

Central Point Riparian Inventory

Prepared for

City of Central Point
Justin Gindlesperger
140 South Third Street
Central Point, OR 97502

Prepared by

Shawn Eisner
Amy Hawkins
John van Staveren
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
(503) 570-0800
(503) 570-0855 FAX

PHS Project Number: 7421

July 28, 2023



TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION.....	1
2.0 RIPARIAN CORRIDORS	1
2.1 Fish Bearing Streams, River, and Lakes	2
2.2 Safe Harbor Method	3
2.3 Standard Method – Urban Riparian Inventory and Assessment Guide.....	3
2.3.1 Methodology	3
2.3.2 Results	4
2.4 Conclusions	6
 APPENDIX A: Riparian Buffer Maps	
APPENDIX B: Riparian (URIAG) Data Forms	

TABLES

	<u>Page</u>
Table 1. Potential tree heights of identified species determining riparian widths in Central Point.	4
Table 2. Summary of Riparian Functional Assessments.....	5
Table 3. The ranges of widths available from the two methods applied to all fish bearing waterbodies in Central Point.....	6

1.0 INTRODUCTION

Pacific Habitat Services, Inc. (PHS) was contracted by the City of Central Point to conduct a Riparian Inventory within the limits of the existing Urban Growth Boundary (UGB) and four additional proposed UGB expansion areas. The approximate limits of the study area are shown on the Riparian Buffer Overview Map (all maps are in Appendix A).

The goal of the study was to address the requirements for Statewide Planning Goal 5 (*Natural Resources, Scenic and Historic Areas, and Open Spaces*) Oregon Administrative Rule (OAR) Section 660, Division 23. The objective of Goal 5 is to “protect natural resources and conserve scenic, historic and open space resources for present and future generations.”

2.0 RIPARIAN CORRIDORS

A "riparian area" is defined as the area adjacent to a river, lake, or stream, consisting of the area of transition from an aquatic ecosystem to a terrestrial ecosystem. A "riparian corridor" is a Goal 5 resource that includes the water areas, fish habitat, adjacent riparian areas, and wetlands within the riparian boundary.

The Goal 5 Administrative Rules require local governments to inventory and determine significant riparian corridors by following either the safe harbor process or the standard methodology. In the safe harbor approach, only fish-bearing water bodies must be inventoried whereas in the standard process, all water areas may be included and assessed for significance. In order that the City of Central Point may make an informed decision relative to the determination of buffer widths within the riparian areas in Central Point, both approaches have been applied for this inventory. The mapping produced in Appendix A shows the results of both the standard and safe harbor methods.

The extent of riparian corridors as shown on the Riparian Maps in Appendix A have been identified and mapped in GIS. The mapped limits of each waterway and corresponding riparian corridors should therefore be considered as approximate. A more accurate method of identifying the actual limits of the riparian areas would be achieved by delineating the ordinary high water mark of each water body. Delineating ordinary high water is a method required by DSL and the Corps of Engineers whenever a delineation report is submitted by a property owner or developer seeking a jurisdictional determination from either agency.

Safe Harbor method of determining riparian buffer widths

Using the safe harbor method, required Goal 5 setbacks are only applied to fish bearing streams. These buffers include 50 feet for waterbodies less than 1,000 cubic feet per second (cfs) and 75 feet for waterbodies greater than 1,000 cfs. As all the streams in Central Point are less than 1,000 cfs, a 50 foot setback would be required on all fish bearing streams. The setbacks are required to be applied to the top of bank of the waterway resource or, when the riparian corridor includes all or portions of a significant wetland, the setback is to be applied to the upland edge of the wetland. As the top of bank has not been surveyed as part of this inventory, the setback was applied to and measured from the City of Central Point's digitized stream lines, which roughly corresponds to the centerline of each resource. A precise determination of the outer limits of the

riparian area for a given resource would either require a delineation, as noted above, or a detailed mapping (digitizing) effort to identify the banks of both sides of each stream.

Standard method of determining riparian buffer widths (using URIAG)

As a standard method, PHS included all perennial streams in Central Point using a methodology called the Urban Riparian Inventory and Assessment Guide (URIAG) (DSL 1998). This riparian assessment methodology was developed by PHS for the Oregon Department of State Lands. A description of the methodology and the results of applying this methodology are included in the sections below. In contrast to the Safe Harbor method, the URIAG defines the limits of the riparian assessment area based upon dominant tree height; meaning that the dominant tree species within a given reach defines the width of the riparian corridor. Under this method the limits of the assessment area can vary between 15 and 120 feet.

The results of the two methods as applied in Central Point are summarized as follows:

- Safe Harbor 50 feet from all other fish bearing waterbodies

- URIAG Setback determined by the dominant tree species within the existing riparian area. For example: 120 feet maximum setback for black cottonwood, 75 feet for Oregon ash and white alder, 60 feet for oak, 35 feet for Pacific willow, and 15 feet for Coyote willow

2.1 Fish-Bearing Streams, Rivers and Lakes

Goal 5 also requires that fish habitat be included in the inventory. The definition of fish bearing includes waterbodies with both native and introduced species. As such, the determination of riparian corridors under Goal 5 was based on all fish-bearing waterbodies within Central Point. Information on fish presence came from Streamnet (<http://www.streamnet.org/>), which is a database of the latest sampling conducted by the ODFW and other data sources.

The data available on Streamnet confirmed that following streams within the limits of the Central Point inventory have documented fish presence.

- Elk Creek – flows across a portion of the southeast study area; from Beall Road and east under I-5
- Mingus Creek – with headwaters located in agricultural lands south of Central Point, Mingus Creek crosses through the middle of the study area; flows out of study area along I-5 before being piped under the Interstate; the creek flows back into the study area under Upton Road just upstream from its confluence with Bear Creek
- Griffin Creek – from Beall Lane north across the west-central portion of the study area
- Jackson Creek – beginning south of Beall Lane, this creek parallels the existing western UGB line before flowing beyond the study area north of Twin Creeks Crossing
- Horn Creek - a tributary to Jackson Creek located west of the main stem
- Dean Creek – a very short section east of Dean Creek Road at its confluence with Jackson Creek

- Willow Creek – a very short section east of Dean Creek Road near the north end of the study area
- Lone Pine Creek - a very short section at its confluence with Bear Creek near the south end of the study area

2.2 Safe Harbor Method

Goal 5 contains a “safe harbor” option for local jurisdictions allowing them to replace portions of the standard Goal 5 process with processes set forth in the rules for each of the listed Goal 5 resources. The safe harbor process for riparian corridors allows jurisdictions to impose a 50-foot setback from all fish-bearing lakes and streams and a 75-foot setback from all streams with average annual stream flow greater than 1,000 cubic feet per second (cfs) [OAR 660-023-0090(5)].

In the Central Point area there are no rivers with an average annual flow as high as 1,000 cfs. As such, all the fish-bearing streams would require a 50 foot riparian buffer from both sides of a stream. Buffer maps in Appendix A include the required 50 foot buffer on all the fish bearing stream noted in Section 2.1. The safe harbor buffer is shown as a dashed red line, to distinguish it from the standard method buffers (discussed below).

2.3 Standard Method - Urban Riparian Inventory and Assessment Guide

2.3.1 Methodology

The *Urban Riparian Inventory and Assessment Guide* (URIAG) was used to determine the riparian width on all perennial streams in Central Point. With URIAG, riparian corridors are broken into “reaches” with similar characteristics, such as vegetation patterns or land use. It relies on a combination of available knowledge, field observations, and best professional judgment.

The methodology is comprised of a riparian inventory and a riparian assessment. The riparian inventory involves gathering and assimilating information pertinent to the project site, developing a base map, and completing the riparian characterization form.

The riparian corridor is comprised of land to both sides of the water resource. As such, each riparian reach has two sides, with the sides designated as right (R) or left (L), as viewed while looking downstream. If the riparian information is different for the left and right sides, such as significant differences in land use or dominant tree type, there are two assessments for a given reach. Given the general similarity of conditions along both sides of the riparian area along waterways in Central Point, only four reaches were divided into left and right side assessments; and each of these was along Bear Creek.

The riparian characterization form includes a determination of the riparian width. The riparian width is measured from the edge of the water resource, typically either the top of a streambank or the outer edge of a wetland, lake, or pond. Riparian areas on both sides of a stream channel are assigned separate widths. The potential width of the riparian area is based on the dominant riparian tree species within 100 feet of the water resource. The height of the dominant tree

species at maturity is used as a distance to define the outer riparian boundary. The height of the tree species at maturity is called the site potential tree height (SPTH).

SPTH is used as the potential riparian width because it represents a distance in which a tree can still affect the water resource (e.g., provide shade, provide organic material). Where riparian area trees have been eliminated by land-use activities, such as development, farming, or by natural causes, such as landslides, it may be necessary to extrapolate tree heights from a reference site. Although assessed with of the riparian widths never exceed the PTH, they can be less than the PTH if impervious surfaces or permanent structures (e.g., buildings or roads) are inventoried within the SPTH.

Determining the quality of the riparian area is also a part of the riparian inventory process. In URIAG this is accomplished by reviewing functions including water quality, flood management, thermal regulation, and wildlife habitat. The riparian assessment was completed by answering a series of questions for each function. Because certain elements or characteristics of a riparian area are more critical to its function, the answers are "weighted". The points are then totaled for each reach and for each function. The results indicate whether the functional integrity of each riparian area is high, medium, or low. A total of twenty-five (25) riparian reaches were assessed; resulting in 29 total assessments, as four of the reaches included separate assessments for the left and right sides.

2.3.2 Results

Goal 5 does not establish specific criteria for determining significant riparian areas. Instead, local jurisdictions establish their own criteria based on the quantity and quality of the resource. The results as outlined below and expressed in the data forms in Appendix B provide useful and necessary background to establish a basis for determining riparian significance, should the City of Central Point apply the standard method.

Using URIAG, six tree species were determined to be the dominant native trees within riparian areas of the UGB. Most of the inventoried riparian areas were dominated by black cottonwood, with white alder, Oregon ash and Pacific willow each quite common. Additionally, one reach each was dominated by Coyote willow and an unidentified oak species. The trees have the following potential tree heights. These widths are shown to scale on the riparian buffer maps with individual colors corresponding to each buffer width.

Table 1. Potential tree heights of identified species determining riparian widths in Central Point.

Common Name	Botanical Name	Potential Tree Height/ Riparian Corridor Widths (feet)
Black cottonwood	<i>Populus balsamifera</i>	120
White alder	<i>Alnus rhombifolia</i>	75
Oregon ash	<i>Fraxinus latifolia</i>	75
Oak	<i>Quercus sp.</i>	60
Pacific Willow	<i>Salix lasiandra</i>	35
Sitka Willow	<i>Salix sitchensis</i>	15

Table 2 summarizes the results of the riparian functional assessment. A complete copy of the URIAG assessment forms and results for each riparian reach can be found in Appendix B.

Table 2. Summary of Riparian Functional Assessments

Riparian Code	Water Quality	Flood Management	Thermal Regulation	Wildlife Habitat
R-BE-1	H	M	M	H
R-BE-2	H	H	H	H
R-BE-3L	H	M	H	M
R-BE-3R	H	M	H	M
R-BE-4	H	M	L	M
R-BE-5L	H	H	M	M
R-BE-5R	M	M	L	M
R-BE-6L	H	M	M	H
R-BE-6R	H	M	M	M
R-BE-7L	M	M	M	M
R-BE-7R	H	M	M	M
R-GR-1	H	H	H	M
R-GR-2	M	M	H	M
R-GR-3	H	M	H	M
R-GR-4	H	H	H	M
R-GR-5	H	H	H	M
R-GR-6	H	M	H	M
R-JA-1	H	H	H	M
R-JA-2	H	H	H	H
R-JA-3	H	M	H	M
R-JA-4	H	L	H	M
R-LO-1	M	M	M	M
R-MI-1	H	M	H	M
R-DA-1	H	M	H	M
R-EL-1	H	M	M	M
R-EL2	M	M	M	M
R-MI-2	M	M	L	L
R-UP-1	M	M	L	L
R-WI-1	H	M	L	M

H = High M = Medium L = Low

Though the details of each assessment are better reflected by the individual answers and scores for each of the inventoried reaches, Table 2 reveals that the riparian areas in Central Point have maintained medium to high levels of functioning. More detailed observations include the following:

- Water Quality: 76% of inventoried riparian areas rate “high” for water quality functioning. This is a reflection of relatively low slopes, good woody vegetation cover throughout the riparian corridor, especially along the creek top of bank, and in most areas, relatively low levels of impervious surfaces, even in moderately developed areas.
- Flood Management: seven (24%) of the riparian areas rated “high,” and the remaining (76%) rated “medium”. As every stream in Central Point is located below the 100 year flood elevation, “high” levels of functioning exist where the ‘flood prone area’ is dominated by woody vegetation, and “medium” where it is not.
- Thermal Regulation: this function reflects the dominance of woody vegetation in the riparian area. Corridors with woody vegetation, especially those with woody vegetation that hands over the edge of the water and/or provide shading of the resource at midday in summer are higher functioning. Half of the riparian areas are rated “high” due to good cover by woody vegetation. The five reaches that scored “low” reveal riparian areas where woody vegetation was lacking along the inventoried reach.
- Wildlife Habitat: High quality wildlife is characterized by woody, multi-layered vegetation near the streams, and wider undisturbed vegetated buffers. Only four (14%) of Central Point’s riparian areas fulfilled all these criteria. However, all but two of the remaining reaches rated moderate.

2.4 Conclusions

PHS used two methods to determine riparian widths. Table 4 includes the range of widths available to Central Point for Goal 5 protection.

Table 3. The ranges of widths available from the two methods applied to all fish bearing waterbodies in Central Point

Method	Range of riparian corridor widths
Safe Harbor	50 feet (all fish bearing waterbodies)
Urban Riparian Inventory and Assessment Guide (URIAG)	15 feet (Coyote willow) to 120 feet (black cottonwood)










The maps in Appendix A allow for a comparison of the Safe Harbor and URIAG buffer widths. Depending on the dominant tree with a riparian area, the Safe Harbor buffer, at 50 feet, is generally narrower than that determined by the URIAG, where the buffers are primarily 75 to 120 feet wide. A determination and application of significance criteria would be required to determine whether a given riparian reach would require a buffer at all. It is clear from the mapping of riparian areas within Central Point’s existing UGB, that most of the riparian areas are already partially to mostly developed: houses, commercial and industrial development, and impervious surfaces dominate many of the riparian corridors. As a result of the current extent of development within mapped riparian corridors it is likely that the designation of riparian buffers up to 120-foot wide (i.e., using the URIAG widths) within already developed areas may not result in additional riparian protections. URIAG buffer widths could be considered for the protection of several reaches of Bear Creek in several of the expansion areas.

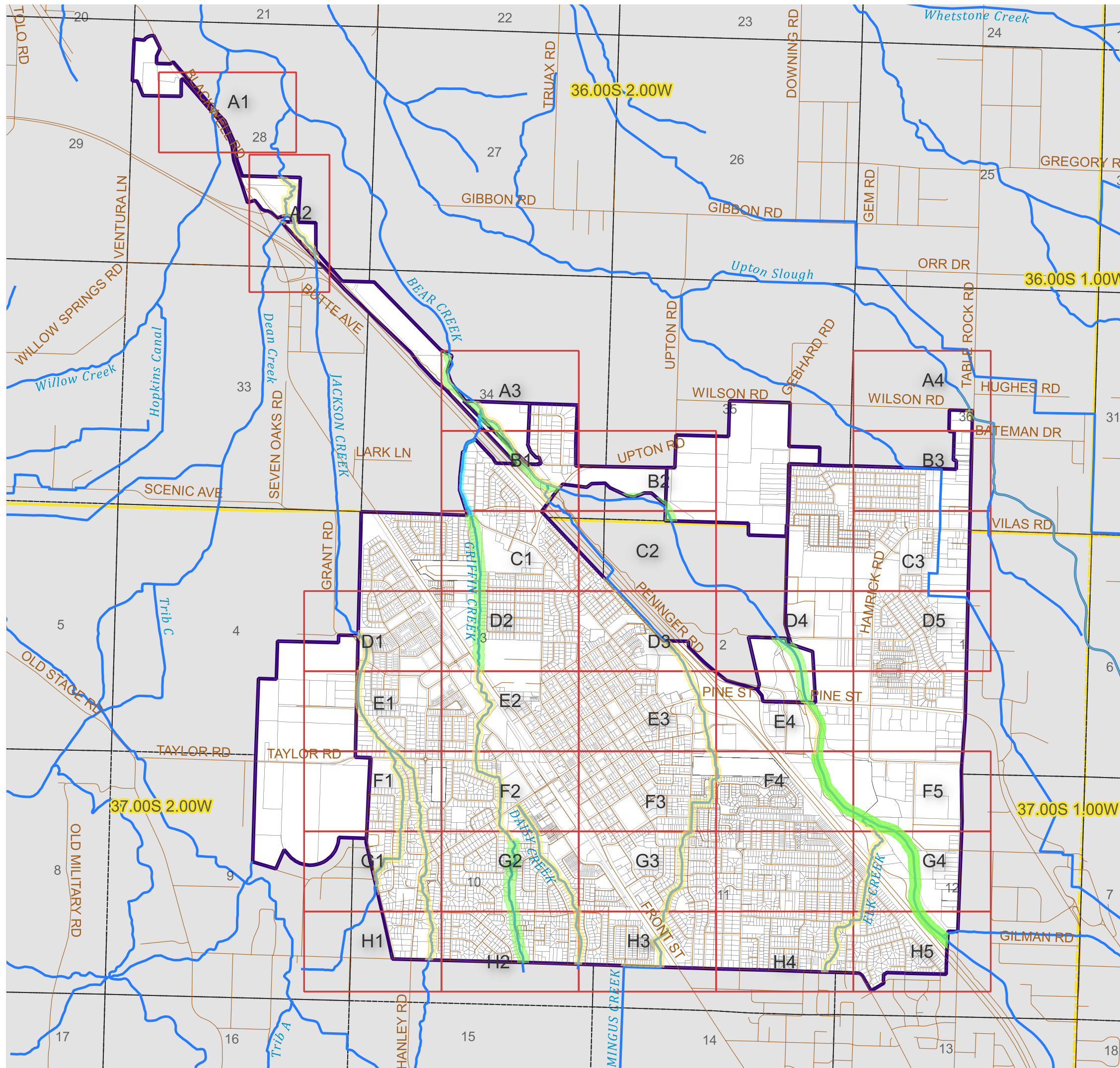
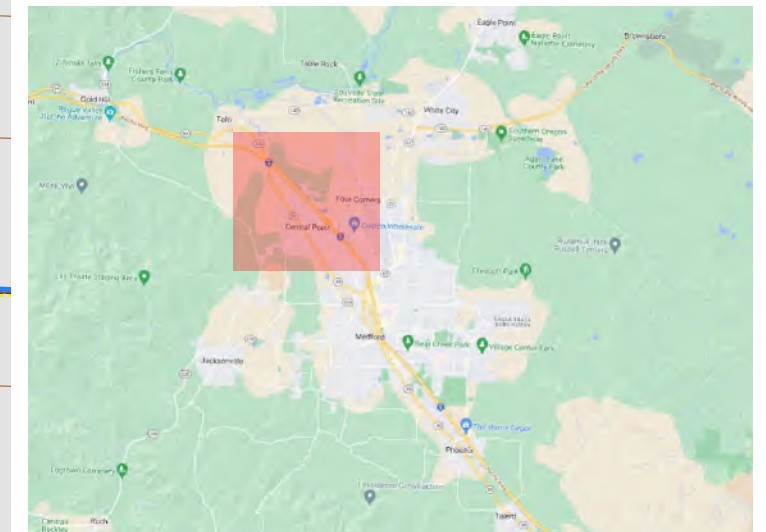
Appendix A

Riparian Buffer Maps

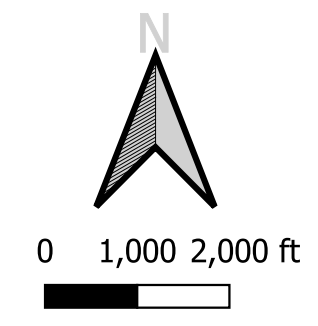


City of Central Point Riparian Buffer Overview Map

-  Study Area
-  Streams
-  60' Buffer
-  75' Buffer
-  120' Buffer
-  Streets
-  Taxlots
-  Sections
-  Township and Range

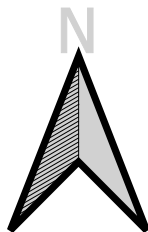
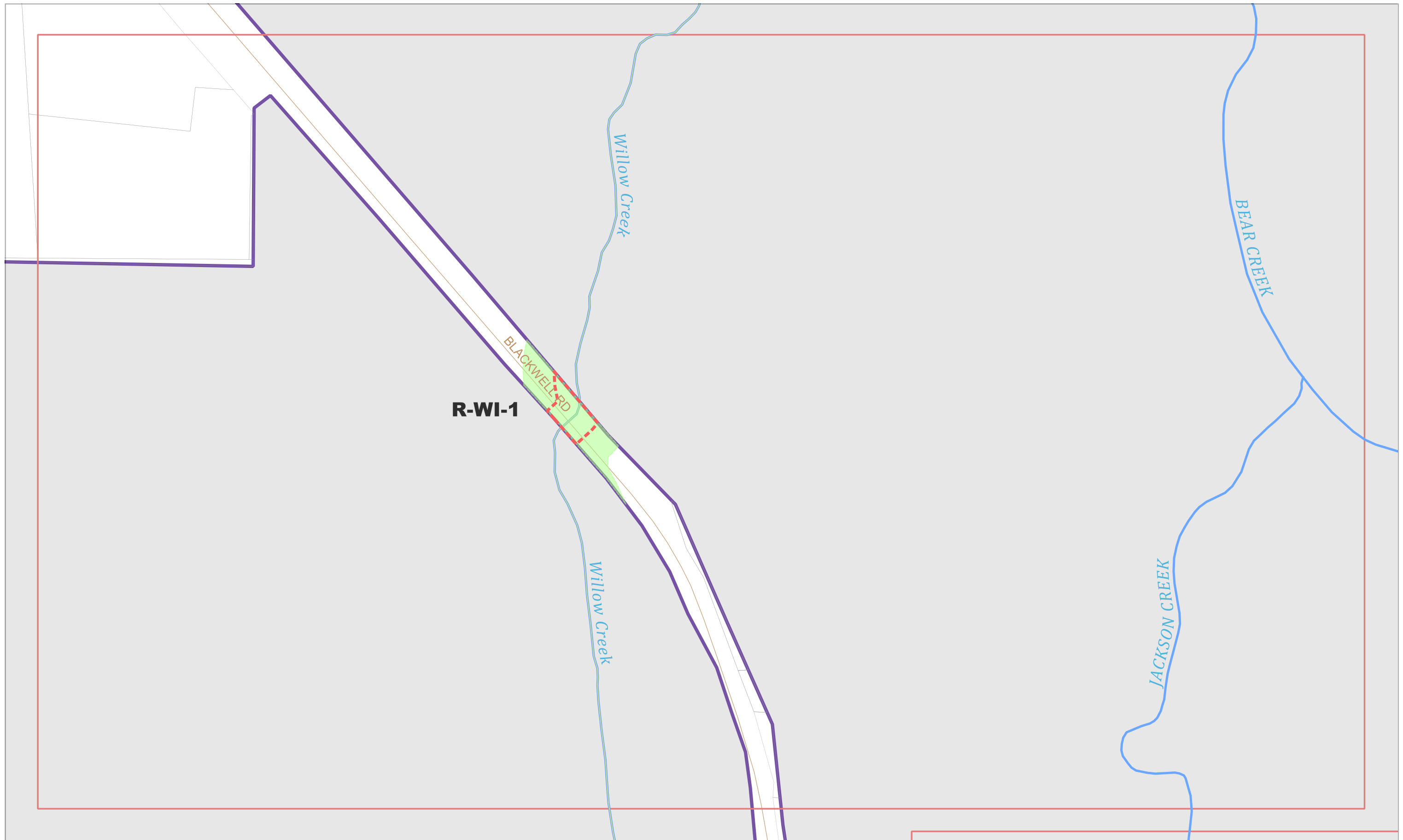


Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

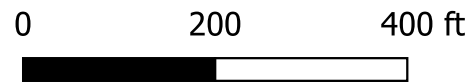


Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070





1:2,400



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

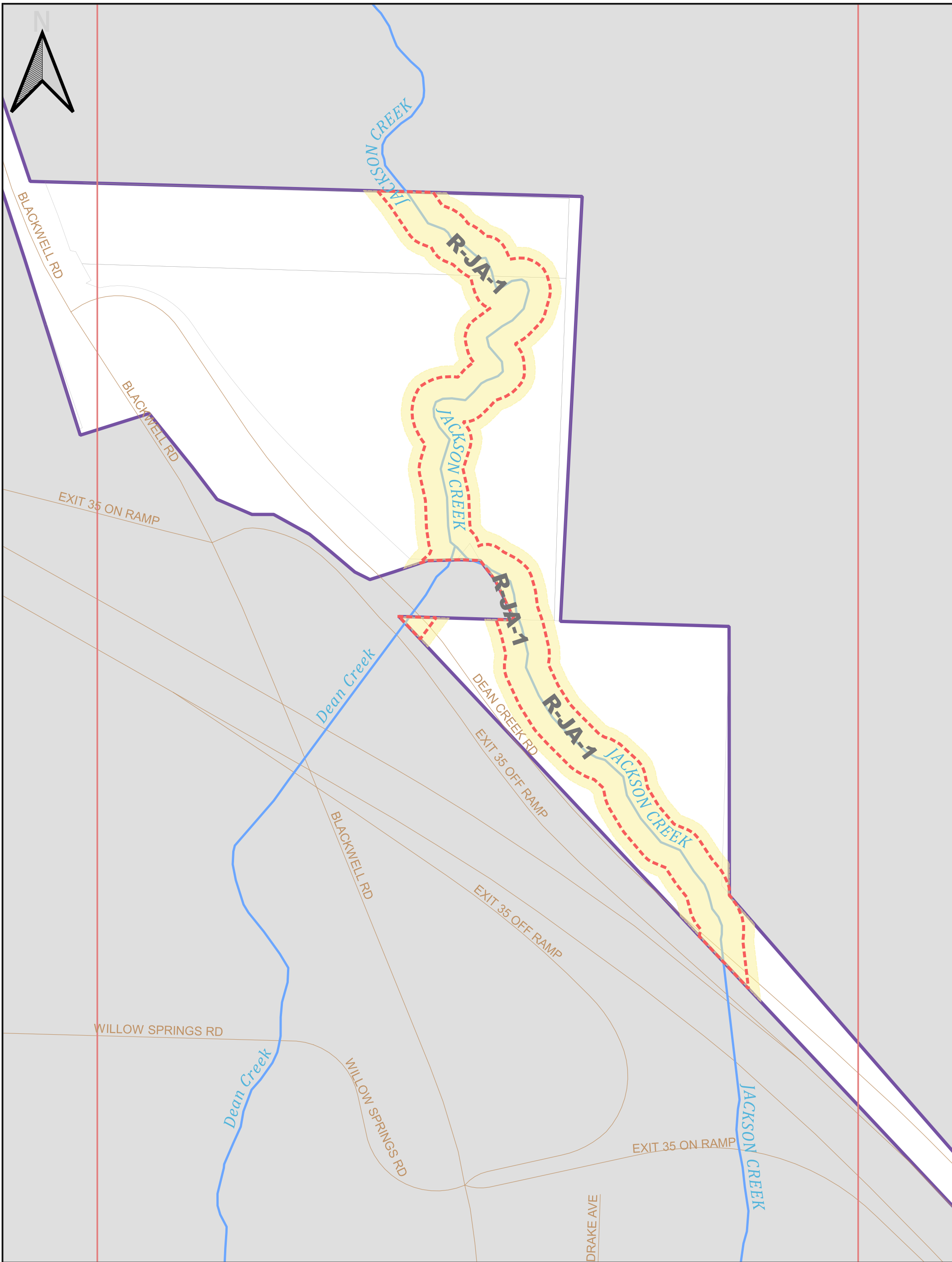
- Study Area
- Safe Harbor Buffers
- 120' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers

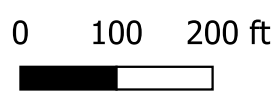
A1








Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



1:2,400



-  Study Area
-  Streets
-  75' Buffer
-  Taxlots
-  Streams

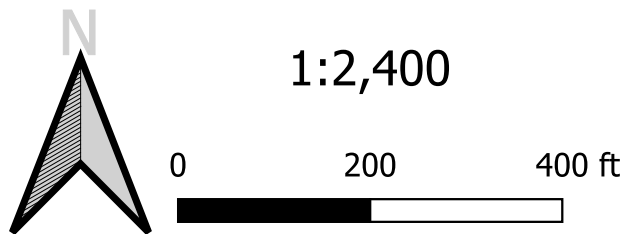
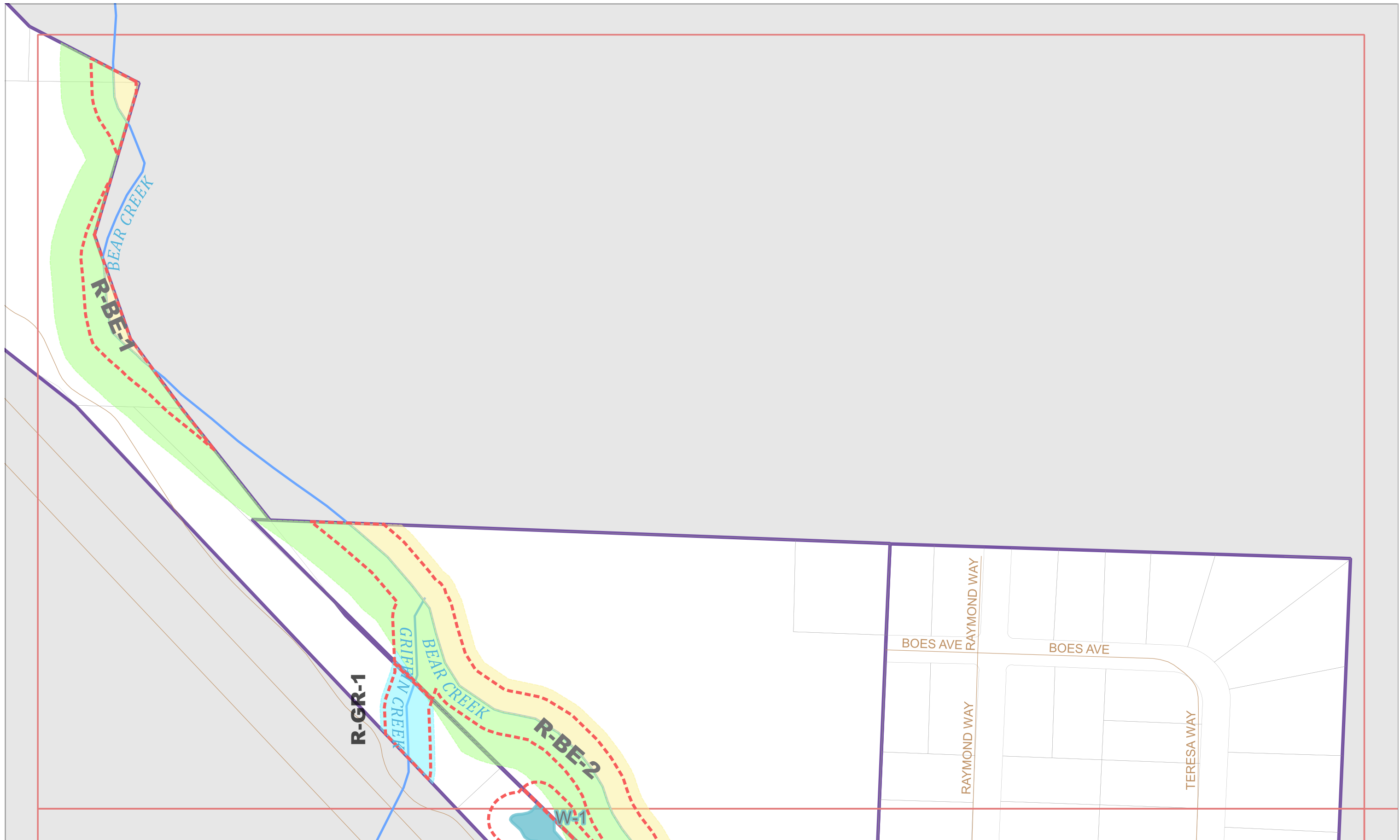
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

City of Central Point Riparian Buffers

A2



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



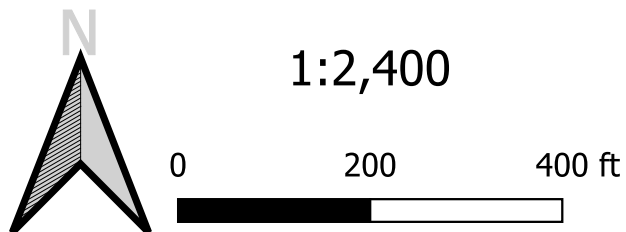
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.






- Study Area
- Safe Harbor Buffers
- 60' Buffer
- 75' Buffer
- Streams
- LWI Wetlands
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers A3

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070

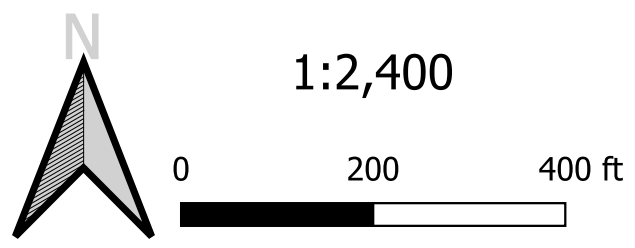
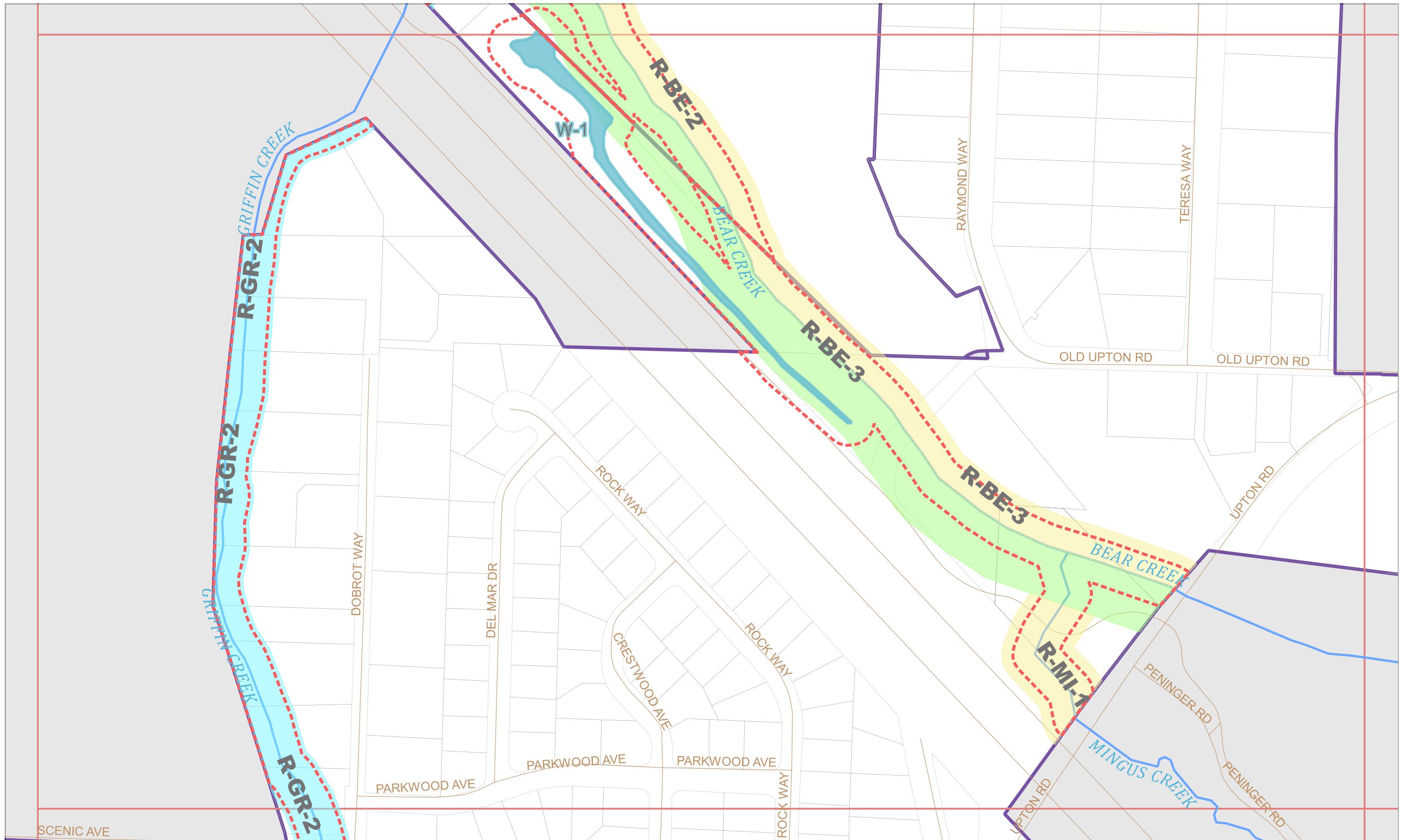


Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

-  Study Area
-  Streets
-  75' Buffer
-  Taxlots
-  Streams

City of Central Point
 Safe Harbor & Riparian
 Buffers
A4





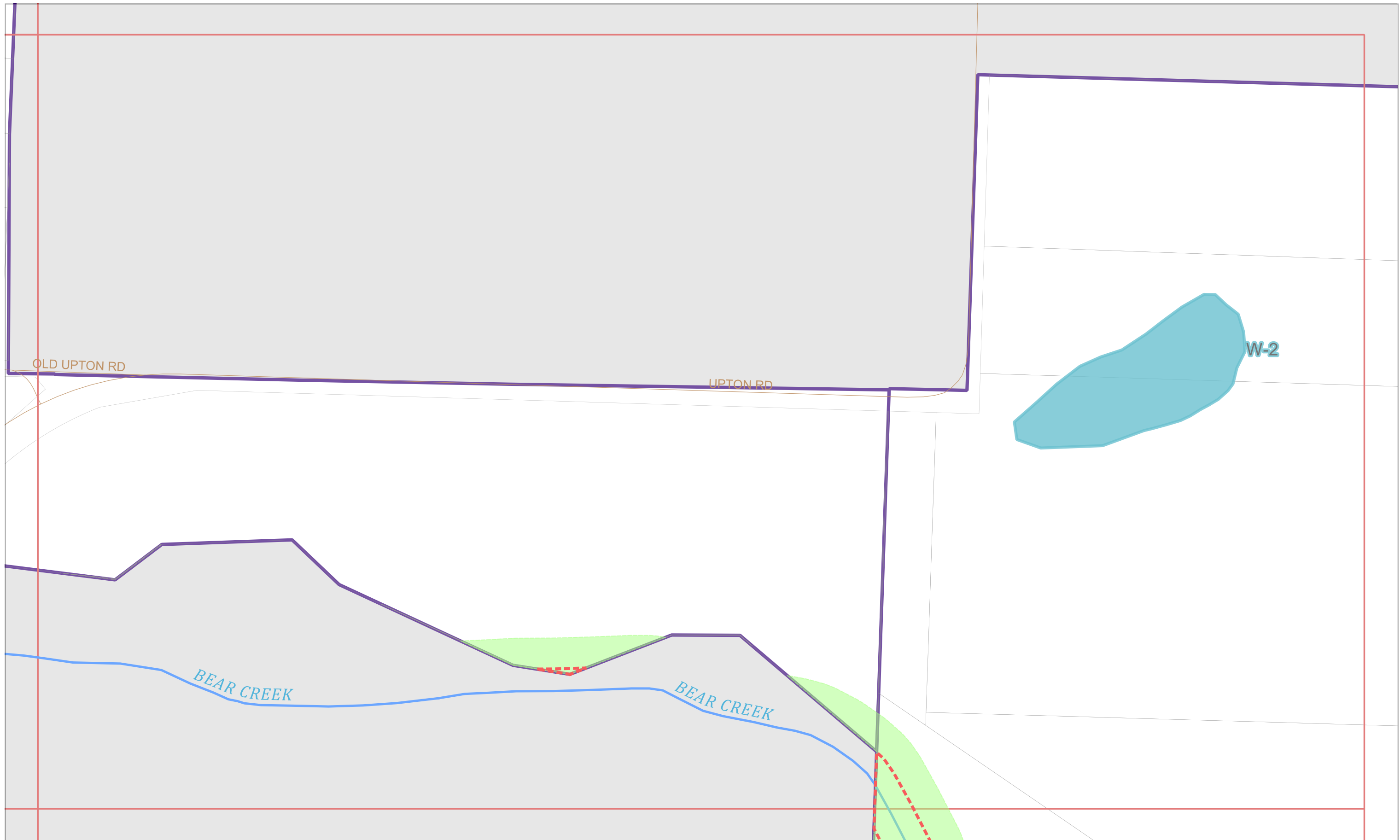
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

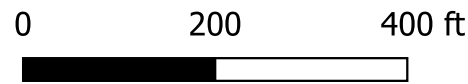
- Study Area
- Safe Harbor Buffers
- 60' Buffer
- 75' Buffer
- Streams
- LWI Wetlands
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers B1

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



1:2,400

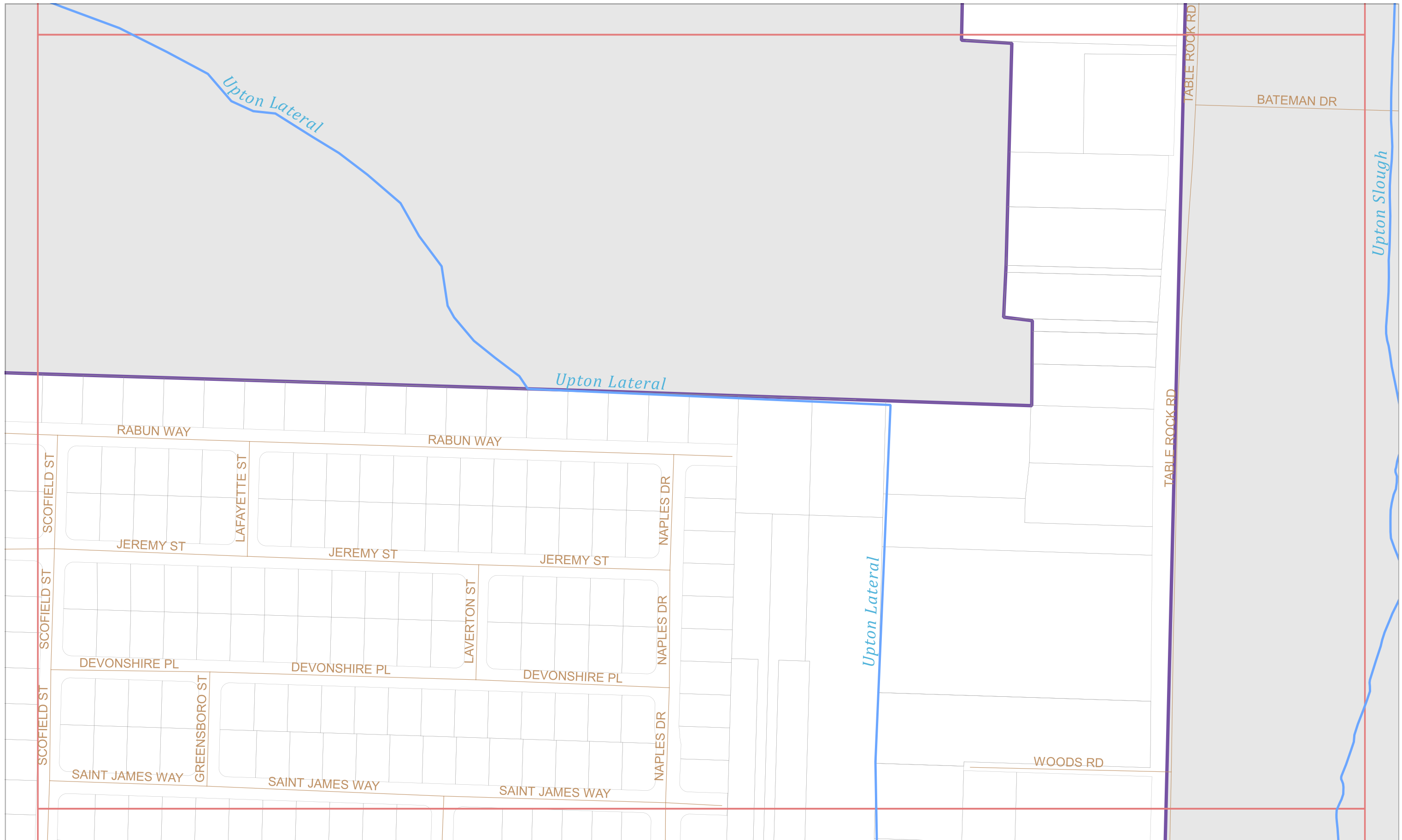


Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- Streams
- LWI Wetlands
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers B2

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



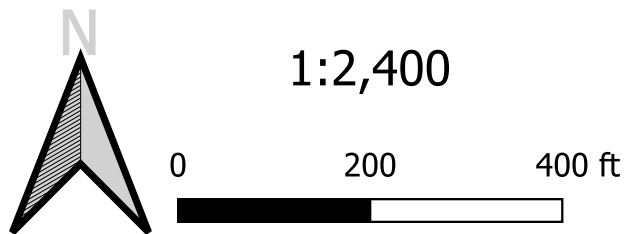
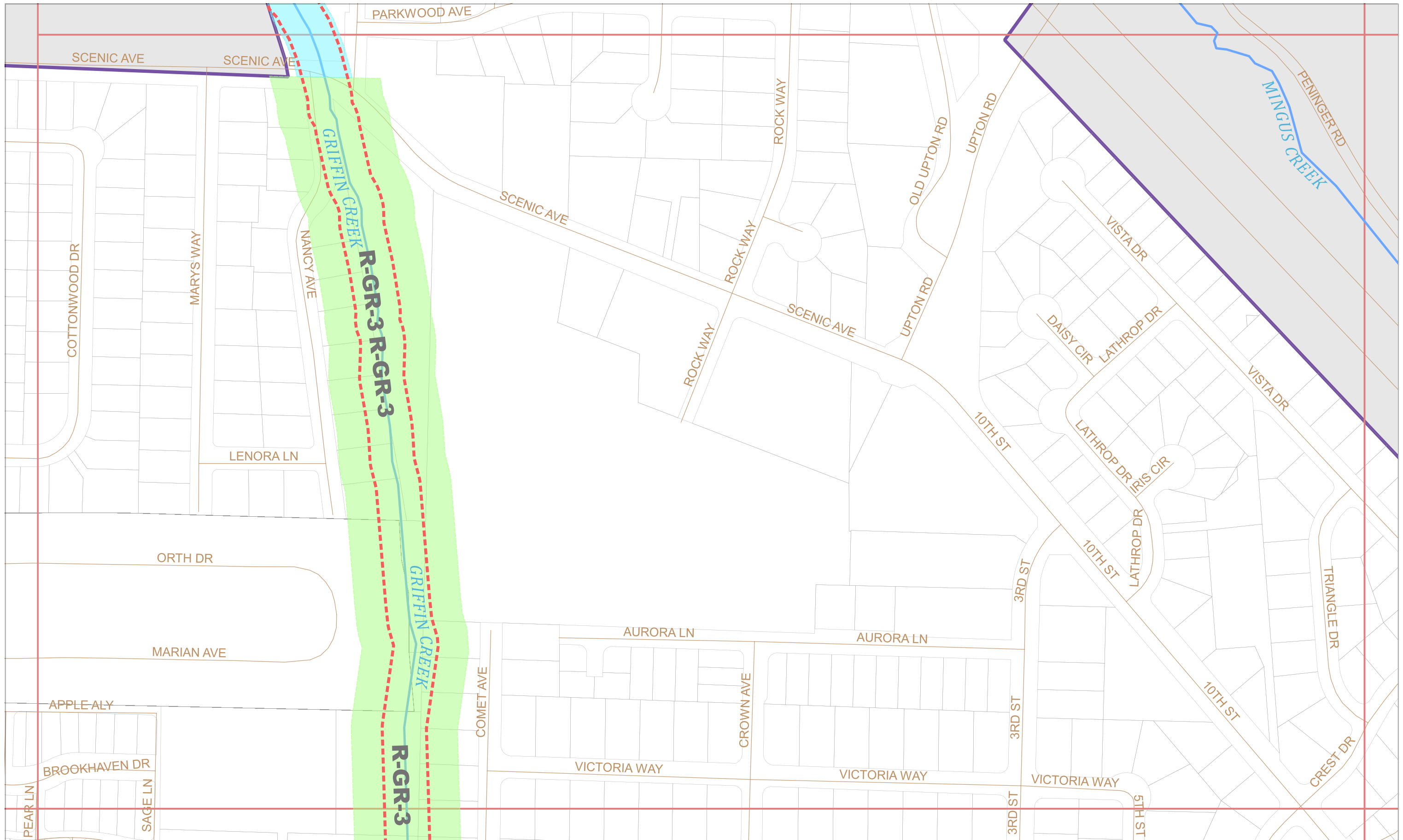
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

