

APPROVED WETLANDS INVENTORY
Oregon Division of State Lands
Meets Local Wetlands Inventory standards
Date 9/99 Approved by J. Morlan

Oregon City Local Wetland Inventory and Riparian Assessment

Prepared for

The City of Oregon City

Prepared by



Shapiro and Associates, Inc.

June 24, 1999

Oregon City Local Wetland Inventory and Riparian Assessment

Prepared for

The City of Oregon City
320 Warner Milne Road
Oregon City, Oregon 97045

Prepared by

Dan Cary
Colin MacLaren
Julie Fukuda
John Gordon
Kelley Canode
Ed Strohmaier
Peggy O'Neill
Paul Gill
Sylvia Jung

Shapiro and Associates, Inc.
1650 N.W. Naito Parkway, Suite 302
Portland, Oregon 97209
SHAPIRO Project #7971165

June 24, 1999

TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
2.0 SOURCE MATERIALS AND METHODS.....	2
2.1 Source Materials.....	2
2.2 Local Wetlands Inventory	3
2.2.1 Overview of the Local Wetlands Inventory	3
2.2.2 Overview of Local Wetlands Inventory Methods	3
2.2.3 On-site Wetland Determination.....	3
2.2.4 Off-site Determination.....	5
2.2.5 Classification of Wetlands.....	5
2.2.6 Data Compilation and Interpretation	5
2.2.7 Classification of Streams	6
2.2.8 Confirmation of LWI.....	6
2.3 Wetland Quality Assessment	6
2.3.1 Overview of the Oregon Freshwater Wetland Assessment Methodology.....	6
2.3.2 Application of OFWAM.....	7
2.3.3 Wetlands of Special Interest for Protection	7
2.3.4 Locally Significant Wetland Assessment.....	7
2.4 Riparian Assessment	9
2.4.1 Overview of Riparian Assessment	9
2.5 Cartographic Products.....	10
3.0 PROJECT AREA CHARACTERISTICS.....	11
3.1 Background Information	11
3.2 Setting.....	11
3.3 Topography and Geology.....	12
3.4 Hydrology and Drainage Basins	12
3.4.1 Overview.....	12
3.4.2 Natural Drainage Basins	12
3.4.3 Basin Coding.....	14
3.5 Soils	14
3.5.1 Overview.....	14
3.5.2 Soil Types	15
3.6 Vegetation	16
3.6.1 Historical Overview	16
3.6.2 Vegetation Communities	17
4.0 WETLAND FINDINGS	18
4.1 Wetland Classification and Location.....	18
4.1.1 Wetland Types and Classification	18
4.1.2 Wetland Location and Acreage	19
4.1.3 Non-Wetland Stream Location and Acreage.....	19
4.2 Oregon Freshwater Wetland Assessment Methodology Results	19
4.3 Locally Significant Wetlands.....	20
5.0 RIPARIAN FINDINGS	20
5.1 Riparian Assessment Areas.....	20

5.2 Riparian Characterization and Results.....	21
6.0 SUMMARY.....	22
7.0 REFERENCES.....	24

Appendices

Appendix A	Wetland Data and Summary Sheets (organized by drainage basin and wetland code)
Appendix B	Riparian Data and Summary Sheets
Appendix C	DSL OFWAM Manual Function and Condition Descriptions
Appendix D	DSL Riparian Manual Function Descriptions
Appendix E	Local Wetland Significance Assessment Sheets

