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Introduction

This section summarizes the methods used to develop the final list of natural resource (wetlands, riparian, and floodplain) restoration and/or enhancement sites and the results of that analysis for the Yelm Creek Study Area of the Nisqually Watershed. The final stage of the watershed characterization analysis combines the ecological benefits of each DAU and the environmental benefits of each natural resource site to develop a list of natural resource sites that will provide the greatest functional “lift” in the Study Area.

Part I. What are the Landscape Conditions in the Yelm Creek Study Area?

Current conditions

Current land-use within the Yelm Creek Study Area was determined by processing Aerial photography and SPOT 10 meter satellite imagery captured in 2009. The results are presented in Figures 4.0 and 4.1 and indicate that approximately nine percent of the Yelm Creek Study Area is covered by the built environment. The upper eastern portion of the Yelm Creek Study Area consists predominantly of agricultural and residential land-use. The City of Yelm is in the lower Yelm Study Area, which is illustrated by the "not properly functioning" DAUs located in the lower portion of the Study Area.

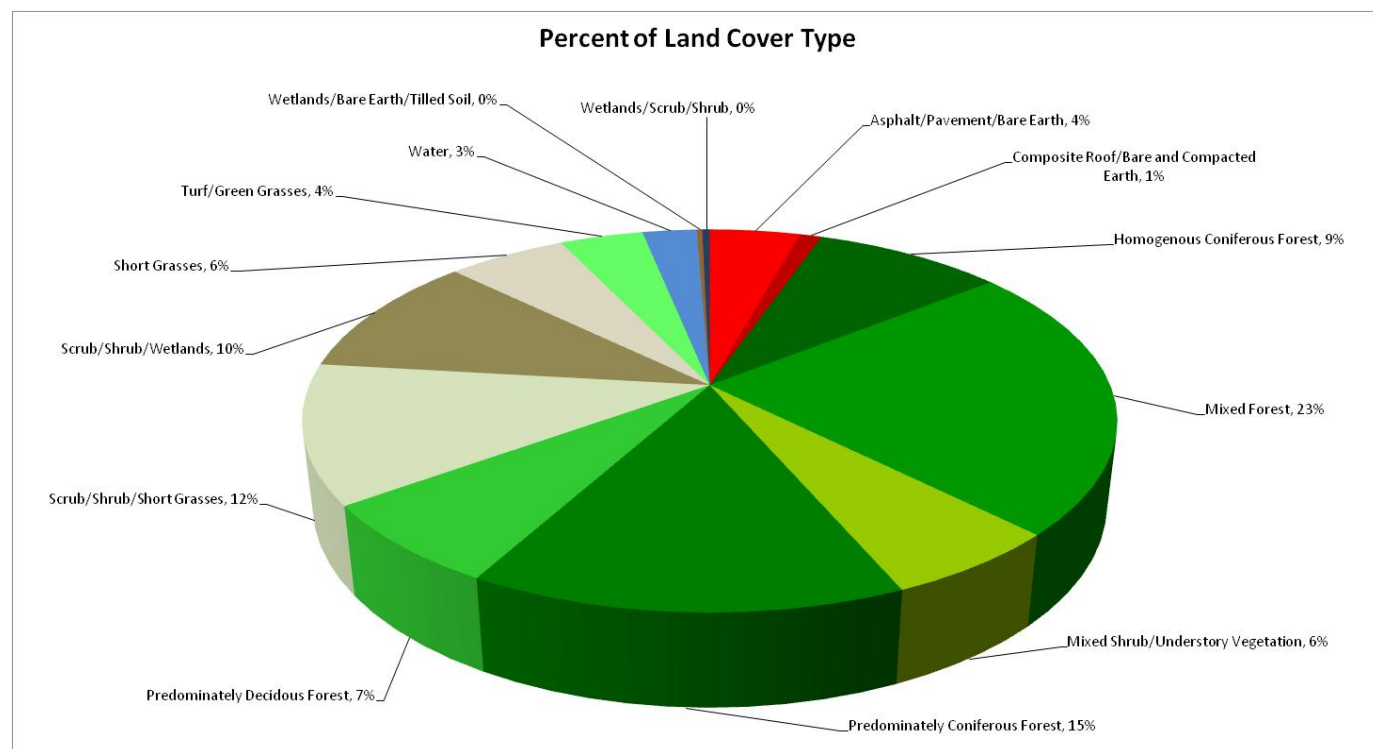


Figure 4.0 Classification Percent Totals for Yelm Creek Study Area
Land cover data from 2009 SPOT imagery.