-  Study Area
-  Streams
-  Streets
-  Taxlots

City of Central Point Safe Harbor & Riparian Buffers B3



Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070

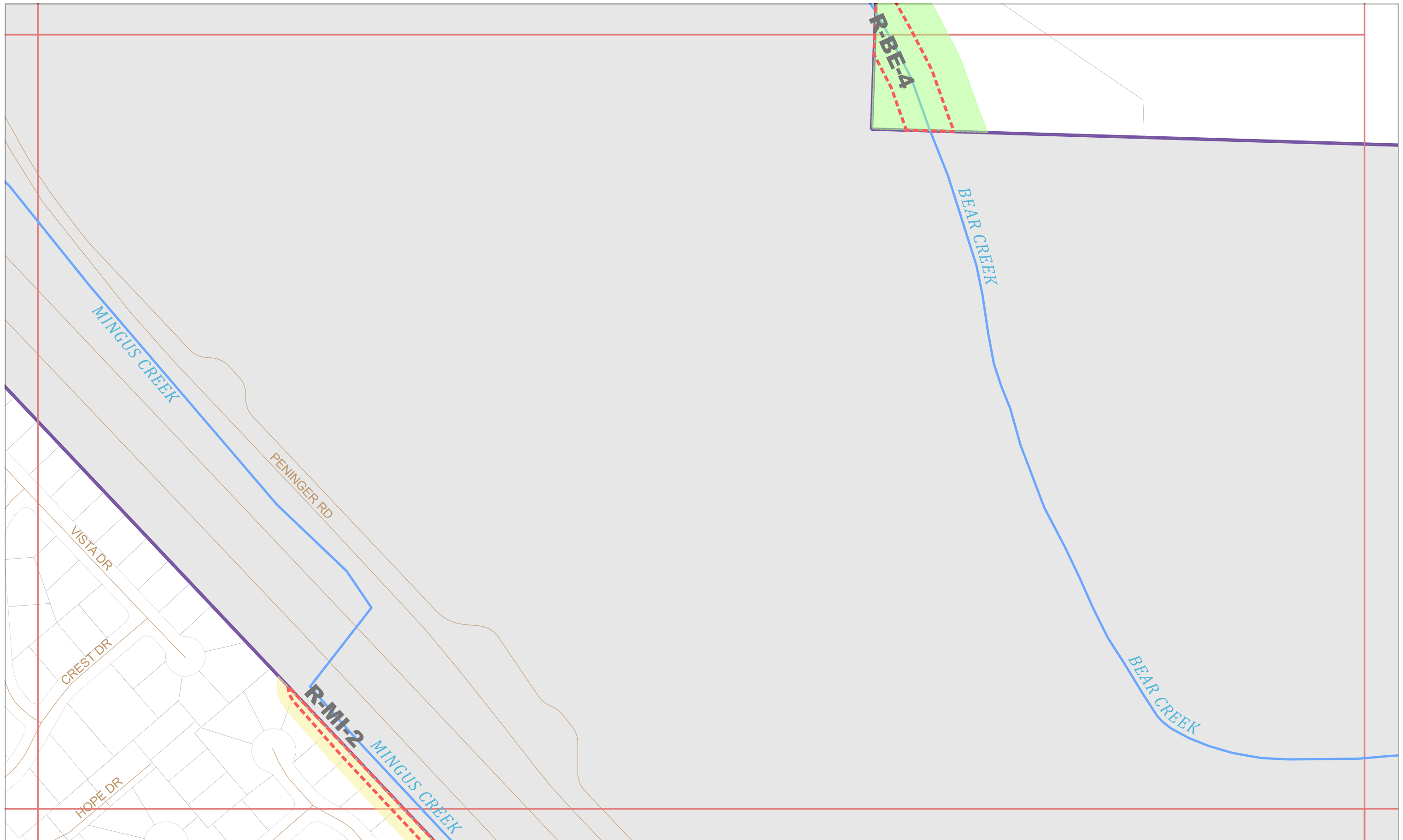


Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 60' Buffer
- 120' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers C1

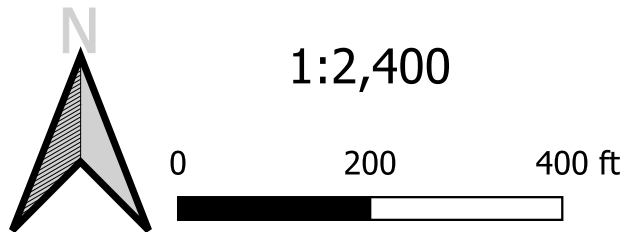
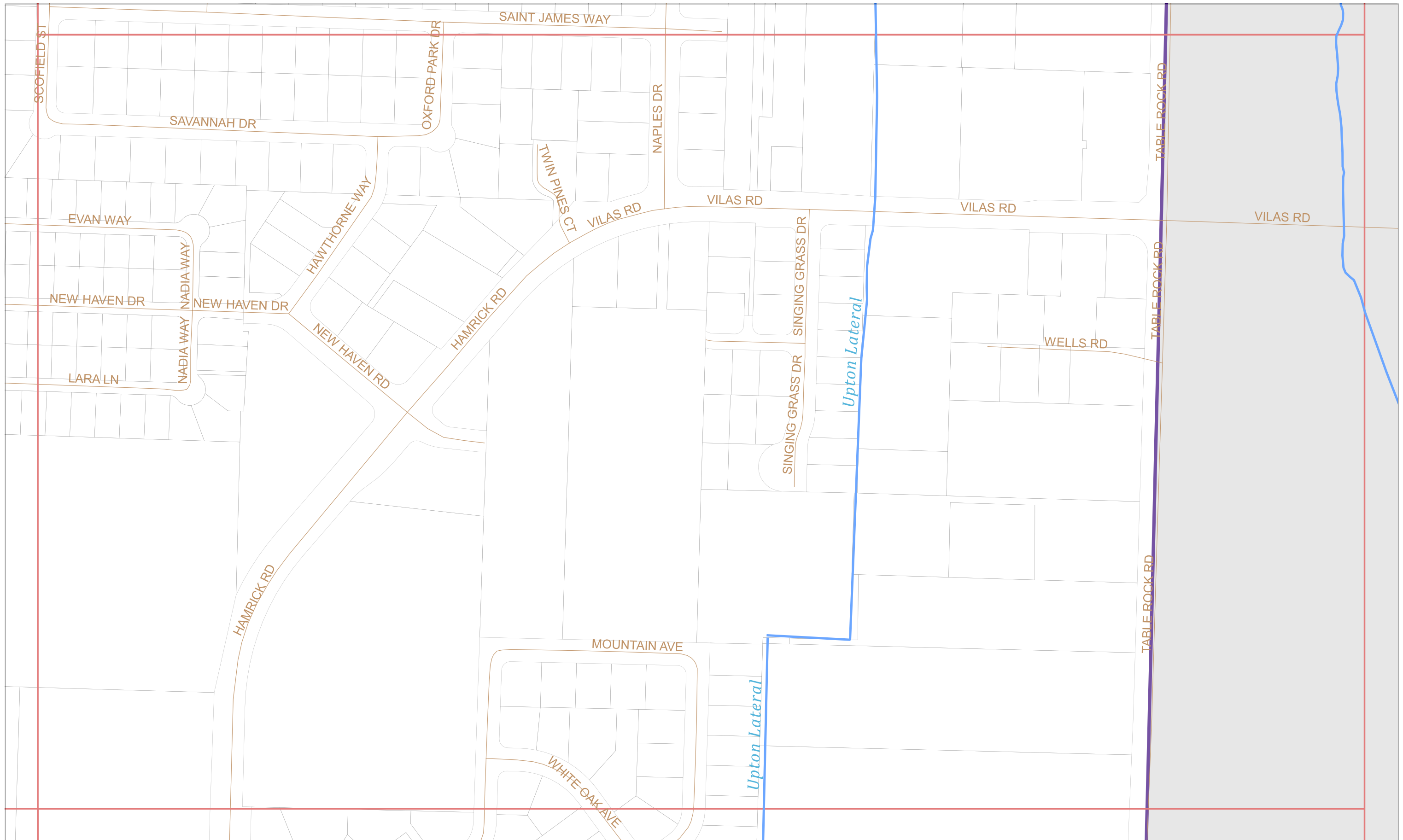
Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers C2



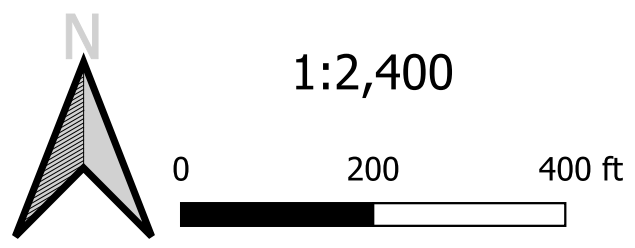
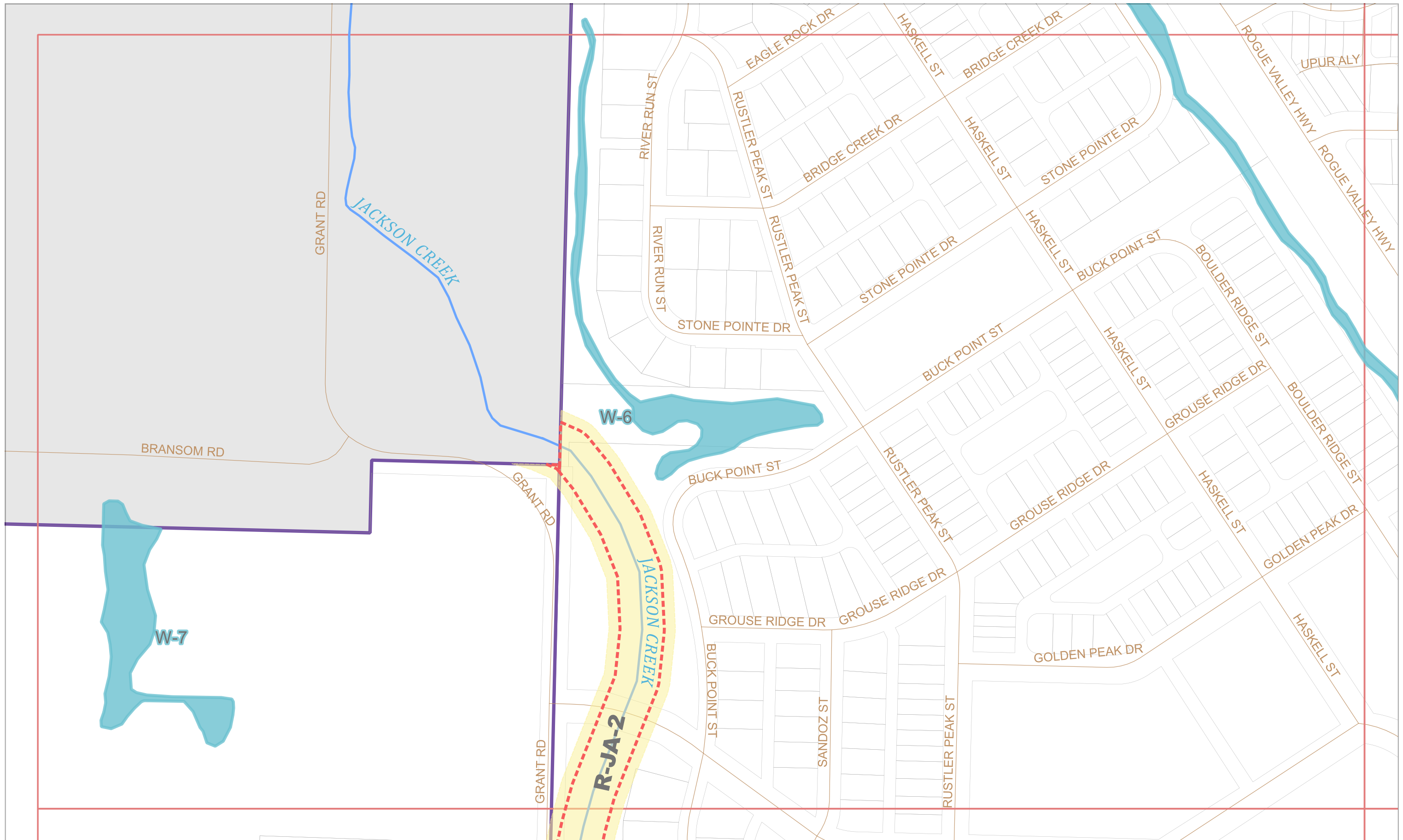
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers C3

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- LWI Wetlands
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers D1

Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



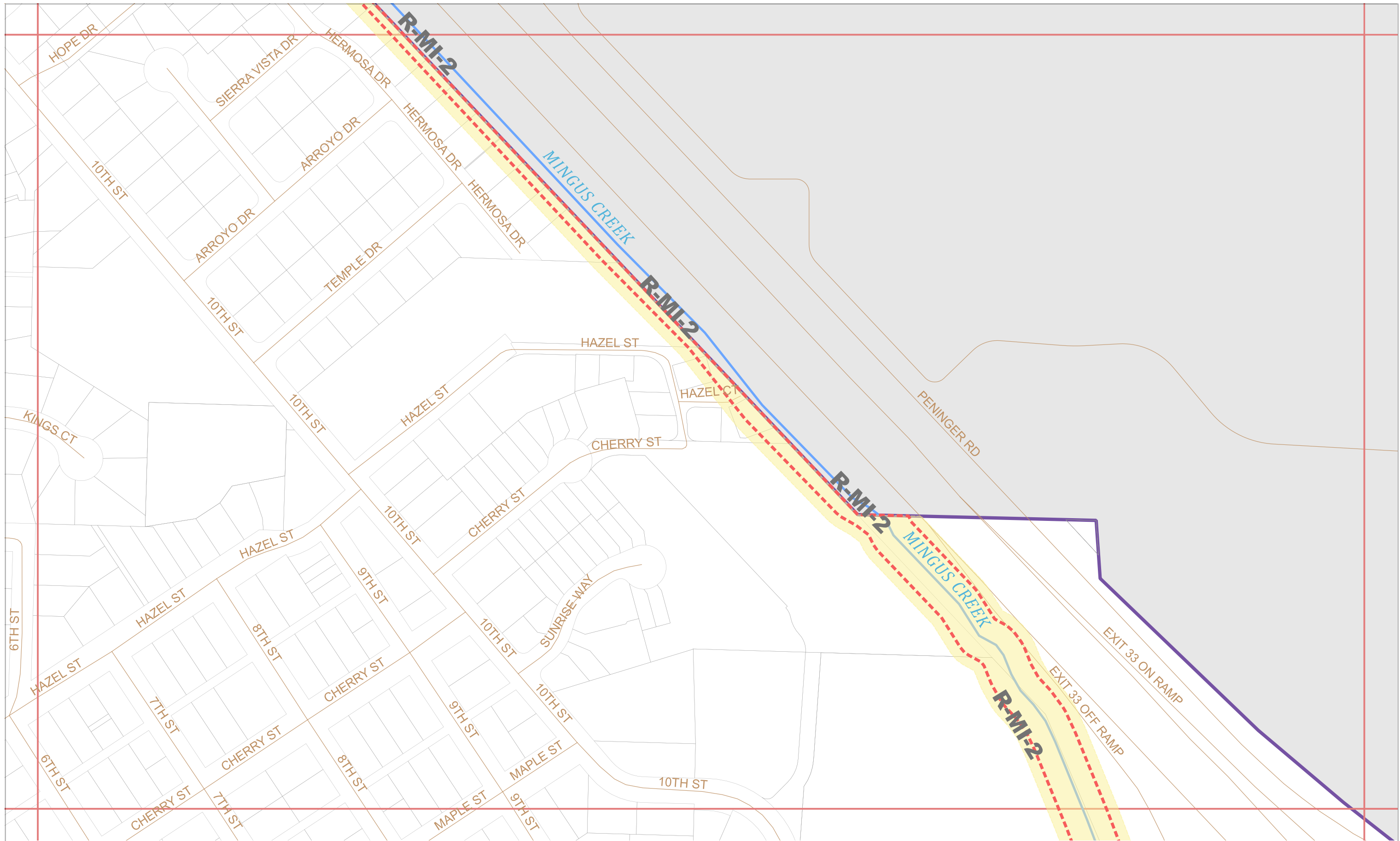
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- | | |
|---------------------|--------------|
| Study Area | Streams |
| Safe Harbor Buffers | LWI Wetlands |
| 75' Buffer | Streets |
| 120' Buffer | Taxlots |







City of Central Point Safe Harbor & Riparian Buffers D2



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



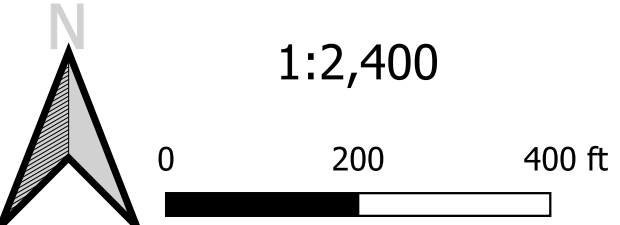
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

-  Study Area
-  Safe Harbor Buffers
-  75' Buffer
-  Streams
-  Streets
-  Taxlots

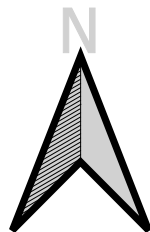
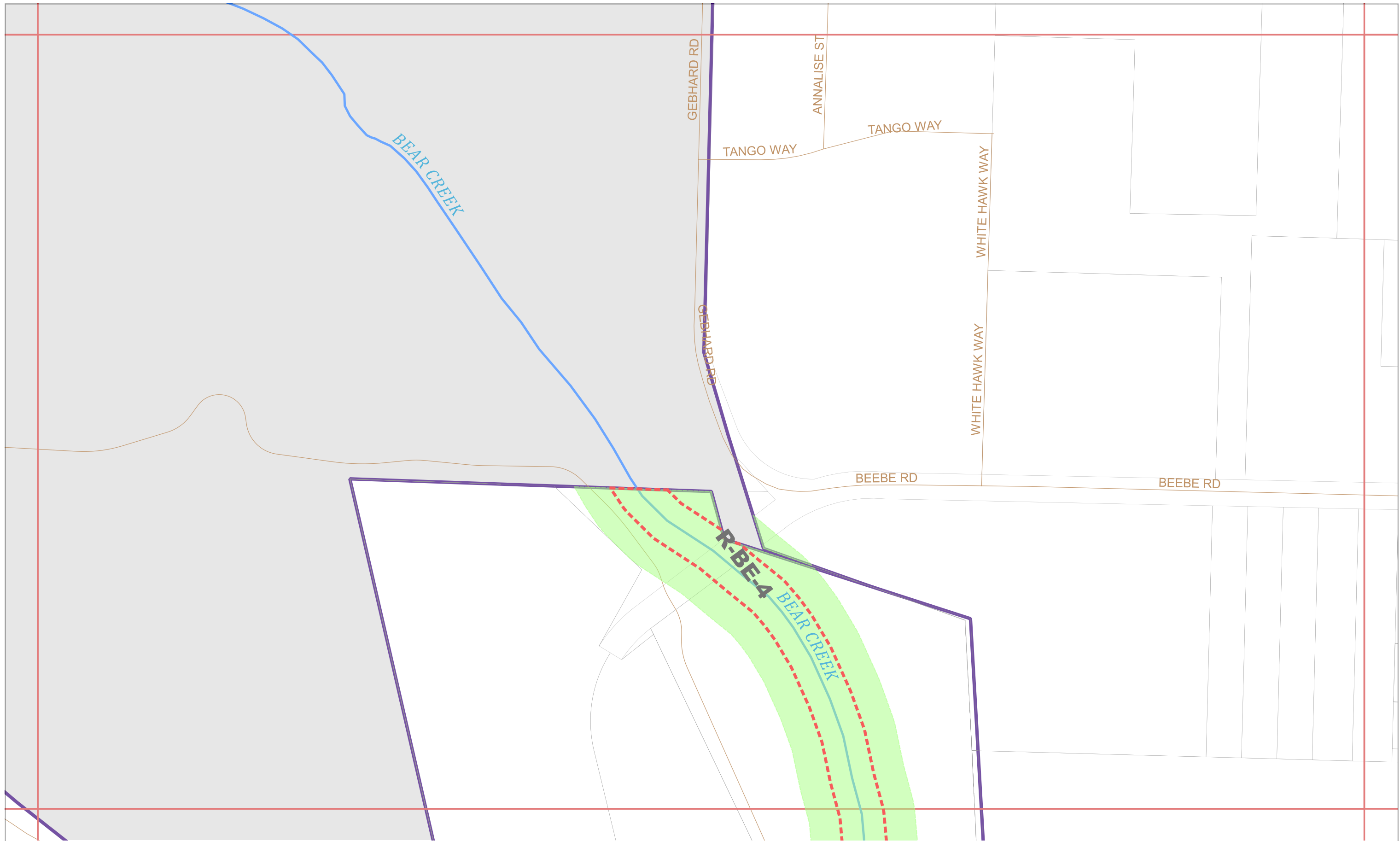
City of Central Point Safe Harbor & Riparian Buffers D3



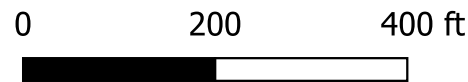
Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070








1:2,400



1:2,400



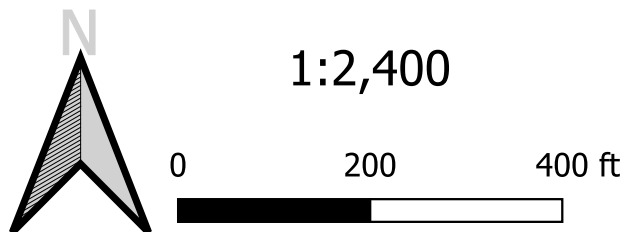
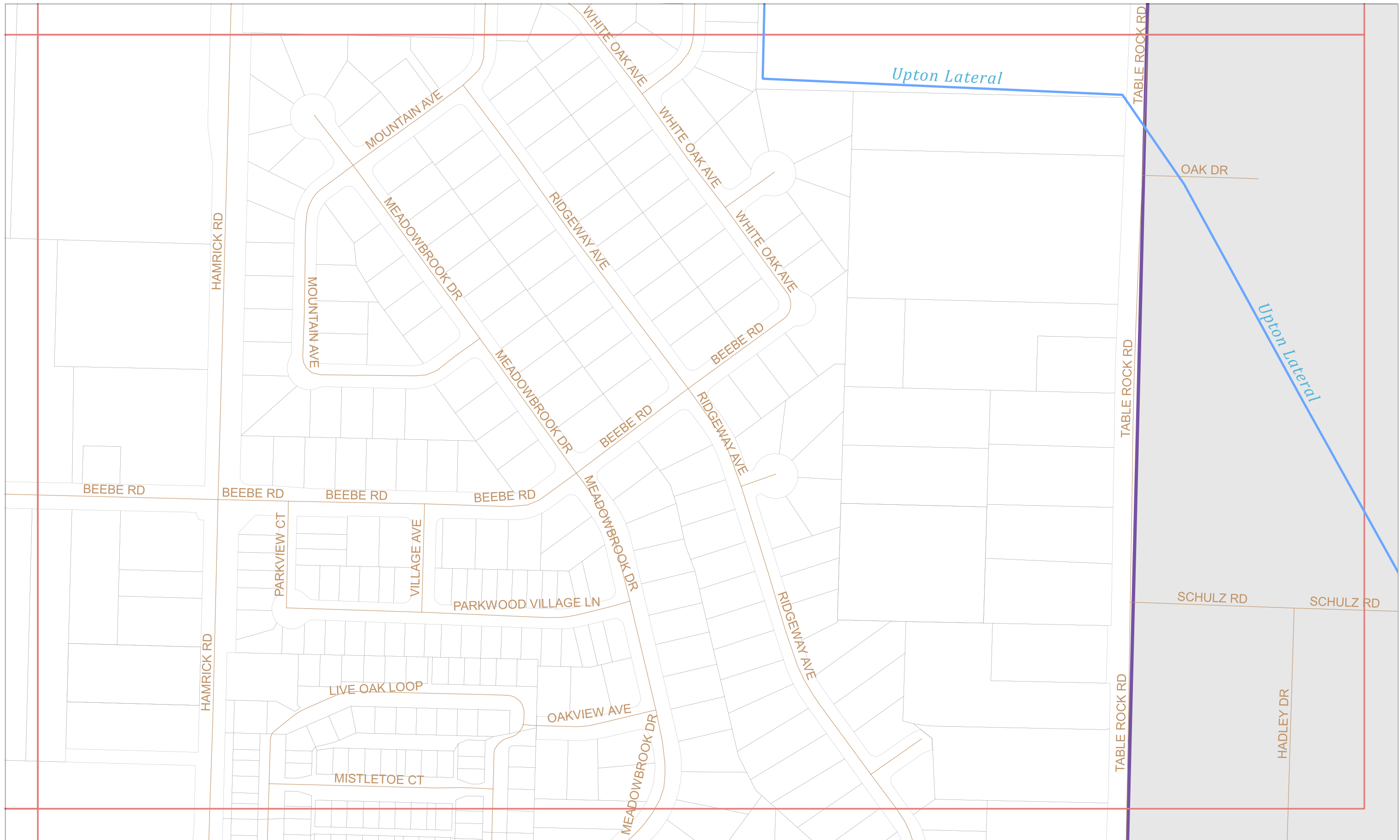
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