List of Tables

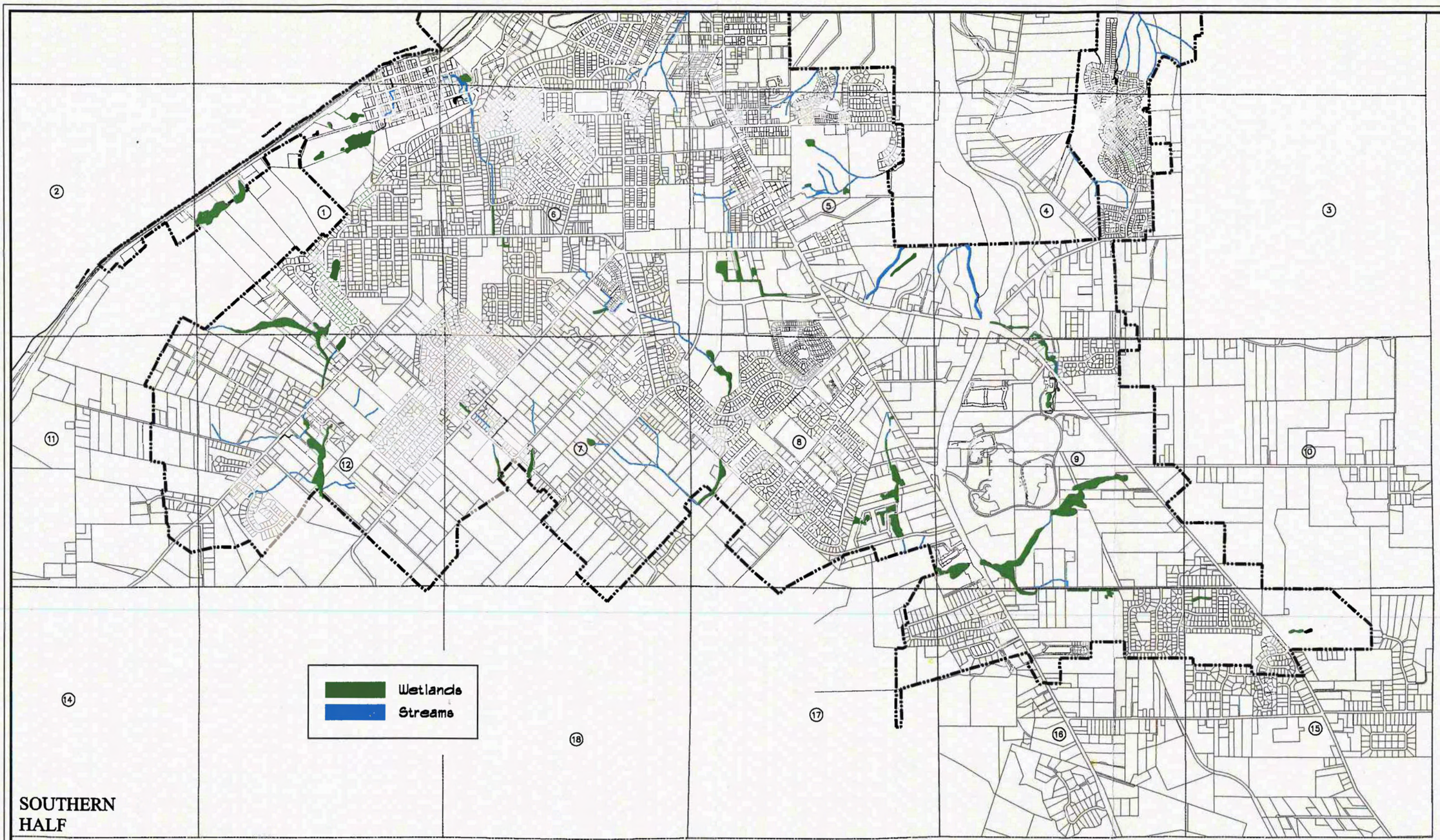
Table 1.	Soil Types within the Oregon City UGB
Table 2.	USFWS Wetland Classes Mapped by the NWI
Table 3.	Oregon City Wetlands, Wetland Area, and USFWS Wetland Classification
Table 4.	Summary of OFWAM Results for City of Oregon City
Table 5.	Significant Wetlands and Wetlands of Special Interest for Protection
Table 6.	Urban Riparian Inventory and Assessment Summary

List of Figures

Figure 1.	Urban Growth Boundary and Zoning of the City of Oregon City
Figure 2.	Location and Generalized Topography
Figure 3.	Drainage Basins
Figure 4.	Soil Mapping Units
Figure 5.	National Wetland Inventory Designations
Figure 6a.	Wetlands, Drainages, and Riparian Areas Identified by the LWI
Figure 6b.	Wetlands, Drainages, and Riparian Areas Identified by the LWI