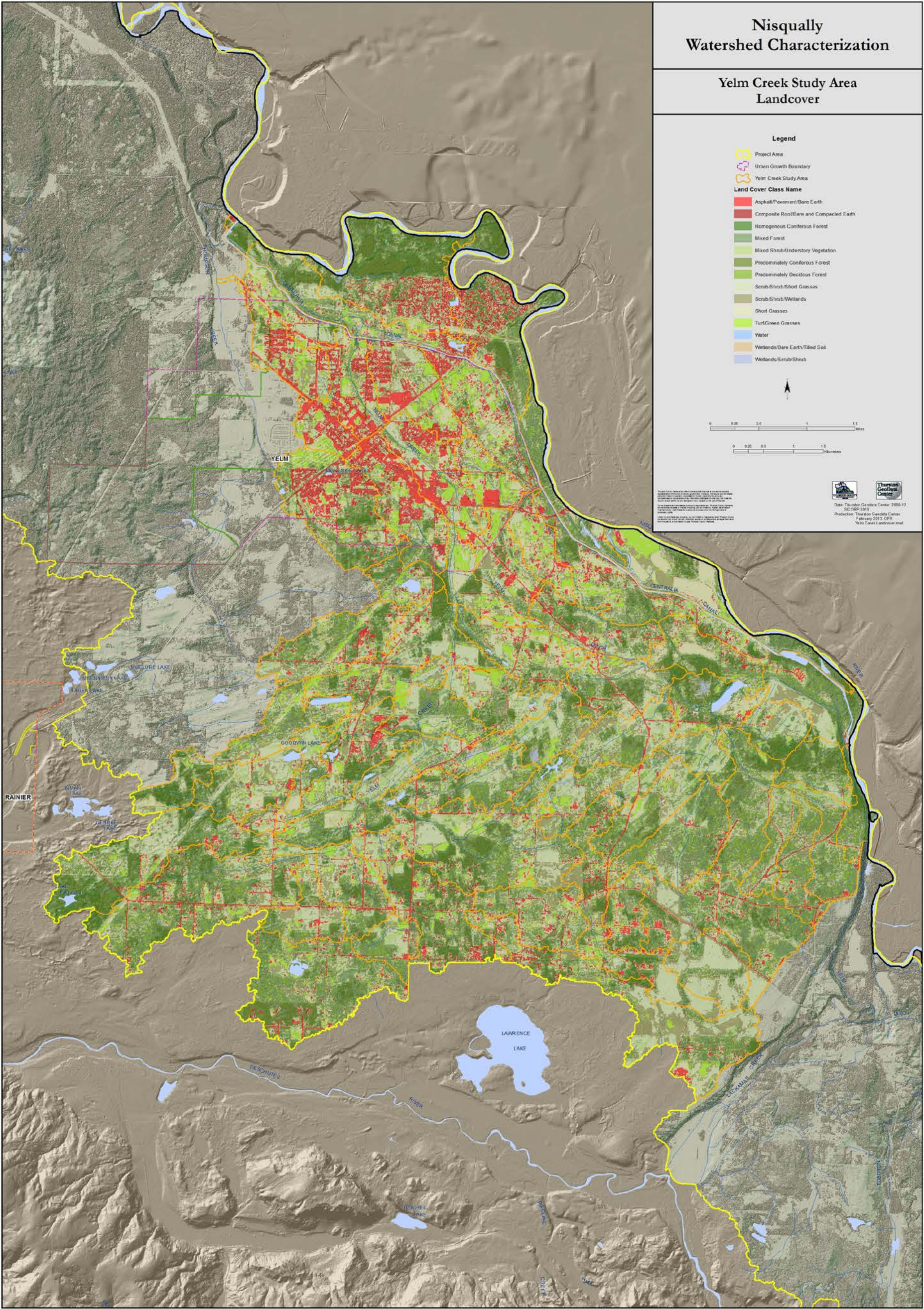


Figure 4.1 Yelm Creek Study Area Land Cover

Part II. Characterize Condition of Ecological Processes in Study Area

Five ecological processes and habitat connectivity were assessed. The five ecological processes include the delivery and movement of water, sediment, wood, pollutants, and heat. As outlined in the Methods Document (Appendix A of this document) the Matrix of Pathways and Indicators (MPI) was used to determine the function of each ecological process and biological indicator at the DAU scale. Following the assessment of each individual ecological process and habitat connectivity, the Rules and Assumptions (Tables 3-8 in the Methods document) were used to rank each DAU as Properly Functioning (PF), At Risk (AR), or Not Properly Functioning (NPF). For complete details of the values used in the MPI, please consult Table 2 in the Methods document. For complete details of the Rules and Assumptions, please consult Tables 3 through 8 in the Methods document.

There are 67 DAUs totaling 25,050 acres (39 sq miles) in the Study Area.

Determine the Ecological Benefit of the DAU

The assessment of each individual ecological process and habitat connectivity using the indicators listed in Chapter One and the Methods MPI, and the application of the Rules and describe a baseline condition of ecological health for each DAU. All DAUs are identified for further consideration. DAUs in the “At Risk” category for multiple key ecological processes are assumed to provide the greatest potential to maximize environmental benefits when natural resource sites are restored within that DAU. A N/A indicates that there is no data for that DAU.

Table 4.0 describes the function level of five ecological process and habitat connectivity as PF, AR, or NPF.

Table 4.0 Yelm Creek Ecological Processes and Biological Element Function

DAU Id	Acres	Sq Mi	Ecological Processes					Biological Element
			Water	Wood	Sediment	Pollutants	Heat	Habitat Connectivity
131	340.54	0.53	AR	AR	AR	AR	AR	NPF
133	936.81	1.46	AR	NPF	AR	AR	N/A	AR
132	741.50	1.16	AR	AR	AR	AR	N/A	NPF
150	268.12	0.42	AR	NPF	AR	AR	N/A	AR
146	447.83	0.70	AR	NPF	AR	AR	N/A	AR
145	303.62	0.47	AR	AR	AR	AR	N/A	NPF
141	96.05	0.15	AR	AR	AR	AR	N/A	PF
127	208.54	0.33	AR	NPF	AR	AR	AR	NPF
147	421.84	0.66	AR	NPF	AR	AR	N/A	AR
130	197.05	0.31	AR	AR	AR	AR	NPF	NPF
123	202.39	0.32	AR	N/A	AR	N/A	AR	AR
120	251.91	0.39	AR	NPF	AR	AR	AR	NPF
114	456.28	0.71	AR	NPF	AR	AR	AR	NPF

DAU Id	Acres	Sq Mi	Ecological Processes					Biological Element
			Water	Wood	Sediment	Pollutants	Heat	Habitat Connectivity
106	400.67	0.63	AR	NPF	AR	AR	AR	NPF
90	257.39	0.40	AR	NPF	AR	AR	N/A	AR
89	450.15	0.70	AR	NPF	AR	AR	PF	AR
135	782.18	1.22	AR	N/A	AR	N/A	N/A	AR
137	176.79	0.28	AR	NPF	PF	AR	N/A	AR
136	322.03	0.50	AR	NPF	AR	AR	N/A	NPF
138	608.31	0.95	AR	AR	AR	PF	N/A	NPF
139	872.95	1.36	AR	NPF	AR	AR	N/A	NPF
152	190.99	0.30	AR	NPF	AR	AR	PF	NPF
142	233.94	0.37	AR	NPF	AR	AR	N/A	NPF
129	371.39	0.58	AR	NPF	AR	AR	PF	NPF
140	332.87	0.52	AR	NPF	AR	AR	N/A	NPF
124	171.16	0.27	AR	NPF	AR	AR	PF	NPF
125	319.73	0.50	AR	NPF	AR	AR	PF	NPF
126	268.52	0.42	AR	NPF	NPF	AR	PF	AR
117	504.54	0.79	AR	NPF	AR	AR	PF	NPF
122	291.59	0.46	AR	AR	PF	AR	PF	PF
118	293.67	0.46	AR	NPF	AR	AR	N/A	NPF
109	344.61	0.54	AR	N/A	AR	N/A	PF	AR
102	241.11	0.38	AR	NPF	AR	AR	N/A	NPF
103	300.96	0.47	AR	NPF	AR	AR	PF	NPF
94	633.54	0.99	AR	N/A	AR	N/A	AR	NPF
91	204.06	0.32	AR	N/A	AR	N/A	NPF	AR
157	321.58	0.50	AR	N/A	AR	N/A	NPF	NPF
154	188.79	0.29	AR	N/A	AR	N/A	NPF	NPF
153	742.87	1.16	AR	N/A	AR	N/A	PF	NPF
134	250.08	0.39	AR	N/A	AR	N/A	N/A	NPF
151	248.68	0.39	AR	NPF	PF	AR	N/A	NPF
144	110.33	0.17	AR	NPF	PF	AR	N/A	NPF
111	343.71	0.54	AR	NPF	NPF	AR	PF	NPF
101	188.69	0.29	AR	NPF	PF	AR	PF	NPF
104	220.87	0.35	AR	N/A	PF	N/A	N/A	AR
86	394.72	0.62	NPF	AR	AR	AR	N/A	AR
87	814.10	1.27	AR	PF	AR	PF	PF	NPF
88	653.13	1.02	AR	PF	NPF	PF	AR	NPF
149	154.25	0.24	PF	AR	AR	AR	N/A	PF
119	296.19	0.46	PF	AR	AR	PF	PF	AR
110	376.96	0.59	PF	AR	AR	PF	PF	AR
92	370.06	0.58	NPF	NPF	AR	AR	NPF	AR