-  Study Area
-  Safe Harbor Buffers
-  Streams
-  Streets
-  Taxlots

City of Central Point
 Safe Harbor & Riparian
 Buffers
 D4



Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



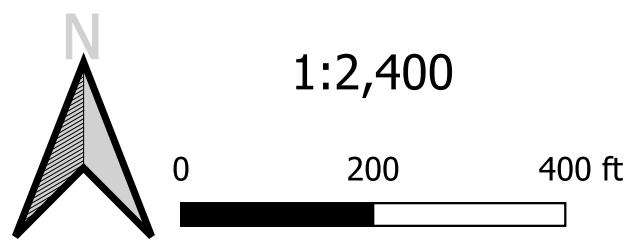
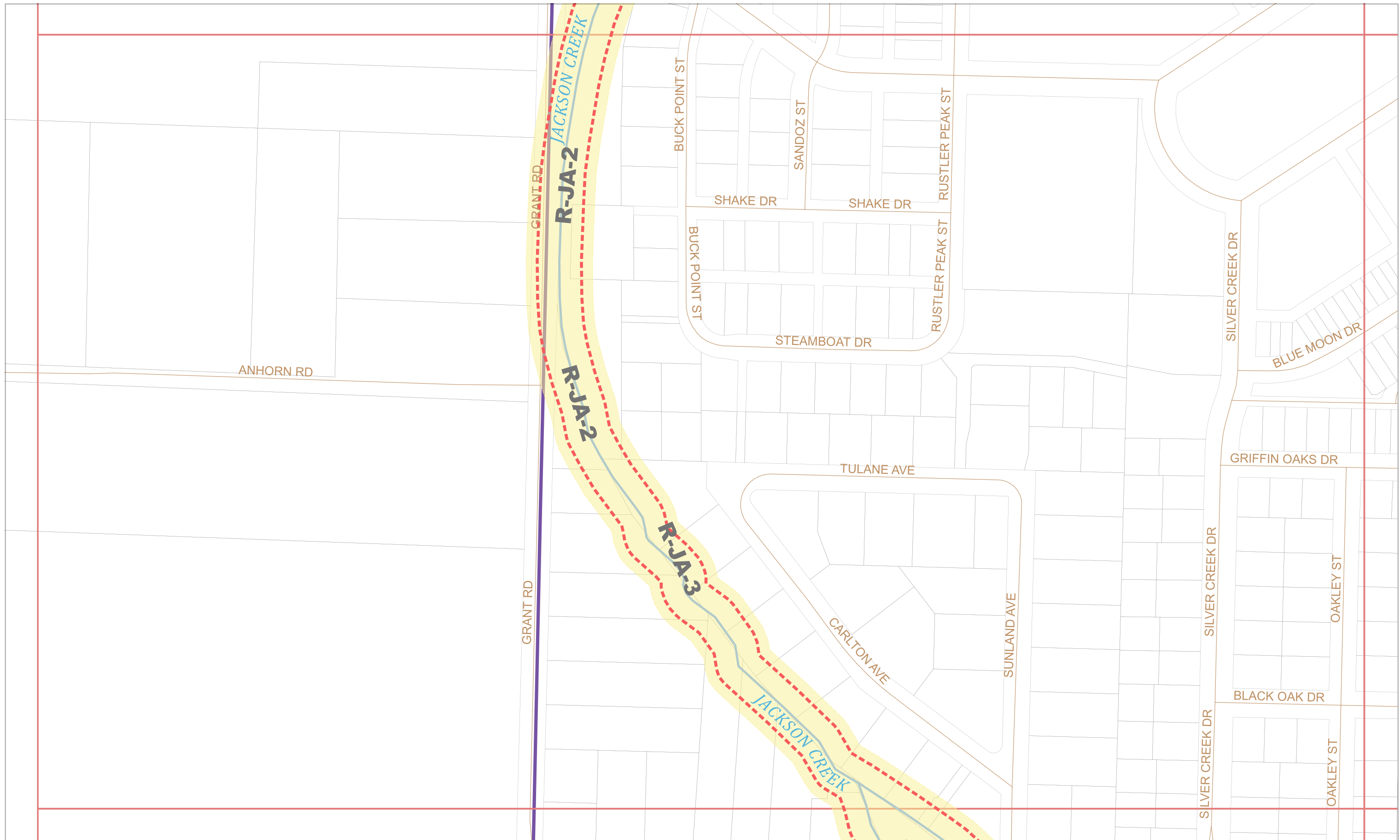
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers D5

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



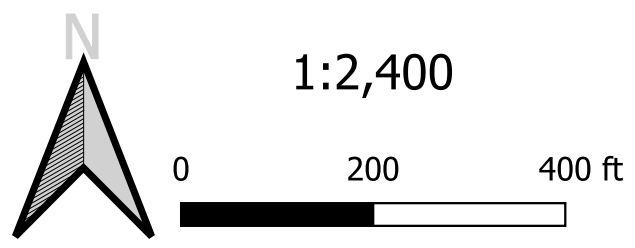
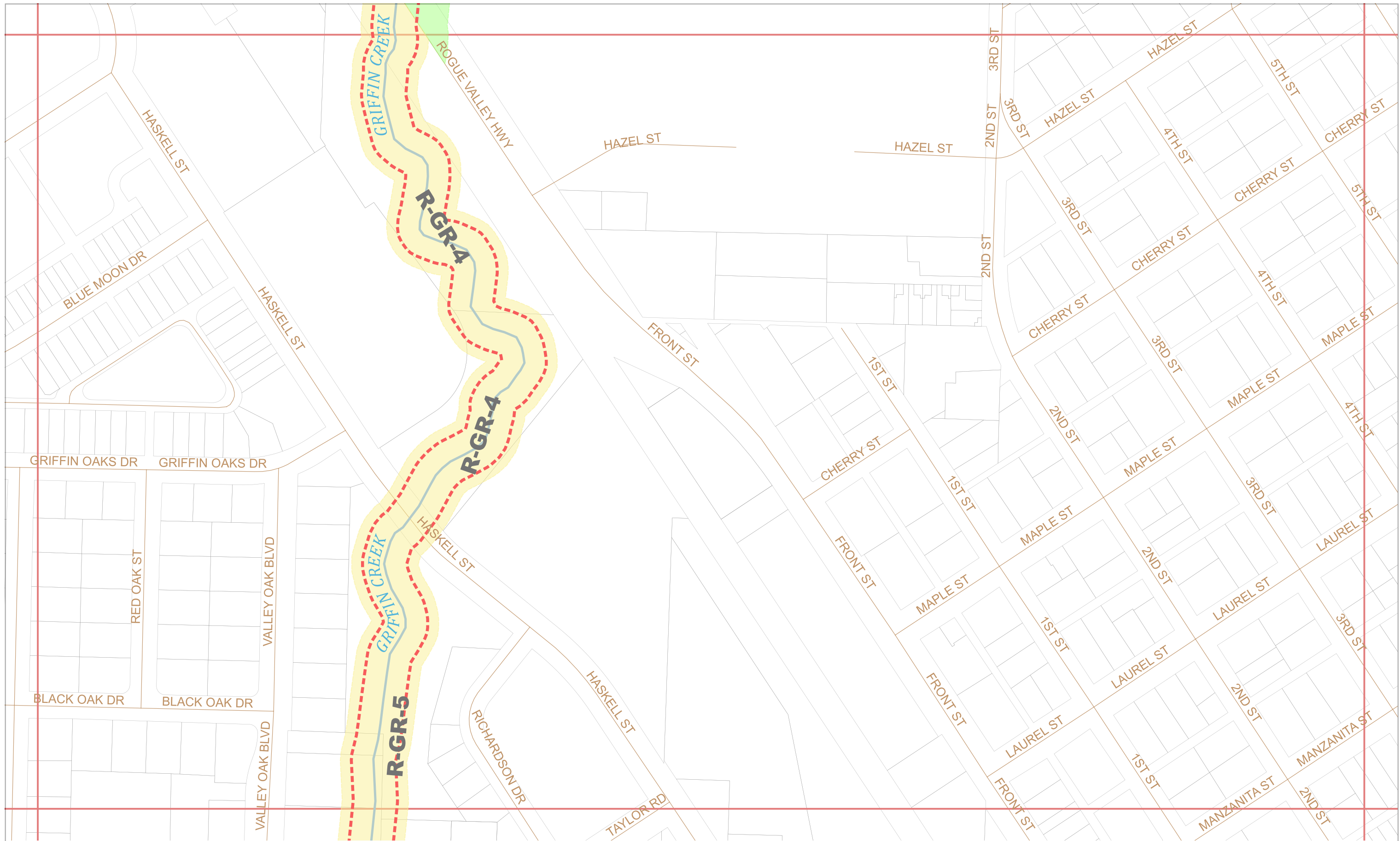
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers E1

Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



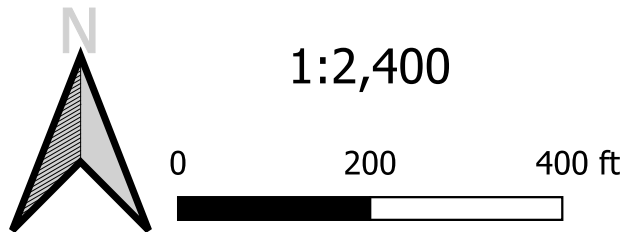
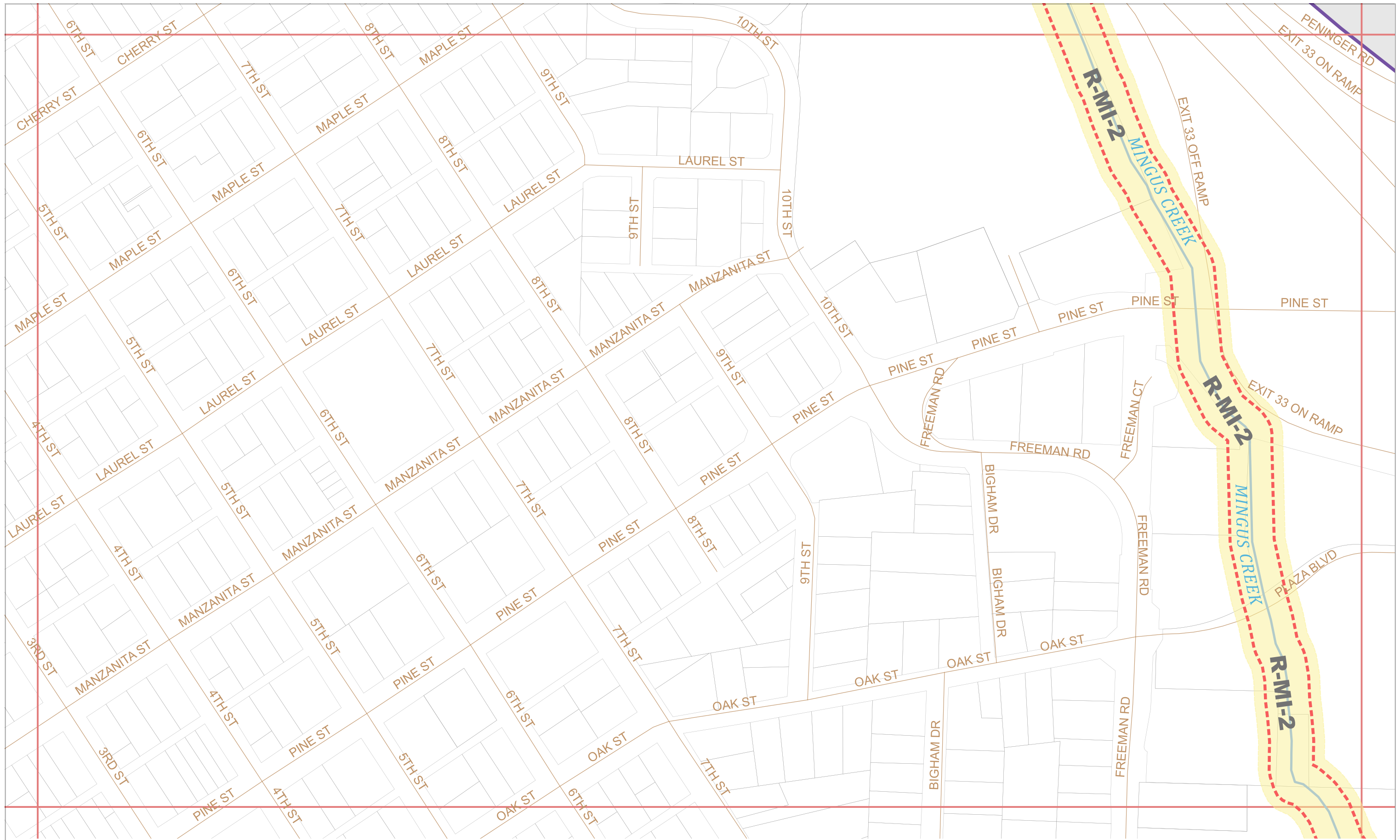
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- 120' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers E2

Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

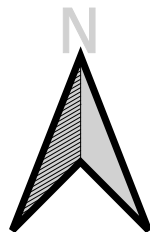
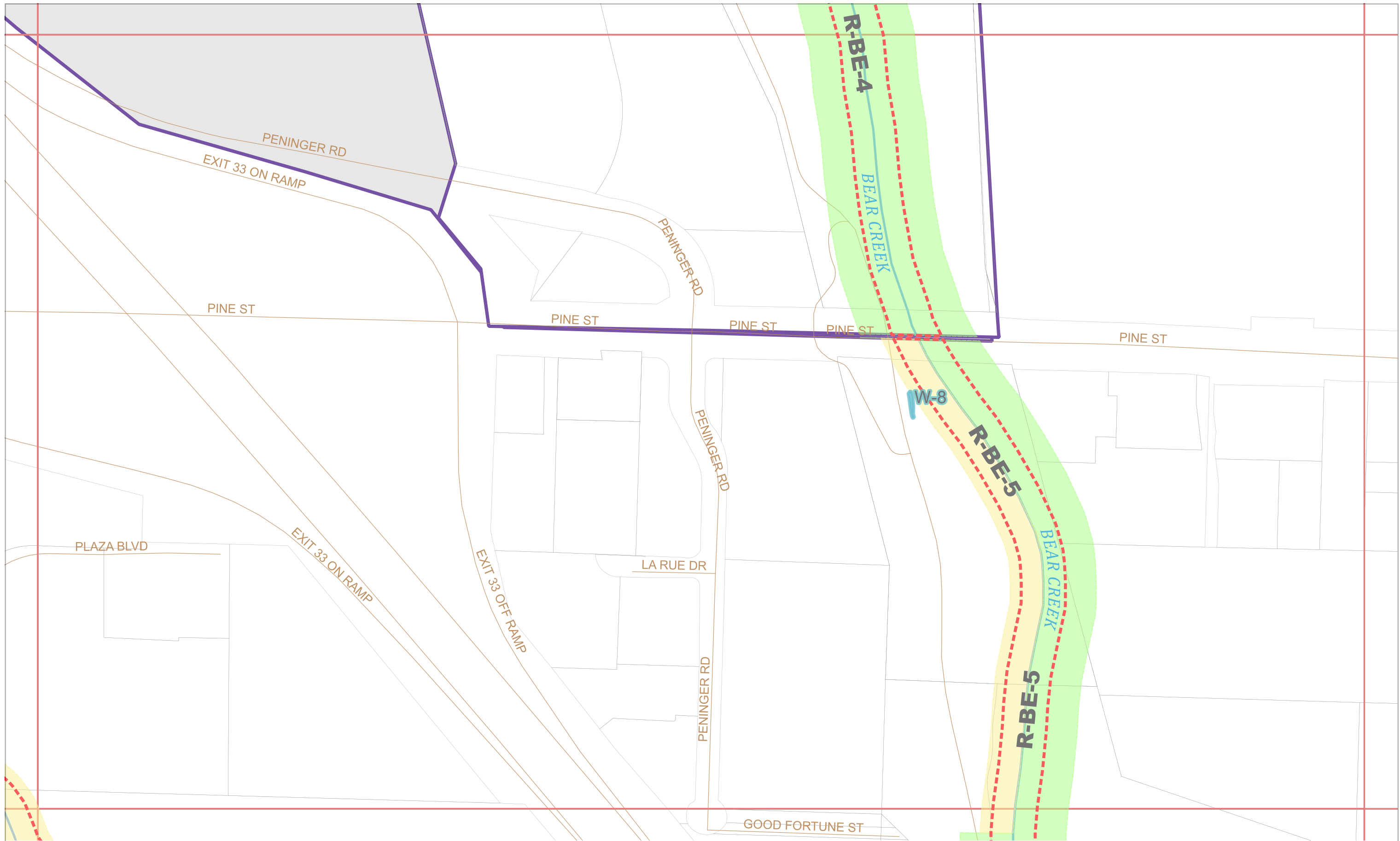
- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers

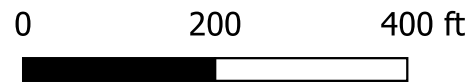
E3



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



1:2,400



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

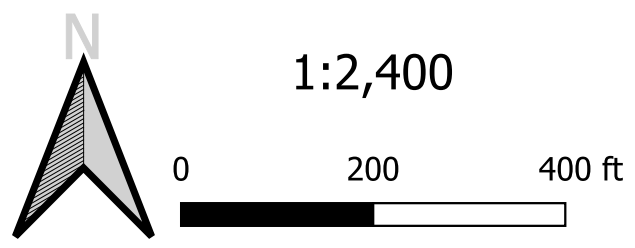
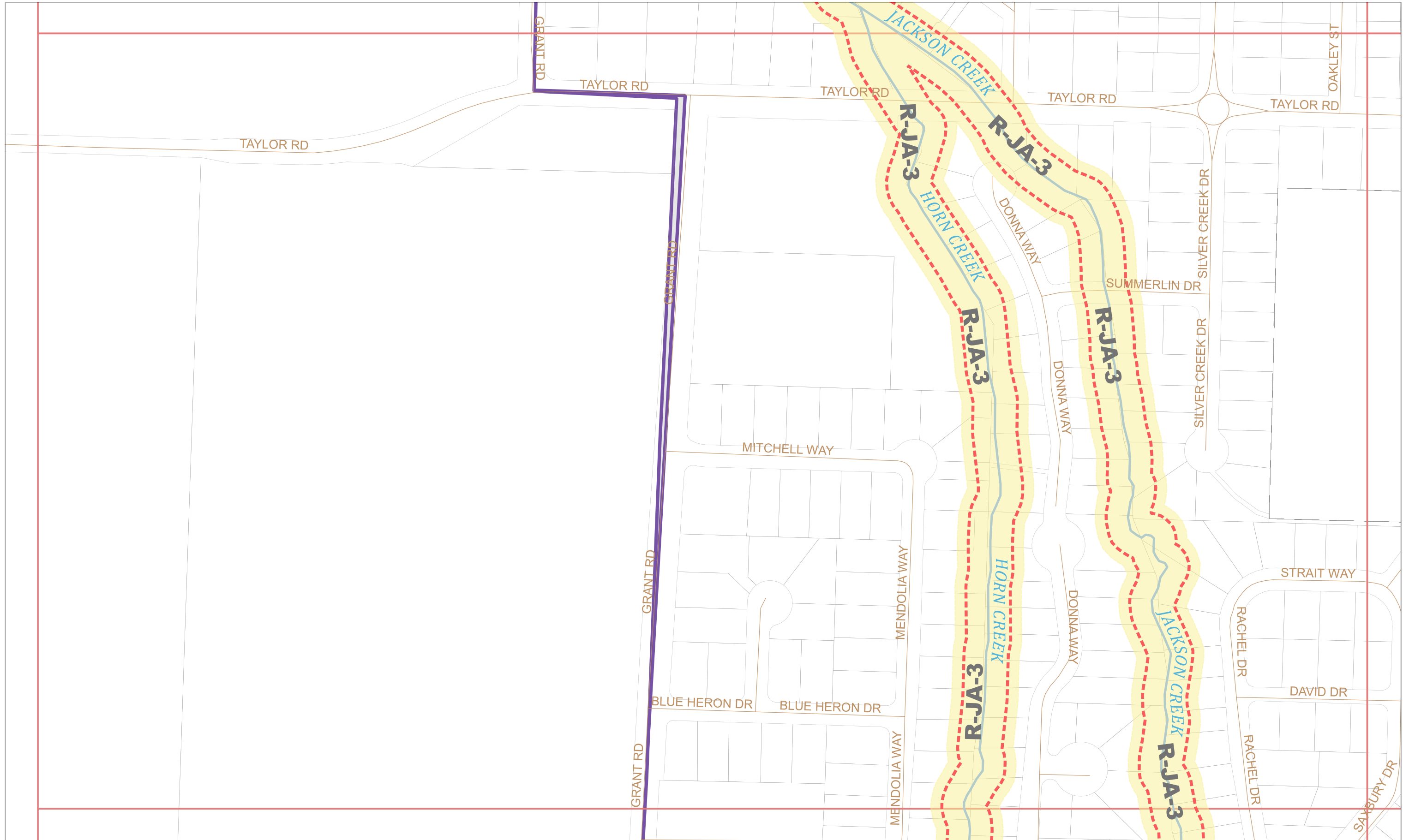
- Study Area
- Safe Harbor Buffers
- 75' Buffer
- 120' Buffer
- Streams
- LWI Wetlands
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers

E4



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



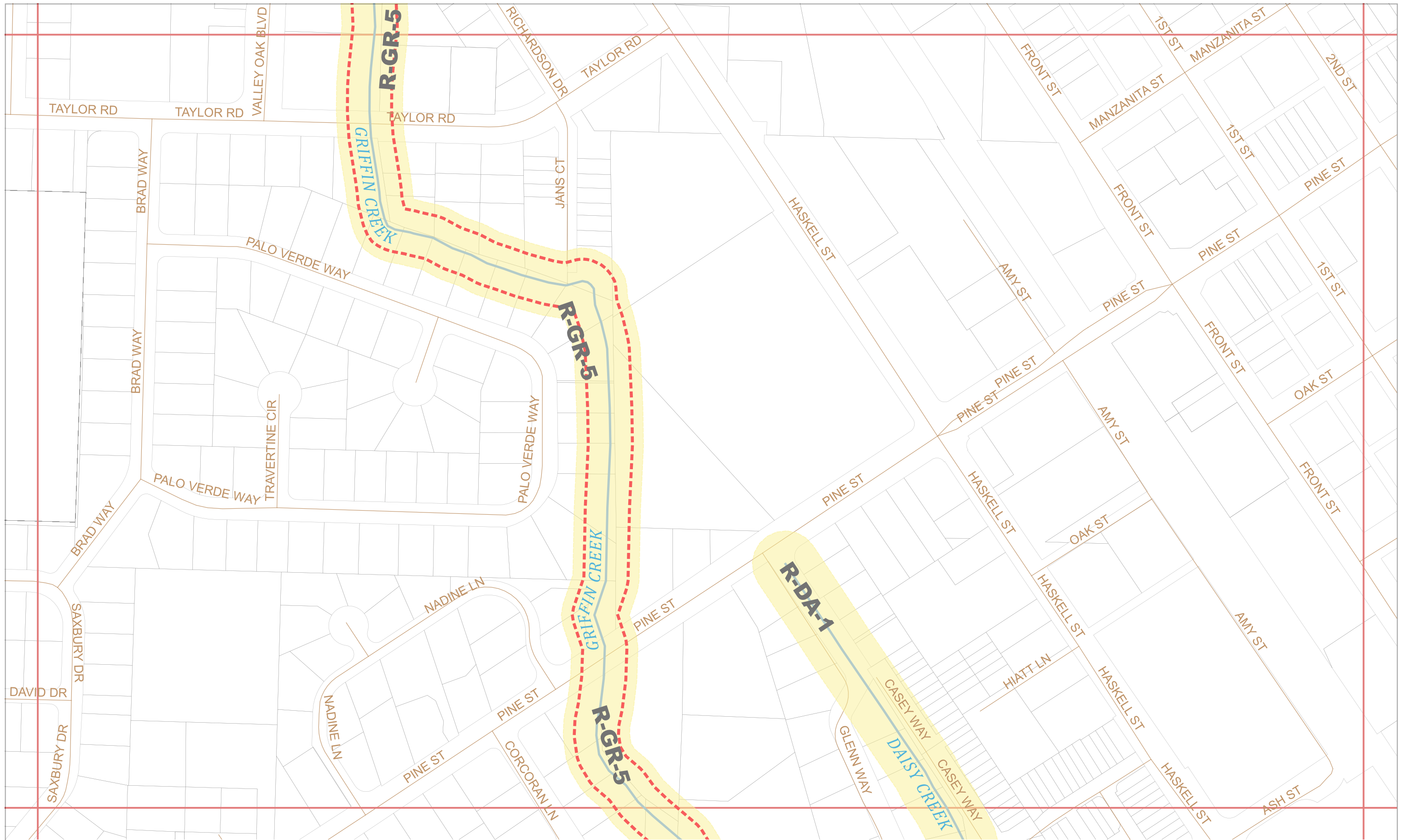
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers F1

