommended to be designated Category E Streams, and would receive no conservation setback beyond the site boundary. This setback reflects the fact that the creek in this area is within a concrete channel, but protects the creek and the adjacent Bradshaw's lomatium site from further encroachment.

(2) Amazon Park wetlands:

(a) Amazon Park wetland prairie (AMA-16), Amazon ash grove (AMA-9):
Conservation setback of 50 feet recommended. As discussed above, these wetlands (AMA-16, AMA-9) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality and diversity of habitat, the presence of a federally listed endangered plant, and their connection to a regional connecting corridor, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Amazon park wetlands (AMA-10, AMA-11B, AMA-12A,B):
Conservation setback of 25 feet recommended. As discussed above, these wetland sites (AMA-10, AMA-11B, AMA-12A,B) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, these wetland sites are recommended to be designated as Category B Wetlands. For wetland sites designated Category B Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 25 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(c) Amazon park wetlands at ballfield (AMA-11A):
No protection measures are recommended for this site (AMA-11A), as discussed in the analysis above.

(3) Westmoreland wetlands:

(a) Westmoreland wetland prairie (AMA-6B, AMA-6C):
Protective development setback of 50 feet recommended. As discussed above, these wetlands (AMA-6B,C) are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Due to the quality habitat, and the rarity of the Willamette Valley wet prairie habitat, under the proposed /WR overlay zone provisions, these riparian sites are recommended to be designated Category A wetlands. For wetland sites designated Category A wetlands, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(b) Westmoreland wetlands (AMA-6A,D,E,F):
No protection measures are recommended for these sites (AMA-6A,D,E,F), as discussed in the analysis above.

(4) Tugman Riparian (E83):

Conservation setback of 25 feet recommended. As discussed above, this site (E83) is recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category D Stream. For riparian and upland wildlife habitat sites, the conservation area includes the area within the resource site boundary, plus the area within a conservation setback of 20 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

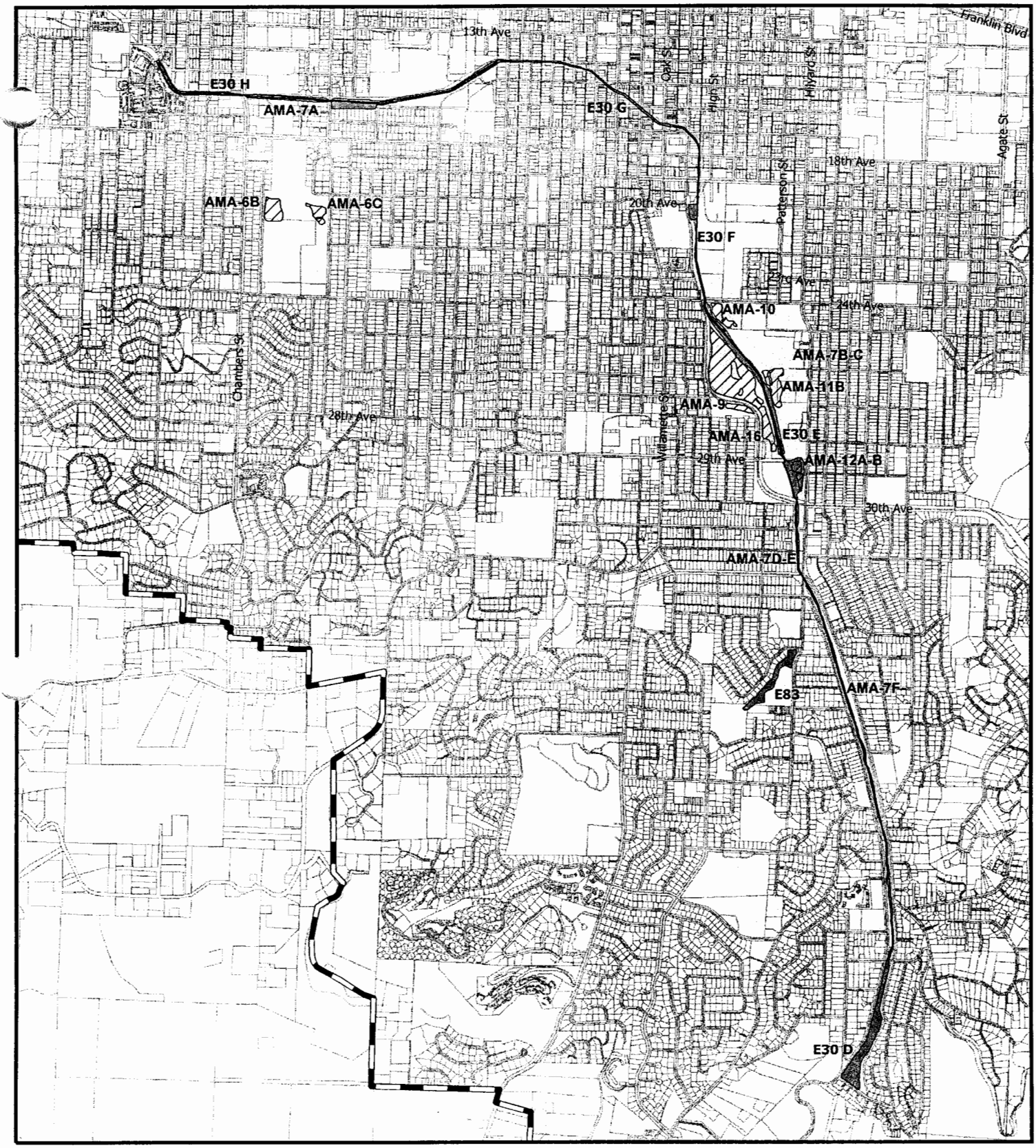
Table 23.5.2 Recommendations Summary: Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	Inside City Limits***
Lower Amazon Creek:						
E30 D	Lower Amazon at Martin to 30th	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Public	All
AMA-7D,E,F	Amazon channel wetland Fox Hollow-30th	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
E30 E	Lower Amazon at 30th-24th (park)	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Public	All
AMA-7B,C	Amazon channel wetland 30th-24th (park)	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
E30 F,G	Lower Amazon at 24th - Fairgrounds	Limit conflicting uses	/WR Overlay Zone, Category E	-0-	Private	All
E30 H	Lower Amazon at Fairgrounds to Arthur	Limit conflicting uses	/WR Overlay Zone, Category B	60'	Public, private	All
AMA-7A	Amazon channel wetland Fairgrounds to Arthur	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
Amazon Park wetlands:						
AMA-16	Amazon park wetland prairie	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
AMA-9	Amazon park wetland ash grove	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
AMA-10	Amazon park wetland 24th	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
AMA-11B	Amazon park wetland pool	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
AMA-12A,B	Amazon park wetland 29th	Limit conflicting uses	/WR Overlay Zone, Wetland Category B	25'	Public	All
AMA-11A	Amazon park wetland ballfield	Fully allow conflicting uses	n/a	n/a	Public	All
Westmoreland wetlands:						
AMA-6B, C	Westmoreland wetland prairie	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
AMA-6A,D,E,F	Westmoreland wetlands	Fully allow conflicting uses	n/a	n/a	Public (part school)	All
Tugman Riparian:						
E83	Tugman Riparian at Tugman Park	Limit conflicting uses	/WR Overlay Zone, Category D	20'	Public	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection
Significant Goal 5 ESEE Analysis Group 23

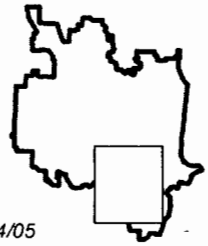
Map 23B

Goal 5 Protection Designations for Lower Amazon Creek, Lower Amazon Wetlands, Westmoreland Wetlands, Tugman Riparian

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 620 1,240 1,860



5/4/05

23.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites E30 (Amazon Creek); AMA-7, AMA-9, AMA-10, AMA-11, AMA-12, AMA-16 (Lower Amazon Wetlands); AMA-6 (Westmoreland Wetlands); E83 (Tugman Riparian)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

24. Supplemental Analysis

Willamette River, Willamette River Wetlands

Sites WA/WB (Willamette River); WR-1; WR-2; WR-5 (Willamette River Wetlands)

Sections 1 through 5 in this document contain analyses of Impact Areas, Conflicting Uses, ESEE Consequences, and Recommendations that apply to these sites and every Goal 5 site. Section 6 addresses consistency with statewide goals and acknowledged Plan requirements for each Goal 5 site. Sections 7 through 24 contain additional analyses that are site-specific.

To facilitate the analysis of ESEE consequences, the OARs allow local governments to "conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning" (OAR 660-023-0040(4)). The local government may also conduct a single analysis for a site containing more than one significant Goal 5 resource. Eugene's Goal 5 Inventory contains 122 resource sites, which are divided into 331 sub-sites for the purposes of this analysis (31 significant riparian sites divided into 121 riparian subsites; 3 significant upland wildlife habitat sites, divided into 52 upland subsites; 78 significant wetland sites divided into 158 wetland subsites). For the ESEE discussion and analyses, these sites and subsites are organized into 18 analysis groups based on similar physical characteristics, location, surrounding land uses and zoning, and other characteristics. A group of sites may consist of different sites that are the same type of resource (e.g. all wetlands) and located in the same vicinity, or, a group may consist of different resource types (e.g. riparian corridor, upland stream habitat, and a wetland) all located along the same stream, or in the same geographic area.

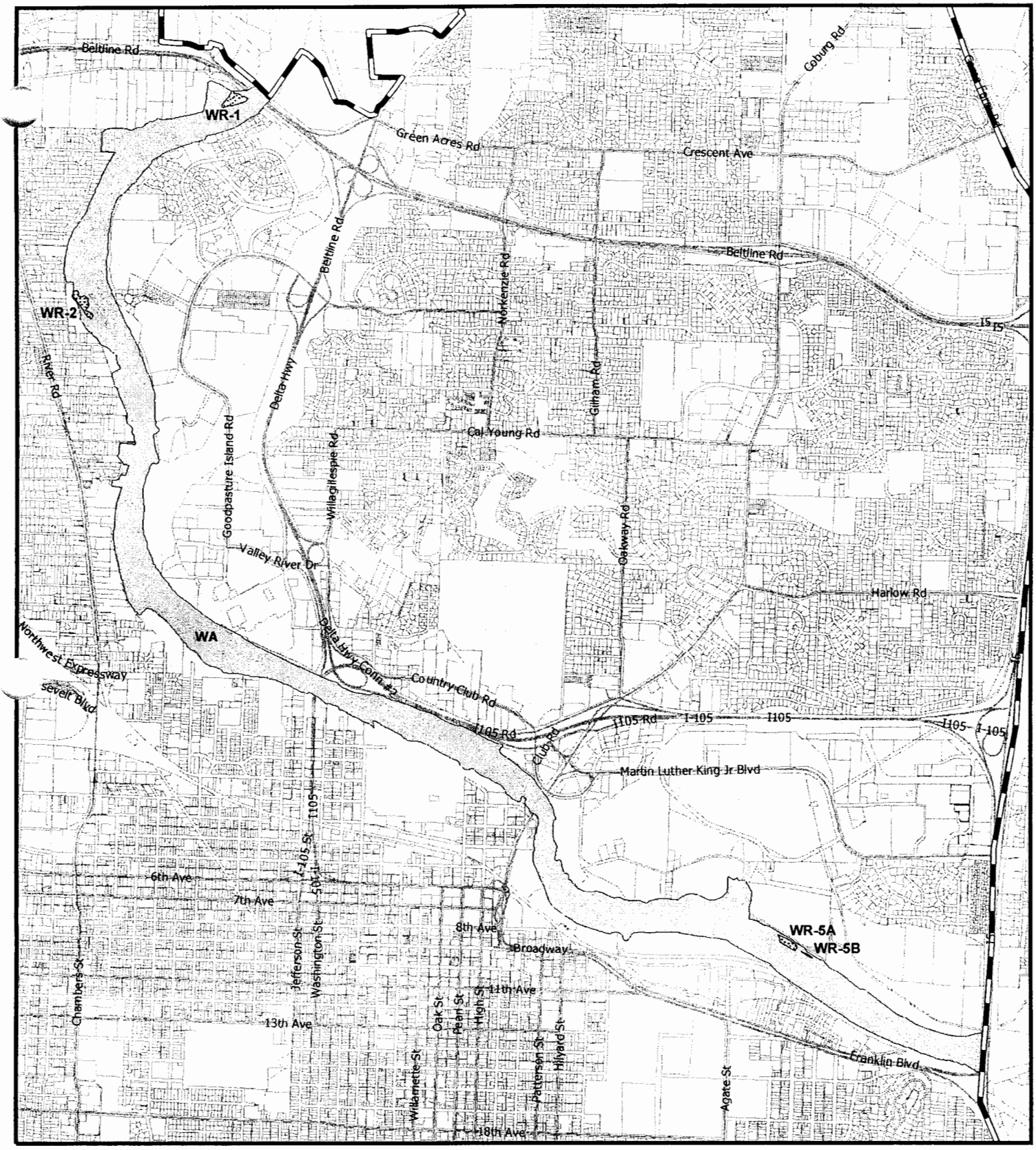
The sites discussed below are being considered together in the ESEE analysis because of similarities in physical characteristics, zoning/surrounding land uses, and location. Table 24.1 below lists the sites in this analysis group, their resource category and acreage. Map 24.A below shows the site(s) described in this analysis group.

Table 24.1 ESEE analysis group: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name	Resource Type*	Site Acres	Inside City Limits**
Willamette River:				
WA/WB	Willamette River	R	453.49	All
Willamette River wetlands:				
WR-1	Willamette River wetland River Avenue	W	1.94	All
WR-2	Willamette River wetland Greenleaf Pond	W	1.79	All
WR-5	Willamette River wetland south	W	1.17	All

* Resource Type: R = Riparian; U = Upland Wildlife Habitat Stream Corridor; W = Locally Significant Wetland

** Inside City Limits: Approximate proportion of site within city limits



Site Boundaries

Significant Goal 5 ESEE Analysis Group 24

Significant Goal 5 Site Boundaries for Willamette River, Willamette River Wetlands

Map 24A

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Locally Significant Wetland
- Riparian Corridor
- Upland Wildlife Habitat

N

0 725 1,450 2,175 Feet

5/4/05

24.1 Site Description(s)

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf Pond); WR-5A, B (Willamette River wetlands south)

(1) Willamette River (WA/WB):

The Willamette is the most important river system in the region. The corridor provides a diverse range of habitat types, including riparian, wetland, open water, and island habitats, that support a wide range of terrestrial and aquatic wildlife species. The riparian plant community along the river is the largest and one of the most intact in the Inventory, and includes black cottonwood, Oregon ash, Pacific willow, red-osier dogwood, red alder, white alder, and bigleaf maple. It is one of the few riparian corridors in the inventory that contains stands of mature black cottonwood, important trees for raptors, great blue heron, cavity nesting species, and for providing downed wood and snags. Wetland plants, such as rush species (*Juncus* spp., *Scirpus* spp.) and sedge species (*Carex* spp.) occur along the waterline. Although invasive species, such as Armenian (Himalayan) blackberry and reed canarygrass are prevalent, the plant community is made up of primarily native species. The Willamette River is one of the most extensive wildlife travel corridors and migration routes in the state. Numerous wildlife species use the corridor to move between habitat patches, and it is a significant migration corridor for migrant songbirds. Belted kingfisher, great blue heron, green heron, and osprey are commonly seen fishing and perching along the river. Swallows and warbler species frequent the riparian edge in spring and summer. Shorebirds, beaver, turtles, reptiles, and amphibians utilize the water's edge and downed trees in the riparian area. The river provides important resting and rearing habitat for juvenile spring Chinook salmon, and a migration corridor for adult Chinook. This species is listed as threatened under the federal Endangered Species Act. The Willamette River also harbors a diverse native fish community, including: cutthroat trout, rainbow trout, mountain whitefish, chiselmouth, mountain sucker, largescale sucker, redside shiner, sculpin, northern pikeminnow, peamouth, sand roller, and dace (Aquatic and Riparian Habitat Assessment for the Eugene Springfield Area, Chip Andrus and Jenny Walsh, 2002).