DAU Id	Acres	Sq Mi	Ecological Processes					Biological Element
			Water	Wood	Sediment	Pollutants	Heat	Habitat Connectivity
67	267.37	0.42	AR	PF	PF	PF	NPF	NPF
156	831.09	1.30	PF	N/A	PF	N/A	AR	AR
155	353.94	0.55	PF	N/A	AR	N/A	NPF	AR
143	531.45	0.83	PF	AR	AR	PF	N/A	NPF
148	214.70	0.34	PF	NPF	AR	AR	N/A	PF
128	412.13	0.64	NPF	NPF	AR	AR	PF	NPF
107	110.04	0.17	PF	NPF	AR	AR	NPF	PF
105	940.17	1.47	PF	AR	AR	PF	PF	NPF
84	288.64	0.45	NPF	NPF	PF	AR	N/A	AR
121	343.17	0.54	PF	AR	PF	PF	NPF	NPF
108	304.86	0.48	PF	N/A	AR	N/A	NPF	NPF
93	424.09	0.66	NPF	N/A	AR	N/A	N/A	NPF
85	176.92	0.28	NPF	N/A	AR	N/A	PF	NPF
83	311.30	0.49	NPF	N/A	AR	N/A	NPF	NPF
68	419.50	0.66	PF	PF	NPF	PF	PF	AR

An aggregation of the function level of these processes and habitat connectivity are then used to provide an overall function level and ranking of each DAU as described in the following Table 4.1.

Table 4.1 Final DAU Ecological and Biological Benefit Rank

DAU Id	Ecological Processes					Biological Element		
	Water	Wood	Sediment	Pollutants	Heat	Habitat Connectivity	Total_Score	Weighted_Rank
131	3	1	1	1	1	0	7	High
133	3	0	1	1	0	1	6	High
132	3	1	1	1	0	0	6	High
150	3	0	1	1	0	1	6	High
146	3	0	1	1	0	1	6	High
145	3	1	1	1	0	0	6	High
141	3	1	1	1	0	0	6	High
127	3	0	1	1	1	0	6	High
147	3	0	1	1	0	1	6	High
130	3	1	1	1	0	0	6	High
123	3	0	1	0	1	1	6	High
120	3	0	1	1	1	0	6	High
114	3	0	1	1	1	0	6	High
106	3	0	1	1	1	0	6	High
90	3	0	1	1	0	1	6	High

DAU Id	Ecological Processes					Biological Element	Total_Score	Weighted_Rank
	Water	Wood	Sediment	Pollutants	Heat	Habitat Connectivity		
89	3	0	1	1	0	1	6	High
135	3	0	1	0	0	1	5	Moderate
137	3	0	0	1	0	1	5	Moderate
136	3	0	1	1	0	0	5	Moderate
138	3	1	1	0	0	0	5	Moderate
139	3	0	1	1	0	0	5	Moderate
152	3	0	1	1	0	0	5	Moderate
142	3	0	1	1	0	0	5	Moderate
129	3	0	1	1	0	0	5	Moderate
140	3	0	1	1	0	0	5	Moderate
124	3	0	1	1	0	0	5	Moderate
125	3	0	1	1	0	0	5	Moderate
126	3	0	0	1	0	1	5	Moderate
117	3	0	1	1	0	0	5	Moderate
122	3	1	0	1	0	0	5	Moderate
118	3	0	1	1	0	0	5	Moderate
109	3	0	1	0	0	1	5	Moderate
102	3	0	1	1	0	0	5	Moderate
103	3	0	1	1	0	0	5	Moderate
94	3	0	1	0	1	0	5	Moderate
91	3	0	1	0	0	1	5	Moderate
157	3	0	1	0	0	0	4	Moderate
154	3	0	1	0	0	0	4	Moderate
153	3	0	1	0	0	0	4	Moderate
134	3	0	1	0	0	0	4	Moderate
151	3	0	0	1	0	0	4	Moderate
144	3	0	0	1	0	0	4	Moderate
111	3	0	0	1	0	0	4	Moderate
101	3	0	0	1	0	0	4	Moderate
104	3	0	0	0	0	1	4	Moderate
86	0	1	1	1	0	1	4	Moderate
87	3	0	1	0	0	0	4	Moderate
88	3	0	0	0	1	0	4	Moderate
149	0	1	1	1	0	0	3	Moderate
119	0	1	1	0	0	1	3	Moderate
110	0	1	1	0	0	1	3	Moderate
92	0	0	1	1	0	1	3	Moderate
67	3	0	0	0	0	0	3	Moderate

The weighted rank is used in the evaluation of potential restoration and enhancement sites when the DAUs and resource sites are combined to provide a prioritized list of natural resource sites.

As shown in Table 4.1 and Figure 4.1, the Yelm Creek Study Area has 52 DAUs that have restoration potential (weighted rank of high or moderate). DAUs ranked Low are listed in Appendix B.

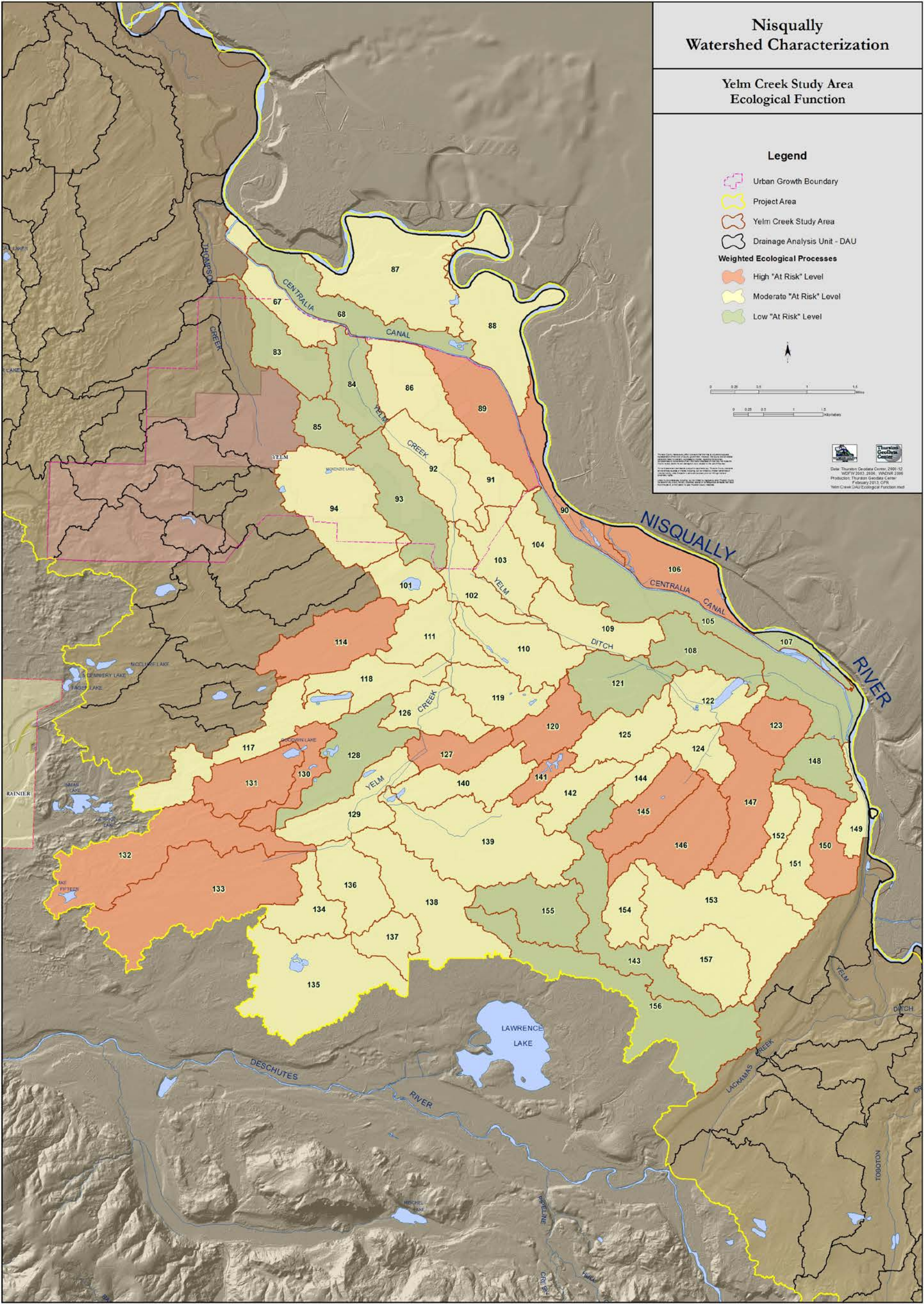


Figure 4.2 Yelm Creek Study Area Ecological Function

Part III. Characterize Natural Resource Sites in Study Area

This section evaluates natural resource sites within the study area. The watershed characterization methods do not assess potential restoration sites at the parcel or jurisdictional boundary. The methods focus on the landscape only. The purpose is to determine natural resource sites that can be restored or enhanced in the surrounding landscape that will provide the greatest functional lift. The analysis is conducted concurrently with the analyses of the ecological processes and the one biological element, habitat connectivity. Upon completion of the DAU and natural resource site analysis, the sites identified are ranked within their corresponding DAU.

Determine the Environmental Benefit of the Resource Sites

The natural resource sites are evaluated based on the attributes during site assessment using Tables 13 to 15 in the Methods document. The sites are then assigned an environmental benefit final score.

Following the conversion of natural resource sites from a numerical score to a rank of Low, Moderate, or High rank, there were a total of 766 potential restoration or enhancement sites. Table 4.2 details the results.

Table 4.2 Yelm Creek Environmental Benefit Ranking of Natural Resource Sites

Yelm Creek Potential Restoration Sites				
Rank	Wetland	Riparian	Floodplain	Total
High	182	46	1	229
Moderate	144	19	4	167
Low	340	14	16	370

Part IV. Assess Potential Sites within the DAU

This section presents the results of a ranking process for all potential natural resource restoration sites within the DAU. This ranking of a natural resource restoration site is based on a combination of each site's individual site rank combined with the ranking of the DAU within which the restoration site is located. The result of this combination is a final score from 0 to 6, with a score of 6 representing those sites with the greatest potential for environmental benefit if restored. See Chapter 1 Part III and the Methods document for a description of the methodology used.

Following evaluation, a total of 766 sites in the Yelm Creek Study Area were ranked within their corresponding DAU. Of those 766 sites, there were 396 sites that had high or moderate restoration value.

A site with a Low environmental benefit is a preservation site or completely degraded site that would provide a minimal environmental benefit if restored.

Results of natural resource restoration site ranking for wetlands, riparian and floodplain areas are described in the following sections.

The following wetlands, riparian and floodplain sections describe the final combined ecological benefit (DAU) and environmental benefit (site) ranking of natural resource sites.

Wetlands sites

Table 4.3 presents the results of wetland site ranking. The wetland rank is the result of the combined wetland restoration potential and the DAU ranking. There are 326 sites that ranked high or moderate.

Wetland sites ranked Low or less than one acre are not included in Table 4.3. However, they have been ranked and are listed in Appendix C. Figure 4.3 shows the location of each wetland restoration site.

Table 4.3 Wetland Sites

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1002	High	6	5.40
Wetland1013	High	6	1.01
Wetland1043	High	6	2.81
Wetland1075	High	6	7.95
Wetland1076	High	6	15.63
Wetland1079	High	6	8.07
Wetland1083	High	6	18.77
Wetland1087	High	6	1.25
Wetland1090	High	6	1.27
Wetland1144	High	6	1.62
Wetland1145	High	6	1.61
Wetland1147	High	6	1.55
Wetland1148	High	6	3.56
Wetland1149	High	6	6.27
Wetland1151	High	6	1.05
Wetland1162	High	6	7.60
Wetland1213	High	6	39.70
Wetland1217	High	6	5.79
Wetland1249	High	6	1.17
Wetland1261	High	6	5.08
Wetland1270	High	6	13.85
Wetland1284	High	6	6.77
Wetland1285	High	6	6.76

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1289	High	6	1.44
Wetland1291	High	6	1.16
Wetland1292	High	6	2.82
Wetland1312	High	6	1.58
Wetland1342	High	6	33.81
Wetland1344	High	6	1.82
Wetland1351	High	6	2.86
Wetland1368	High	6	23.10
Wetland1447	High	6	17.92
Wetland1465	High	6	5.55
Wetland1470	High	6	3.05
Wetland1471	High	6	5.86
Wetland1623	High	6	4.63
Wetland1624	High	6	6.58
Wetland1637	High	6	1.06
Wetland1645	High	6	3.29
Wetland1016	High	2	2.55
Wetland1031	High	2	6.51
Wetland1032	High	2	2.98
Wetland1038	High	2	3.77
Wetland1042	High	2	0.03
Wetland1048	High	2	1.18
Wetland1099	High	2	1.90
Wetland1133	High	2	2.29
Wetland1143	High	2	3.31
Wetland1152	High	2	27.32
Wetland1155	High	2	0.22
Wetland1163	High	2	7.74
Wetland1169	High	2	14.29
Wetland1323	High	2	1.17
Wetland1693	High	2	35.26
Wetland1610	High	2	1.65
Wetland1622	High	2	1.58
Wetland1627	High	2	12.88
Wetland1644	High	2	6.59
Wetland1053	High	4	13.63
Wetland1054	High	4	4.27
Wetland1055	High	4	3.89
Wetland1057	High	4	7.52
Wetland1064	High	4	11.69

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1065	High	4	1.66
Wetland1066	High	4	3.80
Wetland1068	High	4	1.58
Wetland1070	High	4	1.27
Wetland1073	High	4	1.44
Wetland1077	High	4	1.06
Wetland1078	High	4	9.23
Wetland1093	High	4	12.94
Wetland1095	High	4	6.18
Wetland1120	High	4	4.36
Wetland1130	High	4	3.74
Wetland1131	High	4	4.01
Wetland1136	High	4	1.70
Wetland1139	High	4	2.59
Wetland1140	High	4	1.16
Wetland1141	High	4	1.37
Wetland1156	High	4	3.55
Wetland1157	High	4	5.38
Wetland1174	High	4	2.88
Wetland1177	High	4	8.75
Wetland1178	High	4	21.57
Wetland1190	High	4	13.58
Wetland1191	High	4	1.61
Wetland1194	High	4	3.30
Wetland1209	High	4	6.23
Wetland1214	High	4	2.40
Wetland1218	High	4	32.28
Wetland1220	High	4	2.56
Wetland1226	High	4	8.74
Wetland1239	High	4	16.74
Wetland1256	High	4	79.24
Wetland1268	High	4	76.46
Wetland1310	High	4	3.93
Wetland1311	High	4	32.51
Wetland1317	High	4	3.22
Wetland1325	High	4	5.18
Wetland1336	High	4	7.18
Wetland1354	High	4	1.79
Wetland1361	High	4	1.59
Wetland1362	High	4	1.74

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1363	High	4	2.80
Wetland1390	High	4	10.62
Wetland1391	High	4	8.12
Wetland1395	High	4	2.88
Wetland1396	High	4	2.60
Wetland1401	High	4	14.38
Wetland1404	High	4	6.62
Wetland1428	High	4	4.59
Wetland1432	High	4	3.25
Wetland1435	High	4	6.64
Wetland1440	High	4	2.83
Wetland1443	High	4	12.43
Wetland1451	High	4	0.37
Wetland1454	High	4	5.99
Wetland1463	High	4	1.36
Wetland1466	High	4	8.94
Wetland1497	High	4	1.45
Wetland1512	High	4	1.23
Wetland1525	High	4	1.25
Wetland1527	High	4	10.79
Wetland1535	High	4	6.81
Wetland1547	High	4	3.87
Wetland1555	High	4	14.15
Wetland1619	High	4	1.83
Wetland1621	High	4	6.69
Wetland1629	High	4	15.23
Wetland1631	High	4	4.65
Wetland1634	High	4	2.52
Wetland1635	High	4	9.47
Wetland1639	High	4	6.49
Wetland1640	High	4	7.13
Wetland1642	High	4	7.21
Wetland1049	Moderate	5	5.53
Wetland1071	Moderate	5	1.47
Wetland1084	Moderate	5	2.23
Wetland1085	Moderate	5	4.78
Wetland1092	Moderate	5	2.09
Wetland1094	Moderate	5	1.09
Wetland1112	Moderate	5	3.87
Wetland1117	Moderate	5	1.49

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1222	Moderate	5	2.79
Wetland1288	Moderate	5	1.62
Wetland1333	Moderate	5	3.35
Wetland1366	Moderate	5	1.70
Wetland1412	Moderate	5	17.06
Wetland1460	Moderate	5	1.97
Wetland1511	Moderate	5	1.22
Wetland1620	Moderate	5	51.28
Wetland1625	Moderate	5	1.18
Wetland1636	Moderate	5	1.49
Wetland988	Moderate	3	4.47
Wetland993	Moderate	3	5.37
Wetland994	Moderate	3	2.33
Wetland996	Moderate	3	2.18
Wetland998	Moderate	3	1.83
Wetland999	Moderate	3	8.08
Wetland1007	Moderate	3	1.77
Wetland1015	Moderate	3	2.55
Wetland1040	Moderate	3	6.90
Wetland1041	Moderate	3	6.43
Wetland1045	Moderate	3	2.44
Wetland1056	Moderate	3	1.15
Wetland1058	Moderate	3	22.91
Wetland1061	Moderate	3	1.16
Wetland1067	Moderate	3	1.78
Wetland1103	Moderate	3	1.46
Wetland1135	Moderate	3	1.02
Wetland1179	Moderate	3	1.37
Wetland1180	Moderate	3	1.29
Wetland1183	Moderate	3	12.86
Wetland1225	Moderate	3	10.75
Wetland1234	Moderate	3	2.41
Wetland1244	Moderate	3	1.58
Wetland1271	Moderate	3	2.18
Wetland1279	Moderate	3	1.46
Wetland1287	Moderate	3	2.16
Wetland1293	Moderate	3	9.73
Wetland1300	Moderate	3	2.33
Wetland1304	Moderate	3	2.26
Wetland1307	Moderate	3	3.61

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1314	Moderate	3	1.01
Wetland1315	Moderate	3	2.10
Wetland1326	Moderate	3	2.66
Wetland1399	Moderate	3	3.60
Wetland1406	Moderate	3	18.22
Wetland1420	Moderate	3	2.57
Wetland1421	Moderate	3	1.50
Wetland1427	Moderate	3	6.16
Wetland1474	Moderate	3	26.41
Wetland1507	Moderate	3	1.12
Wetland1529	Moderate	3	11.63
Wetland1544	Moderate	3	1.69
Wetland1560	Moderate	3	4.74
Wetland1572	Moderate	3	7.80
Wetland1574	Moderate	3	1.27
Wetland1579	Moderate	3	12.42
Wetland1585	Moderate	3	1.15
Wetland1592	Moderate	3	2.24
Wetland1614	Moderate	3	204.12
Wetland1630	Moderate	3	2.93
Wetland1646	Moderate	3	8.62
Wetland1008	Moderate	1	1.23
Wetland1010	Moderate	1	1.46
Wetland1011	Moderate	1	2.41
Wetland1014	Moderate	1	7.99
Wetland1019	Moderate	1	1.20
Wetland1020	Moderate	1	1.29
Wetland1028	Moderate	1	5.50
Wetland1036	Moderate	1	1.02
Wetland1096	Moderate	1	40.88
Wetland1116	Moderate	1	27.46
Wetland1126	Moderate	1	5.95
Wetland1146	Moderate	1	14.25
Wetland1159	Moderate	1	1.00
Wetland1160	Moderate	1	1.35
Wetland1200	Moderate	1	2.65
Wetland1208	Moderate	1	3.46
Wetland1211	Moderate	1	1.00
Wetland1251	Moderate	1	1.53
Wetland1272	Moderate	1	1.70

Site ID	Wetlands Rank	Combined DAU and Site Score	Acres
Wetland1283	Moderate	1	3.08
Wetland1360	Moderate	1	1.97
Wetland1530	Moderate	1	2.94
Wetland1680	Moderate	1	1.63
Wetland1596	Moderate	1	2.50
Wetland1598	Moderate	1	1.55
Wetland1602	Moderate	1	4.80

The following figures appear cluttered when printed at a scale less than 33 x 44 inches (the format it was developed for). The maps are best viewed electronically where the viewing areas easily enlarged.