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

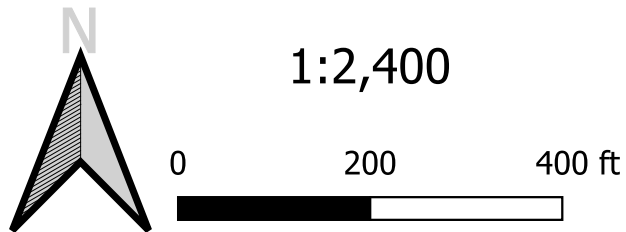
- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers

F2



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

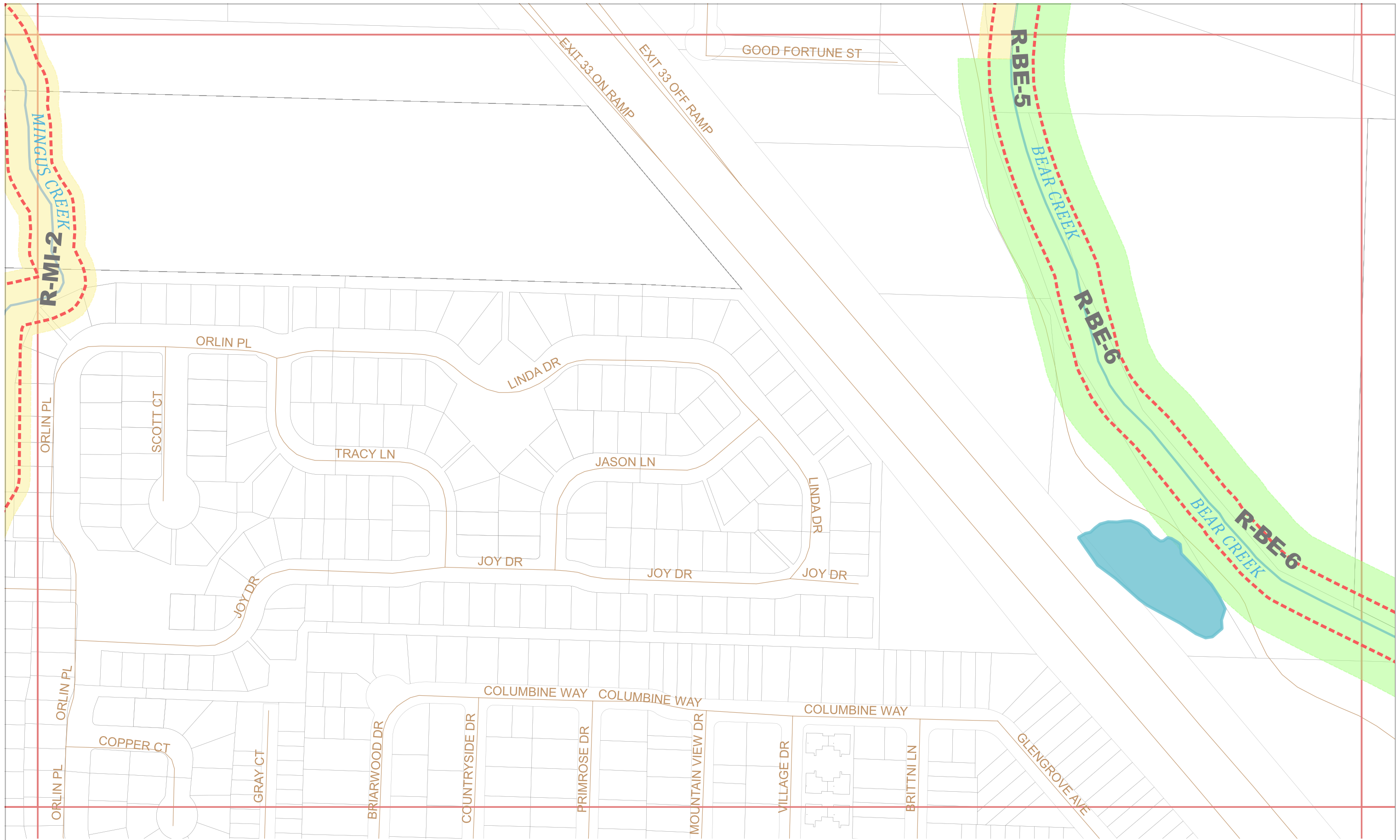
- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers









F3



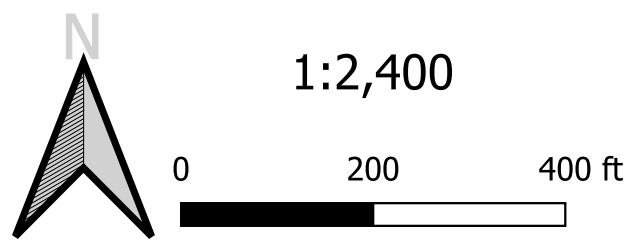
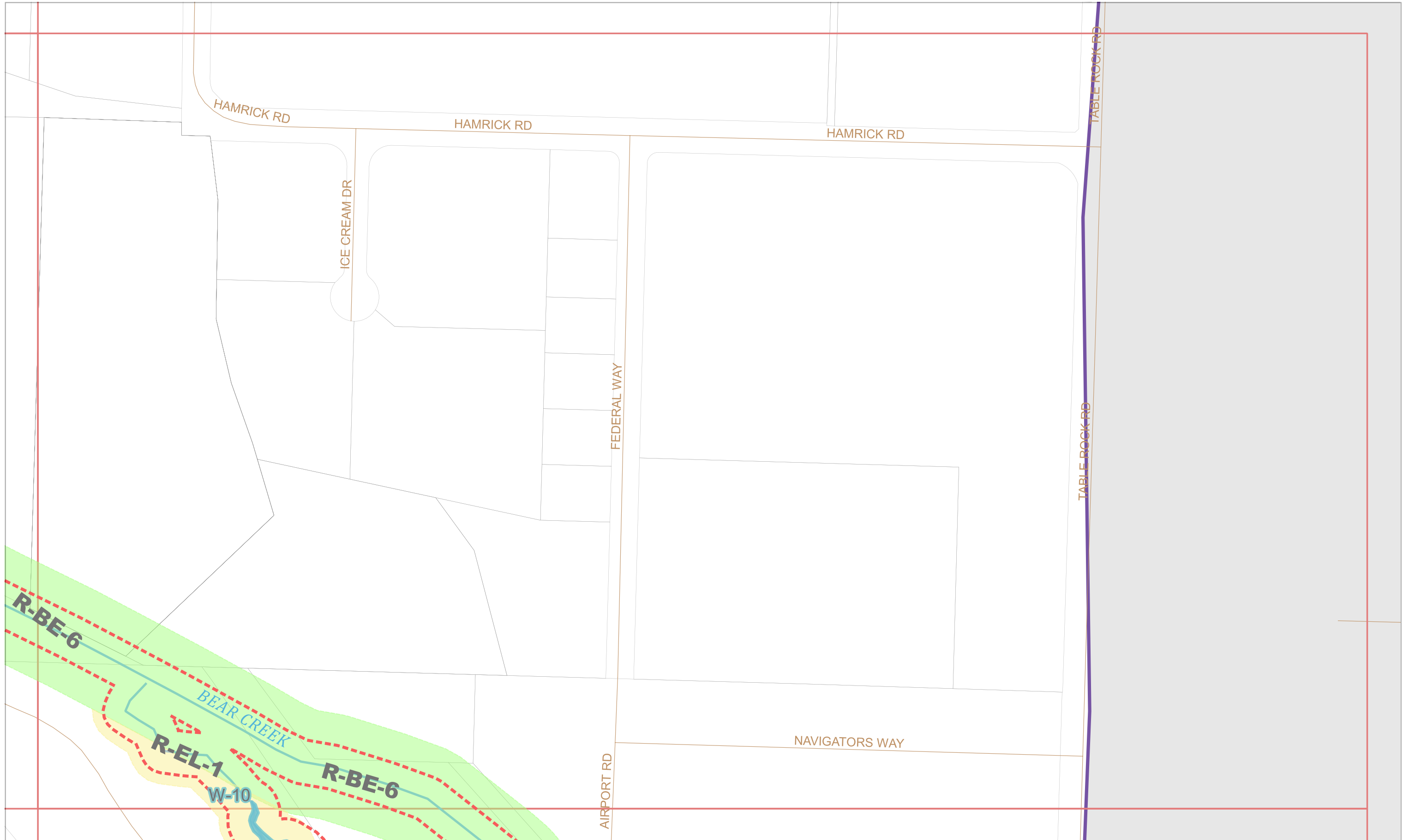
Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- | | |
|---|--|
|  Study Area |  Streams |
|  Safe Harbor Buffers |  LWI Wetlands |
|  75' Buffer |  Streets |
|  120' Buffer |  Taxlots |

City of Central Point Safe Harbor & Riparian Buffers F4

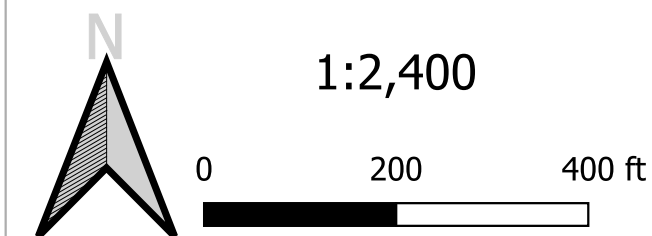
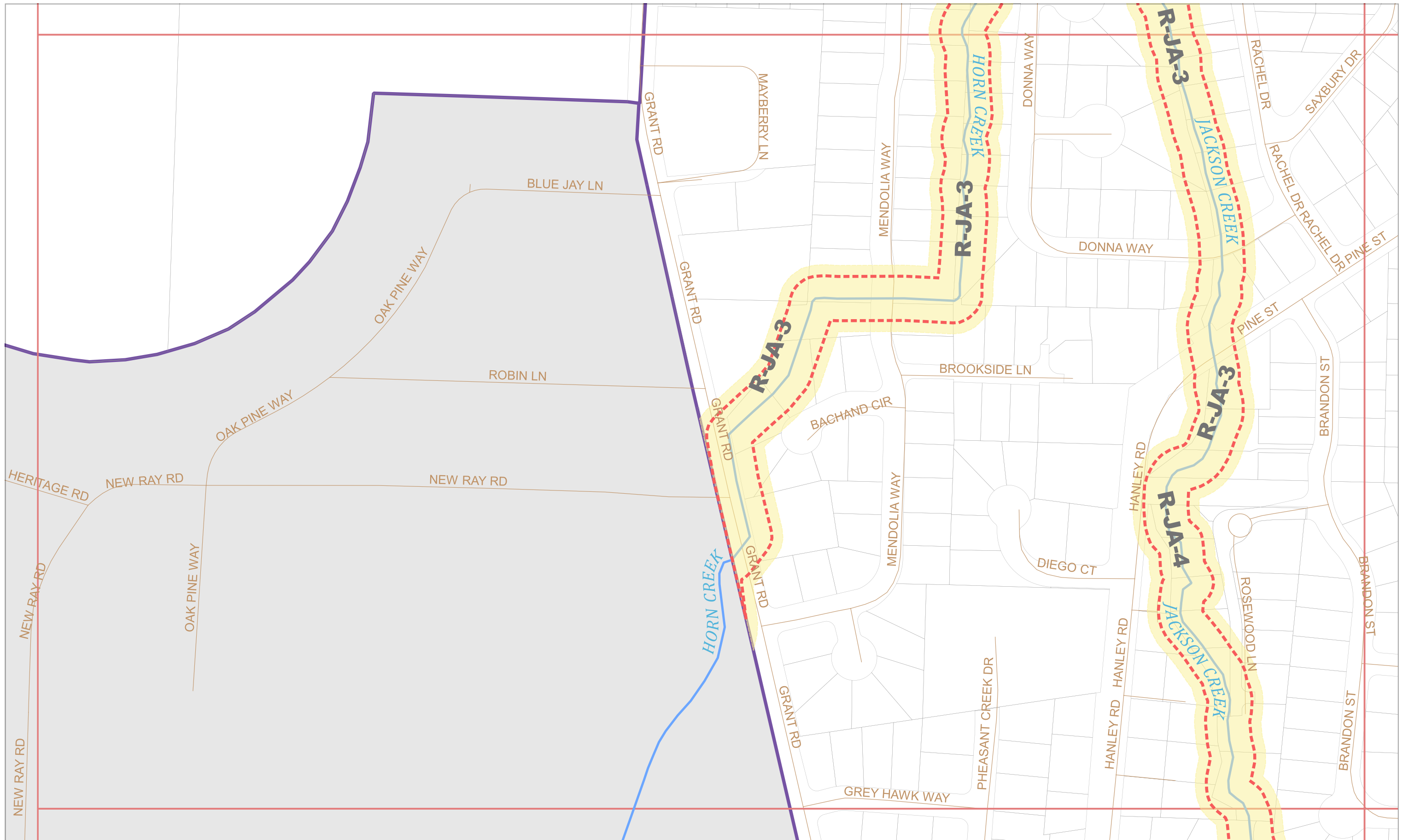


Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- | | |
|---------------------|--------------|
| Study Area | Streams |
| Safe Harbor Buffers | LWI Wetlands |
| 75' Buffer | Streets |
| 120' Buffer | Taxlots |

City of Central Point
 Safe Harbor & Riparian
 Buffers
F5

Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



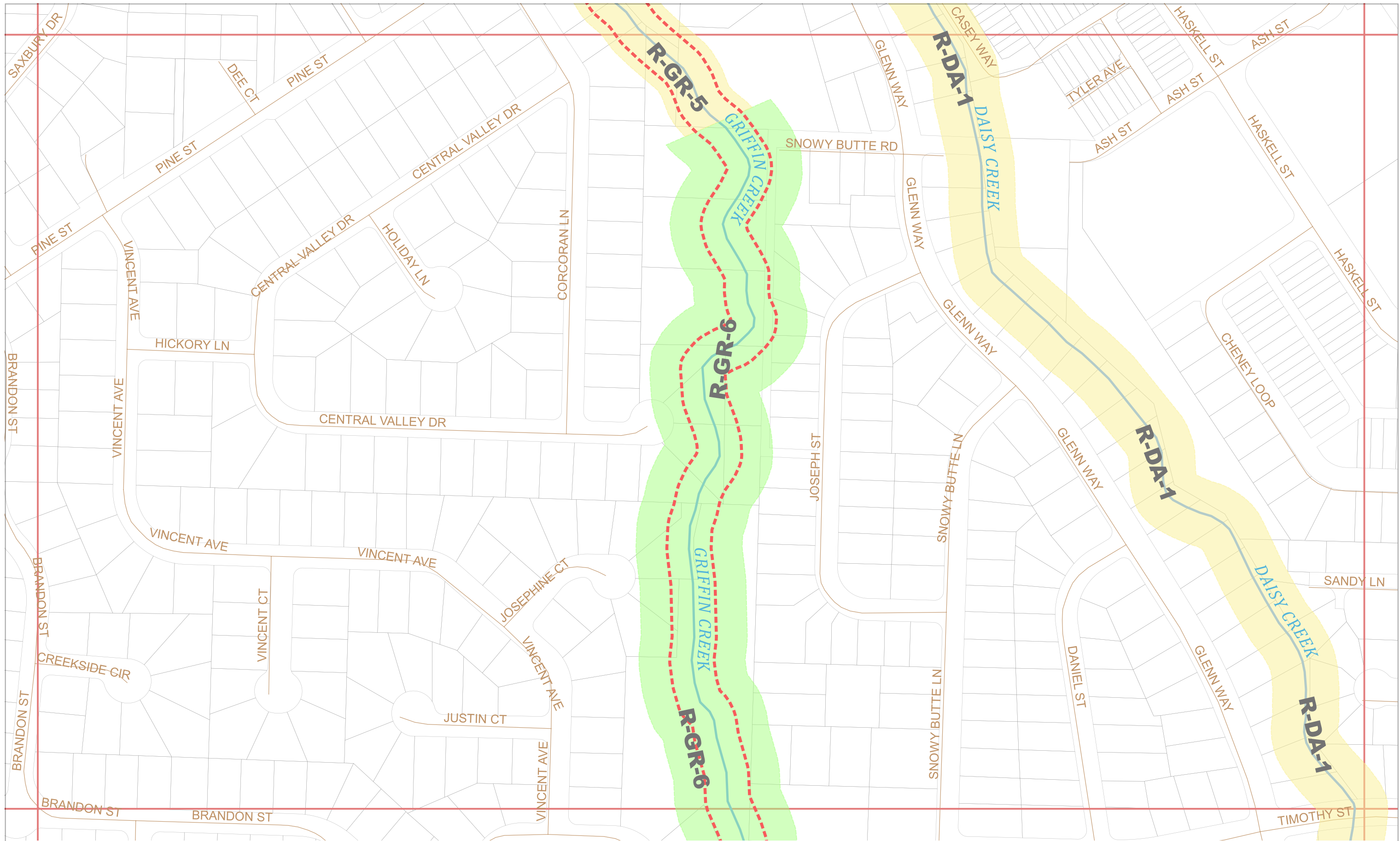
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers G1

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



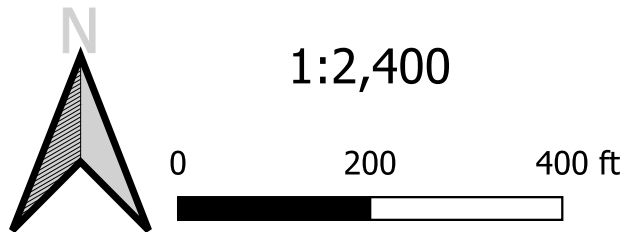
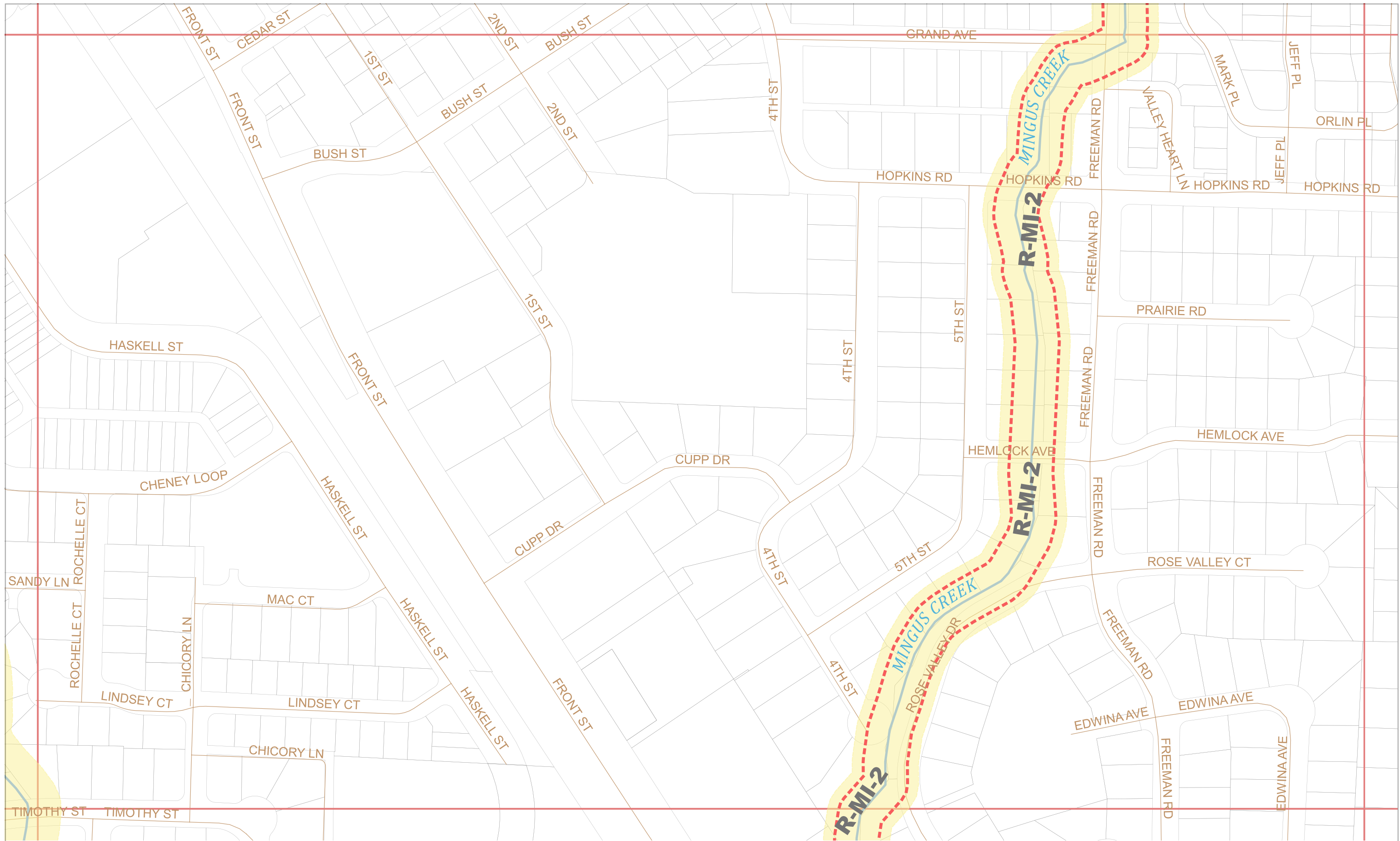
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- 120' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers G2



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



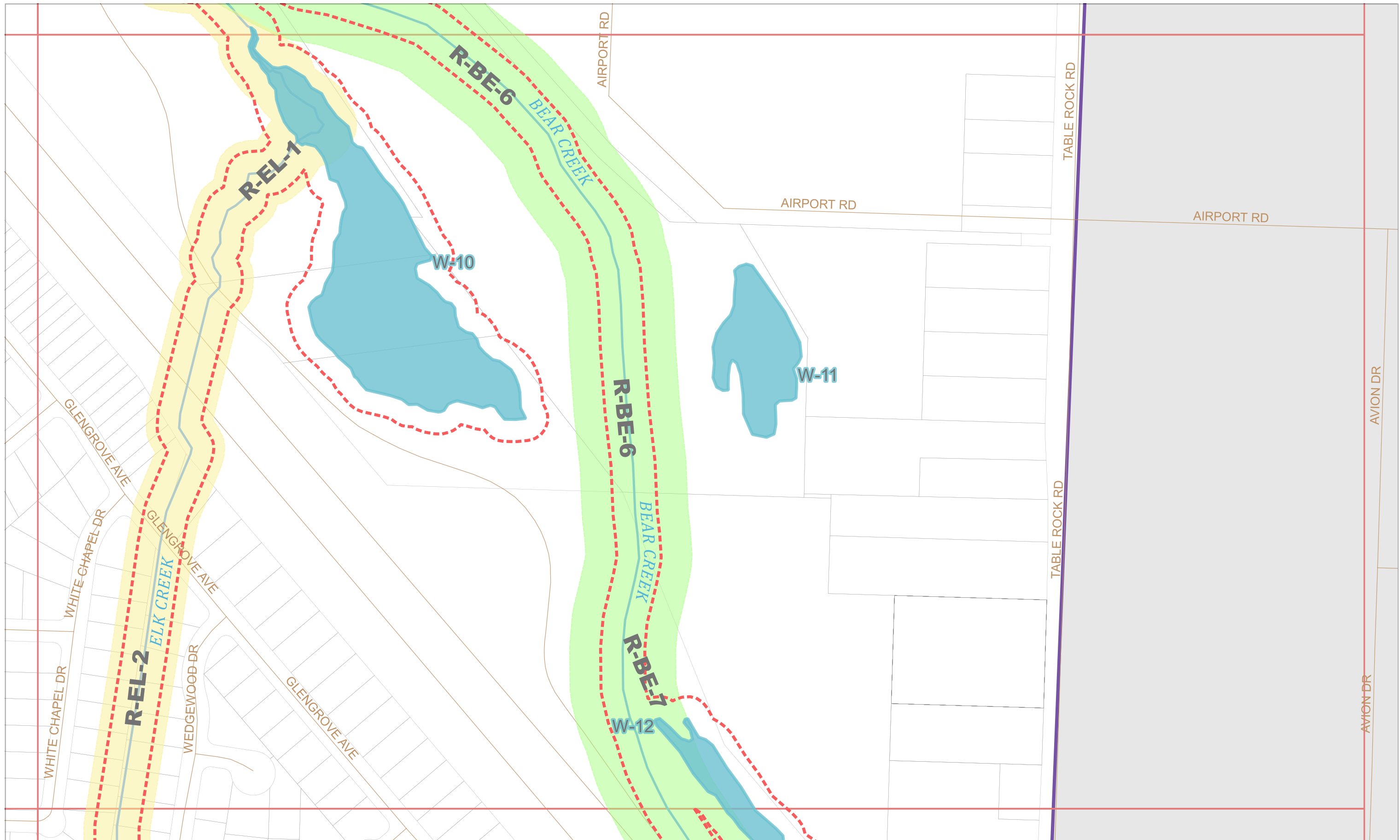
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers G3