(2) Willamette River wetlands River Avenue (WR-1); Willamette River wetlands Greenleaf Pond (WR-2); Willamette River wetlands south (WR-5A, WR-5B):

Numerous locally significant wetlands occur within the Willamette riparian corridor. Three of these wetland sites are included in this analysis group (other wetlands are discussed in other analysis groups). Wetlands WR-1, WR-2 and WR-5 are all located within and adjacent to the river channel. All contain forested wetland habitat with primarily native Oregon ash. Wetland WR-1 is a 2-acre forested ash wetland located near River Avenue and the Beltline Highway. Wetland WR-2 is the pond located at the west bank park along the river at the end of Greenleaf Avenue. It is provides nearly 2 acres of open water wetland habitat directly off the main river channel. Wetland site WR-5 is a smaller, approximately 1 acre site located within Alton Baker Park, near

Walnut Pond. These wetland areas add to the diversity of habitat type along the river corridor and, provide resting and rearing habitat for juvenile salmonids (including the federally listed upper Willamette Spring Chinook) and other fish during winter high flows.

Land uses surrounding the Willamette River corridor and the wetlands in this analysis group range from low density residential uses, to high intensity commercial uses. Major areas of commercial uses occur in the downtown Eugene area and at Valley River Center. Several miles of the corridor along both sides of the river are in park uses, such as areas in the River Road/Santa Clara neighborhoods and Alton Baker Park. In addition to these major land uses, there are institutional uses, such as schools and part of the university campus; public facilities, such as treatment plants; and high density residential uses.

24.2 Impact Area

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf pond); WR-5A, WR-5B (Willamette River wetlands south)

OAR 660-023-0040(3) requires local governments to establish an impact area for each site. This impact area is based upon: 1) surrounding allowed uses; and 2) potentially adverse effects of those uses. The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. The factors considered in establishing the impact areas for this site, and how the impact area is measured, are discussed in more detail in Sections 2.4 and 2.5, Impact Areas. Table 24.2 below lists the impact areas assigned to these Goal 5 sites.

Table 24.2 Impact Area Summary: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name		Impact Area*
Willamette River:			
WA/WB	Willamette River		Type A - 120' + mapped riparian vegetation
Willamette River wetlands:			
WR-1	Willamette River wetland River Avenue		Type C - 50'
WR-2	Willamette River wetland Greenleaf Pond		Type C - 50'
WR-5	Willamette River wetland south		Type C - 50'

* The impact area for riparian sites is measured from the top of bank and includes any riparian vegetation within the mapped site boundary that extends beyond the measured distance. The impact area for wetlands is measured from the wetland boundary. (See Section 2, Impact Area).

24.3 Conflicting uses

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf pond); WR-5A, WR-5B (Willamette River wetlands south)

OAR 660-023-0010 (1) and 660-023-0040 (2) require local governments to identify "conflicting uses" that could adversely affect a significant Goal 5 resource site. To identify these uses, local governments are required to evaluate land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Section 3, Conflicting Uses, lists all of the zoning districts that might cross or abut the impact areas of the above sites, and describes in further detail those zones and the land uses that are allowed in each zone. This section summarizes that analysis. (Note: The term "Low Density Residential" means single family residential (R-1 and R-2); "High Density Residential" means R-3 and above; "Commercial" includes commercial zones C-1, C-2) and office zones (GO); and the term "Industrial" includes the two industrial zones that occur in Goal 5 sites (I-2 and I-3).

The land within the impact areas of the Willamette River and the wetlands in this group is zoned primarily Low Density Residential (LDR) and Public Land (PL), including parks and public facilities. Remaining areas are zoned primarily Commercial (C), with a few areas of Agricultural (AG) zoning, High Density Residential (HDR) zoning, and Industrial (I) zoning. A portion of the corridor at Riverfront Research Park has a Special Area Zone (SAZ). In the conflicting use analysis in Section 3, Conflicting Uses, Low Density Residential, Public Land, Commercial, High Density Residential, Industrial, and Special Area Zone uses are determined to be conflicting uses for riparian corridors and wetlands. Table 24.3 below lists zoning designations (i.e., potential conflicting uses) for the above sites and site sub-sections.

Table 24.3 Zoning within Impact Areas: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name		Primary Zoning*	Secondary Zoning	Ownership**
Willamette River:					
WA/WB	Willamette River		LDR, PL	C, AG, HDR, I, SAZ	Private, public
Willamette River wetlands:					
WR-1	Willamette River wetland River Avenue		PL	-	Public
WR-2	Willamette River wetland Greenleaf Pond		PL	LDR	Public, private
WR-5	Willamette River wetland south		PL	LDR	Public

* Primary zoning = Zoning district of at least 51% of site; Secondary zoning = zoning district within most of remaining site area. See Section 3, Conflicting Uses for definitions.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

24.4 ESEE Consequences

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf pond); WR-5A, WR-5B (Willamette River wetlands south)

OAR 660-023-0040 (2) and 660-023-0040(4) require local governments to analyze the "positive and negative economic, social, environmental and energy (ESEE) consequences of allowing, limiting or prohibiting conflicting uses within a resource site." "Conflicting uses" are those uses that could adversely affect a significant Goal 5 resource site. Conflicting uses for these sites, and the potential adverse effects of those uses, are discussed in further detail in Section 24.3 Conflicting Uses, above. The relationship between the quality of the resource and the magnitude of ESEE consequences (economic, social, environmental, and energy consequences) is discussed in further detail in Section 4, ESEE Consequences and Section 4.1, Key Resource Characteristics. This section summarizes these various analyses for each of the above sites.

24.4.1 Key Resource Characteristics

As discussed in Section 4.1, Key Resource Characteristics, the degree to which there are positive or negative consequences of allowing, limiting, or prohibiting conflicting uses, depends in part on the relative quality of the resource site. *Relative* resource quality can be indicated, in part, through "key resource characteristics." Resource characteristics that were evaluated for the above sites are given in Table 24.4.1 below. Some of these characteristics are further discussed below and in Section 24.1, Site Descriptions.

Table 24.4.1 Key resource characteristics: Willamette River, Willamette River Wetlands

Site/ Sub-Site #	Site Name	Fish	T&E	Con-nect	NatVeg	LSWet	Wetland functions				Open	Steep
							WL HAB	Fish	WQ	Flood		
Willamette River:												
WA/WB	Willamette River	YES	YES	V HI	MED-V HI	YES	---	---	---	---	HI	NO
Willamette River wetlands:												
WR-1	Willamette River wetland River Avenue	YES	YES	V HI	V HI	YES	SOME	N/A	INTACT	INTACT	NO	NO
WR-2	Willamette River wetland Greenleaf Pond	YES	YES	V HI	HI	YES	SOME	DEGR	DEGR	DEGR	HI	NO
WR-5	Willamette River wetland south	YES	YES	V HI	V HI	YES	SOME	DEGR	INTACT	DEGR	NO	NO

Key to Table: Fish = Site identified by ODFW as fish bearing.
T & E = State- or federally-listed species documented in site.
Connect = Degree to which site serves as a connector to extensive habitat area or is large in size or length.
NatVeg = Relative quality of riparian or wetland plant community. "N/A" means this characteristic was not evaluated (wetlands only).
LSWet = Site contains Locally Significant Wetlands as mapped on the Eugene LWI.
Wetland functions: 4 key wetland functions evaluated using "Oregon Freshwater Wetland Assessment Method (OFWAM)." [SOME = some habitat, DIV = diverse, quality habitat, DEGR = function present, but degraded, INTACT = function intact, 303 = site near a water quality limited (Section 303d listed) stream, NES = portion of site not evaluated separately in OFWAM.]
WL HAB = wildlife habitat
Fish = fish habitat
WQ = water quality
Flood = flood storage
Open = Site provides open water habitat (MED = significant seasonal open water).
Steep = Site has either: (1) a channel bed gradient of 12% or greater; or (2) more than 25% of site area has slopes greater than 20%.

24.4.2 ESEE Consequences Analysis

ESEE consequences (economic, social, environmental, and energy consequences) are discussed in further detail in Section 4, ESEE Consequences. This section summarizes the ESEE consequences analyses for each of the above sites. For reference, consequences discussed in the text in Section 4 are labeled with a paragraph number. For each site and sub-site, Table 24.4.2 below list the paragraph number of applicable ESEE consequences.

Table 24.4.2 Summary of ESEE Consequences: Willamette River, Willamette River Wetlands

Site/Sub-Site #	**Applicable ESEE Consequences discussed in Section 4 (paragraph number)**			
Willamette River				
WA/WB Willamette River*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
**Note: References to higher quality sites apply.*	*PROHIBITING CONFLICTING USES*			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

Willamette River wetlands:				
WR-1 Willamette River wetland River Avenue* WR-2 Willamette River wetland Greenleaf Pond* WR-5 Willamette River wetland south* **Note: References to higher quality sites apply.*	*FULLY ALLOWING CONFLICTING USES*			
	Economic (Section 4.2.1)	*Social* (Section 4.2.2)	*Environmental* (Section 4.2.3)	*Energy* (Section 4.2.4)
	4.2.1A, 4.2.1B, 4.2.1C, 4.2.1D 4.2.1E, 4.2.1F, 4.2.1G, 4.2.1H, 4.2.1I, 4.2.1J, 4.2.1K, 4.2.1L, 4.2.5A	4.2.2A, 4.2.2B, 4.2.2C, 4.2.2D, 4.2.2E, 4.2.2F, 4.2.2G, 4.2.5A	4.2.3A, 4.2.3B, 4.2.3C, 4.2.3D, 4.2.5A	4.2.4A, 4.2.4B, 4.2.4C, 4.2.5A
	LIMITING CONFLICTING USES			
	Economic (Section 4.3.1)	*Social* (Section 4.3.2)	*Environmental* (Section 4.3.3)	*Energy* (Section 4.3.4)
	4.3.1A, 4.3.1.B, 4.3.1C, 4.3.1D, 4.3.1E, 4.3.1F, 4.3.1G, 4.3.1H, 4.3.1I, 4.3.1J, 4.3.1K, 4.3.1L, 4.3.5A	4.3.2A, 4.3.2B, 4.3.2C, 4.3.2D, 4.3.2E, 4.3.2F, 4.3.5A	4.3.3A, 4.3.3B, 4.3.3C, 4.3.3D, 4.3.3E, 4.3.5A	4.3.4A, 4.3.4B, 4.3.4C, 4.3.5A
	PROHIBITING CONFLICTING USES			
	Economic (Section 4.4.1)	*Social* (Section 4.4.2)	*Environmental* (Section 4.4.3)	*Energy* (Section 4.4.4)
	4.4.1A, 4.4.1B, 4.4.1C, 4.4.1D, 4.4.1E, 4.4.1F, 4.4.1G, 4.4.1H, 4.4.1I, 4.4.1J, 4.4.1K, 4.4.5A	4.4.2A, 4.4.2B, 4.4.2C, 4.4.2D, 4.4.2E, 4.4.5A	4.4.3A, 4.4.3B, 4.4.3C, 4.4.3D, 4.4.5A	4.4.4A, 4.4.4B, 4.4.4C, 4.4.5A

24.5 ESEE Conclusions and Recommendations

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf Pond); WR-5A, B (Willamette River wetlands south)

24.5.1 Conclusions and Recommendations on Allowing/Limiting/Prohibiting Uses

The OARs require local governments to determine whether to allow, limit, or prohibit identified conflicting uses for Goal 5 resource sites, based on the ESEE analysis. 660-023-0040 (5). A local government may decide that: 1) a site is of such importance that conflicting uses should be prohibited; or 2) that both the resource site and the conflicting uses are important relative to each other and, therefore, conflicting uses should be allowed in a limited way; or that 3) conflicting uses should be allowed fully. This section summarizes the conclusions and recommendations on the above sites. Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations.

(1) Willamette River (WA/WB):

Limiting conflicting uses recommended.
The key resource characteristics of the Willamette River (WA/WB) indicate that it is one of the *highest quality sites* in the Inventory. This site is the largest stream in the region, including all of the Eugene UGB area, and has significant economic, social and environmental importance to the region. Although many portions of the riparian area have been disturbed, and invasive species such as Armenian blackberry and reed canarygrass are established, overall, the corridor contains a highly intact riparian plant community with a mature forest canopy that supports a wide range of terrestrial and aquatic wildlife species. It has very high connectivity, providing one of the most extensive and diverse habitat systems and wildlife corridors in the region. The river also provides habitat for state- and federally-listed species, as well as numerous native fish species. Based on these key resource characteristics and the ESEE analysis discussed above, the resource value provided by this site is of greater importance to the community and the region than the conflicting uses that would occur within the corridor. Although there are negative consequences of protecting this site, particularly negative economic consequences, the combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within this site outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within this site outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would

result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

(2) Willamette River wetlands River Avenue (WR-1); Willamette River wetlands Greenleaf Pond (WR-2); Willamette River wetlands south (WR-5A, WR-5B):

Limiting most conflicting uses recommended. Based on key resource characteristics these wetland sites along the river (WR-1, WR-2, WR-5A, B) are *higher quality* sites. The sites contain relatively higher quality plant communities, dominated by native vegetation and riparian forest. Their proximity and direct connection to the river give these sites very high connectivity, and they provide important winter habitat for juvenile Chinook salmon. Based on these characteristics and the ESEE analysis above, these sites are of greater importance to the community than the conflicting uses that would occur here. The combined negative economic, social, environmental and energy consequences of *fully allowing* conflicting uses within these sites outweigh the positive consequences. In addition, the positive economic, social, environmental and energy consequences of *prohibiting* conflicting uses within these sites outweighs the negative consequences. However, limiting most conflicting uses would protect the resource but could allow for certain essential or low-impact uses. Therefore, the positive economic, social, environmental and energy consequences of limiting conflicting uses within these sites outweigh the negative. The positive economic, social, environmental and energy consequences of limiting conflicting uses outweigh the positive consequences that would result if all conflicting uses were prohibited. Therefore, limiting conflicting uses is recommended for these sites.

24.5.2 Recommended Conservation Measures (Goal 5 Program)

The OARs require local governments to "develop a program to achieve Goal 5" (660-023-0040 (5)), which must include some action (e.g. adopted land use regulations, zoning standards, acquisition, etc.) to protect sites where conflicting uses will be prohibited or limited (660-023-0010(6)). Additional conclusions and recommendations for the above sites are contained in Section 5, Conclusions and Recommendations. Table 24.5.2 below and Map 24.B summarize the recommendations for these sites.

(1) Willamette River (WA/WB):

Conservation setback of 100 feet recommended. As discussed above, the Willamette River (WA/WB) is recommended for protection, as it provides one of the most extensive, intact wildlife corridors in the region, providing habitat for a diversity of wildlife species, including state- and federally-listed species. The conservation measure proposed for this site is the /WR Water Resources Conservation Overlay Zone (/WR overlay zone). Under those proposed provisions, this riparian site is recommended to be designated Category A Stream. This recommendation is based upon the ESEE analysis above, and these factors:

(1) it is one of the *highest quality sites* in the Inventory, (2) it is the largest stream in the region, (3) the corridor contains a highly intact riparian plant community with a mature forest canopy that supports a wide range of terrestrial and aquatic wildlife species, (4) it has very high connectivity value, providing one of the most extensive and diverse habitat systems and wildlife corridors in the region, (5) it provides habitat for state- and federally-listed species, and (6) it provides habitat for numerous native fish species. For riparian and upland wildlife habitat sites, the conservation area for Category A Streams includes the area within the resource site boundary, plus the area within a conservation setback of 100 feet measured from the top of bank of the stream. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses.