Attachment

Wetland and Riparian Inventory Section Maps



SOUTHERN
HALF

Base map from City of Oregon City, Oregon, 1997

7971165 6/24/99



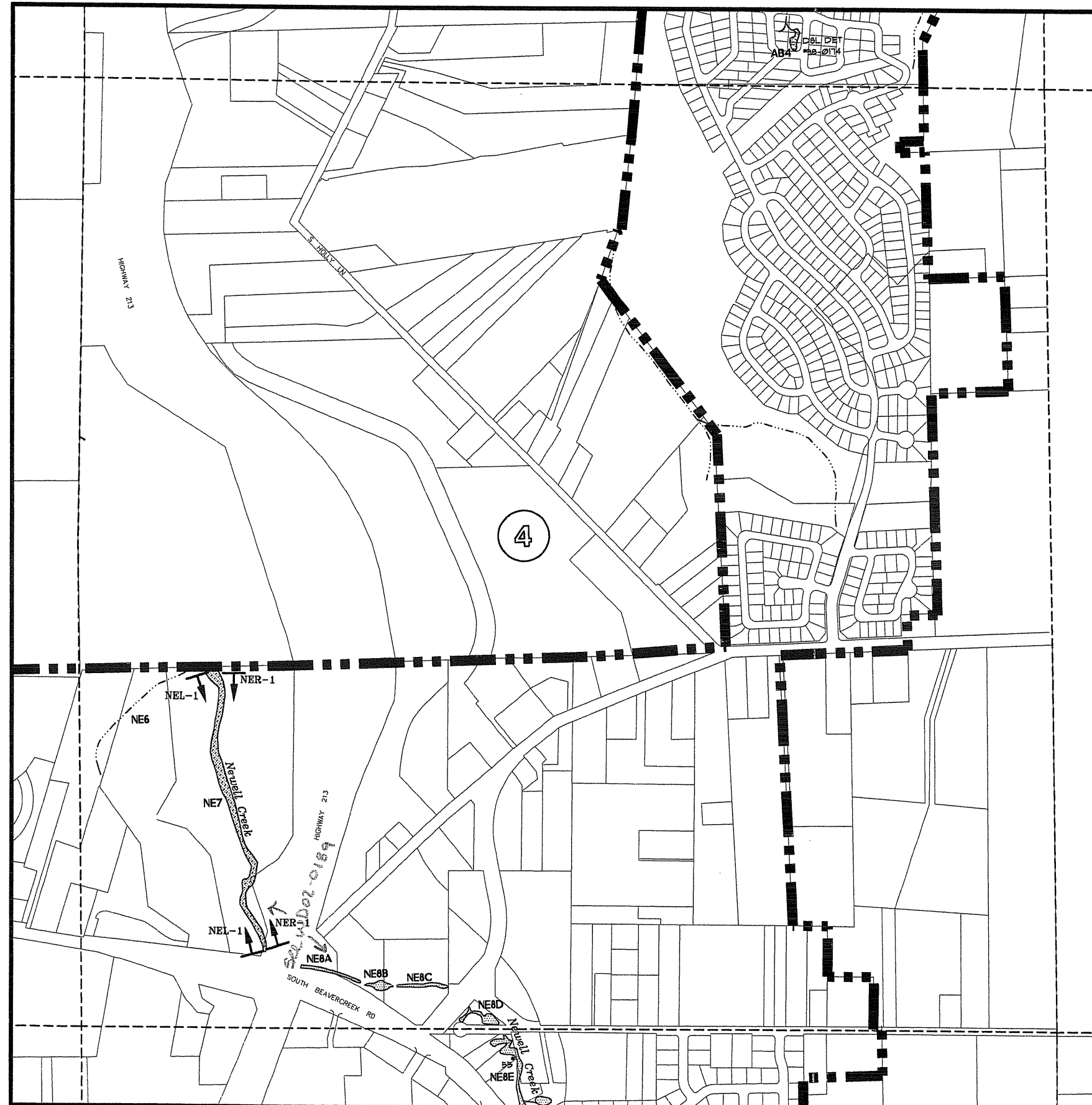
0 2000 4000
FEET

Wetlands, drainages, and riparian areas identified by the Local Wetlands
Inventory of the area within Oregon City's Urban Growth Boundary.