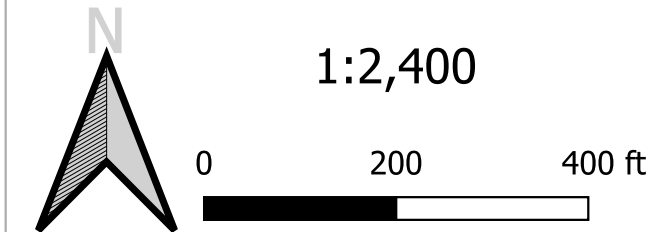
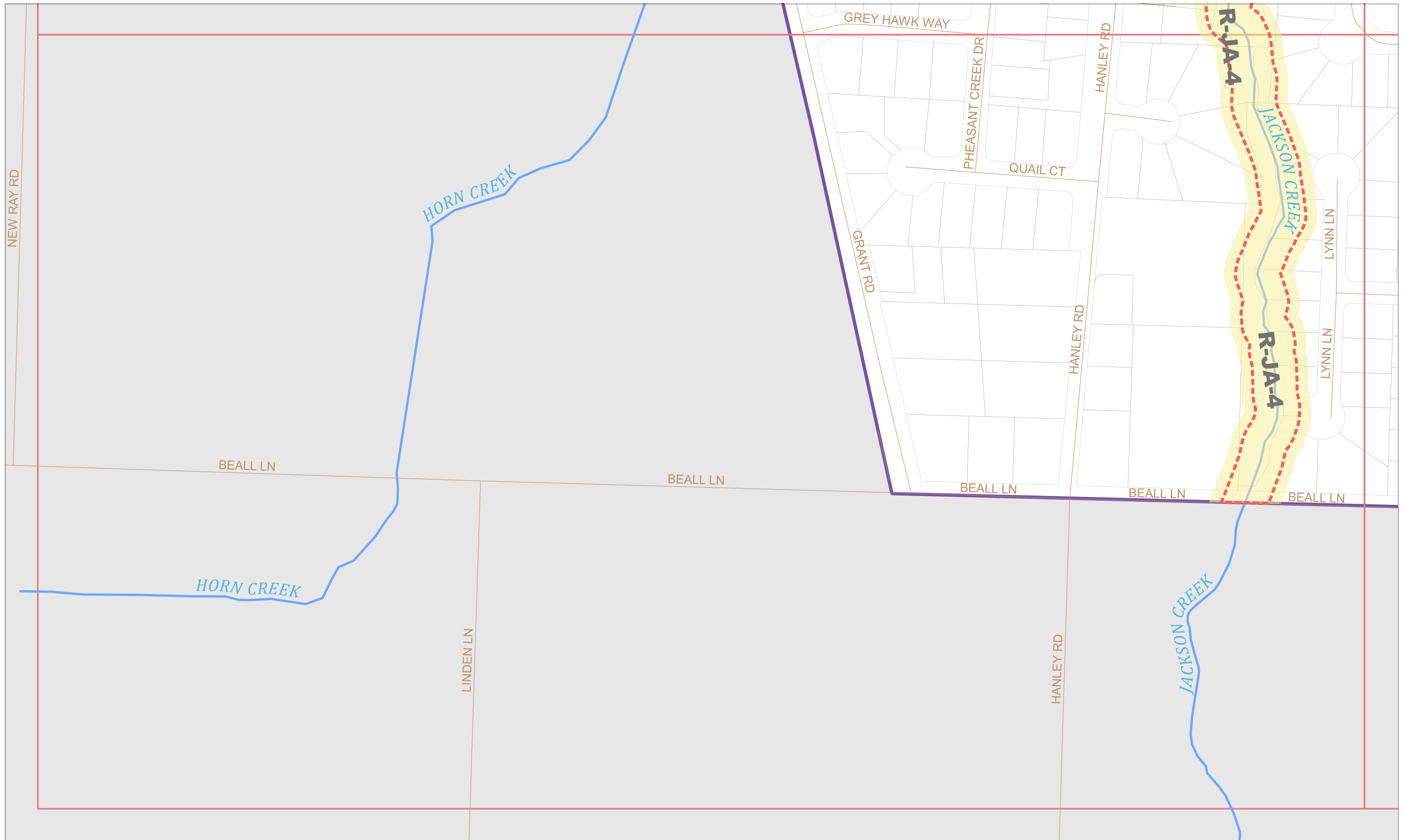




Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- | | |
|---------------------|--------------|
| Study Area | Streams |
| Safe Harbor Buffers | LWI Wetlands |
| 75' Buffer | Streets |
| 120' Buffer | Taxlots |

City of Central Point Safe Harbor & Riparian Buffers G4



1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

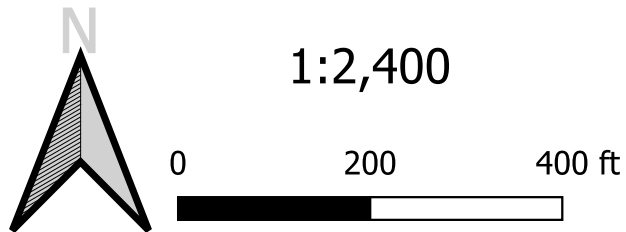
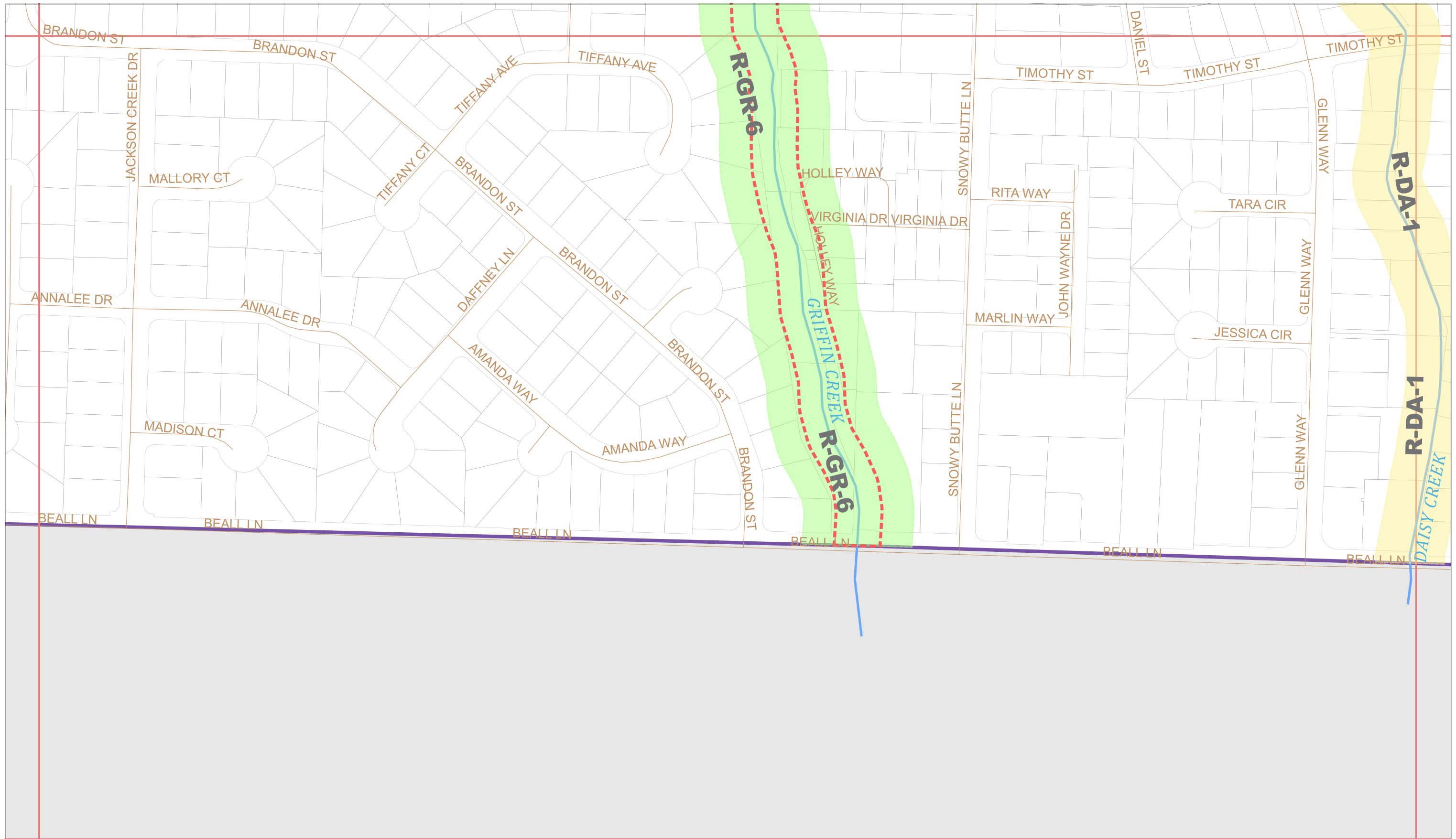
- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers

H1



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070

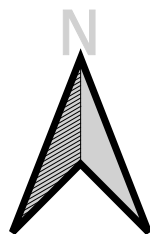
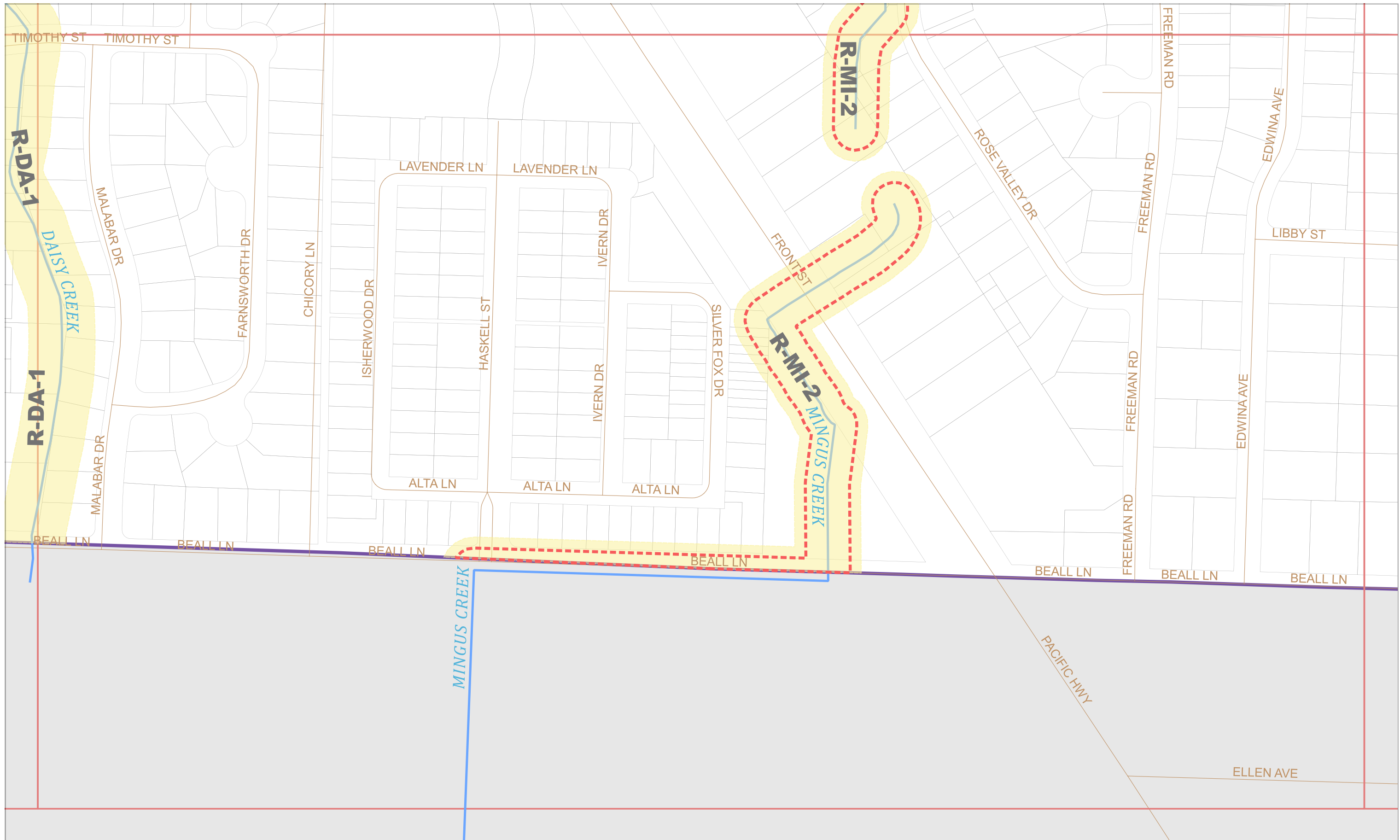


Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

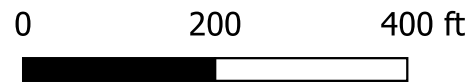
- Study Area
- Safe Harbor Buffers
- 75' Buffer
- 120' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers H2





1:2,400



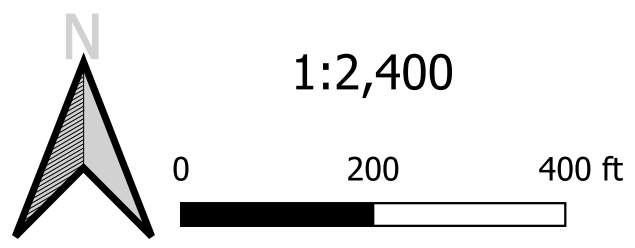
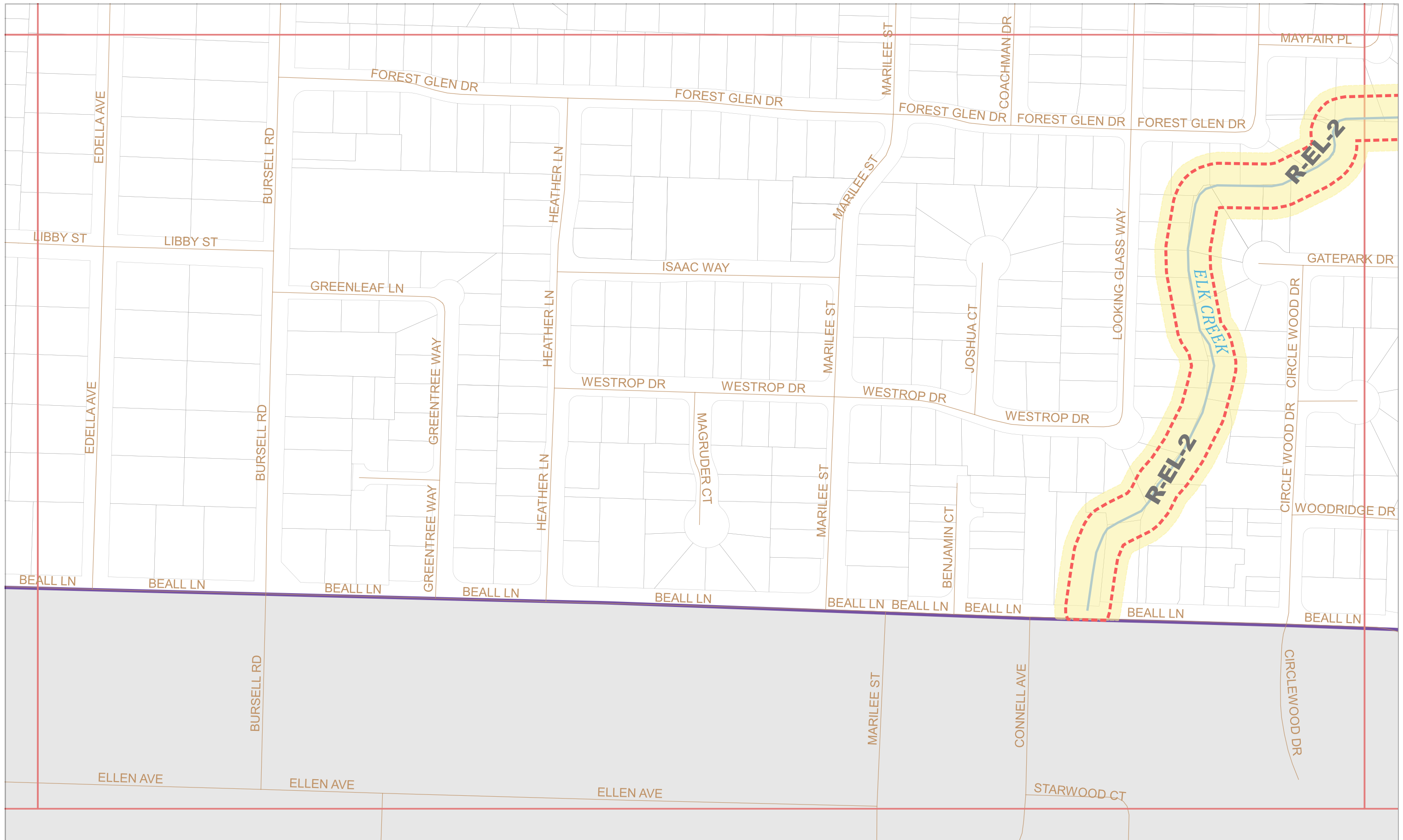
Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers H3



Pacific Habitat Services, Inc.
9450 SW Commerce Circle,
Suite 180
Wilsonville, OR 97070



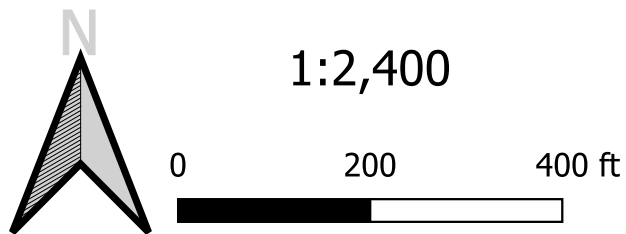
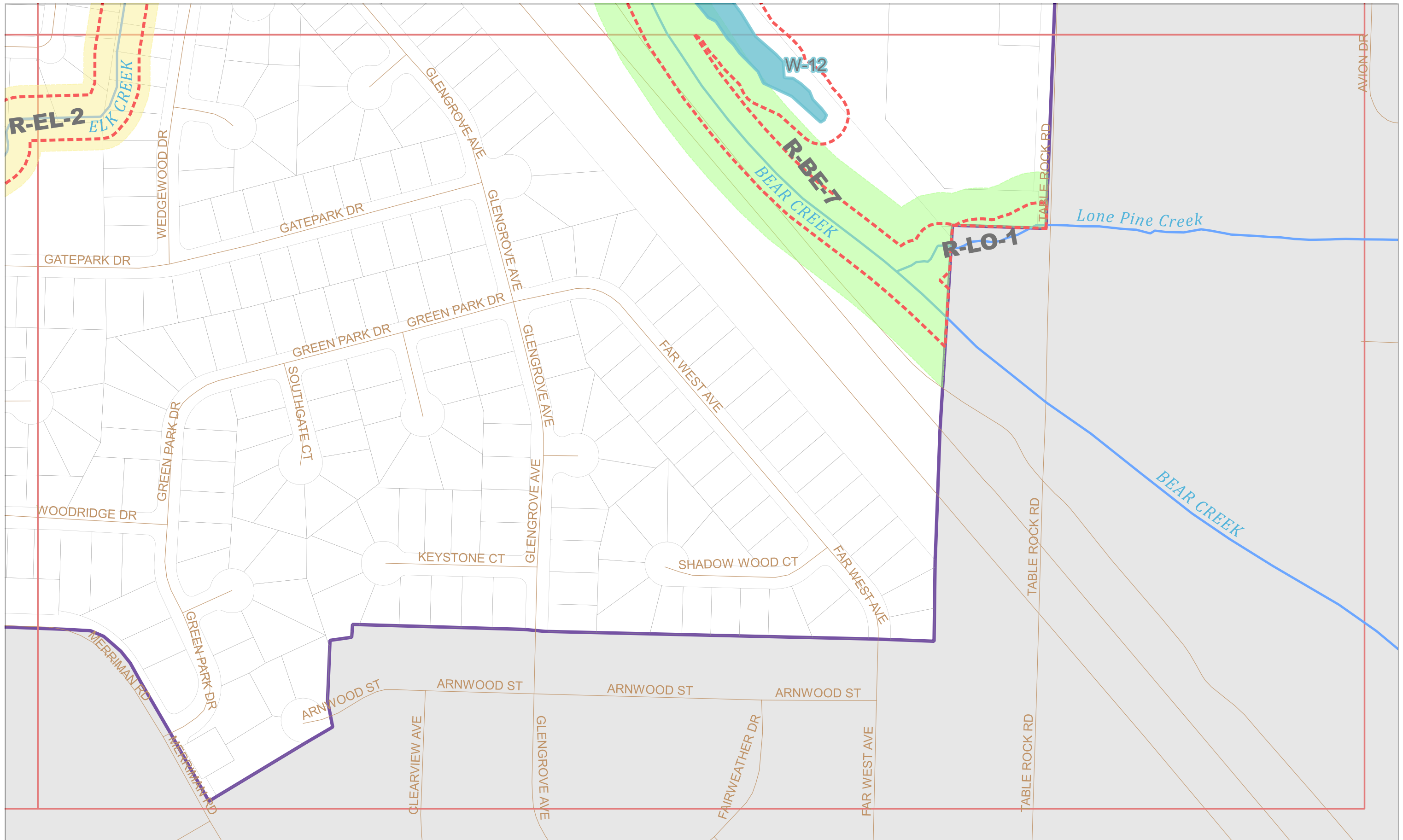
1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- Streams
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers H4

PHS
 Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070



1:2,400

Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

- Study Area
- Safe Harbor Buffers
- 75' Buffer
- 120' Buffer
- Streams
- LWI Wetlands
- Streets
- Taxlots

City of Central Point Safe Harbor & Riparian Buffers H5

Pacific Habitat Services, Inc.
 9450 SW Commerce Circle,
 Suite 180
 Wilsonville, OR 97070

Appendix B

Riparian (URIAG) Data Forms



Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION	Location of data point: <u>Near Bear Creek Greenway Path; near edge of city limits</u>
Date: <u>3/26/2023</u>	Riparian Code: <u>R-BE-1</u>
On-site: <input checked="" type="checkbox"/> Off-Site: <input type="checkbox"/>	Reach Length: _____
Investigators: <u>S Eisner / A Hawkins</u>	Hydrologic Basin: <u>Bear Creek</u>