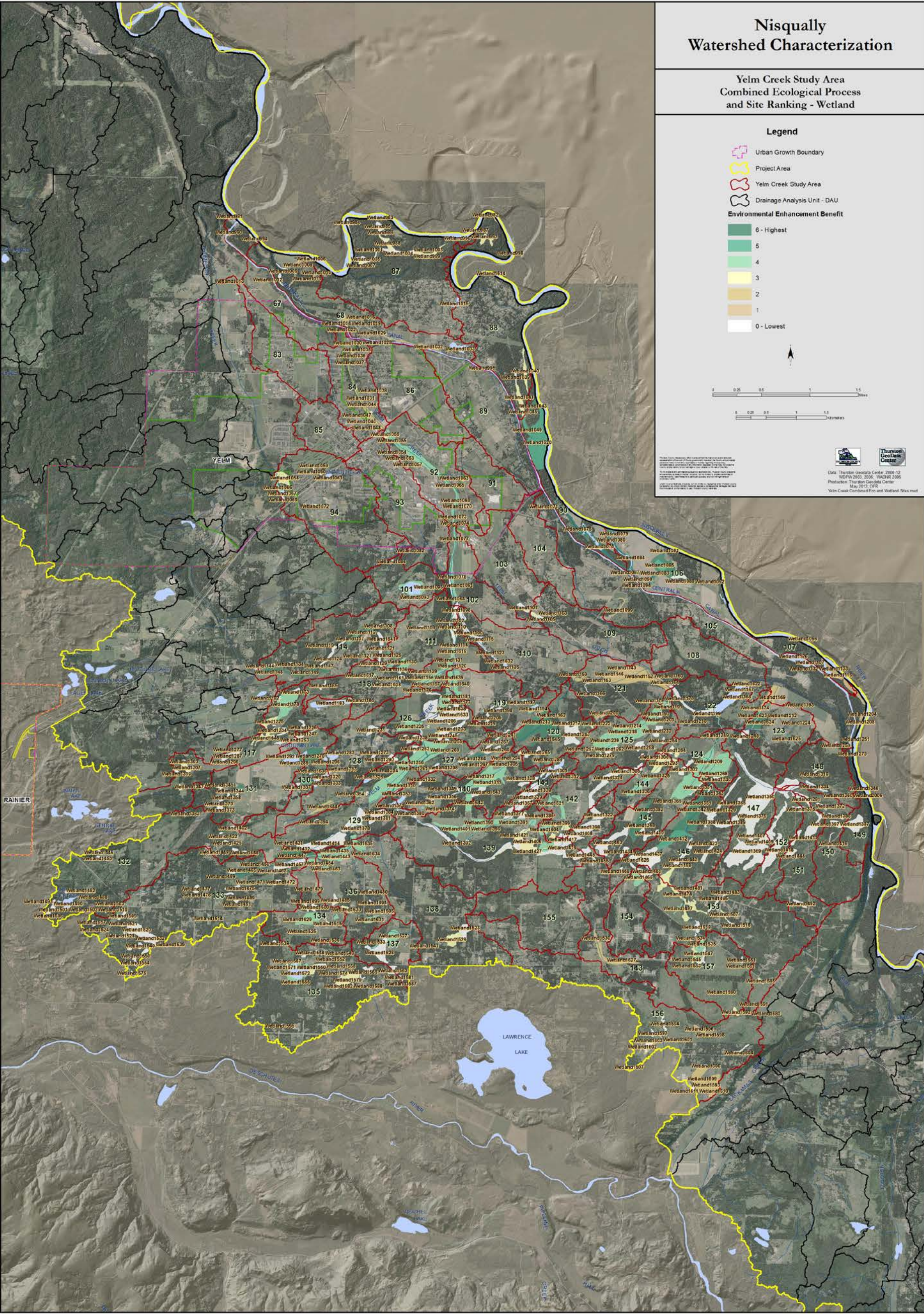


Figure 4.3 Yelm Creek Study Area Ecological Processes and Site Ranking – Wetlands

Riparian condition

Table 4.4 presents the results of riparian restoration site ranking taking into account the combined riparian restoration potential and the DAU ranking. There are 65 riparian sites that ranked high or moderate. The resulting combined score of the natural resource sites within the context of the DAU are shown in Figure 4.4.

Riparian sites ranked Low are not included in Table 4.4. However, they have been ranked and are listed in Appendix C.

Table 4.4 Riparian Sites

Site ID	Riparian Rank	Combined DAU and Site Score	Acres
Riparian197	High	6	9.78
Riparian202	High	4	37.04
Riparian206	High	4	113.70
Riparian208	High	2	5.77
Riparian210	High	6	452.46
Riparian244	High	6	385.95
Riparian246	High	4	1686.72
Riparian247	High	6	603.57
Riparian248	High	4	298.89
Riparian249	High	4	634.93
Riparian250	High	4	483.23
Riparian251	High	4	286.46
Riparian253	High	4	389.63
Riparian254	High	6	576.20
Riparian255	High	2	374.50
Riparian256	High	4	709.82
Riparian257	High	2	469.15
Riparian259	High	4	701.77
Riparian260	High	6	652.71
Riparian261	High	4	275.96
Riparian262	High	6	174.38
Riparian264	High	2	420.28
Riparian267	High	6	580.54
Riparian268	High	2	480.86
Riparian269	High	4	726.13
Riparian272	High	2	238.69
Riparian274	High	4	740.39
Riparian276	High	4	310.84
Riparian277	High	4	168.86

Site ID	Riparian Rank	Combined DAU and Site Score	Acres
Riparian278	High	4	514.76
Riparian279	High	4	313.41
Riparian280	High	4	237.73
Riparian287	High	4	216.87
Riparian288	High	4	281.16
Riparian290	High	4	252.22
Riparian291	High	6	250.01
Riparian292	High	6	279.89
Riparian297	High	2	150.05
Riparian299	High	4	345.48
Riparian304	High	4	153.74
Riparian305	High	4	252.68
Riparian307	High	4	481.97
Riparian309	High	6	200.16
Riparian310	High	6	458.59
Riparian311	High	6	204.26
Riparian312	High	6	458.37
Riparian60	Moderate	3	270.12
Riparian61	Moderate	3	732.86
Riparian199	Moderate	5	10.57
Riparian245	Moderate	1	695.94
Riparian263	Moderate	5	377.56
Riparian265	Moderate	1	180.98
Riparian266	Moderate	1	225.62
Riparian270	Moderate	3	215.45
Riparian273	Moderate	5	357.70
Riparian275	Moderate	5	397.70
Riparian281	Moderate	1	156.11
Riparian283	Moderate	3	217.04
Riparian284	Moderate	3	261.74
Riparian286	Moderate	3	153.55
Riparian289	Moderate	3	173.64
Riparian295	Moderate	3	89.70
Riparian296	Moderate	3	163.45
Riparian303	Moderate	3	106.97
Riparian308	Moderate	5	447.62

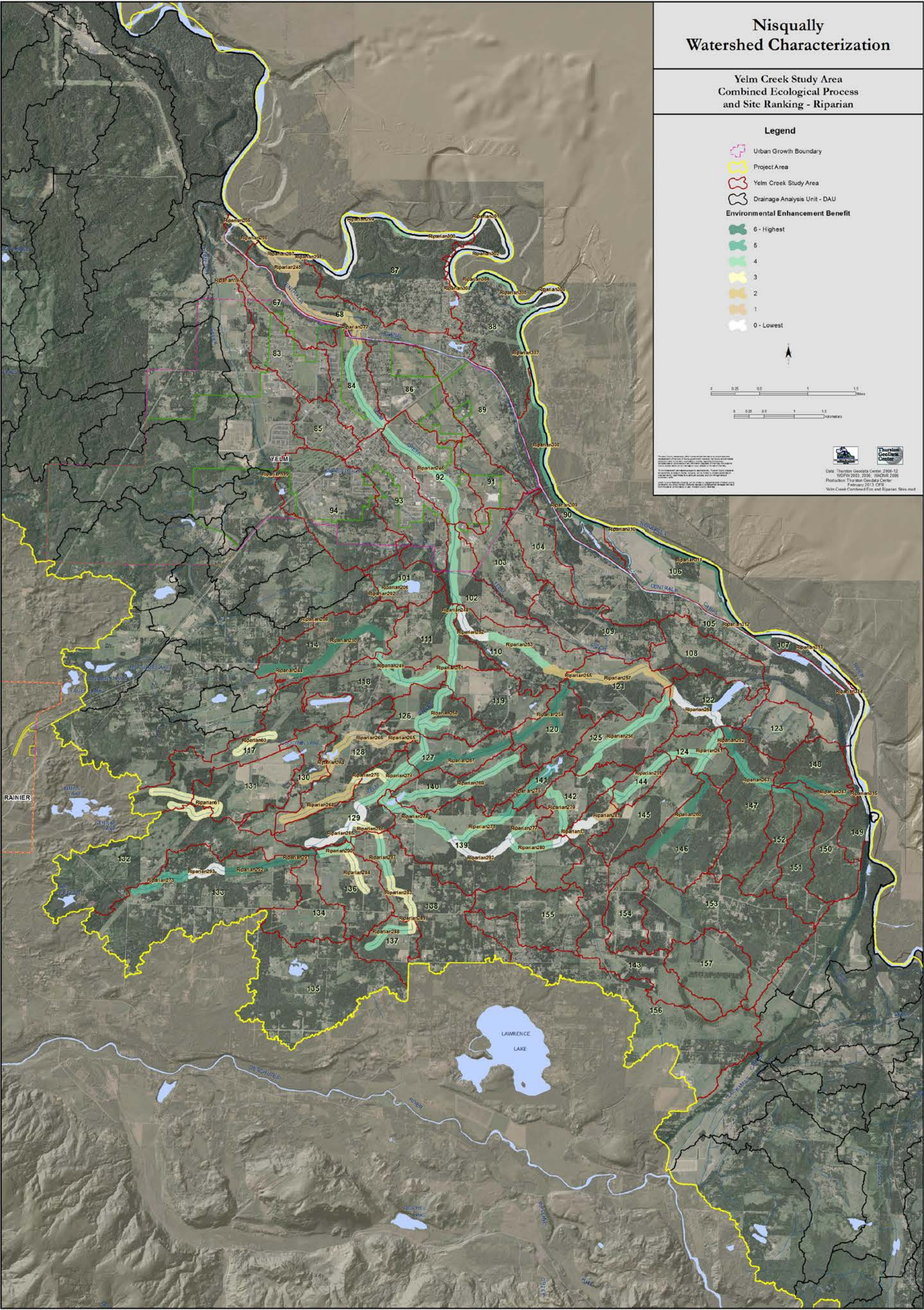


Figure 4.4 Yelm Creek Study Area Ecological Processes and Site Ranking - Riparian.

Floodplain Condition

There are five floodplain sites ranked High or Moderate. Floodplain sites ranked Low are not included in Table 4.5, however, they have been ranked and are listed in Appendix C.

Figure 2.5 illustrates the resulting combined score of the Floodplain natural resource site within the context of the DAU.

Table 4.5 Floodplain Sites

Site ID	Floodplain Rank	Combined DAU and Site Score	Acres
Floodplain23	High	4	66.80
Floodplain11	Moderate	5	12.51
Floodplain13	Moderate	5	454.79
Floodplain25	Moderate	3	31.08
Floodplain34	Moderate	3	6.48

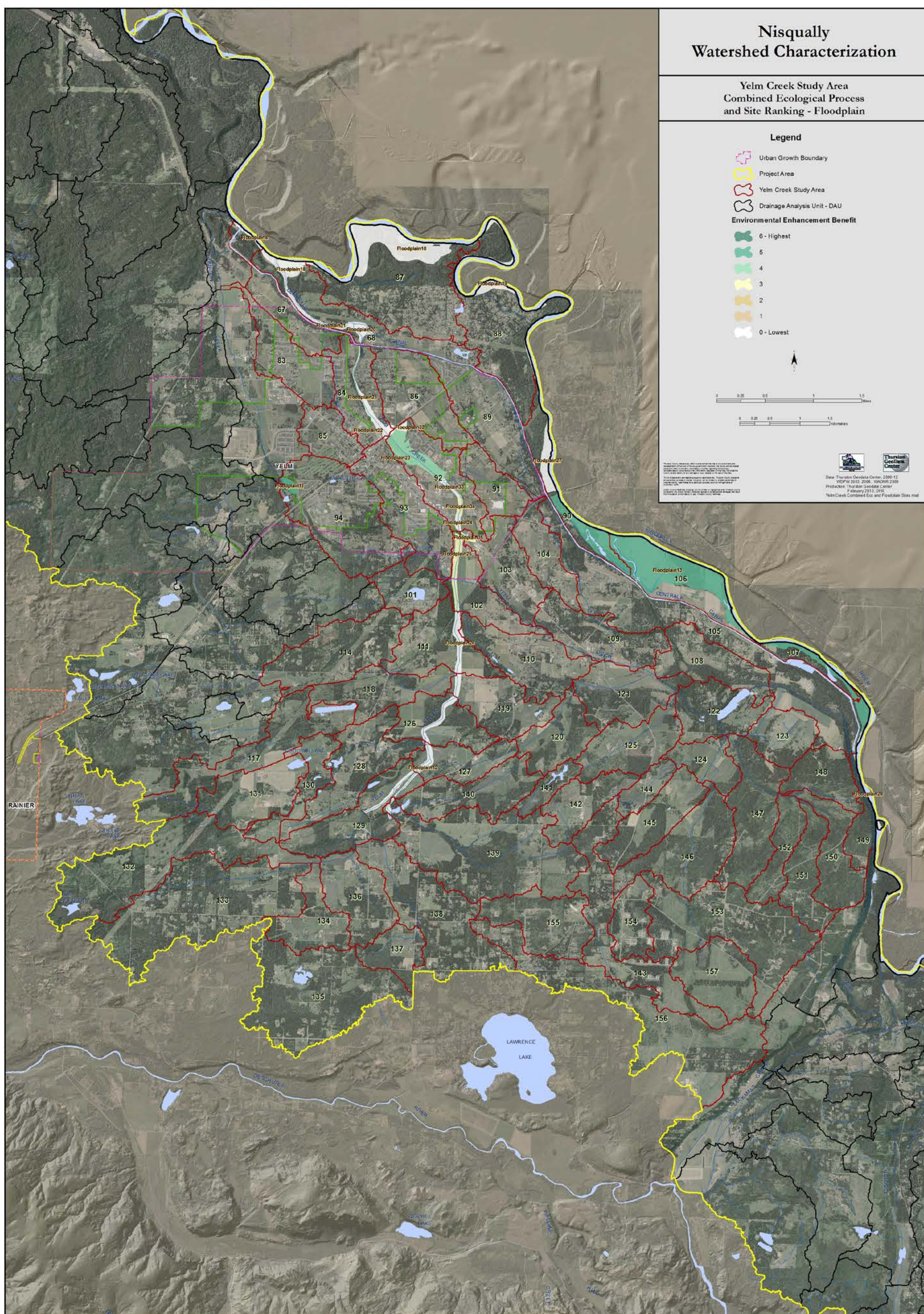


Figure 4.5 Yelm Creek Study Area Ecological Processes and Site Ranking - Floodplain