FIGURE
6b

SHAPIRO
& ASSOCIATES, INC.

APPROVED WETLANDS INVENTORY
Oregon Division of State Lands
Meets LWD standards
Date 9/99 Approved by J. Moran

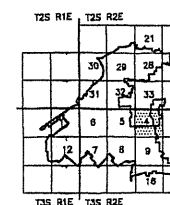


T 3S R 2E Section 04

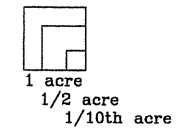
CITY OF OREGON CITY LOCAL WETLAND INVENTORY

LEGEND

- Urban Growth Boundary
- Wetland
- AC2 Wetland label
- FCR1 Riparian label
- Sample site
- DSL DET wetland
- DSL DET 37-0569 DSL label
- Mitigation wetland
- Site access not granted
- Stream



Wetland acreage



0 400 800
FEET

JUNE
1999

WETLAND INFORMATION IS SUBJECT TO CHANGE

This map is for planning purposes only. Mapped wetland and riparian boundaries were not flagged or surveyed (unless noted as a delineation study). Boundaries for on-site verified wetlands are accurate to within 25'. There may be exceptions or unmapped wetlands subject to regulation. In all cases, actual field conditions determine wetland boundaries. If site alteration work is proposed, you are advised to contact the Oregon Division of State Lands or the U.S. Army Corps of Engineers with regulatory questions. This study was funded by an Oregon Department of Land Conservation and Development periodic review planning grant.

City of Oregon City

320 Warner Milne Road
Oregon City, Oregon 97045

SHAPIRO
INCORPORATED

Creek flows in a deep canyon. Three smaller drainage basins without USGS mapped streams form the headwaters of Livesay Creek. Minor intermittent, unnamed tributaries of Abernethy Creek also run in canyons south of the creek on the eastern edge of the UGB at the northern end of the Country Village development area.

Newell Creek is a major tributary on the southern side of Abernethy Creek. Most of Newell Creek flows in a deep canyon. The UGB includes only the upper parts of the Newell Creek basin and smaller drainage areas of intermittent tributaries that flow into it. Only about 0.1 mile of Newell Creek is actually mapped by the USGS within the study area, northwest of the intersection of Highway 213 and Beaver Creek Road. That part of the stream is mapped as perennial.

The Newell Creek headwaters are above the mapped part of the stream, at the ponds of the John Innskeep Environmental Learning Center. These ponds currently receive most of their water from the heating and cooling system of a nearby public school. The water is periodically flushed from the system and drains into the ponds. Natural springs also contribute to the water flow.

After leaving the ponds, water from Newell Creek flows in a gentle gradient through a series of channels and culverts, eventually daylighting in the northwestern corner of the intersection of Highway 213 and South Beaver Creek Road. It plunges down a concrete flume for approximately 50 feet, then cascades down a steep decline of boulders and plunge pools to the edge of the study area.

Beaver Creek has four tributaries that drain the southern portion of the inventory area, including Caufield Creek, Mud Creek, and a small tributary known locally as Little Beaver Creek. **Caufield Creek** is the farthest upstream, and drains the southeastern end of the inventory area. At the time of the inventory, properties in the upper Caufield Creek basin, in the vicinity of Glen Oak Road, were undergoing residential development, and much of the eastern end of the stream was in culverts. The creek channel south of Glen Oak Road has been excavated, and part of it apparently has been realigned as road-side drainage ditches. These ditches collect runoff and groundwater that make up the initial flow for Caufield Creek, which is mapped by the USGS as a perennial stream.

An earthen dam south of Highway 213 has created a pond of approximately 2 acres on Caufield Creek. The northern side of the pond is a moderately steep canyon wall, while the eastern side is adjacent to fill for Highway 213. The southern side has more moderate topography, with low-density residential development. Upon exiting the pond, Caufield Creek flows through a shrub and forested wetland and riparian area to the southern edge of the inventory area.