WATER RESOURCE INFORMATION																
Water Resource:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Stream/River:</td> <td style="width: 10%; border: 1px solid black; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 10%;">Width:</td> <td style="width: 20%;"><u>50</u></td> <td style="width: 10%; text-align: right;">feet</td> </tr> <tr> <td>Lake/Pond:</td> <td style="border: 1px solid black;"></td> <td>Width:</td> <td>_____</td> <td style="text-align: right;">feet</td> </tr> <tr> <td>Wetland:</td> <td style="border: 1px solid black;"></td> <td>Width:</td> <td>_____</td> <td style="text-align: right;">feet</td> </tr> </table>	Stream/River:	<input checked="" type="checkbox"/>	Width:	<u>50</u>	feet	Lake/Pond:		Width:	_____	feet	Wetland:		Width:	_____	feet
Stream/River:	<input checked="" type="checkbox"/>	Width:	<u>50</u>	feet												
Lake/Pond:		Width:	_____	feet												
Wetland:		Width:	_____	feet												
LWI Wetland Code: <u>none</u>																
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Populus balsamifera</i>	<i>Conium maculatum</i>
<i>Salix lasiandra</i>	<i>Lactuca seriola</i>
<i>Rubus armeniacus</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-1

Date: 3/26/2023 **Investigators:** S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 120 to 150 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation **Reference site** **Code** _____

Comments: Includes two sections where Bear Creek flows into the Urban Growth Boundary despite most of the creek being offsite to the east. Though dominantly woody vegetation, most is Himalayan blackberry and as a result there are few herbaceous species. Bear Creek shows evidence of overbank flows to the east but such flows do not appear to be an annual event.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-1

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

1

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

1

Total Points:

5

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-1

WILDLIFE HABITAT (continued)

17. Is surface water present throughout the year?

- a. Yes 3 pts
- b. No 1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

- a. Yes 3 pts
- b. No 1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

- a. Less than 25% 3 pts
- b. Between 25% and 75% 2 pts
- c. Greater than 75% 1 pt

3

Total Points:

19

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

HIGH

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>West from Upton Road bridge to the edge of City limits</u>	
Date: <u>11/14/2022</u>		Riparian Code: <u>R-BE-2</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>45</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>W-1 (south end of reach; left side)</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

- | | |
|---|--|
| Agriculture: <input type="checkbox"/> | Roads: <input type="checkbox"/> |
| Commercial/Indus.: <input type="checkbox"/> | Undeveloped: <input checked="" type="checkbox"/> |
| Residential: <input type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Salix exigua</i>	<i>Phalaris arundinacea</i>
<i>Salix lasiandra</i>	<i>Epilobium sp.</i>
<i>Alnus rhombifolia</i>	<i>Galium aparine</i>
<i>Populus balsamifera</i>	<i>Brassica sp.</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-2

Date: 11/14/2022 Investigators: S Eisner

Dominant tree species: Salix exigua (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 15 / 125-150 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Evidence of beaver activity. Understory includes many invasive weed species but it is evident that control of invasive species has recently occurred.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		14

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-2

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-2

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

3

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

2

Total Points:

8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-2

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>3</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-2

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		20

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION	Location of data point: <u>North of Upton Street Bridge</u>
Date: <u>3/25/2023</u>	Riparian Code: <u>R-BE-3L</u>
On-site: <input checked="" type="checkbox"/> Off-Site: <input type="checkbox"/>	Reach Length: _____
Investigators: <u>S Eisner / A Hawkins</u>	Hydrologic Basin: <u>Bear Creek</u>

WATER RESOURCE INFORMATION	
Water Resource: Stream/River: <input checked="" type="checkbox"/>	Width: <u>55</u> feet
Lake/Pond: <input type="checkbox"/>	Width: _____ feet
Wetland: <input type="checkbox"/>	Width: _____ feet
LWI Wetland Code: <u>none</u>	
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Populus balsamifera</i>	<i>Lapsana communis</i> <i>Conium maculatum</i>
<i>Fraxinus latifolia</i>	<i>Verbascum thapsis</i> <i>Daucus carota</i>
<i>Alnus rhombifolia</i>	<i>Rumex crispus</i>
<i>Salix sitchensis</i>	<i>Dipsacus fullonum</i>
<i>Salix lasiandra</i>	<i>Verbascum blatteria</i>
<i>Rubus armeniacus</i>	<i>Phalaris arundinacea</i>
	<i>Lactuca seriola</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No
x

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-3L

Date: 3/25/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: Populus balsamifera (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 125 to 150 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Vegetation/undergrowth has been cleared on the right side. Short section at the south end on the left side includes the Bear Creek greenway trail.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-3L

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	2
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		13

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-3L

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-3L

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	3
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	2
b. No 1 pt	
Total Points:	8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-3L

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>FALSE</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-3L

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	3
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		17

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>North of Upton Street Bridge</u>	
Date: <u>3/25/2023</u>		Riparian Code: <u>R-BE-3R</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>55</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Populus balsamifera</i>	<i>Lapsana communis</i> <i>Conium maculatum</i>
<i>Fraxinus latifolia</i>	<i>Verbascum thapsis</i> <i>Daucus carota</i>
<i>Alnus rhombifolia</i>	<i>Rumex crispus</i>
<i>Salix sitchensis</i>	<i>Dipsacus fullonum</i>
<i>Salix lasiandra</i>	<i>Verbascum blatteria</i>
<i>Rubus armeniacus</i>	<i>Phalaris arundinacea</i>
	<i>Lactuca seriola</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No
x

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-3R

Date: 3/25/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: Salix lasiandra (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 100-125 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Vegetation/undergrowth has been cleared on the right side. Short section at the south end on the left side includes the Bear Creek greenway trail.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-3R

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	2
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		13

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-3R

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-3R

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

3

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

2

Total Points:

8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-3R

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>FALSE</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-BE-3R

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		15

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>North of the Pine Street bridge</u> <u>(to the edge of City Limits)</u>	
Date: <u>3/26/2023</u>		Riparian Code: <u>R-BE-4</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>50</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

- | | |
|---|--|
| Agriculture: <input type="checkbox"/> | Roads: <input type="checkbox"/> |
| Commercial/Indus.: <input type="checkbox"/> | Undeveloped: <input checked="" type="checkbox"/> |
| Residential: <input type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Phalaris arundinacea</i>
<i>Salix spp.</i>	<i>Conium maculatum</i>
<i>Pinus ponderosa</i>	<i>Unidentified grasses species</i>
<i>Rubus armeniacus</i>	<i>Schedonorus arundinaceus</i>
<i>Spirea douglasii</i>	<i>Artemesia ludoviciana</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-4

Date: 3/26/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 100-150 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation

Reference site Code _____

Comments: Dominant tree height is based on onsite trees but there are only a few cottonwoods and mostly confined to the north end of the reach. A bark chip pedestrian path with interpretive signage begins at the south end on the left side. The Bear Creek Greenway trail also crosses the south end of the left side. Burned vegetation has been removed, resulting in a relatively open riparian area.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-4

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-4

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-4

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	..... 3 pts	<u>1</u>
b. No	..... 1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	..... 3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	..... 2 pts	<u>2</u>
c. Bare ground	..... 1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	..... 2 pts	<u>1</u>
b. No	..... 1 pt	
Total Points:		<u>4</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **LOW**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-4

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-4

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		15

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>In Bear Creek Greenway</u> <u>just south of E Pine St bridge</u>	
Date: <u>3/24/2023</u>		Riparian Code: <u>R-BE-5L</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River:	<input checked="" type="checkbox"/>	Width: <u>35</u> feet
	Lake/Pond:	<input type="checkbox"/>	Width: _____ feet
	Wetland:	<input type="checkbox"/>	Width: _____ feet
LWI Wetland Code: <u>W-8 (left side only)</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input checked="" type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Salix lasiandra</i>	<i>Lolium sp.</i>
<i>Fraxinus latifolia</i>	<i>Lactuca seriola</i>
<i>Populus balsamifera</i>	<i>Alopecurus pratensis</i>
<i>Rubus armeniacus</i>	<i>Conium maculatum</i>
<i>Salix sp.</i>	<i>Artemesia ludoviciana</i>
	<i>Erigeron canadensis</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-5L

Date: 3/24/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: Salix lasiandra (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 35/ 120-150 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Predominantly forested overstory, though canopy is somewhat open. This is part of the burned area and many of the downed trees have been removed. The result in an open understory. Saplings of willow are common, especially along Bear Creek.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-5L

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		14

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-5L

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-5L

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	1
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	2
b. No 1 pt	
Total Points:	6

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-5L

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-BE-5L

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		17

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>In Bear Creek Greenway</u> <u>just south of E Pine St bridge</u>	
Date: <u>3/24/2023</u>		Riparian Code: <u>R-BE-5R</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>35</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>W-8 (left side only)</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input checked="" type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Quercus sp.</i>	<i>Schedonorus arundinacea</i>
<i>Pinus ponderosa</i>	<i>Dactylus glomerata</i>
<i>Populus balsamifera</i>	<i>several unidentified grass species</i>
<i>Rubus armeniacus</i>	<i>Conium maculatum</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-5R

Date: 3/24/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 60 to 100 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Predominantly forested overstory, though canopy is somewhat open. This is but there are scattered black cottonwood (*Populus balsamifera*) to the south. Slopes east of the creek are dominated by Himalayan blackberry; otherwise trees are only present at the top of bank.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-5R

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		10

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-5R

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-5R

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer? a. Yes 3 pts b. No 1 pt	1
10. What is the dominant vegetation layer in the riparian area? a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts c. Bare ground 1 pt	2
11. Does woody vegetation hang over the edge of the water? a. Yes 2 pts b. No 1 pt	1
Total Points:	4

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **LOW**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-5R

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-BE-5R

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		15

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>East of Bear Creek Trail</u>	
Date: <u>3/24/2023</u>		Riparian Code: <u>R-BE-6L</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>40</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>W-9 (right side only)</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Populus balsamifera</i>	<i>Phalaris arundinacea</i>
<i>Salix lasiandra</i>	<i>Erigeron canadensis</i>
<i>Salix exigua</i>	<i>Senecio jacobaea</i>
<i>Rubus armeniacus</i>	<i>Daucus carota</i>
	<i>Dipsacus fullonum</i>
	<i>additional species of unidentified grasses</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-6L

Date: 3/24/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 50-100 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation

Reference site Code _____

Comments: This is located within the area burned by fire a few years ago. Tree and shrub cover has since been reduced but burned material has largely been removed and area is recovering.

There is a gravel path located a variable 50 to 100 feet from Bear Creek. Further north the gravel path joins the main path, which is asphalt.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-6L

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-6L

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

1

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-6L

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

1

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

2

Total Points:

6

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-6L

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-BE-6L

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		19

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>East of Bear Creek Trail</u>	
Date: <u>3/24/2023</u>		Riparian Code: <u>R-BE-6R</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>40</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>W-9 (right side only)</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

- | | |
|--|--|
| Agriculture: <input type="checkbox"/> | Roads: <input type="checkbox"/> |
| Commercial/Indus.: <input checked="" type="checkbox"/> | Undeveloped: <input checked="" type="checkbox"/> |
| Residential: <input type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Phalaris arundinacea</i>
<i>Salix lasiandra</i>	<i>Erigeron canadensis</i>
<i>Salix exigua</i>	<i>Senecio jacobaea</i>
<i>Rubus armeniacus</i>	<i>Daucus carota</i>
	<i>Dipsacus fullonum</i>
	<i>additional species of unidentified grasses</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-6R

Date: 3/24/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 50-100 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: This is located within the area burned by fire a few years ago. Tree and shrub cover has since been reduced but burned material has largely been removed and area is recovering.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-6R

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-6R

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

1

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-6R

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

1

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

2

Total Points:

6

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-6R

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-BE-6R

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		17

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Near south end of City Limits (within Bear Creek Greenway)</u>	
Date: <u>11/13/2022</u>		Riparian Code: <u>R-BE-7L</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River:	<input checked="" type="checkbox"/>	Width: <u>35</u> feet
	Lake/Pond:	<input type="checkbox"/>	Width: _____ feet
	Wetland:	<input type="checkbox"/>	Width: _____ feet
LWI Wetland Code: _____			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Medford silty clay loam; Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Hordeum sp.</i>
<i>Robinia pseudoacacia</i>	<i>Arrhenatherum elatius</i>
<i>Fraxinus latifolia</i>	<i>Lactuca seriola</i>
<i>Salix exigua</i>	<i>Artemisia ludoviciana</i>
<i>Rubus armeniacus</i>	<i>Daucus carota</i>
	<i>Phalaris arundinacea</i>
	<i>Erigeron canadensis</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-7L

Date: 11/13/2022 Investigators: S Eisner

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 50 to 150 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: The east (right) side has a wider actual riparian width than the west where I-5 and the Bear Creek Greenway path encroaches on the outer riparian zone.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-7L

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	2
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		10

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-7L

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

5

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-7L

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

1

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

1

Total Points:

5

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-7L

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>3</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-7L

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		18

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Near south end of City Limits (within Bear Creek Greenway)</u>	
Date: <u>11/13/2022</u>		Riparian Code: <u>R-BE-7R</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Bear Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River:	<input checked="" type="checkbox"/>	Width: <u>35</u> feet
	Lake/Pond:	<input type="checkbox"/>	Width: _____ feet
	Wetland:	<input type="checkbox"/>	Width: _____ feet
LWI Wetland Code: <u>W-11; W-12</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Hordeum sp.</i>
<i>Robinia pseudoacacia</i>	<i>Arrhenatherum elatius</i>
<i>Fraxinus latifolia</i>	<i>Lactuca seriola</i>
<i>Salix exigua</i>	<i>Artemisia ludoviciana</i>
<i>Rubus armeniacus</i>	<i>Daucus carota</i>
	<i>Phalaris arundinacea</i>
	<i>Erigeron canadensis</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-BE-7R

Date: 11/13/2022 Investigators: S Eisner

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 125 to 150 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: The east (right) side has a wider actual riparian width the to the west where I-5 and the Bear Creek Greenway path encroaches on the outer riparian zone.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-7R

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	2
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-7R

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-BE-7R

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- | | | |
|--------|-------|-------|
| a. Yes | ..... | 3 pts |
| b. No | ..... | 1 pt |

Score

1

10. What is the dominant vegetation layer in the riparian area?

- | | | |
|---|-------|-------|
| a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high | ..... | 3 pts |
| b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high | ..... | 2 pts |
| c. Bare ground | ..... | 1 pt |

3

11. Does woody vegetation hang over the edge of the water?

- | | | |
|--------|-------|-------|
| a. Yes | ..... | 2 pts |
| b. No | ..... | 1 pt |

1

Total Points:

5

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-BE-7R

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>3</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-BE-7R

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		18

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Beall Lane</u>	
Date: <u>7/1/2823</u>		Riparian Code: <u>DA-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Daisy Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>4 to 8</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Abin silty clay loam

Adjacent Land Uses? (Check as many as needed)

- | | |
|--|--|
| Agriculture: <input type="checkbox"/> | Roads: <input checked="" type="checkbox"/> |
| Commercial/Indus.: <input type="checkbox"/> | Undeveloped: <input type="checkbox"/> |
| Residential: <input checked="" type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Fraxinus latifolia</i>	<i>mixed grasses and weeds</i>
<i>Rubus armeniacus</i>	<i>Phalaris arundinacea</i>
<i>Prunus sp.</i>	
<i>Betula sp.</i>	
<i>Pseudotsuga menziesii</i>	
<i>Salix babylonica</i>	
<i>Acer macrophyllum</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

DA-1

Date: 7/1/2823 Investigators: S Eisner

Dominant tree species: Fraxinus latifolia (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code

Comments: Channel banks and riparian corridor are not continuously forested but tree and shrub canopy does exist along most of the reach. Daisy Creek is the narrowest and least incised creek observed; the likely result of a smaller catchment area and corresponding base flow.
Many of the trees are not native and blackberry cover does dominate several sections of this reach.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

DA-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	1
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
DA-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
DA-1

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	<u>3</u>
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
Total Points:		<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

DA-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>1</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
DA-1

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		14

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Bear Creek Greenway Path</u>	
Date: <u>7/28/2023</u>		Riparian Code: <u>R-EL-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Elk Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>8</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Alnus rhombifolia</i>	<i>Unidentified grasses</i>
<i>Populus balsamifera</i>	<i>Erigeron canadensis</i>
<i>Rubus armeniacus</i>	<i>Artemisia ludoviciana</i>
	<i>Phalaris arundinacea</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-EL-1

Date: 7/28/2023 Investigators: S Eisner

Dominant tree species: *Alnus rhombifolia* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 125 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: This entire reach was burned over in October 2020. As a result, the riparian area is much more open than it had been; many of the burned trees have been removed and some grading of soil has occurred in the outer riparian area. Vegetation recovery is ongoing, though the under story and shrub layers include just a few species.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-EL-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	2
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-EL-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-EL-1

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- | | | |
|--------|-------|-------|
| a. Yes | ..... | 3 pts |
| b. No | ..... | 1 pt |

Score

1

10. What is the dominant vegetation layer in the riparian area?

- | | | |
|---|-------|-------|
| a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high | ..... | 3 pts |
| b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high | ..... | 2 pts |
| c. Bare ground | ..... | 1 pt |

3

11. Does woody vegetation hang over the edge of the water?

- | | | |
|--------|-------|-------|
| a. Yes | ..... | 2 pts |
| b. No | ..... | 1 pt |

1

Total Points:

5

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-EL-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-EL-1

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		17

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Beall Lane</u>	
Date: <u>7/28/2023</u>		Riparian Code: <u>R-EL-2</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Elk Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>3 to 5</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Medford silty clay loam; Gregory silty clay loam

Adjacent Land Uses? (Check as many as needed)

- | | |
|--|--|
| Agriculture: <input type="checkbox"/> | Roads: <input checked="" type="checkbox"/> |
| Commercial/Indus.: <input type="checkbox"/> | Undeveloped: <input type="checkbox"/> |
| Residential: <input checked="" type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Fraxinus latifolia</i>	<i>Phalaris arundinacea</i>
<i>Pinus ponderosa</i>	<i>mowed grasses (in lawn and along the channel)</i>
<i>Prunus sp.</i>	
<i>Rubus armeniacus</i>	
<i>Quercus sp.</i>	
<i>Calocedrus decurrens</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-EL-2

Date: 7/28/2023 Investigators: S Eisner

Dominant tree species: Fraxinus latifolia (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 to 40 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Highly constricted reach in residential area. The creek is generally confined between back yards of adjoining residences and also flows through two small parks within the reach. This reach has fewer trees than most of the riparian corridors in Central Point.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-EL-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	2
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		11

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-EL-2

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
- b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
- b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
- b. Yes 1 pt

1

Total Points:

5

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-EL-2

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer? a. Yes 3 pts b. No 1 pt	1
10. What is the dominant vegetation layer in the riparian area? a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts c. Bare ground 1 pt	2
11. Does woody vegetation hang over the edge of the water? a. Yes 2 pts b. No 1 pt	2
Total Points:	5

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-EL-2

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>1</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-EL-2

WILDLIFE HABITAT (continued)

17. Is surface water present throughout the year?

- a. Yes 3 pts
- b. No 1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

- a. Yes 3 pts
- b. No 1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

- a. Less than 25% 3 pts
- b. Between 25% and 75% 2 pts
- c. Greater than 75% 1 pt

1

Total Points:

13

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Bear Creek Greenway Path</u>	
Date: <u>3/26/2023</u>		Riparian Code: <u>R-GR-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Griffin Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>10 to 15</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<u>Salix sp. (unidentified species)</u>	<u>Phalaris arundinacea</u>
<u>Rubus armeniacus</u>	
<u>Alnus rhombifolia</u>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination

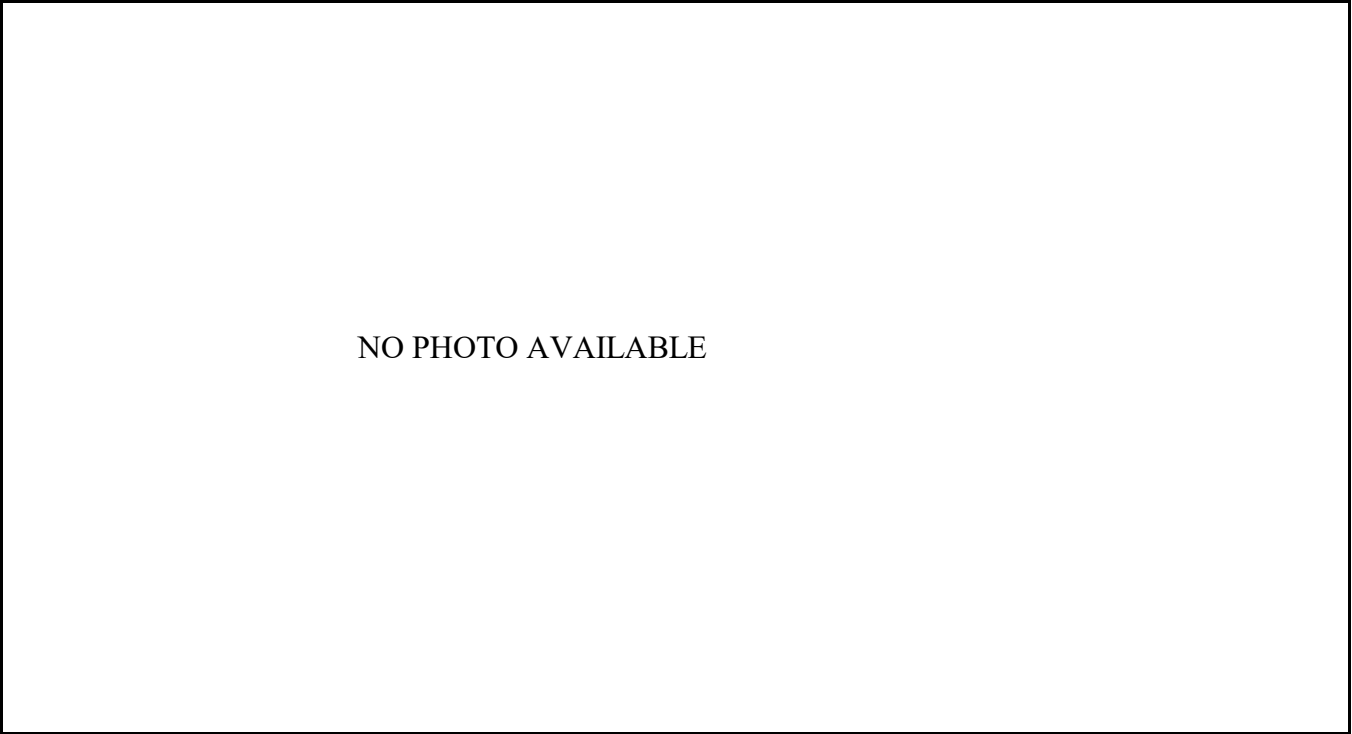


Central Point LWI:

RIPARIAN CODE
R-GR-1

Date: <u>3/26/2023</u>	Investigators: <u>S Eisner / A Hawkins</u>
Dominant tree species: <u><i>Alnus rhombifolia</i></u> (see other side for list of species)	
Potential tree height (PTH)/Actual Width of riparian area : <u>75 / 50</u> feet	
(Width measured horizontally from edge of water resource)	
PTH determined by:	
On-site vegetation <input checked="" type="checkbox"/>	Reference site <input type="checkbox"/> Code _____

Comments: There is a beaver dam located just downstream from the culvert under the Bear Creek Greenway Trail. Large rocks have been placed in the channel, presumably to stabilize the creek below the culvert. The culvert daylights west of Interstate 5; a distance of about 230 feet.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
- b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
- b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
- b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-1

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	..... 3 pts	<u>3</u>
b. No	..... 1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	..... 3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	..... 2 pts	<u>3</u>
c. Bare ground	..... 1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	..... 2 pts	<u>2</u>
b. No	..... 1 pt	
Total Points:		<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-GR-1

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	3
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		18

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Scenic Way</u>	
Date: <u>3/27/2023</u>		Riparian Code: <u>R-GR-2</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Griffin Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>12 to 15</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Evans loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input type="checkbox"/>
Residential: <input checked="" type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Alnus rhombifolia</i>	<i>Phalaris arundinacea</i>
<i>Quercus sp.</i>	<i>Conium maculatum</i>
<i>Fraxinus latifolia</i>	<i>unidentified grasses (including lawn)</i>
<i>Rubus armeniacus</i>	
<i>Rosa sp.</i>	
<i>Prunus sp.</i>	
<i>Salix lasiandra</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-GR-2

Date: 3/27/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: Quercus sp. (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 60 / 25 to 70 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Very steep, actively eroding banks. The lower banks are rock lined near the Scenic Way crossing. There is a good tree overstory but the understory is degraded; dominated by either Himalayan blackberry or non-native grasses and weeds. The left side of the riparian corridor extends into agricultural land west of city limits so this assessment focuses on the eastern portion of the riparian corridor.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	2
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		11

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-2

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-2

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	3
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	2
b. No 1 pt	
Total Points:	8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-2