(2) Willamette River wetlands River Avenue (WR-1); Willamette River wetlands Greenleaf Pond (WR-2); Willamette River wetlands south (WR-5A, WR-5B):

Conservation setback of 50 feet recommended. As discussed above, these wetlands (WR-1, WR-2, WR-5A, WR-5B) occur within the riparian area of the regionally-significant Willamette River, and are recommended for protection. The conservation measure proposed for these sites is the /WR Water Resources Conservation Overlay Zone (/WR overlay). Under those proposed provisions, these wetland sites are recommended to be designated Category A Wetlands. This recommendation is based upon the ESEE analysis above, and these factors: (1) they contain native-dominated plant communities and riparian forest, (2) their proximity and direct connection to the river give these sites very high connectivity value, and (3) they provide important winter habitat for juvenile Chinook salmon. For wetland sites designated Category A Wetlands, the conservation area includes the area within the wetland boundary, plus the area within a conservation setback of 50 feet measured from the wetland boundary. Within this conservation area, the /WR overlay zone restricts new development, removal of riparian vegetation, and other conflicting uses. These provisions exempt pre-existing development, but restrict expansion of existing development into the conservation area.

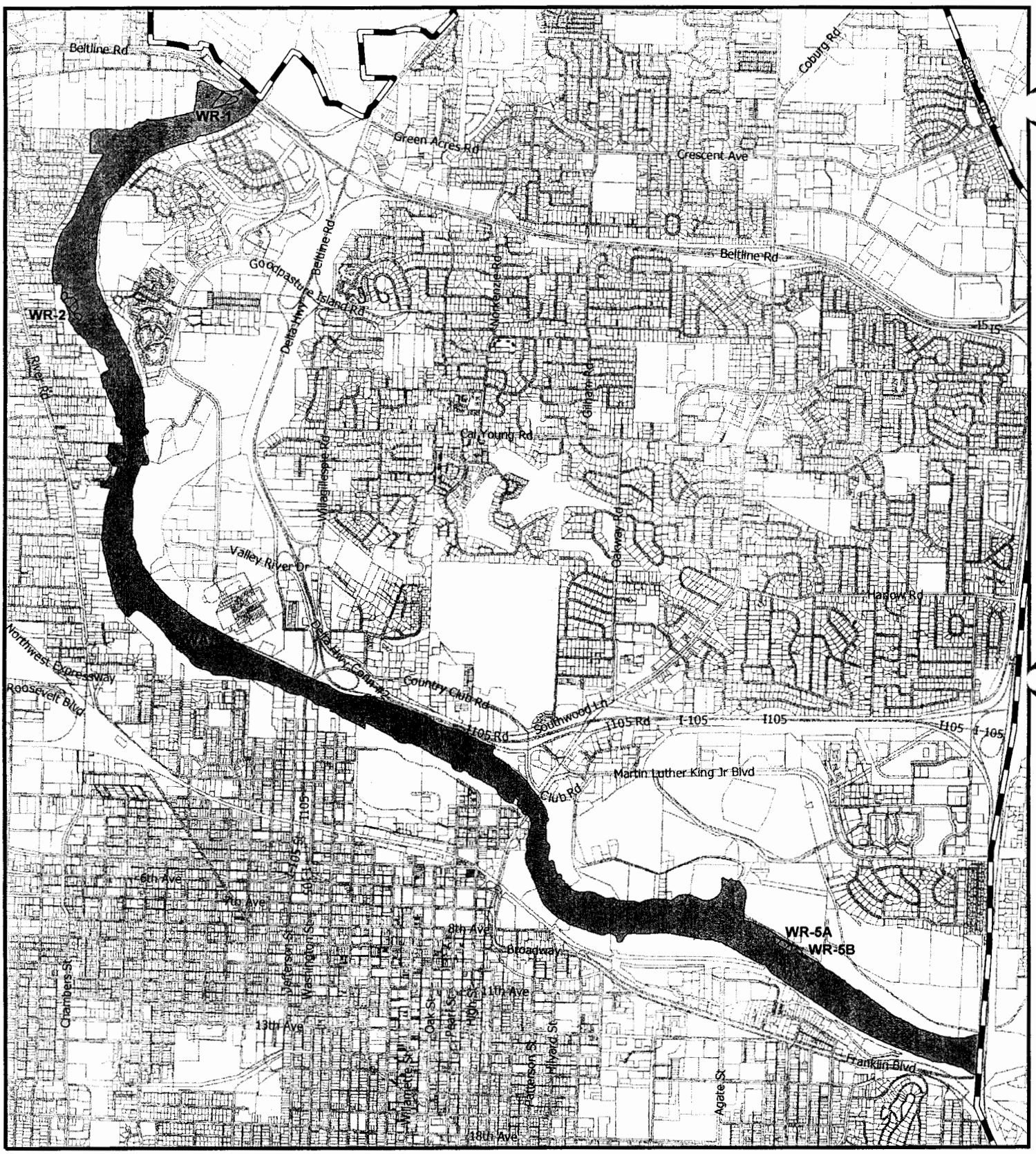
Table 24.5.2 Recommendations Summary: Willamette River, Willamette River Wetlands

Site/ Sub-site #	Site Name	Recommendation	Proposed Protection Measure	Set-back*	Ownership**	City Limits***
Willamette River:						
WA/WB	Willamette River	Limit conflicting uses	/WR Overlay Zone, Category A	100'	Private, public	All
Willamette River wetlands:						
WR-1	Willamette River wetland River Avenue	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public, private	All
WR-2	Willamette River wetland Greenleaf Pond	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All
WR-5	Willamette River wetland south	Limit conflicting uses	/WR Overlay Zone, Wetland Category A	50'	Public	All

* The conservation setback for riparian sites is measured from the top of bank. The conservation setback for wetlands is measured from the wetland boundary.

** Where both public and private are listed, the higher proportion is in the ownership category listed first.

*** Approximate proportion of site within city limits.



Sites Recommended for Protection **Map 24B**

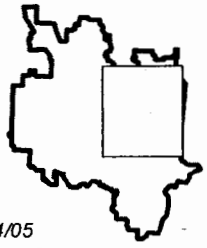
Significant Goal 5 ESEE Analysis Group 24

Goal 5 Protection Designations
for Willamette River, Willamette River Wetlands

- Eugene Urban Growth Boundary
- Eugene City Limits
- Taxlots
- Wetland Designated for Protection
- Riparian Corridor Designated for Protection
- Upland Wildlife Habitat Designated for Protection

N

Feet
0 730 1,460 2,190



5/4/05

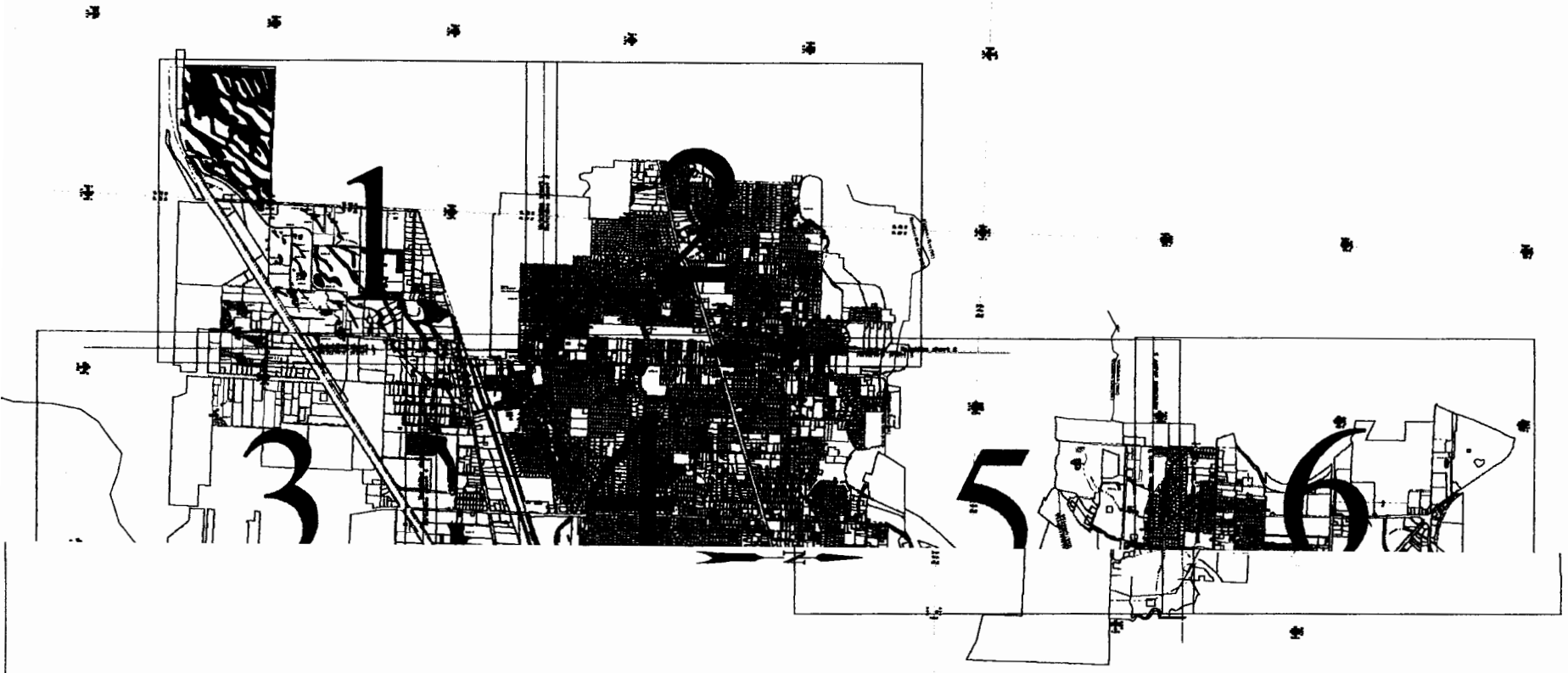
24.6 Consistency with Statewide Goals and Acknowledged Plan Requirements

Sites WA/WB (Willamette River); WR-1 (Willamette River wetlands River Avenue); WR-2 (Willamette River wetlands Greenleaf Pond); WR-5A, B (Willamette River wetlands south)

For a discussion of and findings regarding the consistency of the protection recommendations and their proposed implementing measures with applicable statewide goal or acknowledge plan requirements, see the Statewide Goal findings in: (1) the adopting ordinance for the area within the City limits, Exhibit E, and (2) the adopting ordinance for the area between city limits and the UGB, Exhibit E.

Exhibit C to Ordinance No. 20352

Eugene Local Wetland Inventory



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

2000 0 1000 2000 4000 6000

Scale in Feet

Funding for this project was provided by a grant from the Oregon Department of Land Conservation and Development

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Lane Council of Governments

JOB NO.: 2762

Eugene
Local Wetlands Inventory

Pacific Habitat Services,Inc.
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Wilsonville, Oregon 97070
Phone: (503) 570-0800

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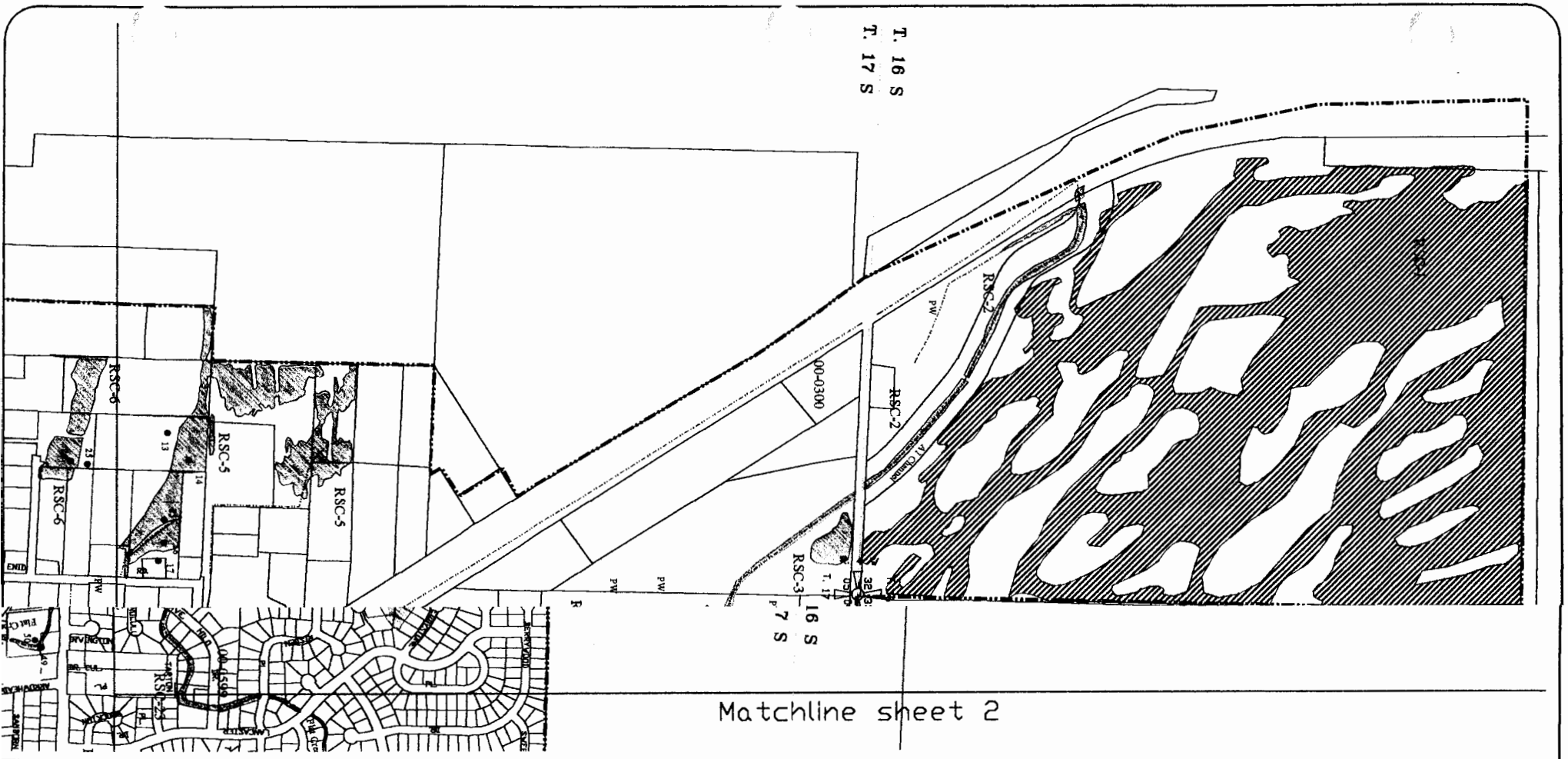
Reference Sheet:



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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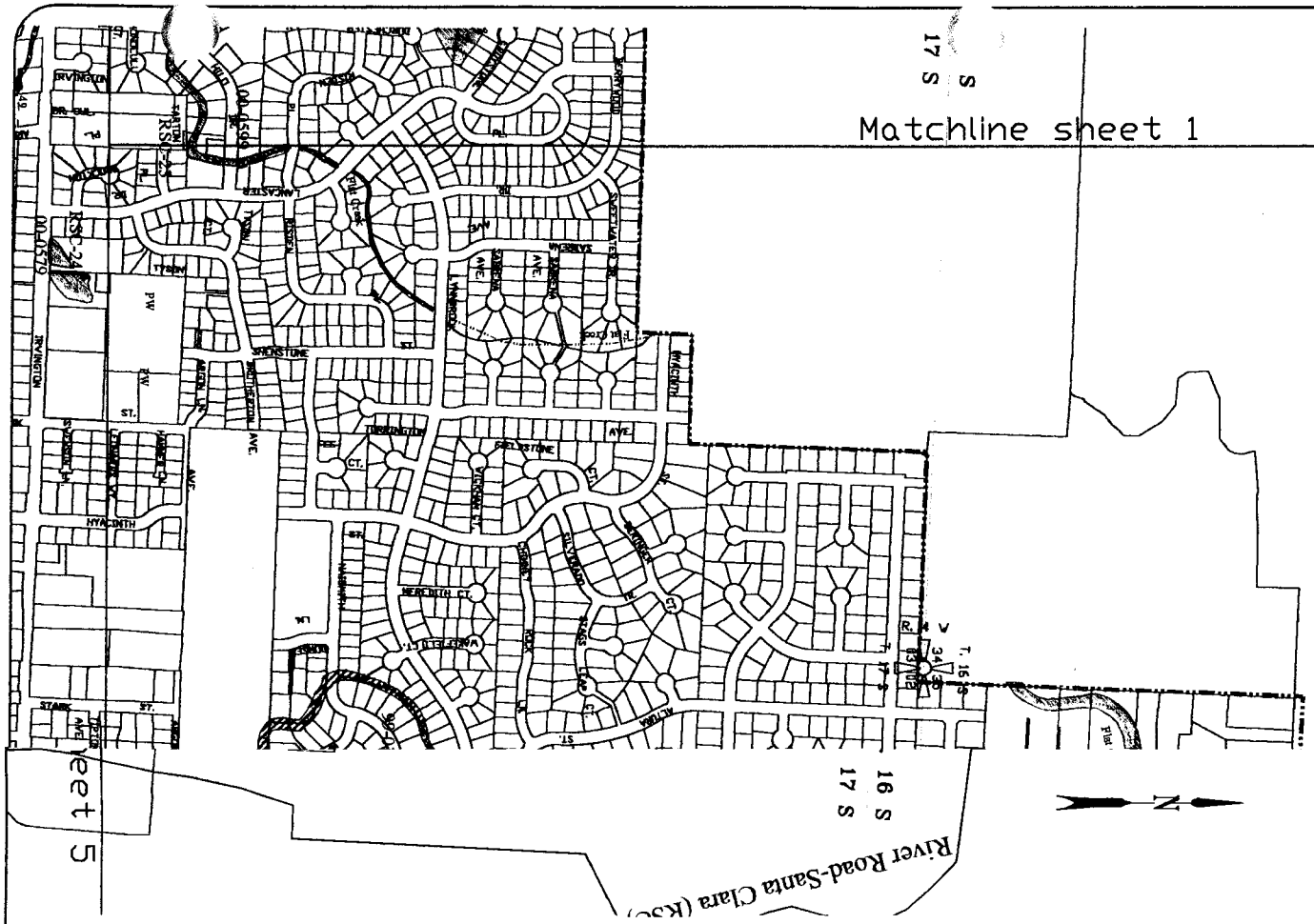
Sheet: 1

of: 24



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Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	50	City Owned Parcels	
Wetland Code	RSC-10	Lots Permissiom Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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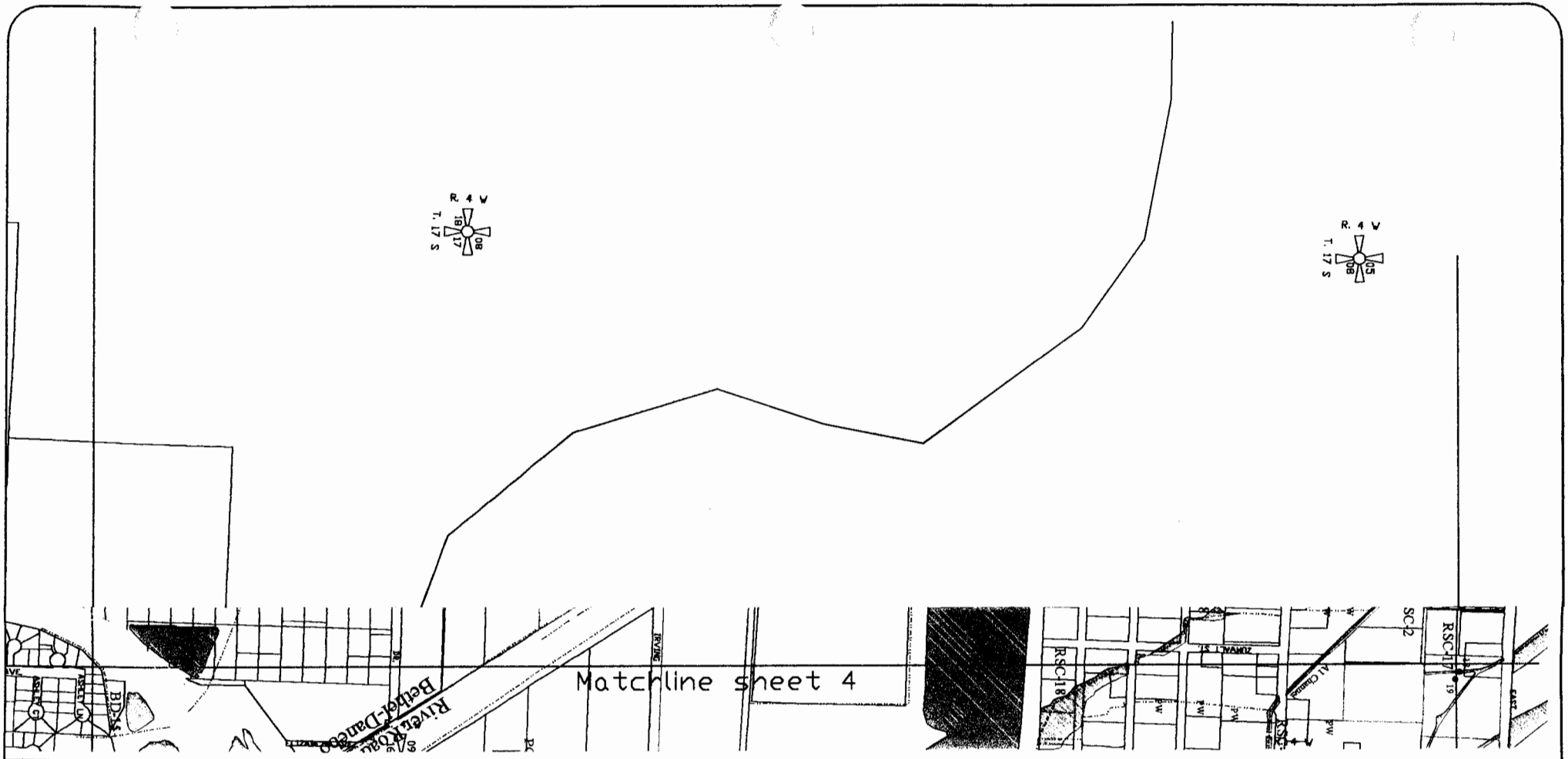
Sheet: 2

of: 24



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Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	60	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

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Scale in Feet

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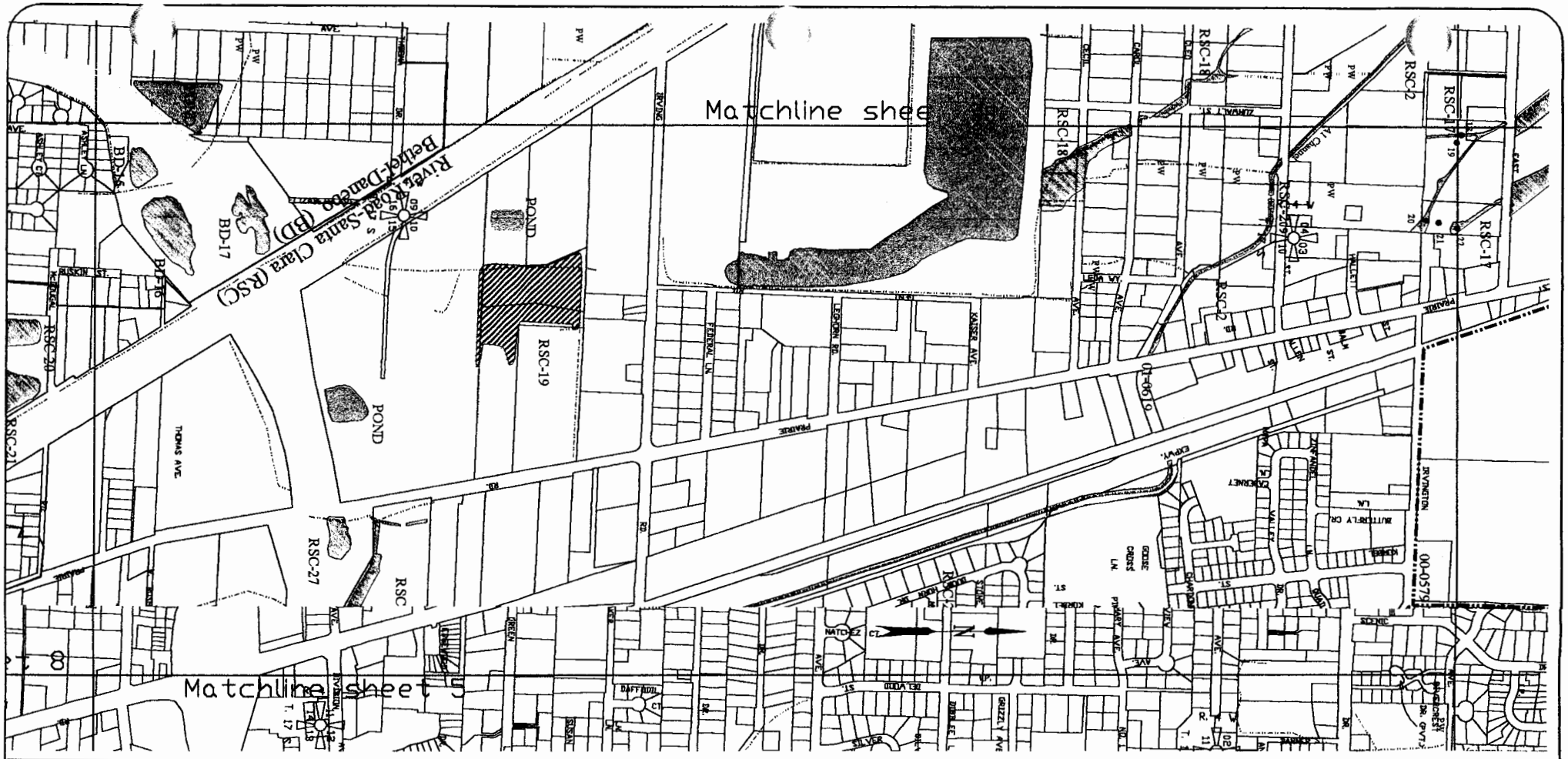
PHS

Sheet: 3

of: 24



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

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Sheet: 4

of: 24

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Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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Sheet: 5

of: 24

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Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

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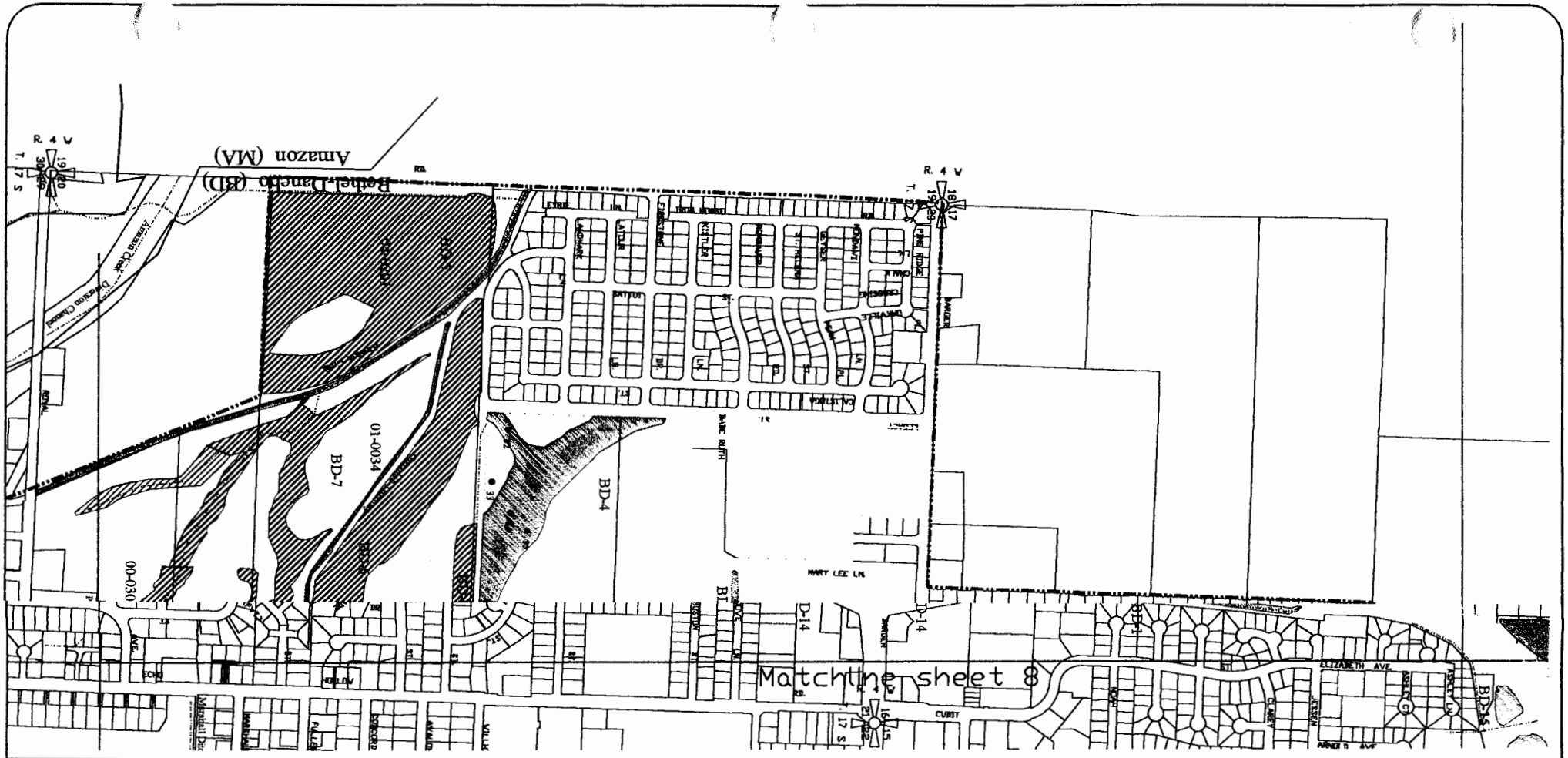
Sheet: 6

of: 24



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Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	53	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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Sheet: 7

of: 24

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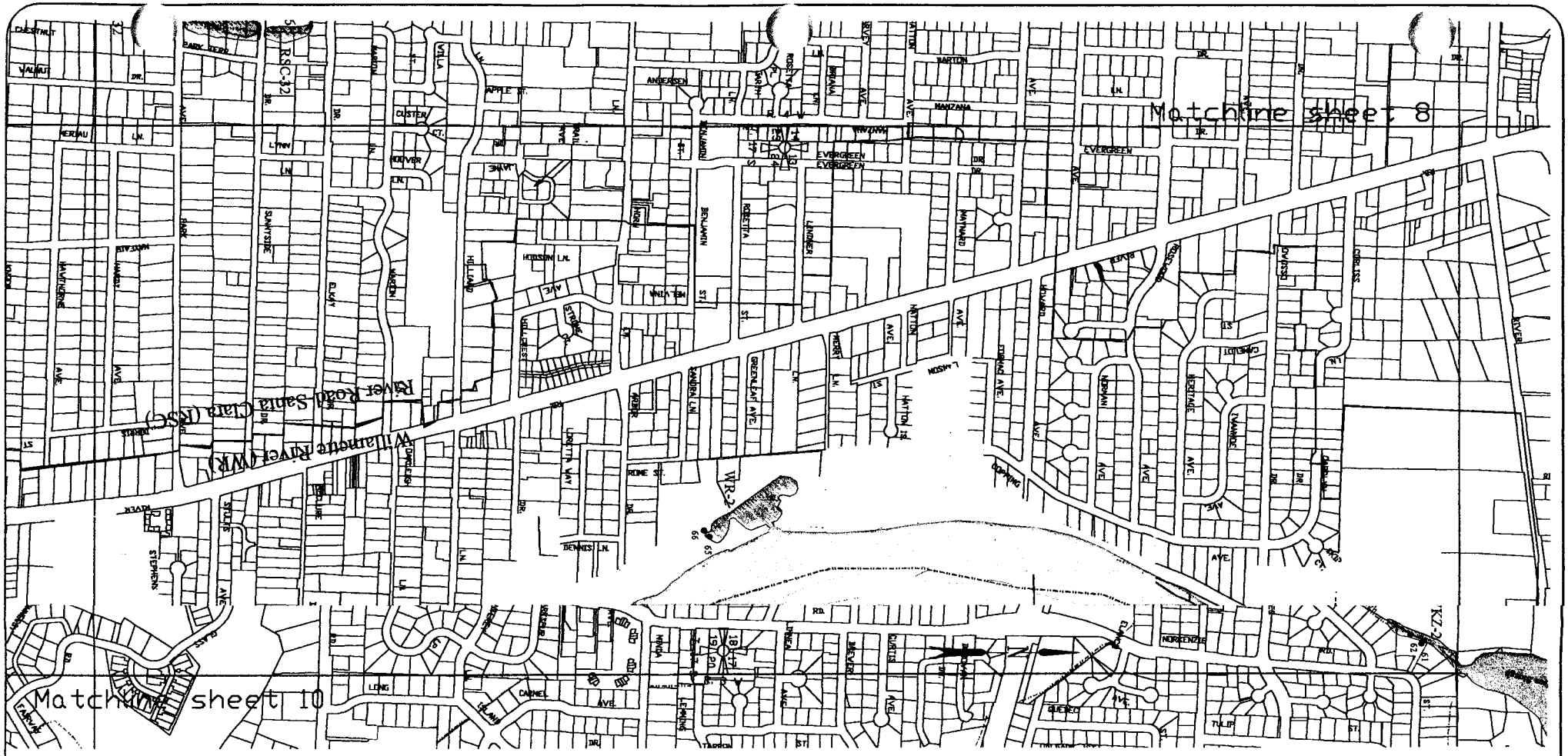
Sheet: 8

of: 24



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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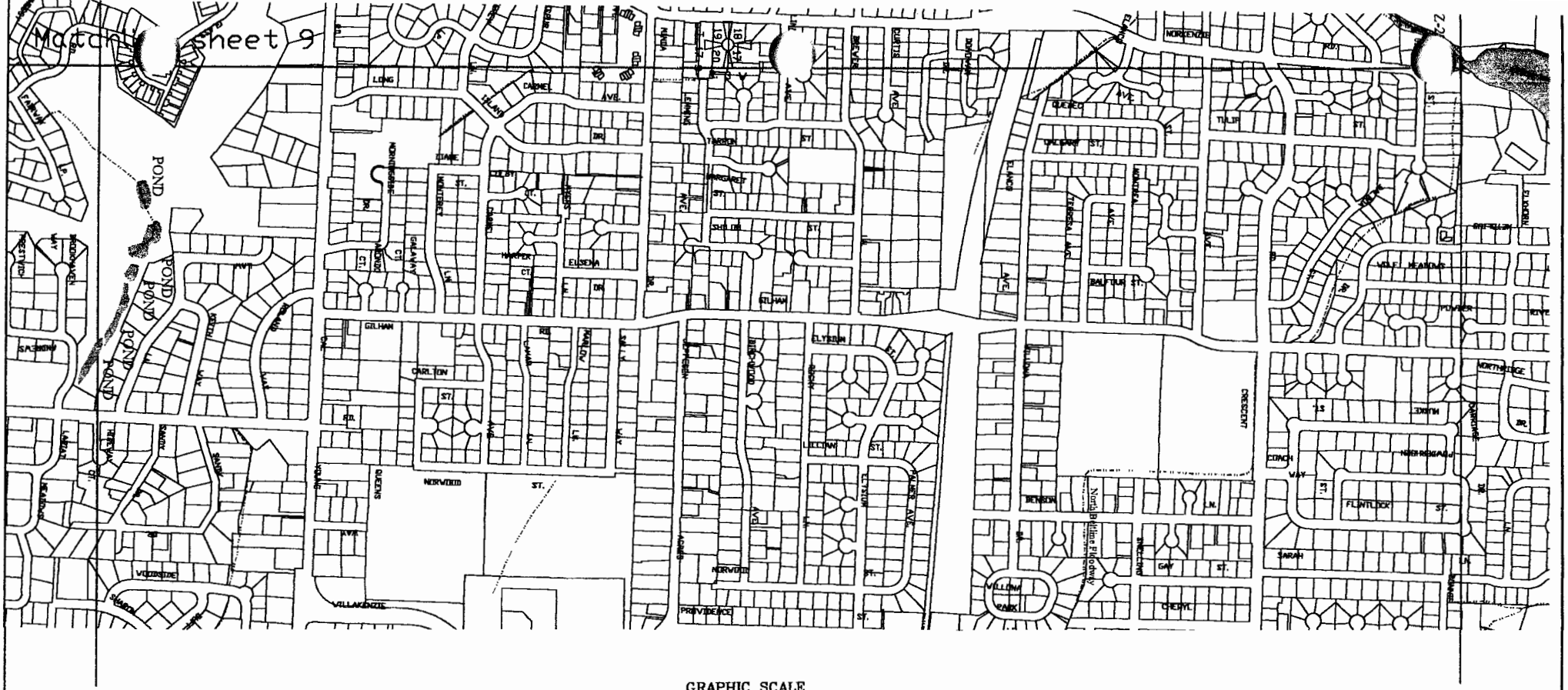
Sheet: 9

of: 24

Match Sheet 9



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	68	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

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Sheet: 10

of: 24

Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	68	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

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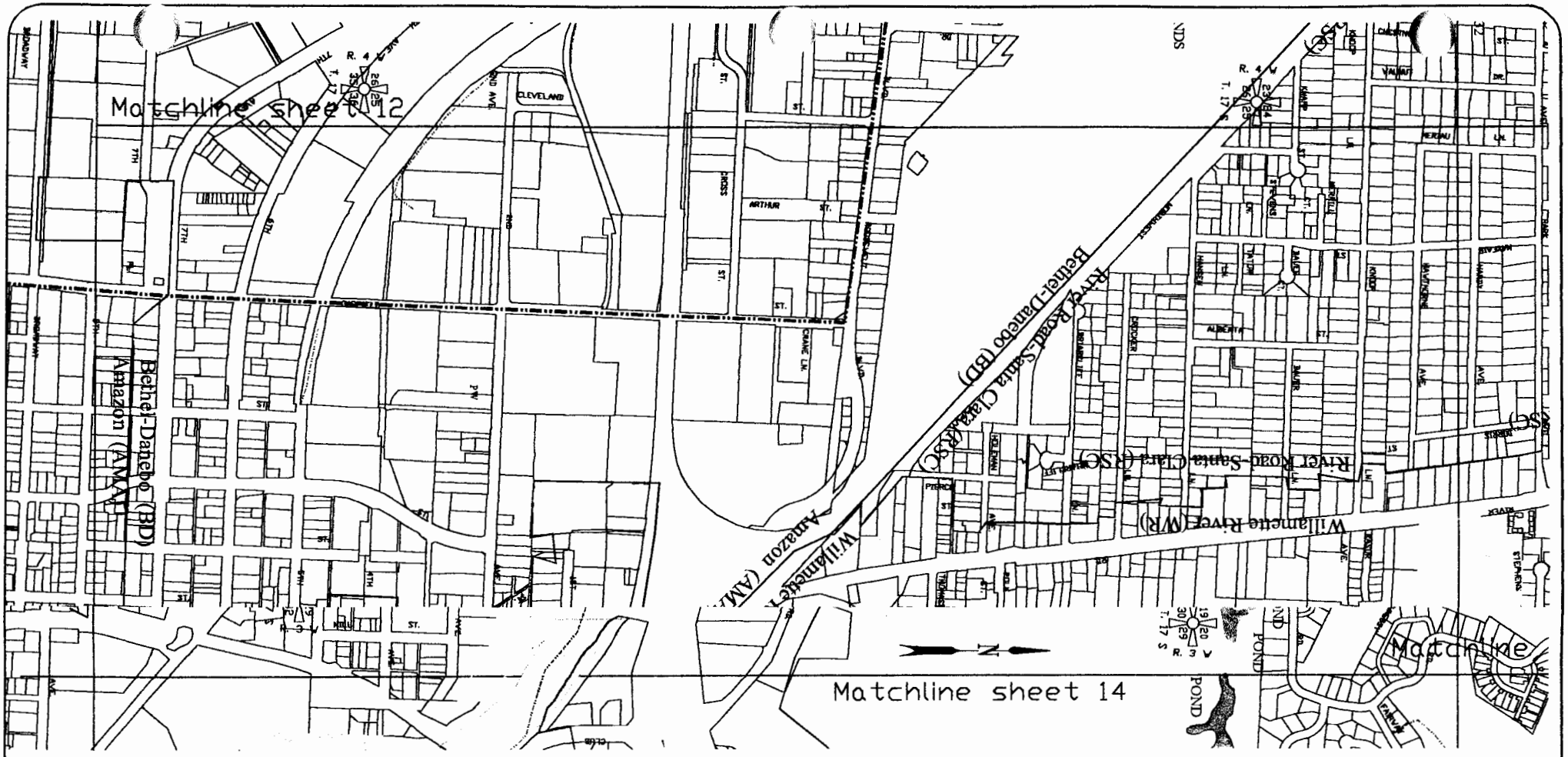
Sheet: 12

of: 24



Watershed Boundary	Wetland Field Verified
Project Boundary/UGB	Wetland Non-Field Verified
Potentially Jurisdictional Creeks/drainages	Pond
Sample Point	City Owned Parcels
Wetland Code RSC-10	Lots Permission Yes
Probable Wetland PW	Rivers and Channels
DSL Determination File 01-0523	

GRAPHIC SCALE

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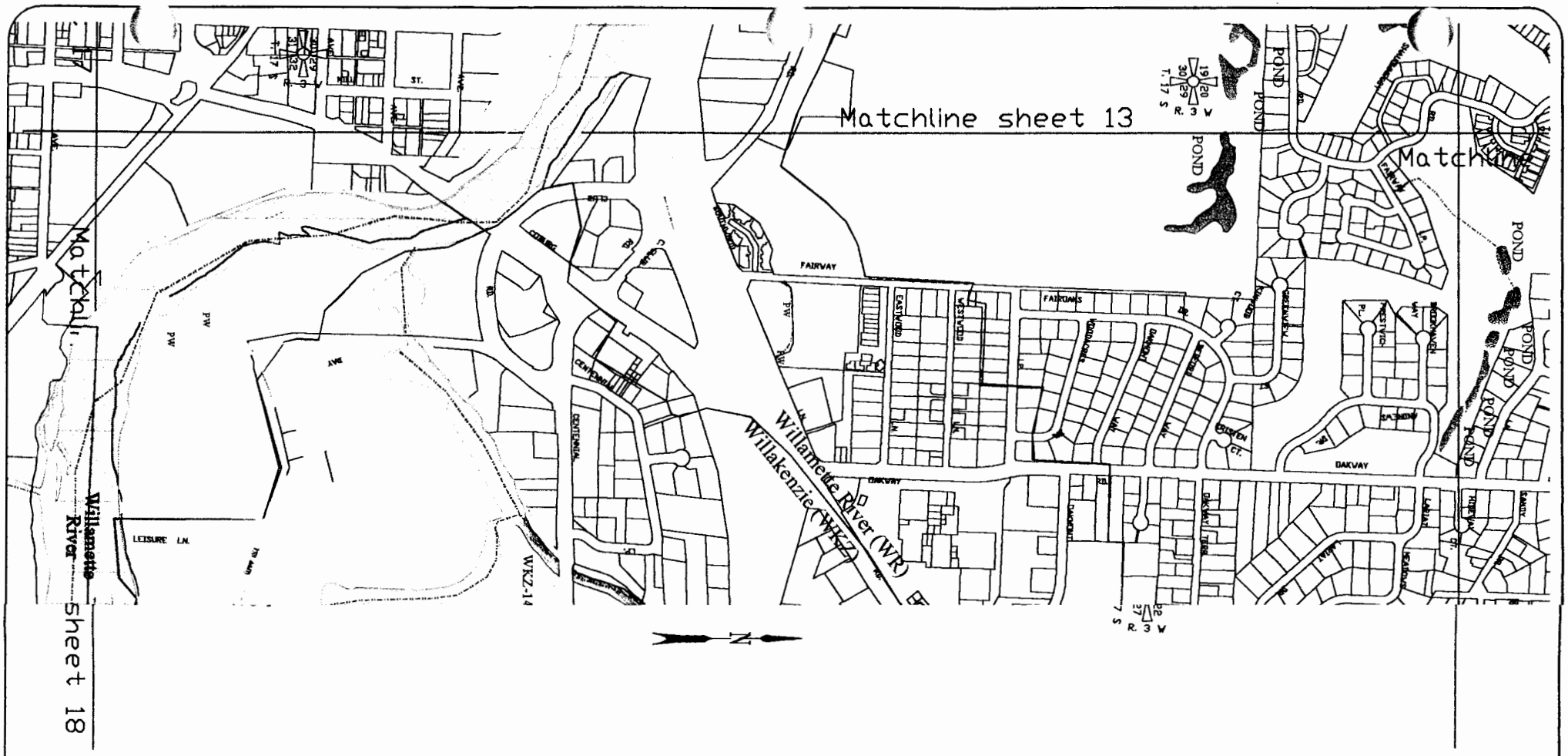
of: 24



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	59	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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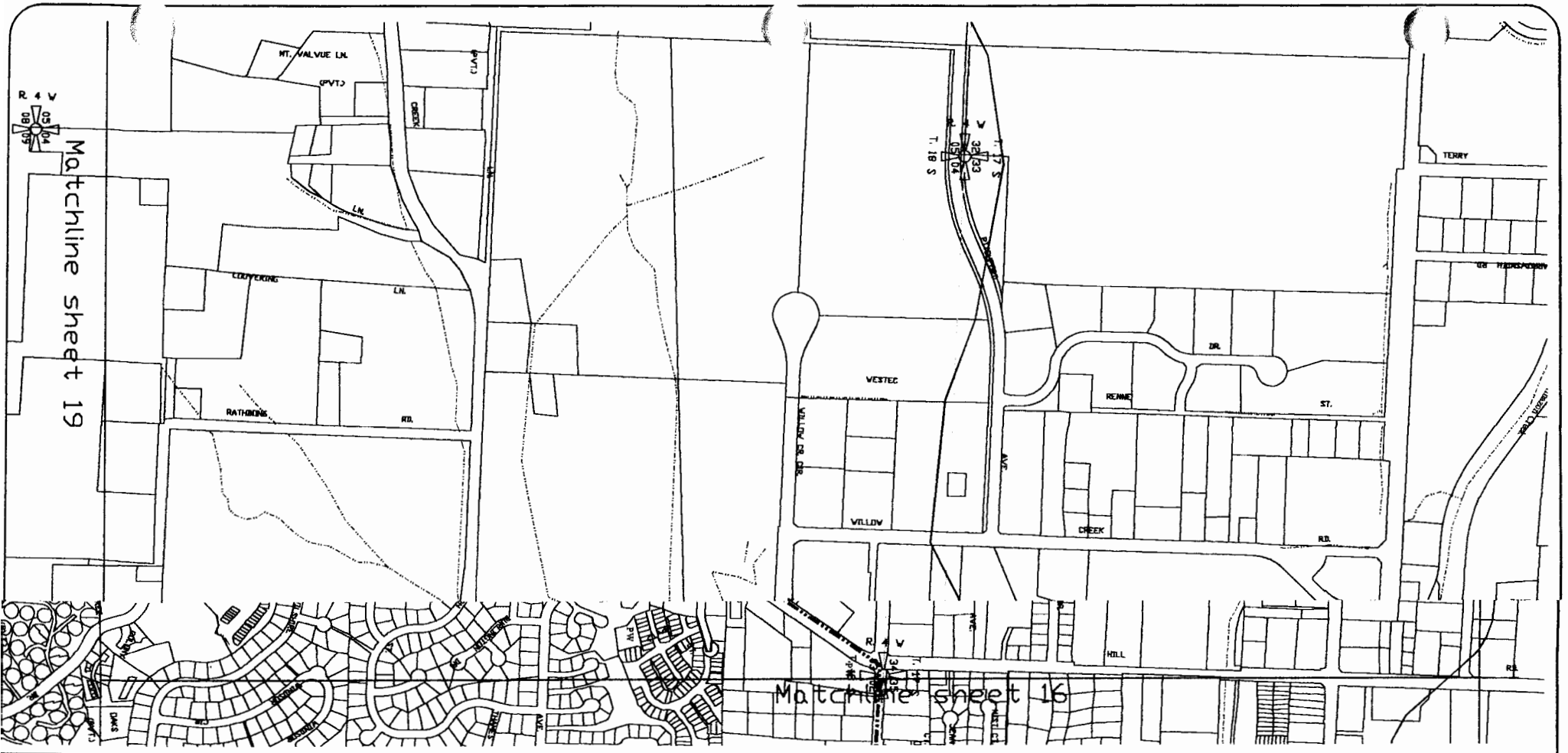
Sheet: 14

of: 24



Watershed Boundary	Wetland Field Verified
Project Boundary/UGB	Wetland Non-Field Verified
Potentially Jurisdictional Creeks/drainages	Pond
Sample Point	City Owned Parcels
Wetland Code	Lots Permission Yes
Probable Wetland	Rivers and Channels
DSL Determination File	

RSC-10
PW
01-0523

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

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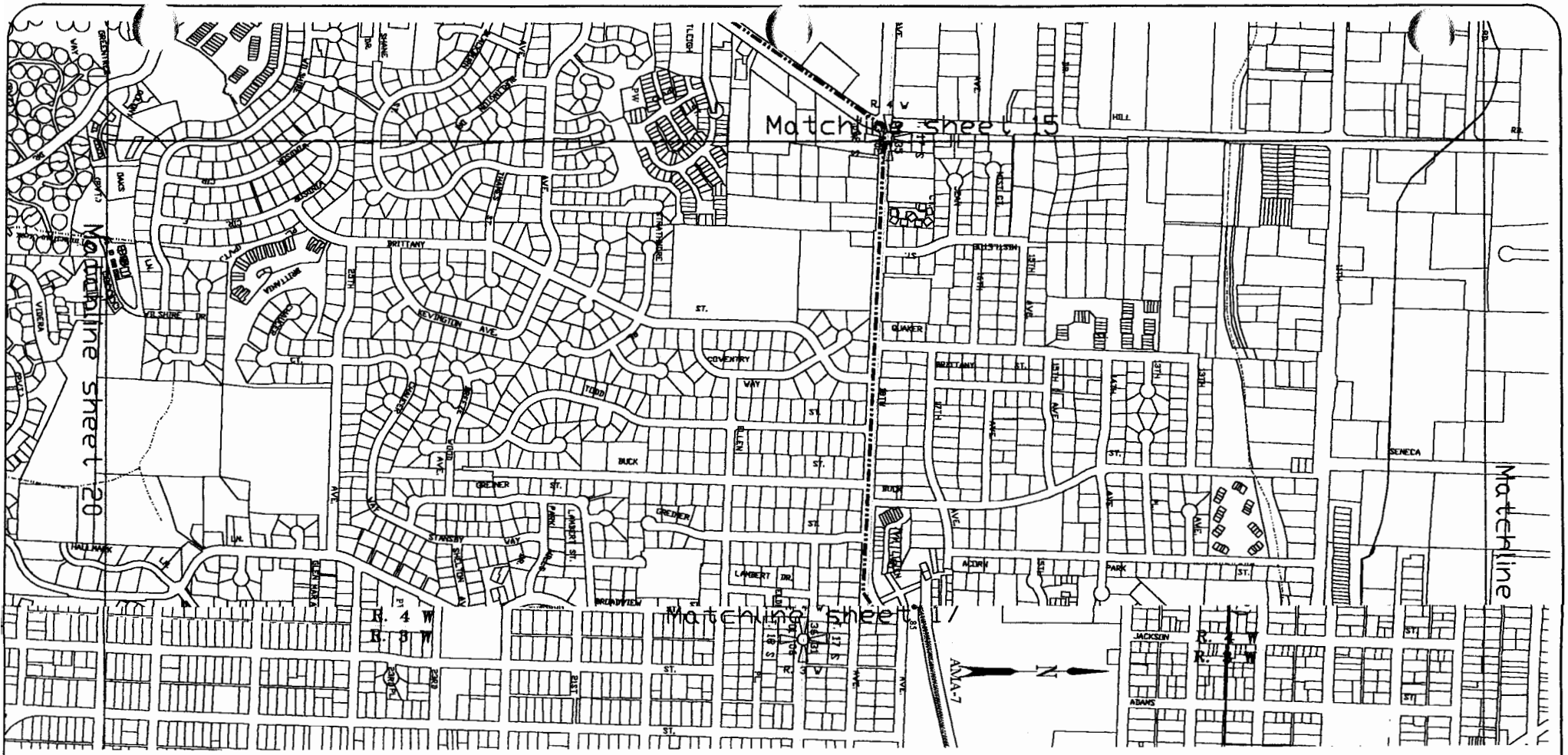
Sheet: 15

of: 24



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
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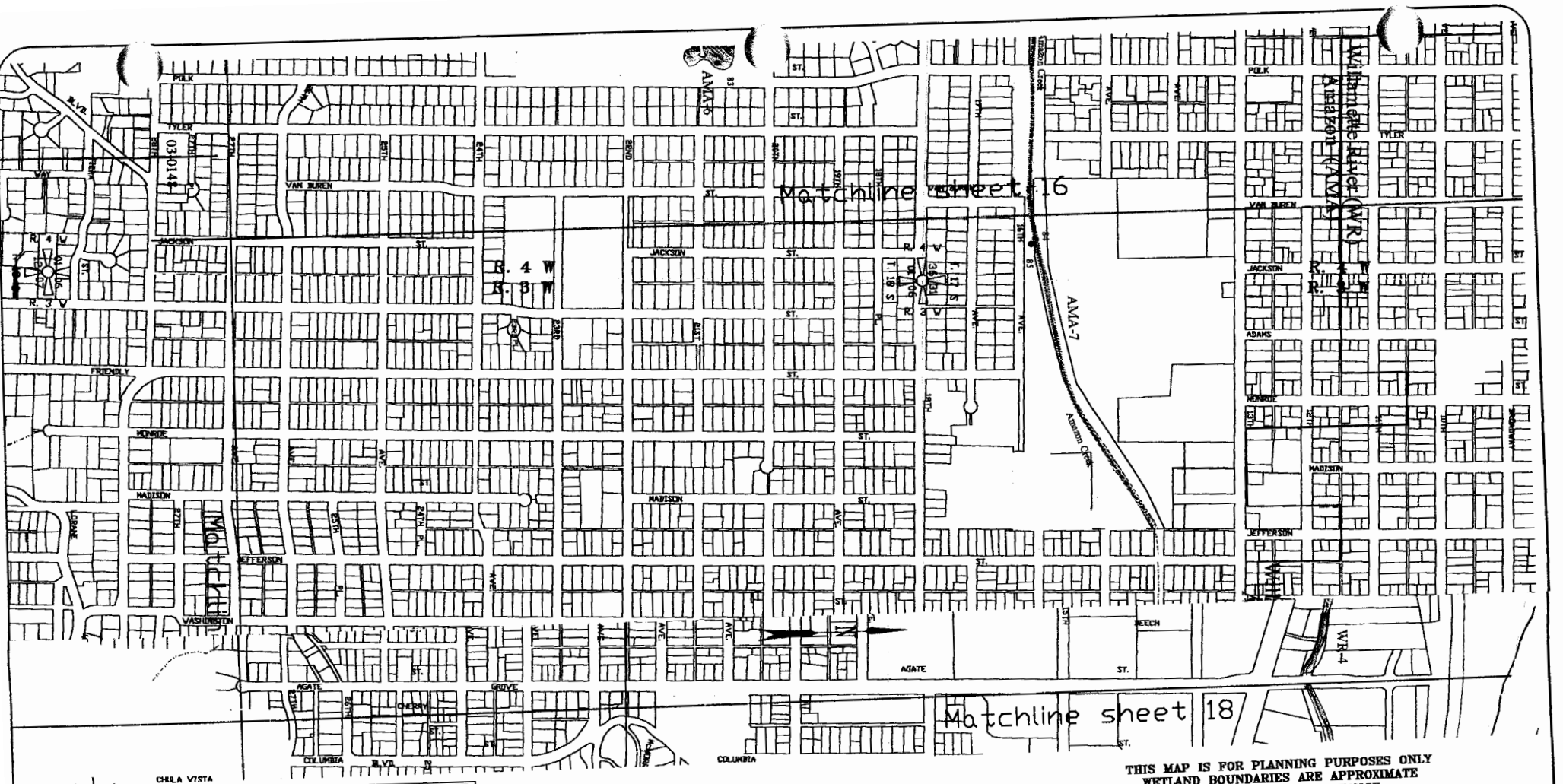
PHS

Sheet: 16

of: 24



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PHS

Sheet: 17

of: 24

Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	68	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

GRAPHIC SCALE

400 0 200 400 800 1600

Scale in Feet

THIS MAP IS FOR PLANNING PURPOSES ONLY
WETLAND BOUNDARIES ARE APPROXIMATE
AND SUBJECT TO CHANGE

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DATE: October, 2003

BASE MAP INFO: Supplied by City of Eugene
Lane Council of Governments

JOB NO.: 2762

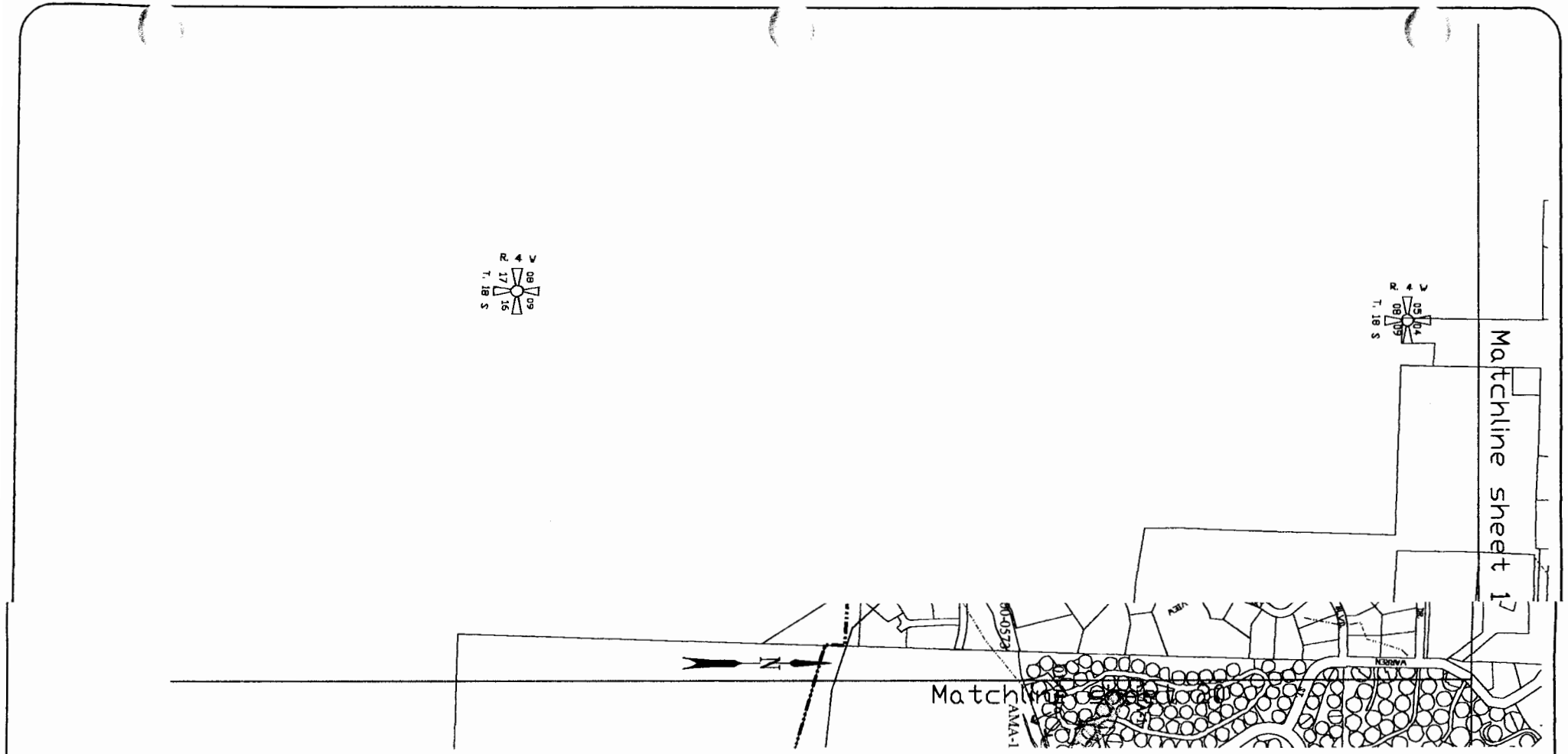
Eugene
Local Wetlands Inventory

Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
Phone: (503) 570-0800

PHS

Sheet: 18

of: 24



Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

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Watershed Boundary	Wetland Field Verified
Project Boundary/UGB	Wetland Non-Field Verified
Potentially Jurisdictional Creeks/drainages	Pond
Sample Point	City Owned Parcels
Wetland Code	Lots Permission Yes
Probable Wetland	Rivers and Channels
DSL Determination File	

RSC-10
PW
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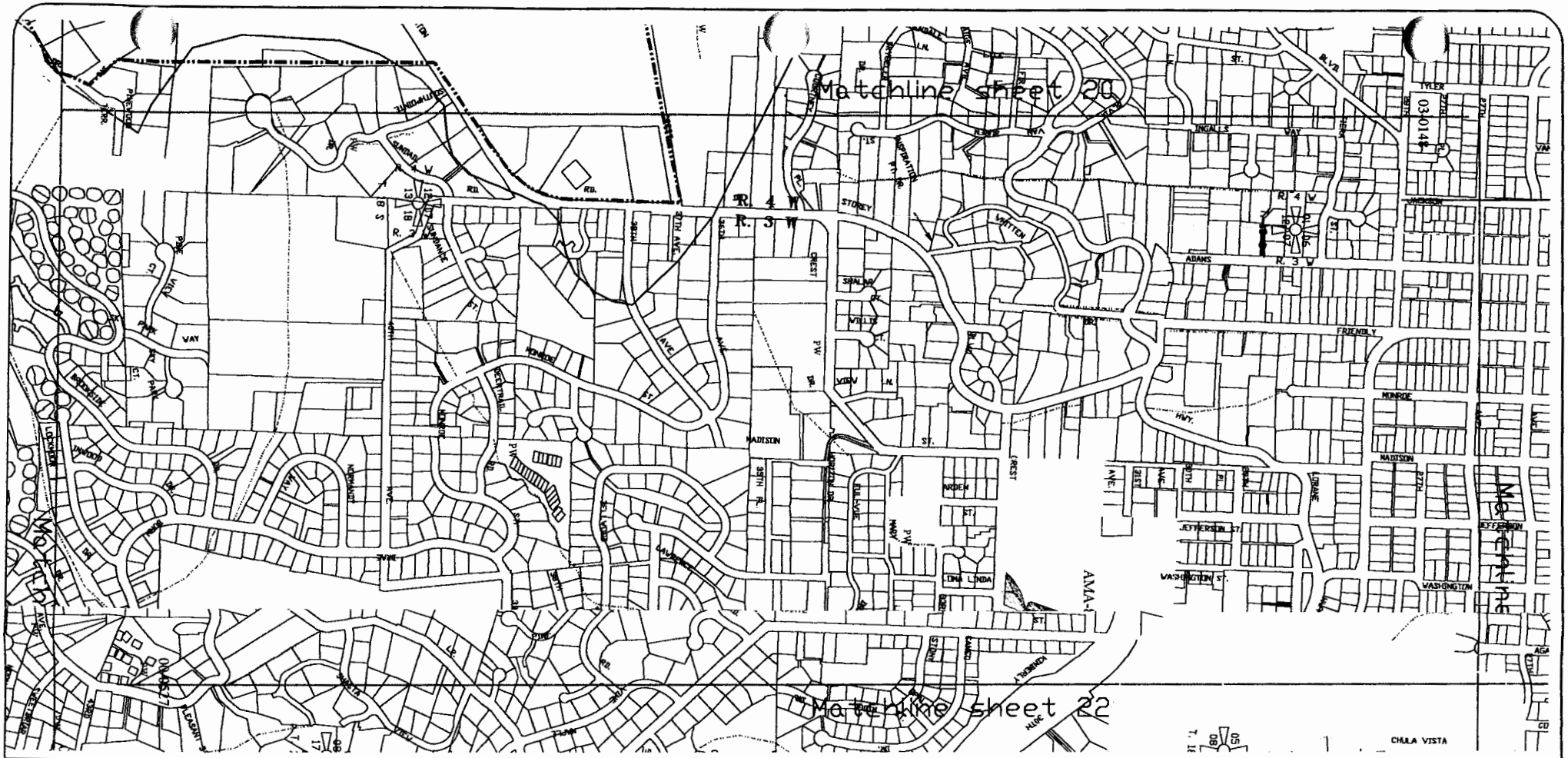

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Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
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Sheet: 21

of: 24

Watershed Boundary		Wetland Field Verified	
Project Boundary/UGB		Wetland Non-Field Verified	
Potentially Jurisdictional Creeks/drainages		Pond	
Sample Point	58	City Owned Parcels	
Wetland Code	RSC-10	Lots Permission Yes	
Probable Wetland	PW	Rivers and Channels	
DSL Determination File	01-0523		

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Phone: (503) 570-0800

PHS

Sheet: 22

of: 24

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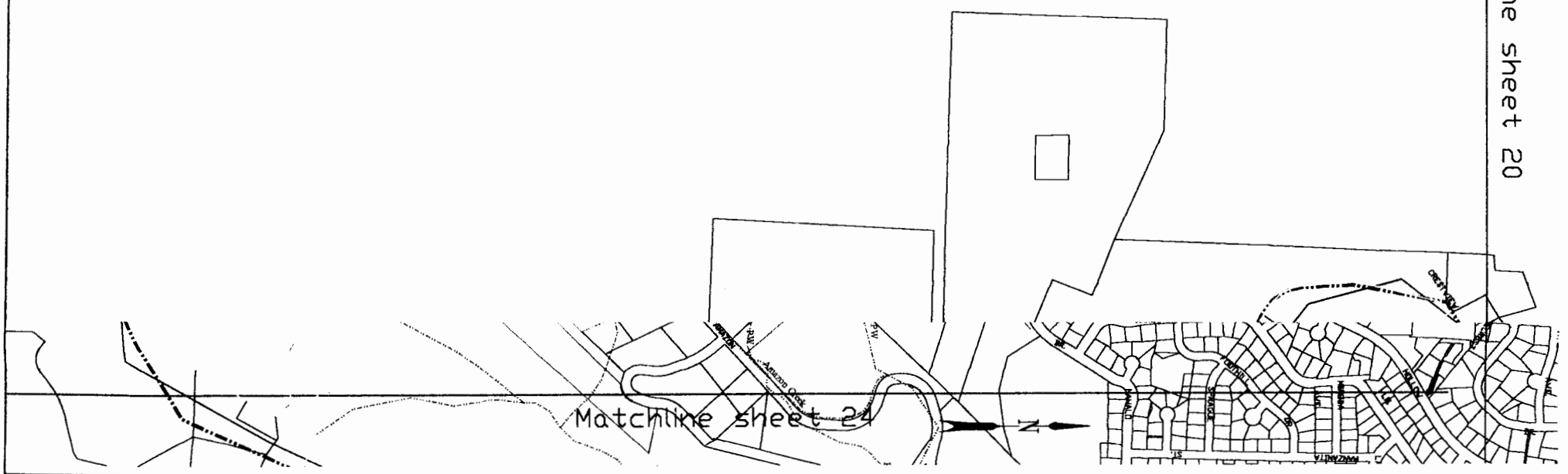

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Project Boundary/UGB		Wetland Non-Field Verified	
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Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180
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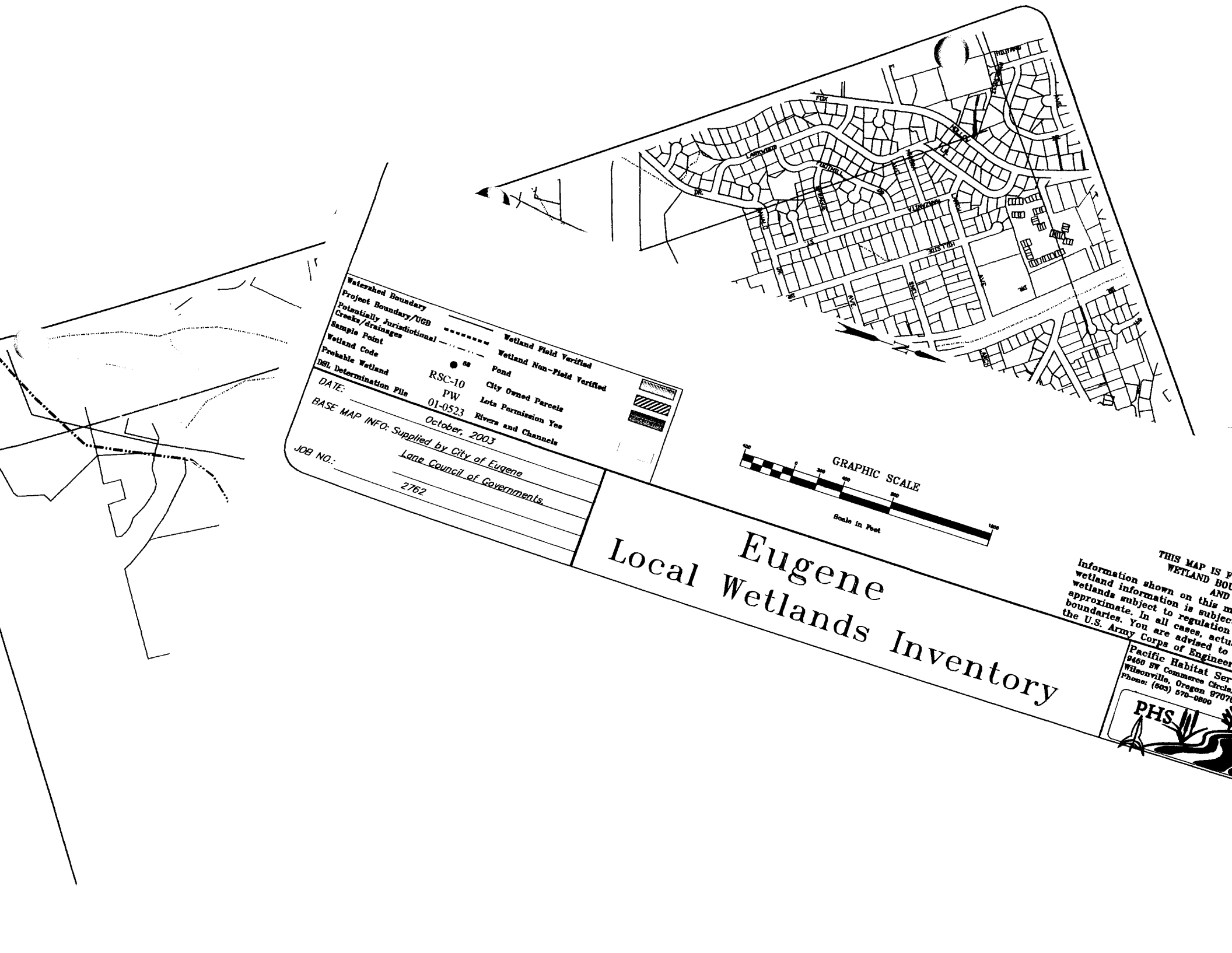
Watershed Boundary
Project Boundary/UGB
Potentially Jurisdictional Creeks/drainages
Sample Point
Wetland Code
Probable Wetland
DSL Determination File
RSC-10
PW
01-0523
Wetland Field Verified
Wetland Non-Field Verified
Pond
City Owned Parcels
Lots Permission Yes
Rivers and Channels
DATE:
October, 2003
BASE MAP INFO: Supplied by City of Eugene
Lane Council of Governments
JOB NO.:
2762
GRAPHIC SCALE
Scale in Feet
Eugene
Local Wetlands Inventory
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the U.S. Army Corps of Engineer
Pacific Habitat Ser
9460 SW Commerce Circle,
Wilsonville, Oregon 9707
Phone: (503) 570-0800
PHS

Exhibit D to Ordinance No. 20352

List of Properties to Which the /WR Overlay Zone Should be Applied Upon Annexation

Exhibit D to Ordinance No. 20352

List of Properties to Which the /WR Overlay Zone Should be Applied Upon Annexation

Part I - Properties entirely outside Eugene city limits and within the Eugene Urban Growth Boundary subject to addition of the /WR Water Resources Conservation Overlay Zone upon annexation to the city of Eugene:

Assessor's Map/Tax Lot #	City/County/ Partial
1604320000201	county
1604353001401	county
1604353404600	county
1604353404700	county
1604353404800	county
1604354400200	county
1604354401600	county
1604354401700	county
1604354401800	county
1604354401900	county
1604360000900	county
1704010008500	county
1704012203800	county
1704012203900	county
1704012204000	county
1704012204100	county
1704012300800	county
1704013100328	county
1704013100329	county
1704013100330	county
1704013100331	county
1704013200100	county
1704013303801	county
1704013303802	county
1704013304300	county
1704013304600	county
1704013304700	county
1704013304800	county
1704013304900	county
1704013305000	county
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1704122000600	county
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1704122003701	county
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1804030006600	county
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1804100000501	county
1804100000502	county
1804100000503	county
1804100000506	county
1804100000600	county
1804100000601	county
1804130003506	county

Part II - Properties partially within Eugene city limits subject to addition of /WR Water Resources Conservation Overlay Zone for that portion of parcel outside Eugene city limits upon annexation to the city of Eugene:

Assessor's Map/Tax Lot #	City/County /Partial
1604354400100	partial
1704012200100	partial
1704100001490	partial
1704100001491	partial
1704100001492	partial
1704151002500	partial
1704152301626	partial
1704154101900	partial
1704200002000	partial
1704232004201	partial
1704290001201	partial
1704290002901	partial
1704291300101	partial
1803100000701	partial
1803182200700	partial
1803210001400	partial

Part III - Property outside of tax-lotted parcels subject to addition of /WR Water Resources Conservation Overlay Zone outside Eugene city limits:

Description	Acres	Map #
Site E57, between River Loop 1 and the Eugene Urban Growth Boundary	0.45	1
Site E60, north of I-105 at Northwest Expressway	1.23	2
Site E69, between Park Avenue and Audel Avenue	1.04	3

Exhibit E to Ordinance No. 20352

Legislative Findings

Exhibit E to Ordinance No. 20352

Adoption of New Refinement Plan The following criteria are applicable to the adoption of a new refinement plan.

(1) The refinement plan amendment is consistent with the Statewide planning goals.

Goal 1 Citizen Involvement: *To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.*

The City has acknowledged provisions for citizen involvement that ensure the opportunity for citizens to be involved in all phases of the planning process and set out requirements for such involvement. The action taken did not amend the citizen involvement program. The process for adopting these amendments complied with Goal 1 since it complied with, and surpassed the requirements of, the citizen involvement provisions.

The City of Eugene land use code implements Statewide Planning Goal 1 by requiring that notice of the proposed amendments be given and public hearings be held prior to adoption.

The process for adopting a Goal 5 Inventory for the area within the Eugene Urban Growth Boundary has provided numerous opportunities for citizen involvement. A public involvement plan for the Goal 5 process was reviewed and approved by the Joint Planning Commission Committee in May, 2000. In June 2000, two public workshops were held to provide an overview of the Goal 5 process for Springfield, Eugene and Lane County within the Metro Plan boundary. In April 2001, a public workshop has held to review the draft inventory and significance criteria for Springfield, Eugene and Lane County within the Metro Plan boundary. On December 17, 2002, a public hearing was held before the Eugene Planning Commission on the Goal 5 inventory of riparian and upland wildlife habitat sites within the urban growth boundary. All owners of affected and adjacent properties were notified, in addition to a large list of interested parties. The Eugene Planning Commission opened the public record for additional written comments from February 3, 2003 to February 7, 2003 and from March 17, 2003 to March 28, 2003. The Eugene Planning and Development Department staff held a public information meeting on May 21, 2003 on the status of the Goal 5 inventory. On June 9, 2003 a public hearing was held before the Eugene City Council. In addition to public meetings and mailed notices, printed materials related to these proceedings were made available at Planning and Development Department offices and via the City's Internet site prior to each meeting. The inventory that was adopted through the process described above was the groundwork for the updated inventory that is a part of the ordinance now being considered.

Consideration of this ordinance began with a Eugene Planning Commission public hearing on May 10, 2005. Department of Land Conservation and Development notice, notice to property owners and interested parties and newspaper publication was provided for that hearing. An additional public hearing before the Eugene City Council is scheduled for September 26, 2005. Notice to interested and affected parties will be provided for that hearing. The process for

adopting these amendments complies with Goal 1 since it complies with, and surpasses the requirements of the State's citizen involvement provisions.

Goal 2 - Land Use Planning: *To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.*

The Eugene-Springfield Metropolitan Area General Plan (Metro Plan) is the policy tool that provides a basis for decision-making in this area. The Metro Plan was acknowledged by the State in 1982 to be in compliance with statewide planning goals. These findings and record show that there is an adequate factual base for decisions to be made concerning the proposed amendments. Goal 2 requires that plans be coordinated with the plans of affected governmental units and that opportunities be provided for review and comment by affected governmental units. To comply with the Goal 2 coordination requirement, the City coordinated the adoption of these amendments with all affected governmental units. Specifically, notice was mailed to all owners of property in the Eugene Goal 5 inventory, all owners of property that would be affected by proposed new land use regulations and to an interested parties list of more than 800. There are no Goal 2 exceptions required for this ordinance.

Goal 3 - Agricultural Land: *To preserve and maintain agricultural lands.*

Goal 3 is not applicable to this ordinance as the subject sites and actions do not affect any agricultural plan designation or use. Goal 3 excludes lands inside an acknowledged urban growth boundary from the definition of agricultural lands. Since Eugene's Goal 5 Inventory is entirely within its acknowledged urban growth boundary, Goal 3 is not relevant and the ordinance does not affect the area's compliance with Statewide Planning Goal 3.

Goal 4 - Forest Land: *To conserve forest lands.*

Goal 4 is not applicable to this ordinance as the subject sites and actions do not affect any forest plan designation or use. Goal 4 does not apply within urban growth boundaries and, therefore, does not apply to the adoption of a Goal 5 inventory within Eugene's UGB (OAR 660-006-0020). Therefore, Goal 4 is not relevant and the ordinance does not affect the area's compliance with Statewide Planning Goal 4.

Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources: *To conserve open space and protect natural and scenic resources.*

The Inventory Process

The adoption of a wetland inventory and the clarification of the already-adopted inventories of riparian and upland wildlife habitat sites within Eugene's Urban Growth Boundary are a specific response to the requirements of Goal 5.[1] The identification of significant riparian and wildlife

[1] Areas within the UGB that are covered by the West Eugene Wetlands Plan are excluded from the inventory and protection measures of this ordinance based on OAR 660-023-0100(8), which

habitat sites has already been acknowledged by LCDC.[2] This ordinance makes that acknowledged inventory of riparian and wildlife habitat sites a part of the new Goal 5 Water Resources Conservation Plan, through mapping that more clearly identifies the precise location of those sites. The wetlands inventory, also made a part of the new Goal 5 Water Resources Conservation Plan by this ordinance, was conducted in accordance with the administrative rules specifically applicable to Goal 5 wetland inventories, as detailed below.

In adopting a Goal 5 inventory of wetlands, OAR 660-023-0100(2) requires that local governments start with a Local Wetlands Inventory (LWI) prepared using the standards and procedures of OAR 141 (Rules of the Department of State Lands ("DSL")). The LWI, for areas within the Eugene Urban Growth Boundary, approved for consistency with OAR 141 by DSL on January 14, 2005, is adopted as findings to this ordinance, as Exhibit C. For purposes of the Goal 5 inventory, local governments are to apply specific criteria adopted by DSL to those wetland sites included on the LWI. Those that meet the criteria are "significant wetlands" and must be included on the area's Goal 5 inventory of wetlands. The analysis of each wetland site considering those DSL criteria is contained in Appendix E ("Significant Wetland Determination Sheets") to the City of Eugene Local Wetlands Inventory. That document is a part of the record to these proceedings, by this specific incorporation and by its physical inclusion during the proceedings.

ESEE Analysis

The Goal 5 rules require that local governments conduct an analysis of the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use. OAR 660-023-0040 (and OAR 660-023-0090(7) with respect to riparian corridors) describes the four steps to be followed in conducting an ESEE analysis. The ESEE analysis for each site on the riparian, wildlife and wetlands inventory is contained in Exhibit B to this ordinance (as that analysis pertains to sites within the Urban Growth Area). In addition, a summary of the ESEE analysis, describing the degree of protection intended for each significant site is adopted as part of the Goal 5 Water Resources Conservation Plan, attached as Exhibit A to the ordinance. The conflicting use analysis for each site on the riparian, wildlife and wetlands inventory is contained in Exhibit B, adopted as findings to this ordinance (as that analysis pertains to sites within the Urban Growth Area).

Program to Achieve Goal 5

The Goal 5 rules require that local governments adopt a program to protect significant sites consistent with the results of the ESEE analysis. OAR 660-023-0050 sets out the specific rules pertaining to such a program. The /WR Water Resources Conservation Overlay Zone, adopted by the City through a companion ordinance to this one, was developed to comply with the requirements of this rule. Through that companion ordinance, the City is applying to those

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states that a "wetlands conservation plan approved by the director of DSL shall be deemed to comply with Goal 5."

[2] LCDC's only requirement for acknowledgment was that a portion of one resource site be removed from the inventory; this ordinance complies with that requirement.

resources within the City limits that, as a result of the ESEE analysis, have been shown to warrant the protections the overlay zone provides. This ordinance (pertaining only to the Urban Growth Area) includes direction to Lane County as to the properties within the Urban Growth Area to which the County should apply the /WR overlay zone (Exhibit E to this ordinance). In addition, this ordinance includes an amendment to the Eugene Code that will cause those properties to automatically receive the /WR overlay zone when such properties annex to the City.

Therefore, the ordinance is consistent with Goal 5.

Goal 6 - Air, Water and Land Resources Quality: *To maintain and improve the quality of the air, water, and land resources of the state.*

Goal 6 addresses waste and process discharges from development, and is aimed at protecting air, water and land from impacts from those discharges. Through a companion ordinance, the City is applying the new /WR Water Resources Conservation overlay zone to properties with significant water features, and to those within the setback or riparian area of such water features. This ordinance (pertaining only to the Urban Growth Area) includes direction to Lane County as to the properties within the Urban Growth Area to which the County should apply the /WR overlay zone (Exhibit D to this ordinance). In addition, this ordinance includes an amendment to the Eugene Code that will cause those properties to automatically receive the /WR overlay zone when such properties annex to the City. As such, the City is favorably influencing water quality and the impact of discharges. Therefore, the ordinance is consistent with Statewide Planning Goal 6.

Goal 7 - Areas Subject to Natural Disasters and Hazards: *To protect life and property from natural disasters and hazards.*

Goal 7 requires that local government planning programs include provisions to protect people and property from natural hazards such as land slides. This ordinance does not directly address potential natural disasters and hazards. These hazards are addressed by separate studies and protection measures. However, the /WR overlay zone prohibits construction within specified setbacks of significant water features. As such, the ordinance's provisions recommending County application of the overlay zone to specific properties could provide benefits with relation to flood impacts to real property and thus could provide further protections consistent with Statewide Planning Goal 7.

Goal 8 - Recreational Needs: *To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.*

Goal 8 ensures provision of recreation facilities to Oregon citizens and is primarily concerned with the provision of those facilities in non-urban areas of the state. The proposed amendments will not impact provision of recreational facilities, nor will they affect access to existing or future recreational facilities. Therefore, the ordinance is consistent with Goal 8.

Goal 9 - Economic Development: *To provide adequate opportunities throughout the state for a*

variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

This ordinance, which applies only within the Urban Growth Area, does not have a direct impact on economic activities. It does not change the zoning, designation or allowed uses on any properties. While it does include specific recommendations as to the County's application of the /WR overlay zone to specific properties, this ordinance does not carry out such rezoning for properties in the Urban Growth Area. The code provision providing for the automatic rezoning of specific properties upon those properties' annexation has no effect on the inventories of industrial or commercial lands. Further, the /WR overlay zone includes provisions to ensure that the area's supplies of industrial and commercial lands are unaffected by the overlay zone's application. Therefore, the ordinance is consistent with Goal 9.

Goal 10 - Housing: *To provide for the housing needs of the citizens of the state.*

Goal 10 requires that communities plan for and maintain an inventory of buildable residential land for needed housing units. This ordinance, which applies only within the Urban Growth Area, does not have a direct impact on residential development opportunities. It does not change the zoning, designation or allowed uses on any properties. While it does include specific recommendations as to the County's application of the /WR overlay zone to specific properties, this ordinance does not carry out such rezoning for properties in the Urban Growth Area. The code provision providing for the automatic rezoning of specific properties upon those properties' annexation has no effect on the inventories of residential lands. Further, the /WR overlay zone includes provisions to ensure that the area's supplies of residential lands are unaffected by the overlay zone's application. Therefore, the ordinance is consistent with Goal 10.

Goal 11 - Public Facilities and Services: *To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.*

The provisions of this ordinance do not effect the planning or development of future public facilities or services. Therefore, this ordinance is consistent with Goal 11.

Goal 12 - Transportation: *To provide and encourage a safe, convenient and economic transportation system.*

Goal 12 is implemented through the Transportation Planning Rule (TPR). The Eugene-Springfield Metropolitan Area Transportation Plan (TransPlan) provides the regional policy framework through which the TPR is enacted at the local level.

The Transportation Planning Rule (OAR 660-012-0060) states that land use changes that significantly affect a transportation facility shall require mitigation measures to address the anticipated impacts. The rule states that:

> *(1) Amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and*

performance standards (e.g. level of service, volume to capacity ration etc.) of the facility. This shall be accomplished by either:

(a) Limiting allowed land uses to be consistent with the planned function, capacity, and performance standards of the transportation facility;

(b) Amending the TSP to provide transportation facilities to support the proposed land uses consistent with the requirements of this division;

(c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes; or

(d) Amending the TSP to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian-friendly development where multi modal travel choices are provided.

(2) A plan or land use regulation amendment significantly affects a transportation facility if it:

(a) Changes the functional classification of an existing or planned transportation facility;

(b) Changes standards implementing a functional classification system;

(c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or

(d) Would reduce the performance standards of the facility below the minimum acceptable level identified in the TSP.

Adoption of the ordinance will not change the functional classification of an existing or planned transportation facility. Nor will it change standards implementing a functional classification system. Further, it will not allow types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility or reduce the performance standards of any facility. Therefore, Goal 12 is not implicated by this ordinance.

Goal 13 - Energy Conservation: *To conserve energy.*

This ordinance does not concern energy conservation. Therefore, Goal 13 does not apply.

Goal 14 - Urbanization: *To provide for an orderly and efficient transition from rural to urban land use.*

This ordinance addressed Goal 14 by specifying.

Goal 15 - Willamette River Greenway: *To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.*

The Willamette Greenway area within the Eugene Urban Growth Boundary is governed by

existing local provisions which have been acknowledged as complying with Goal 15. Those provisions are unchanged by this ordinance.

Goal 16 through 19 (Estuarine Resources, Coastal Shorelands, Beaches and Dunes, and Ocean Resources):

There are no coastal, ocean, estuarine, or beach and dune resources related to the property effected by this ordinance. Therefore, these goals are not relevant and the ordinance will not affect compliance with Goals 16 through 19.

(2) The refinement plan amendment is consistent with the applicable provisions of the Metro Plan.

Environmental Resources Elements Policies

18. *Local governments shall develop plans and programs which carefully manage development on hillsides and in water bodies, and restrict development in wetlands in order to protect the scenic quality, surface water and groundwater quality, forest values, vegetation, and wildlife values of those areas.*

The refinement plan, a portion of which is adopted by this ordinance, is an integral part of a protection program consistent with Policy 18.

19. *Local governments shall develop policies and local controls for protection and management of wetland areas by completion of the next Metro Plan update.*

While some of the area's significant wetlands were already protected by the West Eugene Wetlands Study, this ordinance helps to complete the area's program for wetlands.

24. *When planning for and regulating development, local governments shall consider the need for protection of open spaces, including those characterized by significant vegetation and wildlife. Means of protecting open space include but are not limited to outright acquisition, conservation easements, planned unit development ordinances, streamside protection ordinances, open space tax deferrals, donations to the public, and performance zoning.*

The /WR overlay zone establishes streamside protection measures for significant vegetation and wildlife areas consistent with this policy.

27. *Local governments shall protect endangered and threatened plant and wildlife species, as recognized on a legally adopted statewide list, after notice and opportunity for public input.*

Known threatened and endangered species populations outside the West Eugene Wetlands area are protected by the program adopted by this ordinance, and notice/opportunity for public involvement has been given.

35. *Newly-identified natural resources or sites shall be addressed in the following manner:*

a. *The jurisdiction within which the natural resource is located shall inventory the site, incorporating the use of experts, for specific location, quantity, and quality. Whenever feasible, this inventory should be done within 30 days. Constraints on access to private lands, availability of qualified experts, and the difficulty of identifying the suspected natural resource at certain times of the year may require an exception to the time frame.*

b. *Upon the completion of the preliminary inventory, the affected jurisdiction shall determine within ten days whether the identified natural resource is significant and adopt supporting findings. Significance will be determined on a case-by-case basis by the jurisdiction, according to whether the resource is on a federal, state, or local listing, and because of the uniqueness or scarcity of the resource locally. If necessary to protect the site, the local jurisdiction shall apply interim protection. The jurisdiction shall notify the other jurisdictions, MPC and interested parties of the decision and any interim protection measures to be undertaken. This decision may be appealed in writing within ten days notification of the jurisdiction's decision to MPC. MPC shall consider the refinement of the inventory, the decision of the affected jurisdiction, and the written basis for appeal. The written appeal must include specific facts and reasons why the decision of the jurisdiction was inappropriate. MPC must reach a decision on significance within 40 days of receipt of an appeal.*

c. *If a natural resource is determined significant, in no later than six months the affected jurisdiction shall conduct a Goal 5 Environmental, Social, Economic, and Energy conflict resolution analysis and release a draft working paper with recommendations to MPC.*

d. *Staff will coordinate with affected property owners and interested parties throughout the process.*

This ordinance addresses periodic review requirements and procedures set out in state law. Policy 35 is intended to be applied when a new resource is identified after the establishment of the inventory and protective measures via periodic review.

Willamette River Greenway, River Corridors, and Waterway Element Policy

5. *New development that locates along river corridors and waterways shall be limited to uses that are compatible with the natural, scenic, and environmental qualities of those water features.*

The allowed uses in the /WR overlay zone are consistent with this policy.

Environmental Design Element Policy

2. *Natural vegetation, natural water features, and drainageways shall be protected and retained to the maximum extent practical. Landscaping shall be utilized to enhance those natural features. This policy does not preclude increasing their conveyance capacity in an environmentally responsible manner.*

The provisions of the /WR overlay zone explicitly address the protection of natural vegetation, water features, and drainageways and are therefore consistent with this policy.

Services to Development Within the Urban Growth Boundary: Stormwater Policies

G.16 Manage or enhance waterways and open stormwater systems to reduce water quality impacts from runoff and to improve stormwater conveyance.

By protecting riparian areas and stream corridors, the measures help to reduce water quality impacts from runoff.

G.19 Maintain flood storage capacity within the floodplain, to the maximum extent practical, through measures that may include reducing impervious surface in the floodplain and adjacent areas.

By restricting development within riparian areas for the Willamette River, the measures help to maintain flood storage capacity within that floodplain.

Code Amendments Eugene Code Section 9.8065 requires that the following criteria (in *bold and italic*) be applied to a code amendment.

(1) Is consistent with applicable statewide planning goals as adopted by the Land Conservation and Development Commission.

The single code section amendment made by this ordinance does not implicate most of the Statewide Planning goals. To the extent that it does, see findings above.

(2) Is consistent with applicable provisions of the Metro Plan and applicable adopted refinement plans.

The single code section amendment made by this ordinance does not implicate most of the Metro Plan policies. To the extent that it does, see findings above.

(3) In the case of establishment of a special area zone, is consistent with EC 9.3020 Criteria for Establishment of an S Special Area Zone.

The amendments do not establish a special area zone.