Mud Creek is the next tributary downstream (west) of Caufield Creek. Mud Creek is the longest tributary of Beaver Creek and starts as an intermittent drainage east of the intersection of Linn Avenue and Pease Road. The USGS mapped Mud Creek as an intermittent stream within the inventory area. Most of Mud Creek flows in a modified channel or long culverts and is ponded in small ponds in a city park near the center of the drainage and a small pond at the southern edge of the UGB.

West of Mud Creek is a small, unnamed, intermittent tributary in the area of the intersection of McCord and Leland Roads. The USGS does not map the stream within the study area.

OREGON CITY LOCAL WETLANDS INVENTORY

- Stream Summary Sheet -

Date(s) of Field Verification: 7/16/98

Mapping Code: NE-7

Investigator(s): JG/PO

Size (acres): 1.3

Location

Legal: T3S R 2E S4

Other: NW of intersection of Hwy. 213 and Beaver Creek Rd.

Basin: Newell Creek

Comments:

This stream is in a very steep, narrow canyon oriented generally north-south. Water flows into the wetland through a culvert in the northwestern corner of the intersection of Highway 213 and South Beaver Creek Road. The water exits the culvert and flows down a concrete chute for an estimated 40 to 50 feet before entering a streambed that is composed predominantly of large boulders. The flow in this stream appears to be perennial, based on the quantity of water observed during the inventory field work. However, a major source of water for the stream is the Inskeep Environmental Learning Center wetland system, which receives much of its water intermittently from a pumping system. The stream contains a large quantity of woody debris, and is well shaded by the trees in the canyon. The steepness of the canyon and the rocky nature of the substrate prohibit the growth of emergent wetland vegetation at the water's edge.

Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NEL-1

Riparian Width Determination

Date: 7/16/98 Investigators: JG/PO

Dominant tree species: Acer macrophyllum

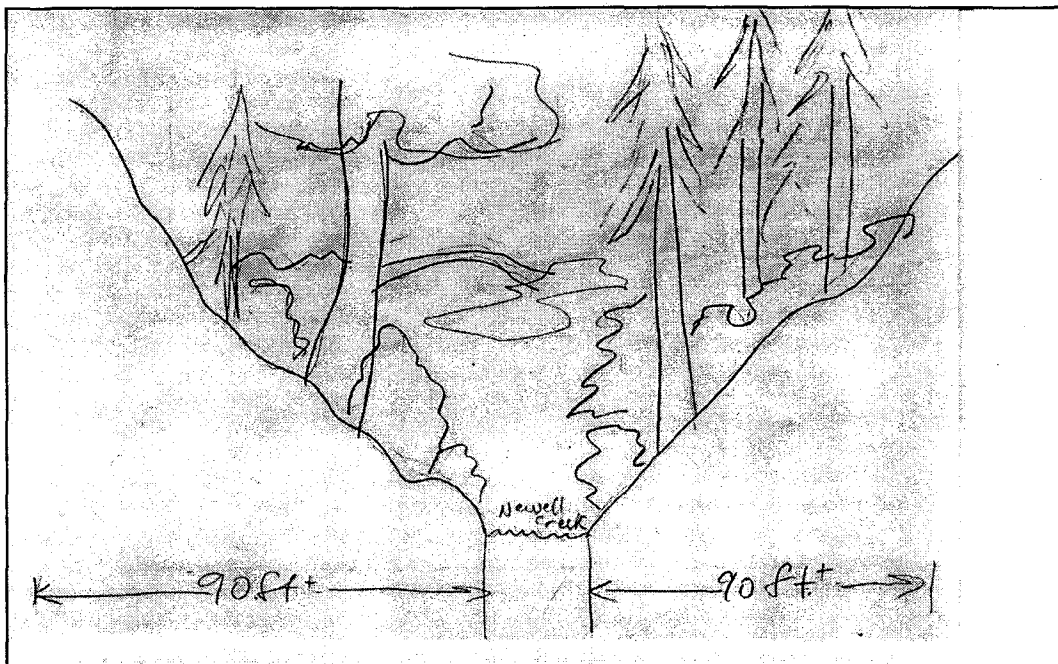
Potential tree height (PTH)/Width of Riparian Area: 90/90

(Width measured horizontally from edge of water resource)

PTH determined by: ☒ On-site vegetation ☐ Reference site Code:

Comments:

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NEL-1

Riparian Characterization Form

Part 1

General Information

Date: 7/16/98

On-site ☒ Office ☐

Reach Length: 1,600

Investigators: JG/PO

Hydrologic Basin: Newell Creek

Water Resource Information

Water Resource: Stream/River ☒ Width: 8

Lake/Pond ☐ Width: 0

Wetland ☐ Width: 0

LWI Wetland Code: NE-7

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: No

Mapped soil series: 8B, 92F

Adjacent Land Uses?

Agriculture ☐ Residential ☒ Undeveloped ☐

Commercial ☐ Roads ☒ Forestry ☐

Woody Vegetation

Acer macrophyllum

Thuja plicata

Alnus rubra

Acer circinatum

Oemleria cerasiformis

Rubus ursinus

Ilex aquifolium

Vaccinium occidentale

Herbaceous Vegetation

Polystichum munitum

Hydrophyllum tenuipes

Urtica dioica

Geranium robertianum

Claytonia sibirica

Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NEL-1

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- ☐ <10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- ☒ <10% ☐ 10% to 25% ☐ >25%

☐ The reach is constricted by man-made features.

☒ The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- ☐ Woody vegetation ☐ Herbaceous vegetation ☐ Bare ground

☒ Woody vegetation hangs over the edge of the water.

☒ Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- ☒ >40% ☐ 10% to 40% ☐ <10%

Degree of development or human cause disturbance:

- ☒ <25% ☐ 25% to 75% ☐ >75%

Urban Riparian Inventory and Assessment

Project Number: 7971165
Project Name: City of Oregon City
Riparian Code: NEL-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 3
Question 5: 2
Total Points: 12

Function:

☒ High
☐ Medium
☐ Low

Flood Management

Question 6: 3
Question 7: 3
Question 8: 3
Total Points: 9

Function:

☒ High
☐ Medium
☐ Low

Thermal Regulation

Question 9: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

☒ High
☐ Medium
☐ Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 21

Function:

☒ High
☐ Medium
☐ Low

Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NER-1

Riparian Width Determination

Date: 7/16/98 Investigators: JG/PO

Dominant tree species: *Acer macrophyllum*

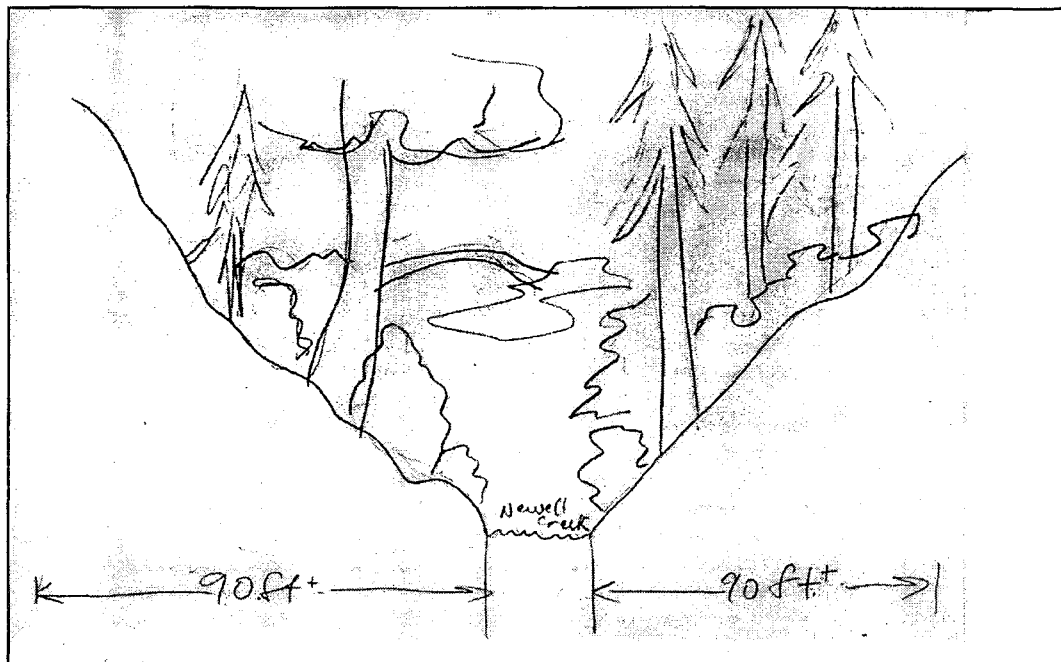
Potential tree height (PTH)/Width of Riparian Area: 90/90

(Width measured horizontally from edge of water resource)

PTH determined by: ☒ On-site vegetation ☐ Reference site Code:

Comments:

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NER-1

Riparian Characterization Form

Part 1

General Information

Date: 7/16/98

On-site ☒ Office ☐

Reach Length: 1,600

Investigators: JG/PO

Hydrologic Basin: Newell Creek

Water Resource Information

Water Resource: Stream/River ☒ Width: 8

Lake/Pond ☐ Width: 0

Wetland ☐ Width: 0

LWI Wetland Code: NE-7

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: No

Mapped soil series: 8B, 92F

Adjacent Land Uses?

Agriculture ☐ Residential ☒ Undeveloped ☐

Commercial ☐ Roads ☒ Forestry ☐

Woody Vegetation

Acer macrophyllum

Thuja plicata

Alnus rubra

Acer circinatum

Oemleria cerasiformis

Rubus ursinus

Ilex aquifolium

Vaccinium occidentale

Herbaceous Vegetation

Polystichum munitum

Hydrophyllum tenuipes

Urtica dioica

Geranium robertianum

Claytonia sibirica

Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NER-1

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- ☐ <10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- ☒ <10% ☐ 10% to 25% ☐ >25%

☐ The reach is constricted by man-made features.

☒ The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- ☒ Woody vegetation ☐ Herbaceous vegetation ☐ Bare ground

☒ Woody vegetation hangs over the edge of the water.

☒ Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- ☒ >40% ☐ 10% to 40% ☐ <10%

Degree of development or human cause disturbance:

- ☒ <25% ☐ 25% to 75% ☐ >75%

Urban Riparian Inventory and Assessment

Project Number: 7971165

Project Name: City of Oregon City

Riparian Code: NER-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 3
Question 5: 2
Total Points: 12

Function:

☒ High
☐ Medium
☐ Low

Flood Management

Question 6: 3
Question 7: 3
Question 8: 3
Total Points: 9

Function:

☒ High
☐ Medium
☐ Low

Thermal Regulation

Question 9: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

☒ High
☐ Medium
☐ Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 21

Function:

☒ High
☐ Medium
☐ Low

OREGON CITY LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 7/21/98

Wetland Mapping Code: NE-8

Investigator(s): KC/PO

Size (acres): 1

Location

Legal: T3S R2E S4

Other: NE of intersection of Hwy. 213 & Beaver Creek Rd.

Basin: Newell Creek

Soils

Mapped Series: 8B

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PSS

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Fraxinus latifolia</i>	<i>Cornus sericea</i>	<i>Rubus discolor</i>	<i>Phalaris arundinacea</i>
<i>Populus balsamifera</i>	<i>Rubus spectabilis</i>	<i>Rubus laciniatus</i>	<i>Carex obnupta</i>
<i>Alnus rubra</i>		<i>Rubus ursinus</i>	<i>Solanum dulcamara</i>
			<i>Carex deweyana</i>
			<i>Convolvulus arvensis</i>
			<i>Geum macrophyllum</i>
			<i>Holcus lanatus</i>
			<i>Epilobium watsonii</i>

Comments:

Newell Creek meanders through backyards and culverts under streets. The vegetation is highly disturbed. Some evidence of flooding was noted.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Oregon City Site: NE-8 Plot: 55
 T 3S R 2E S 4 City: Oregon City County: Clackamas State: OR
 Plot Location; Topography Bank of stream N of Inskeep Environmental Learning Center
 Project #: 7971165 Determined by: KC/PO Date: 7/21/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? Yes

Are Soils ☐ Vegetation ☐ Hydrology ☐ significantly disturbed? No

VEGETATION Dominant Plant Species		Ind. %Cover:			Ind. %Cover:
Herb Stratum - % total cover:		70	Shrub/Sapling Stratum - % total cover:		15
<i>Phalaris arundinacea</i>	FACW	20	<i>Cornus Sericea</i>	FACW	100
<i>Carex obnupta</i>	OBL	20			
<i>Solanum dulcamara</i>	FAC+	10			
<i>Carex deweyana</i>	FACU	10			
<i>Convolvulus arvensis</i>	UPL	10			
<i>Geum macrophyllum</i>	FACW	10			
<i>Holcus lanatus</i>	FAC	10			
<i>Epilobium watsonii</i>	FACW	5			
Woody Vine Stratum - % total cover:		30	Tree Stratum - % total cover:		50
<i>Rubus spectabilis</i>	FAC+	60	<i>Fraxinus latifolia</i>	FACW	20
<i>Rubus discolor</i>	FACU	20	<i>Populus balsamifera</i>	FAC	15
<i>Rubus laciniatus</i>	FACU	10	<i>Alnus rubra</i>	FAC	15
<i>Rubus ursinus</i>	FACU	10			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 8 of 11 = 73 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bornstead silt loam
 Drainage Class: Moderately well drained
 Taxonomy: Fine-silty, mixed, mesic Typic Haploxerults

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-10"	10 YR 3/2	mottles abundant, medium, 7.5 YR 5/8	Silty clay loam
	10-18"	7.5 YR 3/1	mottles abundant, coarse, 7.5 YR 4/6	Clay loam

- | | | | |
|--|--|---|---|
| ☐ Histosol | ☐ Prob. Aquic moisture regime | ☐ Redox features | ☐ Organic streaking |
| ☐ Histic epipedon | ☐ Reducing conditions | ☐ Concretions | ☐ Organic pan |
| ☐ Sulfidic odor | ☐ Gleyed | ☐ Highly organic surface layer | ☐ On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation N/A Depth to water table: >18" Depth to saturation: 12"

Primary Indicators:

- ☐ Inundated
☒ Saturated in upper 12"
☐ Water marks
☐ Drift lines
☒ Sediment deposits
☒ Drainage patterns

Secondary Indicators (2 or more required):

- ☒ Oxidized rhizospheres ☐ Local soil survey data
☐ Water-stained leaves ☐ FAC-Neutral test
☐ Recorded data (aerials, groundwater data)
 Explain:
☐ Other
 Explain:

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	7/21/98	Investigator(s):	KC/PO
Project Name:	City of Oregon City		
Wetland Code:	NE-8	Project Number:	7971165

Wildlife Habitat		Fish Habitat Streams		Fish Habitat Lakes/Ponds		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q1:	A	Q1:	B	Q1:		Q1:	A	Q1:	B	Q1:	A
Q2:	A	Q2:	B	Q2:		Q2:	A	Q2:	A	Q2:	B
Q3:	B	Q3:	B	Q3:		Q3:	B	Q3:	C	Q3:	C
Q4:	C	Q4:	A	Q4:		Q4:	B	Q4:	B	Q4:	A
Q5:	A	Q5:	C	Q5:		Q5:	A	Q5:	A	Q5:	A
Q6:	A	Q6:	A	Q6:		Q6:	C	Q6:	A	Q6:	A
Q7:	A							Q7:	A		
Q8:	C										
Q9a:											
Q9b:	C										

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: B
Q2: A	Q2: A	Q2: C	Q2: B
Q3: C	Q3: B	Q3: C	Q3: C
Q4: C	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: B
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

Wetland Code: NE-8

Project Number: 7971165

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Woody vegetation is dominant vegetation cover. Moderate degree of Cowardin class interspersed. Less than 0.5 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Between 50 and 75% of stream shaded by riparian vegetation. Portions of stream channel modified. Stream contains between 10 and 25% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. Salmon, trout, or sensitive species present sometime during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Moderate (approx. 60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is less than 0.5 acre. Minor restrictions slow down waterflow out of the wetland. Woody vegetation is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: NE-8

ProjectNumber: 7971165

Function	Evaluation Descriptor	Rationale
		Residential/Industrial (developed) land use within 500 feet of wetland's edge. Woody vegetation is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted and cannot be restored. Wetland's area is less than 0.5 acre. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	Two Cowardin classes are visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.