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-2

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		16

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Rogue Valley Road behind the high school</u>	
Date: <u>3/27/2023</u>		Riparian Code: <u>R-GR-3</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Griffin Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>15 to 25</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Evans loam

Adjacent Land Uses? (Check as many as needed)

- | | |
|--|---------------------------------------|
| Agriculture: <input type="checkbox"/> | Roads: <input type="checkbox"/> |
| Commercial/Indus.: <input checked="" type="checkbox"/> | Undeveloped: <input type="checkbox"/> |
| Residential: <input checked="" type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Phalaris arundinacea</i>
<i>Fraxinus latifolia</i>	<i>Conium maculatum</i>
<i>Salix sp.</i>	<i>Equisetum arvense</i>
<i>Rubus armeniacus</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-GR-3

Date: 3/27/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 25 to 100 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Significant bank erosion and evidence of beaver activity. At the south end of the riparian reach, east of the creek, the high school sport stadium is located just beyond the riparian corridor.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-3

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-3

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-3

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	<u>3</u>
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	<u>2</u>
b. No 1 pt	
Total Points:	<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-3

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>2</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-GR-3

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		16

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>At Haskell Street bridge</u>	
Date: <u>3/26/2023</u>		Riparian Code: <u>R-GR-4</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Griffin Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>12 to 15</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Abin silty clay loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input checked="" type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input type="checkbox"/>
Residential: <input checked="" type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Alnus rhombifolia</i>	<i>Phalaris arundinacea</i>
<i>Salix lasiandra</i>	
<i>Rubus armeniacus</i>	
<i>Spiraea douglasii</i>	
<i>Cornus alba</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-GR-4

Date: 3/26/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Alnus rhombifolia* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 to 100 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Creek is wider at the bridge as there is a wier just downstream of the bridge.
The creek meanders a bit between residential developments. The creek itself is borderd by woody
vegetation, though the outer limits of the riparian area are often herbaceous, and in some areas those
areas are mowed.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-4

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	2
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		13

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-4

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-4

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer? a. Yes 3 pts b. No 1 pt	3
10. What is the dominant vegetation layer in the riparian area? a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts c. Bare ground 1 pt	3
11. Does woody vegetation hang over the edge of the water? a. Yes 2 pts b. No 1 pt	2
Total Points:	8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-4

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	3
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	1
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	3
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE

R-GR-4

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	2
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		18

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Pedestrian bridge over creek west of school grounds</u>	
Date: <u>11/13/2022</u>		Riparian Code: <u>R-GR-5</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Griffin Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>10 to 12</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Abin silty clay loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation (trees, shrubs, vines >1 meter)		Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Calocedrus decurrens</i>	<i>Acer negundo</i>	<i>Hedera helix</i>
<i>Populus balsamifera</i>	<i>Betula sp.</i>	<i>mowed lawn grasses and weeds</i>
<i>Rubus armeniacus</i>	<i>Pinus ponderosa</i>	
<i>Acer sp.</i>	<i>Pseudotsuga menziesii</i>	
<i>Fraxinus latifolia</i>		
<i>Salix lasiandra</i>		
<i>Salix exigua</i>		

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-GR-5

Date: 11/13/2022 Investigators: S Eisner

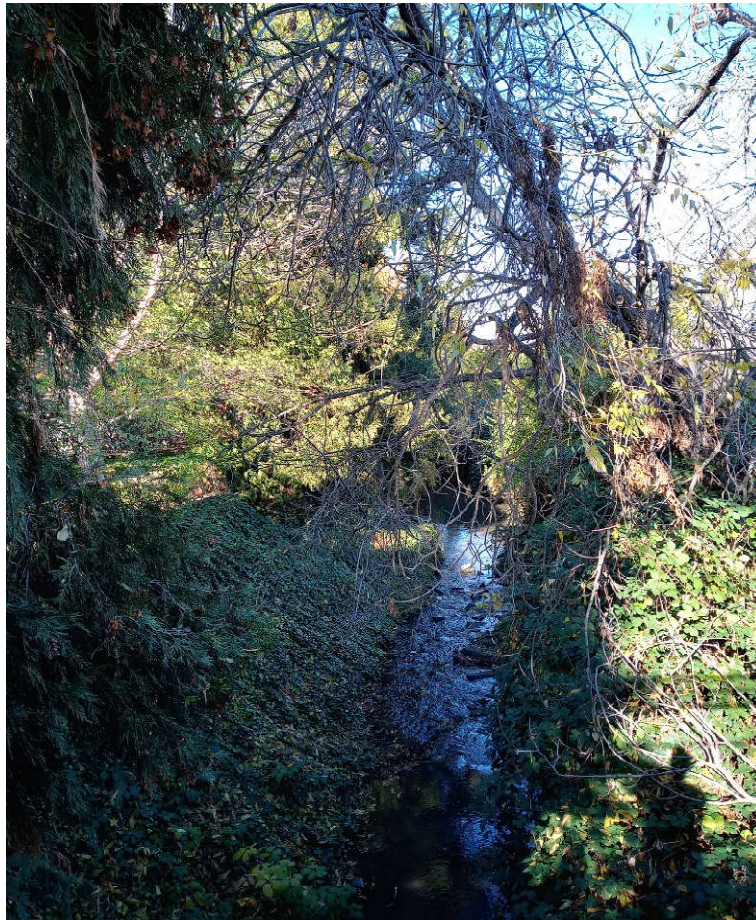
Dominant tree species: *Alnus rhombifolia* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code

Comments: Creek has very steep banks that are dominated by Himalayan blackberry. The slope break at the top of bank is abrupt and land beyond is nearly flat. The adjoining residential back yards (or school yard to the east) begin very near the break.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-5

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-5

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-5

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	..... 3 pts	<u>3</u>
b. No	..... 1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	..... 3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	..... 2 pts	<u>3</u>
c. Bare ground	..... 1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	..... 2 pts	<u>2</u>
b. No	..... 1 pt	
Total Points:		<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-5

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-5

WILDLIFE HABITAT (continued)

17. Is surface water present throughout the year?

- a. Yes 3 pts
- b. No 1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

- a. Yes 3 pts
- b. No 1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

- a. Less than 25% 3 pts
- b. Between 25% and 75% 2 pts
- c. Greater than 75% 1 pt

1

Total Points:

16

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Flanagan Park greenway</u> <u>path</u>	
Date: <u>11/14/2022</u>		Riparian Code: <u>R-GR-6</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Griffin Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>10 to 12</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Abin silty clay loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input checked="" type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input type="checkbox"/>
Residential: <input checked="" type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Equisetum arvense</i>
<i>Salix exigua</i>	<i>Dactylus glomerata</i>
<i>Pseudotsuga menziesii</i>	<i>Heracleum lanatum</i>
<i>Arbutus menziesii</i>	<i>Agropyron repens</i>
<i>ornamental trees and shrubs</i>	<i>Achillea millefolium</i>
<i>Rubus armeniacus</i>	<i>mowed lawn grasses</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-GR-6

Date: 11/14/2022 Investigators: S Eisner

Dominant tree species: Populus balsamifera (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 20 to 50 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Highly developed residential area. Greenway on the south end results in a bit wider functional riparian area but of course much of that is mowed and includes an asphalt path. In the park the path switches to the east side but is quickly more than 100 feet from the waterway; the path continues north while the creek veers to the west.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-6

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	2
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		13

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-6

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-GR-6

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	3
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	2
b. No 1 pt	
Total Points:	8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-GR-6

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-GR-6

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		16

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>At Dean Creek Road crossing</u>	
Date: <u>3/26/2023</u>		Riparian Code: <u>R-JA-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Jackson Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>10 to 15</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Evans loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input checked="" type="checkbox"/>	Roads: <input checked="" type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Fraxinus latifolia</i>	<i>Phalaris arundinacea</i>
<i>Alnus rhombifolia</i>	
<i>Populus balsamifera</i>	
<i>Rubus armeniacus</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-JA-1

Date: 3/26/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Fraxinus latifolia* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 10-40 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: The boundaries of City Limits are very narrow at this location. Jackson Creek flows from a culvert under I-5 and then continues north between a gravel driveway to the east and Dean Creek Road to the west.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
- b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
- b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
- b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-1

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	3
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	2
b. No 1 pt	
Total Points:	8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-1

WILDLIFE HABITAT (continued)

17. Is surface water present throughout the year?

- a. Yes 3 pts
- b. No 1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

- a. Yes 3 pts
- b. No 1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

- a. Less than 25% 3 pts
- b. Between 25% and 75% 2 pts
- c. Greater than 75% 1 pt

3

Total Points:

18

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Twin Creeks Drive bridge</u>	
Date: <u>3/27/2023</u>		Riparian Code: <u>R-JA-2</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Jackson Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: _____	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Central Point sandy loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input checked="" type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input checked="" type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Alnus rhombifolia</i>	<i>Phalaris arundinacea</i>
<i>Pinus contorta</i>	<i>Galium aparine</i>
<i>Robinia pseudoacacia</i>	<i>Daucus carota</i>
<i>Populus balsamifera</i>	<i>Schedonorus arundinaceus</i>
<i>Rubus armeniacus</i>	<i>Senecio jacobaea</i>
<i>Unidentified cedar</i>	<i>Unidentified grasses</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-JA-2

Date: 3/27/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Alnus rhombifolia* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25-125 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation

Reference site Code _____

Comments: The creek through this reach was moved to its current location in 2006. As such all of the observed vegetation in this reach was planted, or seeded naturally, since 2006. The lower and middle banks of the creek are lined with boulders. The creek banks and a short distance into the riparian corridor is dominated by sapling trees whereas the outer riparian corridor is largely herbaceous in character.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		14

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-2

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
- b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
- b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
- b. Yes 1 pt

3

Total Points:

9

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

HIGH

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-2

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer? a. Yes 3 pts b. No 1 pt	3
10. What is the dominant vegetation layer in the riparian area? a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts c. Bare ground 1 pt	3
11. Does woody vegetation hang over the edge of the water? a. Yes 2 pts b. No 1 pt	2
Total Points:	8

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-2

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-2

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	3
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		20

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>At Donna Way</u>	
Date: <u>3/27/2023</u>		Riparian Code: <u>R-JA-3</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Jackson Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>10 to 12</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Central Point sandy loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Quercus sp.</i> <i>Prunus sp.</i>	<i>Phalaris arundinacea</i>
<i>Rubus armeniacus</i>	<i>Hedera helix</i>
<i>Calocedrus decurrens</i>	<i>mowed lawn grasses</i>
<i>Alnus rhombifolia</i>	
<i>Fraxinus latifolia</i>	
<i>Salix babylonica</i>	
<i>Populus balsamifera</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Central Point LWI:

RIPARIAN CODE

R-JA-3

Date: 3/27/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: *Alnus rhombifolia* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 to 35 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: Very steep bank slopes. Back yards often extend to the creek's top of bank. Creek banks and riparian zone not managed as back yard is typically dominated by Himalayan blackberry.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-3

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-3

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-3

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	..... 3 pts	<u>3</u>
b. No	..... 1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	..... 3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	..... 2 pts	<u>3</u>
c. Bare ground	..... 1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	..... 2 pts	<u>2</u>
b. No	..... 1 pt	
Total Points:		<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-3

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>2</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE

R-JA-3

17. Is surface water present throughout the year?

a. Yes

3 pts

b. No

1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

a. Yes

3 pts

b. No

1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

a. Less than 25%

3 pts

b. Between 25% and 75%

2 pts

c. Greater than 75%

1 pt

2

Total Points:

16

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Diego Street</u>	
Date: <u>3/26/2023</u>		Riparian Code: <u>R-JA-4</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Jackson Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>6 to 10</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Newberg fine sandy loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input type="checkbox"/>
Residential: <input checked="" type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<u>Fraxinus latifolia</u>	<u>Bromus sp.</u>
<u>Calocedrus decurrens</u>	<u>Galium aparine</u>
<u>Rubus armeniacus</u>	<u>Unidentified lawn grasses and weeds</u>
<u>Populus balsamifera</u>	
<u>Alnus rhombifolia</u>	
<u>Pseudotsuga menziesii</u>	
<u>Acer macrophyllum</u>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE
R-JA-4

Date: 3/26/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: Fraxinus latifolia (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 to 60 feet
(Width measured horizontally from edge of water resource)

PTH determined by:
On-site vegetation Reference site Code _____

Comments: Very steep banks with abrupt top of bank located in the back yard of adjoining residential properties. Some bank sections have retaining walls and others are significantly eroded and/or undercut. Mostly Himalayan blackberry along the banks, but the tree canopy is comprised mainly of native species. Very mixed canopy though Oregon ash does appear to be the most common.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-4

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-4

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

1

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

3

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

LOW

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-JA-4

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	..... 3 pts	<u>3</u>
b. No	..... 1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	..... 3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	..... 2 pts	
c. Bare ground	..... 1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	..... 2 pts	<u>2</u>
b. No	..... 1 pt	
Total Points:		<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-4

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>2</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-JA-4

WILDLIFE HABITAT (continued)

17. Is surface water present throughout the year?

- a. Yes 3 pts
- b. No 1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

- a. Yes 3 pts
- b. No 1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

- a. Less than 25% 3 pts
- b. Between 25% and 75% 2 pts
- c. Greater than 75% 1 pt

1

Total Points:

15

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>West of Table Rock Road</u>	
Date: <u>3/27/2023</u>		Riparian Code: <u>R-LO-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Lone Pine Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>6 to 8</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code:	<u>none</u>		
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex and Camas gravelly loam

Adjacent Land Uses? (Check as many as needed)

- | | |
|---|--|
| Agriculture: <input type="checkbox"/> | Roads: <input type="checkbox"/> |
| Commercial/Indus.: <input type="checkbox"/> | Undeveloped: <input checked="" type="checkbox"/> |
| Residential: <input type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Populus balsamifera</i>	<i>Lactuca seriola</i>
<i>Symphoricarpos albus</i>	<i>Conium maculatum</i>
<i>Rubus armeniacus</i>	<i>Senecio jacobaea</i>
	<i>Phalaris arundinacea</i>
	<i>Dipsacus fullonum</i>
	<i>Erigeron canadensis</i>

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-LO-1

Date: 3/27/2023 **Investigators:** S Eisner / A Hawkins

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 125 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation

Reference site **Code** _____

Comments: Reach begins at a culvert under Table Rock Road. There appears to be a fish ladder just below the culvert. This riparian corridor appears to have been degraded significantly since the fire along the Bear Creek Greenway; larger trees killed by the fire have largely been removed, though saplings and understory vegetation are growing in well.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-LO-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		11

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-LO-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

3

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-LO-1

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

1

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

3

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

1

Total Points:

5

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-LO-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>3</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-LO-1

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		17

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>At Bear Creek Trail crossing over the creek</u>	
Date: <u>3/26/2023</u>		Riparian Code: <u>R-MI-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner / A Hawkins</u>		Hydrologic Basin: <u>Mingus Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>7</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Camas-Newberg-Evans complex

Adjacent Land Uses? (Check as many as needed)

- | | |
|---|--|
| Agriculture: <input type="checkbox"/> | Roads: <input type="checkbox"/> |
| Commercial/Indus.: <input type="checkbox"/> | Undeveloped: <input checked="" type="checkbox"/> |
| Residential: <input type="checkbox"/> | Forestry: <input type="checkbox"/> |

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Alnus rhombifolia</i>	<i>Conium maculatum</i>
<i>Salix lasiandra</i>	<i>Epilobium ciliatum</i>
<i>Fraxinus latifolia</i>	<i>Solanum dulcamara</i>
<i>Rubus armeniacus</i>	<i>Phalaris arundinacea</i>
<i>Prunus sp.</i>	
<i>Quercus garryana</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-MI-1

Date: 3/26/2023 Investigators: S Eisner / A Hawkins

Dominant tree species: Salix lasiandra (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 35 / 50 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation

Reference site

Code _____

Comments: South end of reach begins in Interstate 5 right-of-way, where there are fewer trees. Riparian understory is dominated by Himalayan blackberry. The stream bed is predominantly cobble. This reach is located just upstream of the creek's confluence with Bear Creek.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-MI-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	1
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	3
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-MI-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

3

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

7

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-MI-1

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	..... 3 pts	<u>3</u>
b. No	..... 1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	..... 3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	..... 2 pts	
c. Bare ground	..... 1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	..... 2 pts	<u>2</u>
b. No	..... 1 pt	
Total Points:		<u>8</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-MI-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>3</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>2</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-MI-1

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		16

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Beall Lane</u>	
Date: <u>7/28/2023</u>		Riparian Code: <u>R-MI-2</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Mingus Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>4 to 8</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Are salmonids present in the adjacent water resource?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is the water resource listed for temperature on DEQ's 303(d) list:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Gregory silty clay loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: Roads:
 Commercial/Indus.: Undeveloped:
 Residential: Forestry:

Woody vegetation (trees, shrubs, vines >1 meter)	Herbaceous vegetation (include trees, shrubs, vines <1 meter)
<i>Quercus sp.</i> <i>Alnus rhombifolia</i>	<i>mowed lawn grasses</i>
<i>ornamental shrubs</i> <i>Salix babylonica</i>	<i>Phalaris arundinacea</i>
<i>Calocedrus decurrens</i>	
<i>Fraxinus latifolia</i>	
<i>Prunus sp.</i>	
<i>Rubus armeniacus</i>	
<i>Populus balsamifera</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-MI-2

Date: 7/28/2023 Investigators: S Eisner

Dominant tree species: Fraxinus latifolia (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 25 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation

Reference site

Code _____

Comments: Mingus Creek flows through both commercial and residential areas but despite changes in adjoining land use the character of the creek and riparian area are similar throughout; the creek itself is constricted with a narrow riparian corridor. Large, mature trees are infrequent and where present are generally near the creek; the outer riparian area has notably fewer trees.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-MI-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	1
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		10

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-MI-2

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

5

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-MI-2

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- | | | |
|--------|-------|-------|
| a. Yes | ..... | 3 pts |
| b. No | ..... | 1 pt |

Score

1

10. What is the dominant vegetation layer in the riparian area?

- | | | |
|---|-------|-------|
| a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high | ..... | 3 pts |
| b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high | ..... | 2 pts |
| c. Bare ground | ..... | 1 pt |

2

11. Does woody vegetation hang over the edge of the water?

- | | | |
|--------|-------|-------|
| a. Yes | ..... | 2 pts |
| b. No | ..... | 1 pt |

1

Total Points:

4

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

LOW

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-MI-2

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>1</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-MI-2

WILDLIFE HABITAT (continued)

17. Is surface water present throughout the year?

- a. Yes 3 pts
- b. No 1 pt

Score

3

18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?

- a. Yes 3 pts
- b. No 1 pt

1

19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?

- a. Less than 25% 3 pts
- b. Between 25% and 75% 2 pts
- c. Greater than 75% 1 pt

1

Total Points:

12

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS:

LOW

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Wilson Road</u>	
Date: <u>7/28/2023</u>		Riparian Code: <u>R-UP-1</u>	
On-site: <input checked="" type="checkbox"/>	Off-Site: <input type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Upton Slough</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>15-20</u>	feet
	Lake/Pond: <input type="checkbox"/>	Width: _____	feet
	Wetland: <input type="checkbox"/>	Width: _____	feet
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Cove clay

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input type="checkbox"/>	Roads: <input checked="" type="checkbox"/>
Commercial/Indus.: <input checked="" type="checkbox"/>	Undeveloped: <input checked="" type="checkbox"/>
Residential: <input checked="" type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Fraxinus latifolia</i>	<i>unidentified grasses</i>
<i>Prunus sp.</i>	
<i>Rubus armeniacus</i>	
<i>Salix sp. (likely exigua)</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-UP-1

Date: 7/28/2023 Investigators: S Eisner

Dominant tree species: Fraxinus latifolia (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 75 / 10 to 15 feet

(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: This is a very short section of Upton Slough within city limits. The photo below includes the entirety of the reach, which is about 160 feet from Table Rock Road to Wilson Road.

The riparian corridor is constricted by adjoining development to the west and by gravel fill to the east.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-UP-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	1
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	
Total Points:		10

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-UP-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

5

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-UP-1

THERMAL REGULATION

9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?

- a. Yes 3 pts
b. No 1 pt

Score

1

10. What is the dominant vegetation layer in the riparian area?

- a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts
c. Bare ground 1 pt

2

11. Does woody vegetation hang over the edge of the water?

- a. Yes 2 pts
b. No 1 pt

1

Total Points:

4

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS:

LOW

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-UP-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>1</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-UP-1

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		12

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: LOW

Riparian Characterization Form



Central Point LWI:

GENERAL INFORMATION		Location of data point: <u>Blackwell Road</u>	
Date: <u>7/28/2023</u>		Riparian Code: <u>R-WI-1</u>	
On-site: <input type="checkbox"/>	Off-Site: <input checked="" type="checkbox"/>	Reach Length: _____	
Investigators: <u>S Eisner</u>		Hydrologic Basin: <u>Willow Creek</u>	

WATER RESOURCE INFORMATION			
Water Resource:	Stream/River: <input checked="" type="checkbox"/>	Width: <u>6</u> feet	
	Lake/Pond: <input type="checkbox"/>	Width: _____ feet	
	Wetland: <input type="checkbox"/>	Width: _____ feet	
LWI Wetland Code: <u>none</u>			
Water present year-round: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are salmonids present in the adjacent water resource? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Is the water resource listed for temperature on DEQ's 303(d) list: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Within FEMA-mapped 100-year floodplain: Yes No

Mapped soil series: Evans loam

Adjacent Land Uses? (Check as many as needed)

Agriculture: <input checked="" type="checkbox"/>	Roads: <input checked="" type="checkbox"/>
Commercial/Indus.: <input type="checkbox"/>	Undeveloped: <input type="checkbox"/>
Residential: <input type="checkbox"/>	Forestry: <input type="checkbox"/>

Woody vegetation <small>(trees, shrubs, vines >1 meter)</small>	Herbaceous vegetation <small>(include trees, shrubs, vines <1 meter)</small>
<i>Populus balsamifera</i>	<i>mixed grasses and weeds</i>
<i>Alnus rhombifolia</i>	
<i>Rubus armeniacus</i>	

1 meter = 3.2 feet

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% - 25% >25%

Is the reach constricted by man-made features? (Question 8)

Yes No

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes No

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation Herbaceous vegetation Bare ground

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes No

Large woody debris in riparian area? (Question 15)

Yes No

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% <10%

Degree of development or human caused disturbance. (Question 19)

<25% 25% - 75% >75%

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate high, very high, severe

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation Herbaceous vegetation Bare ground

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes No

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes No or no flood prone area present

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 2 layers 1 layer or unvegetated

Riparian Width Determination



Central Point LWI:

RIPARIAN CODE

R-WI-1

Date: 7/28/2023 Investigators: S Eisner

Dominant tree species: *Populus balsamifera* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / 50 feet
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation Reference site Code _____

Comments: The Blackwell Road crossing of Willow Creek was widened in 2021/22. As the city limits only cover the road right-of-way in this area the length of this reach is less than 50 feet.
The creek banks downstream from the new crossing were regraded at the time of road construction.



Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-WI-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	3
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	2
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	3
b. Between 10% and 25%	2 pts	
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: High (12-14 pts) Medium (8-11 pts) Low (5-7 pts)

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-WI-1

FLOOD MANAGEMENT

6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?

- a. Yes 3 pts
b. No 1 pt

Score

3

7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

- a. Yes 3 pts
b. No or no flood prone area present 1 pt

1

8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?

- a. No 3 pts
b. Yes 1 pt

1

Total Points:

5

Function: High (8-9 pts) Medium (5-7 pts) Low (3-4 pts)

FUNCTION IS:

MEDIUM

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE
R-WI-1

THERMAL REGULATION

	Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?	
a. Yes 3 pts	<u>1</u>
b. No 1 pt	
10. What is the dominant vegetation layer in the riparian area?	
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high 3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high 2 pts	
c. Bare ground 1 pt	
11. Does woody vegetation hang over the edge of the water?	
a. Yes 2 pts	<u>1</u>
b. No 1 pt	
Total Points:	<u>4</u>

Function: High (7-8 pts) Medium (5-6 pts) Low (3-4 pts)

FUNCTION IS: **LOW**

Riparian Functional Assessment Answer Sheet



Central Point LWI:

RIPARIAN CODE

R-WI-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	<u>2</u>
b. 2 layers	2 pts	
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	<u>2</u>
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	<u>1</u>
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	<u>1</u>
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	<u>3</u>
b. Between 10% and 40%	2 pts	
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet



Central Point LWI:

WILDLIFE HABITAT (continued)

RIPARIAN CODE
R-WI-1

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	3
b. No	1 pt	
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	1
b. Between 25% and 75%	2 pts	
c. Greater than 75%	1 pt	
Total Points:		14

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM