

Natural Resource Overlay District Report for the Oregon City Tyrone S. Woods Park Project in Oregon City, Oregon

(Township 3 South, Range 2 East, Section 9D, Tax Lot 1401 and 1500)

Prepared for

Lango Hansen Landscape Architects

Attn: Kurt Lango

1100 NW Glisan St #3b

Portland, OR 97209

Prepared by

Carlee Michelson,

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

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1.0 INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a natural resource assessment for the proposed Oregon City Tyrone S. Woods Memorial Park Phase I Development in Oregon City, Oregon (Township 3 South, Range 2 East, Section 9D, Tax Lot 1401 and 1500); see Figure 1, Appendix A for limits of the study area. All figures are in Appendix A.

This report presents the definitions and the methodology used to assess the natural resource overlay district (NROD) within the project site as required by the City of Oregon City (Chapter 17.49). The field component of the natural resource assessment for this site was completed on July 29, 2014, and September 3, 2019, to verify conditions had not changed.

2.0 EXISTING CONDITIONS

The 7.5- acre study area is located approximately one-quarter mile northeast of the intersection of Oregon Highway 213 and Glen Oak Road in Oregon City. The study area consists of two tax lots (1400 and 1500) as shown in Figure 2, which is currently known as Glen Oak Park. The parcel is zoned as “Institutional” (Oregon City WebMaps, 2019). Surrounding parcels are zoned as residential and campus industrial. The existing Oregon City High School campus is located immediately east of the study area.

Site topography slopes down gently to the southwest. The study area is within the Beaver Creek watershed (HUC 170900070403), in Clackamas County. Caufield Creek enters the study area from the south side of tax lot 1401, through a box culvert under Glen Oak Road. The creek flows west where it exits the study area on the west side of tax lot 1500. Dominant vegetation in the southern portion of the study area primarily includes weedy forbs and pasture grasses. The northern half of the study area is forested, with upland Douglas-fir/oak woodland transitioning to Oregon ash forested wetland in the north. The understory in many areas consists of thick Himalayan blackberry, which has also dominated the riparian area along Caufield Creek.

The study area itself has been relatively undisturbed for several decades (www.historicaerials.com). Prior to 1994, the two lots were utilized for agriculture, but have since remained single residential lots. There are two non-historic pole barns that will be demolished as a part of this project. The park property has one existing house that will remain and may be developed in phase 2 of the park improvements. On the north side of the site, Meyers Road has recently been improved and includes a sidewalk, street trees and a stormwater swale in the Right-of-Way. High School Avenue on the east side of the site and Glen Oak Road on the south side of the site are not fully improved and do not have sidewalks. The Meyers Road improvements occurred between 2015 and 2016, removing a residential building within the northern portion of tax lot 1401. As it stands, one pole barn resides in the north side of tax lot 1401, and one residence, garage, and pole barn reside in the southern portion of tax lot 1500. A dirt and gravel roadway separates the two tax lots north to south, and crosses over a culvert within Caufield Creek; the culvert and road are proposed for removal to naturalize conditions along Caufield Creek. Several features surrounding the site, which may have affected site drainage, have been developed since 2000. To the east, a tree farm was cleared between 2000 and 2001, making way for the construction of High School Road and a stormwater catch basin

northeast of the tax lot. These features were constructed by May, 2002. There is no evidence of recent fill or site alterations beyond those described above.

The City of Oregon City Local Wetland Inventory (LWI) does not designate the reaches of Caufield Creek present within the study area (CA-6B-C) as locally Significant Wetlands or Wetlands of Special Interest for Protection. The on-site reach of Caufield Creek, as delineated by PHS and described below, is consistent with the LWI map and subsequent Oregon City NROD mapping (Figure 3B). Another wetland was delineated north of Caufield Creek by PHS staff, which is not present in the LWI or the Oregon City NROD mapping (Figure 4). The discrepancy may potentially be attributed to development surrounding the study area, which has likely affected the drainage capacity on site enough to induce wetland conditions. Wetland A is not locally significant, as described in the code narrative OCMC 17.49.35.

3.0 DISCUSSION OF NATURAL RESOURCE AREAS

PHS delineated the limits of the wetland on the site based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y-87-1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. The ordinary high water (OHW) of Caufield Creek was delineated based on guidelines outlined in the *Department of State Lands Removal Fill Guide: Field Indicators of OHW*, as well as the U.S. Army Corps of Engineers *Guide to OHWM for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States*. The delineation was conducted on July 29, 2014, and September 3, 2019. Below is a discussion of the property's delineated resources. A wetland concurrence letter for this property is included in Appendix B (WD2014-0434).

Wetland A

Wetland A is approximately 19,696 square feet (0.45 acre) within the study area, and continues offsite to the west. The Cowardin class is palustrine emergent-persistent, seasonally saturated (PEMB) wetland, with a Hydrogeomorphic (HGM) class of Slope/Flat. Hydrology is primarily precipitation, though some groundwater may also source the wetland. The wetland is not fed by ditches or surface waters from upslope areas to the east.

Vegetation within Wetland A is dominated by mixed pasture grasses and forbs that are generally unidentifiable due to grazing at the time of the delineation in 2014. Upon a second visit in 2019, the pasture areas had been mowed and cleared of weedy forbs and Himalayan blackberry (*Rubus armeniacus*, FAC). Identifiable species included white clover (*Trifolium repens*, FAC), and bentgrass (*Agrostis* sp., FAC). The transition to upland coincided with slight changes in micro-topography, as well as an absence of oxidized rhizospheres along living roots.

Soils within the wetland were characterized by very dark grayish brown and very dark gray silty clay loam. This is in contrast to the adjoining uplands which are dark brown silt loams. Wetland soils met criteria for redox dark surface as characterized by sample points 1 and 3.

Hydrology appears to be largely driven by precipitation that ponds due to years of compaction from horses. At the time of the site visit in 2019, no horses were present, but wetland conditions persisted. Evidence of hydrology included oxidized rhizospheres along living roots; saturation was observed at a depth of 14 inches in the southwestern portion of the wetland in 2014, however no water table was observed in 2014 or 2019.

The upland is characterized by sample points 2 and 4, and included velvet grass (*Holcus lanatus*, FAC), tall false ryegrass (*Schedonorus arundinaceus*, FAC), white clover, and blue grass (*Poa* sp., (FAC)). No hydrology or hydric soils were present in the upland.

Caufield Creek

Caufield Creek is a perennial creek that flows north and west within the study area. The Cowardin class is riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) and the HGM class is Riverine. Riparian vegetation generally consists of Himalayan blackberry, and grass with weedy forbs (mowed) north of the existing single family home in the southern portion of tax lot 1500.

The creek is somewhat incised, and the banks, though steep, appear to be stable. Sample point 6 characterizes the riparian area along the upland banks of Caufield Creek, and includes Himalayan blackberry, colonial bentgrass (*Agrostis capillaris*, FAC), velvet grass, and one large ornamental blue spruce (*Picea pungens*, FAC). No hydrology or hydric soils were present.

4.0 VEGETATED CORRIDOR ASSESSMENT

4.1 Vegetated Corridor Extent

The slope adjacent to the delineated edge of the wetland was assessed in order to determine the width of the vegetated corridor. The slope adjacent to the wetland was determined to be less than 25 percent, resulting in a 50-foot wide vegetated corridor according to Table 17.49.110 of the Oregon City NROD code. Approximately 37,986 square feet (0.87 acres) of vegetated corridor is present within the study area (Figure 4).

As stated above, Caufield Creek flows west to continue beyond the study area based on off-site observations and Oregon City Natural Resource Overlay District mapping. Natural resources on site were assessed during a previous wetland delineation (WD#2014-0434, Appendix B), which documented one wetland and a waterway (Caufield Creek) in the parcel. In September of 2019, PHS returned to the site to delineate the OHW of Caufield Creek, which can be seen on Figure 4. The Oregon City NROD map does not display Wetland A; however, according to Oregon City Municipal Code (OCMC) 17.49.35 - addition of wetlands to map following adoption,

*The NROD boundary shall be expanded to include a wetland identified during the course of a development permit review if it is within or partially within the mapped NROD boundary **and** meets the State of Oregon's definition of a "Locally Significant Wetland".*

Wetland A is within the VC of nearby Caufield Creek, but must also meet local significance to receive an NROD Boundary. Despite the wetland being less than 0.5 acre, which already designates the wetland as not locally significant, PHS conducted the Oregon Freshwater Wetland Assessment Method (OFWAM) to further evaluate the significance rating of Wetland A. The results describe a degraded habitat, water quality function and hydrologic control, which also designate the wetland as not locally significant (Attachment D, OFWAM Summary). Metro's Title 13 inventory of habitats includes a Class II Riparian Corridor/Wildlife Habitat along Caufield Creek, and an Upland Wildlife habitat class B within upland areas in the southern and central study area. To the east, land is developed with the existing high school and does not include NROD. To the south, Caufield Creek extends south of Glen Oak Road and associated vegetated corridor does not enter into the southeast portion of the study area. All NROD boundaries present within the study area surround Caufield Creek to the south.

4.2 Vegetated Corridor Condition

The condition of the vegetated corridor (VC) is defined by the combined coverage of trees, shrubs, and groundcover; overall tree canopy coverage; and the coverage of non-native species. The VC adjacent to the wetland has few trees, heavy non-native shrubs, and weedy ground cover. Overall canopy cover is *degraded* due to the dominance of invasive species (Himalayan blackberry) and lack of canopy cover.

See Appendix C for plant species and percent cover documented in the vegetated corridor. Appendix x also includes photographs of the vegetated corridor. See Figure 4 for location of photographs.

5.0 PROPOSED PROJECT

The study area is proposed by the City of Oregon City Parks Department as a park improvement project at the existing Glen Oak Park Property (Figure 5). The proposed project is called the Tyrone S. Woods Memorial Park located at 14511 Glenn Oak Road. Park improvements include creating looped accessible pathways throughout the site for walking. An existing road and culvert are proposed for removal to restore and enhance areas near Caufield Creek. The site will include about 20 new parking spaces for the active uses of the park, and about 60 new on-street parking spaces will be created to provide additional parking for the site. The existing house on Glen Oak will remain and be developed in phase 2 of the park improvements. Active areas at the park will include a small dog park, multi-use court, skate spot, a play area and a park shelter. Benches, picnic tables and other site amenities will be included. A memorial plaza will be created in honor of Tyrone S. Woods.

5.1 Vegetated Corridor Impacts

Impacts to the NROD for the proposed project result from the removal of an existing culvert within Caufield Creek, and the removal of an existing gravel roadway, which will temporarily disturb the VC within the NROD boundary (Figure 5A). The road and barn proposed for removal are outside of the NROD boundary as they are considered pre-existing features; however, these

restored areas will be included back into the vegetated corridor, which expands and enhances the VC by approximately 2,049 square feet.

Temporary disturbance associated with culvert removal will be restored to the original contours upon completion; temporary disturbance areas will be re-vegetated (for planting details, refer to Landscape Plan Sheets in the application package).

Proposed revegetation for temporary impact areas is described in Section 5.3 below. Mitigation as outlined in OCMC 14.49.180 is not required as there are no permanent impacts to the NROD.

5.2 NROD Development Standards

As the proposed project will result in temporary impacts to the vegetated corridor within the study area, the project must comply with Oregon City Municipal Code, Chapter 17.49, Natural Resource Overlay District. The applicable sections of the code are discussed below.

CHAPTER 17.49 NATURAL RESOURCES OVERLAY DISTRICT

17.49.010 - Purpose.

The Natural Resource Overlay District designation provides a framework for protection of Metro Titles 3 and 13 lands, and Statewide Planning Goal 5 resources within Oregon City. The Natural Resource Overlay District (NROD) implements the Oregon City Comprehensive Plan Natural Resource Goals and Policies, as well as Federal Clean Water Act requirements for shading of streams and reduction of water temperatures, and the recommendations of the Metro ESEE Analysis. It is intended to resolve conflicts between development and conservation of habitat, stream corridors, wetlands, and floodplains identified in the City's maps. The NROD contributes to the following functional values:

- A. Protect and restore streams and riparian areas for their ecologic functions and as an open space amenity for the community.*
- B. Protect floodplains and wetlands, and restore them for improved hydrology, flood protection, aquifer recharge, and habitat functions.*
- C. Protect upland habitats, and enhance connections between upland and riparian habitat.*
- D. Maintain and enhance water quality and control erosion and sedimentation through the revegetation of disturbed sites and by placing limits on construction, impervious surfaces, and pollutant discharges.*
- E. Conserve scenic, recreational, and educational values of significant natural resources. The NROD ecological functions listed above are planned for integration with existing neighborhoods, new residential and commercial developments. The long-term goal of the NROD is to restore and enhance stream corridors, wetlands, and forests to more natural vegetated conditions, recognizing that existing homes and other existing uses will continue in the district. This chapter does not regulate the development within the identified water resource. Separate permits from the Division of State Lands and the Army Corp of Engineers may be required for work within a stream or wetland.*

Response: A) Caufield Creek will be naturalized through the removal of an existing culvert and revegetated as outlined in section 5.3 *Revegetation Plan*. B) The study area is not within the

FEMA 100-year floodplain boundary. C) Upland habitats within the NROD are not anticipated to be affected by the project. Revegetation of temporary disturbance areas will enhance connections between upland and riparian habitat. D) No changes are proposed to Caufield Creek which will result in any adverse effects to water quality and sedimentation. Revegetation will occur in areas of temporary disturbance, construction areas will be defined through orange construction fencing and sediment fencing boundaries, and proposed impervious surfaces will be adequately treated through appropriate stormwater treatment outside the NROD boundary. E) Scenic, recreational, and educational values of significant natural resources will remain intact and are expected to receive a functional uplift from the proposed mitigation.

17.49.015 – Natural Resources Committee

Response: Appropriate contact with the Oregon City Planning Division is regularly conducted by PHS staff during the natural resources evaluation and permitting process. If needed, PHS staff will reach out to the Oregon City Natural Resources Committee for input on ways to further the purpose of the NROD.

17.49.020 - NROD identifying documents.

A. The NROD protects as one connected system the habitats and associated functions of the streams, riparian corridors, wetlands and the regulated upland habitats found in Oregon City. These habitats and functions are described in the following documents upon which the NROD is based:

- 1. The 1999 Oregon City Local Wetland Inventory.*
- 2. The Oregon City Water Quality Resource Area Map (Ord. 99-1013).*
- 3. 2004 Oregon City slope data and mapping (LIDAR).*
- 4. Metro Regionally Significant Habitat Map (Aerial Photos taken 2002).*
- 5. National Wetland Inventory (published 1992).*
- 6. Beaver Creek Road Concept Plan (adopted September 2008).*
- 7. Park Place Concept Plan (adopted April 2008).*
- 8. South End Concept Plan (Adopted April 2014).*

The NROD provisions apply only to properties within the NROD as shown on the NROD Map, as amended.

The intent of these regulations is to provide applicants the ability to choose a clear and objective review process or a discretionary review process. The NROD provisions do not affect existing uses and development, or the normal maintenance of existing structures, driveways/parking areas, public facilities, farmland and landscaped areas. New public facilities such as recreation trails, planned road and utility line crossings and stormwater facilities are allowed within the overlay district under prescribed conditions as described in OCMC 17.49.090. In addition, provisions to allow a limited portion of the NROD to be developed on existing lots of record that are entirely or mostly covered by the NROD ("highly constrained") are described in OCMC 17.49.120.

Response: Maps labeled above as 1, 2, and 4 were utilized to assess mapped wetlands, waters of the state/US, and water quality sensitive resources present on site.

17.49.030 - Map as reference.

- 1. This chapter applies to all development within the Natural Resources Overlay District as shown on the NROD Map, which is a regulatory boundary mapped ten feet beyond*

the required vegetated corridor width specified in OCMC 17.49.110. The mapped NROD boundary is based on a GIS-supported application of the adopted documents, plans and maps listed in OCMC 17.49.020A.1.—17.19.020A.8., however the adopted map may not indicate the true location of protected features.

2. *Notwithstanding changing field conditions or updated mapping approved by the City (and processed as a Type I Verification per OCMC 17.49.255), the applicant may choose to either accept the adopted NROD boundary or provide a verifiable delineation of the true location of the natural resource feature pursuant to the Type I or Type II procedure in accordance with this chapter.*
3. *The NROD boundary shall be shown on all development permit applications*
4. *The official NROD map can only be amended by the City Commission.*
5. *Verification of the map shall be processed pursuant to OCMC 17.49.250.*

Response: A wetland delineation was conducted on the site and is provided in Appendix B. The NROD boundary is shown on all development permit application submittal graphics. As another wetland was identified on site, procedures described in section 17.49.035 were applied to determine the local significance. As a wetland resides within an existing NROD boundary, the NROD boundary follows the boundary of the wetland as seen in Figure 5.

17.49.035 - Addition of wetlands to map following adoption.

The NROD boundary shall be expanded to include a wetland identified during the course of a development permit review if it is within or partially within the mapped NROD boundary and meets the State of Oregon's definition of a "Locally Significant Wetland". In such cases, the entire wetland and its required vegetated corridor as defined in Table 17.49.110 shall be regulated pursuant to the standards of this chapter. The amended NROD boundary may be relied upon by the Community Development Director for the purposes of subsequent development review.

Response: A wetland was identified on site that is not included in the NROD map (Wetland A). The Oregon City NROD map does not display Wetland A; however, according to Oregon City Municipal Code (OCMC) 17.49.35 - addition of wetlands to map following adoption,

The NROD boundary shall be expanded to include a wetland identified during the course of a development permit review if it is within or partially within the mapped NROD boundary and meets the State of Oregon's definition of a "Locally Significant Wetland".

Wetland A does partially reside within the NROD boundary surrounding Caufield Creek, however the wetland must also meet local significance criteria to be designated a NROD boundary as described above. Despite the wetland being less than 0.5 acre, which already designates the wetland as not locally significant, PHS conducted the Oregon Freshwater Wetland Assessment Method (OFWAM) to further evaluate the significance rating of Wetland A. The results describe a degraded habitat, water quality function and hydrologic control, which also designate the wetland as not locally significant (Attachment D, OFWAM Summary). Metro's Title 13 inventory of habitats includes a Class II Riparian Corridor/Wildlife Habitat along Caufield Creek, and an

Upland Wildlife habitat class B within upland areas in the southern and central study area. To the east, land is developed with the existing high school and does not include NROD. To the south, Caufield Creek extends south of Glen Oak Road and associated vegetated corridor does not enter into the southeast portion of the study area. All NROD boundaries present within the study area surround Caufield Creek to the south.

17.49.040 - NROD permit and review process.

An NROD permit is required for those uses regulated under OCMC 17.49.090, Uses Allowed under Prescribed Conditions. An NROD permit shall be processed under the Type II development permit procedure, unless an adjustment of standards pursuant to OCMC 17.49.200 is requested or the application is being processed in conjunction with a concurrent application or action requiring a Type III or Type IV development permit.

Response: As the proposed development includes only temporary disturbances within the NROD boundary, the project falls within Uses Allowed Outright OCMC 17.49.080. As such, the project should be exempt from the Type II development permit procedure.

17.49.050 - Emergencies.

Response: The proposed project is not the result of an emergency situation, this section does not apply.

17.49.[0]60 – Consistency and relationship to other regulations.

Response: No conflicts with the provisions of the Oregon City Municipal Code; other City requirements; or with regional, state or federal law have been identified for the proposed project. The wetland resources within the proposed project area were delineated by PHS in July, 2014 and September, 2019. The DSL concurred with the findings in January 2015 (WD#2014-0434, Appendix B). The jurisdictional determinations are valid for five years unless new information necessitates a revision. PHS revisited the site in 2019 to replace a centerline of Caufield Creek with official OHW boundaries, which can be seen on Figure 4.

The project does not propose impacts to jurisdictional wetlands or waters that would warrant further coordination with DSL and the Corps; proposed impacts are below 50 cubic yards for DSL and there is no proposed fill, which does not trigger a permit from the Corps. As such, further documentation or coordination with appropriate regulatory/resource agencies, as required in Section 17.49.230C, is not necessary.

17.49.070 - Prohibited uses.

Response: A) No prohibited uses are proposed as seen in Figure 5. B) No new lots are proposed. C) No dumping of materials for placement of fill will occur within the NROD boundary. D) Temporary ground disturbance will occur within the NROD boundary due to a proposed culvert removal and road removal, but will not result in ten (10) percent of native vegetation removed.

17.49.080 - Uses allowed outright (exempted).

The following uses are allowed within the NROD and do not require the issuance of an NROD permit:

J. Replacement, additions, alterations and rehabilitation of existing structures, roadways, utilities, etc., where the ground level impervious surface area is not increased.

Response: The proposed project will alter an existing structure (removal and restoration of existing road, culvert and barn) with no impervious surface area increase proposed within the NROD, which meets the criteria 17.49.080(J) as uses allowed outright and not requiring the issuance of an NROD permit.

17.49.090 - Uses allowed under prescribed conditions.

Response: The proposed project falls within an exempt use, and therefore this section does not apply.

I. Stormwater detention or pre-treatment facilities subject to Section 17.49.155.

Response: Stormwater facilities will be located outside of the NROD boundary and addressed outside of this chapter, this section does not apply.

17.49.100 – General development standards.

Response: The proposed project is will comply with general development standards. No permanent impacts are proposed within the NROD boundary, therefore only revegetation and restoration of existing grades will occur.

17.49.110 - Width of vegetated corridor.

Response: The slope adjacent to the delineated edge of the creek was assessed in order to determine the width of the vegetated corridor. The slopes adjacent to the creek were determined to be less than 25 percent, resulting in a 50-foot wide vegetated corridor according to Table 17.49.110 of the Oregon City NROD code. Approximately 37,986 square feet (0.87 acres) of vegetated corridor is present within the study area (Figure 4).

17.49.120 - Maximum disturbance allowance for highly constrained lots of record.

Response: As the study area consists of two lots, which are not constrained by an existing NROD boundary, this section does not apply. The proposed development complies with the maximum disturbance area.

17.49.130 - Existing development standards.

Response: As this project will alter an existing development feature (culvert), which is exempt as outlined in OCMC 17.49.080(J), a Type II application is not being pursued and mitigation is

not required under OCMC 17.49.180 or 17.49.190. Temporary disturbance areas will be restored and revegetated with species from the City of Oregon City Native Plant List.

17.49.140 - Standards for utility lines.

Response: As this project is not proposing utility line impacts within the NROD boundary, this section does not apply.

17.49.150 - Standards for vehicular or pedestrian paths and roads.

Response: No vehicular or pedestrian paths and roads are proposed within the NROD boundary. This section does not apply.

17.49.155 - Standards for stormwater facilities.

Response: Stormwater facilities will be located outside of the NROD boundary and addressed outside of this chapter. A) This section does not apply, no tree dripline will be disturbed within the NROD boundary B) Any vegetation to be planted within the site will pertain to those species listed in the Oregon City Native Plant List. C) Mitigation is not required under OCMC 17.49.180 or 17.49.190. Temporary disturbance areas will be restored and revegetated with species from the City of Oregon City Native Plant List. D-E) This section does not apply. G) No stormwater features are proposed within the NROD boundary; stormwater is addressed in a different section and will comply with standards applied through OCMC 13.12.

17.49.160 - Standards for land divisions.

Response: As there are no proposed land divisions, this section does not apply.

17.49.170 - Standards for trails.

Response: As there are no proposed trails within the NROD boundary, this section does not apply.

17.49.180 - Mitigation standards.

Response: As there is no required mitigation, this section does not apply. The revegetation plan and requirements of this section are covered in greater detail in 5.3 *Revegetation Plan* below. A-B) this section does not apply.

17.49.190 - Alternative mitigation standards.

Response: No alternative mitigation standards are proposed, this section does not apply.

17.49.200 – Adjustment from standards.

- A. *There are no feasible alternatives for the proposed use or activity to be located outside the NROD area or to be located inside the NROD area and to be designed in a way that will meet all of the applicable NROD development standards.*

Response: The project does not require any adjustments from standards. This section does not apply.

- B. *The proposal has fewer adverse impacts on significant resources and resource functions found in the local NROD area than actions that would meet the applicable environmental development standards.*

Response: The proposed project largely avoids impacts to NROD resources and their functions within the parcel by minimizing to temporary impacts within the NROD. The proposed culvert and road removal within the NROD has been minimized to the greatest extent possible.

The condition of the NROD is defined by the combined coverage of trees, shrubs, and groundcover; overall tree canopy coverage; and the coverage of non-native species. The NROD has few trees, heavy non-native shrubs, and weedy ground cover. Overall canopy cover is *degraded* due to the dominance of invasive species (Himalayan blackberry), and lack of canopy cover. As such, the proposal has fewer adverse impacts on significant resources and their functions than actions that would meet the applicable environmental development standards. The mitigation proposed for the project, which includes removing invasive plant species and increasing native plant diversity, is expected to create a higher functioning NROD area than currently exists on the parcel.

- C. *The proposed use or activity proposes the minimum intrusion into the NROD area that is necessary to meet development objectives.*

Response: As stated above, the proposed site plan has been designed to address project specific criteria while minimizing impacts to natural resources. The existing location of the culvert and road limits the temporary impact area to the NROD. The project will qualify as exempt under 17.49.080(J) and also meet development objectives.

- D. *Fish and wildlife passage will not be impeded.*

Response: Impacts into the NROD are not expected to impede fish and wildlife passage. A majority of the NROD area will remain intact and/or will be improved in function. The reach of Caufield Creek that flows through the project area is not mapped as providing habitat for migratory fish (StreamNet 2015¹). The proposed project is not anticipated to cause additional wildlife passage impacts within the NROD other than those already present from the surrounding roadways and developments. No trees are proposed for removal within the NROD boundary.

¹ StreamNet. 2019. StreamNet Fish Data for the Northwest. URL: <http://www.streamnet.org/>. Site accessed in September, 2019.

E. With the exception of the standard(s) subject to the adjustment request, all other applicable NROD standards can be met.

Response: All standards will be met; however this project is exempt under 17.49.080(J), as disturbance is temporary and will be restored and revegetated upon project completion.

F. The applicant has proposed adequate mitigation to offset the impact of the adjustment.

Response: Mitigation is not required under OCMC 17.49.180 or 17.49.190. Temporary disturbance areas will be restored and revegetated with species from the City of Oregon City Native Plant List.

17.49.210 - Type II development permit application.

Response: As the proposed development includes only temporary disturbances within the NROD boundary, the project falls within Uses Allowed Outright OCMC 17.49.080. As such, the project should be exempt from the Type II development permit procedure.

5.3 Revegetation Plan

As described above, no trees are proposed for removal within the NROD boundary, and 1,096 square feet will be temporarily disturbed and restored within the NROD. Mitigation Standards required under Section 17.49.180 do not apply; however, plant densities described in OCMC 17.49.180 Option 2 will be utilized in the revegetation efforts of temporary disturbance areas seen on Figure 6, which include the road removal area and barn removal area outside of the NROD.

The number of trees and shrubs to be planted using Option 1 is based on the number and size of the trees to be removed. Since no trees are proposed for removal, the required tree and shrub replacement total is zero (0).

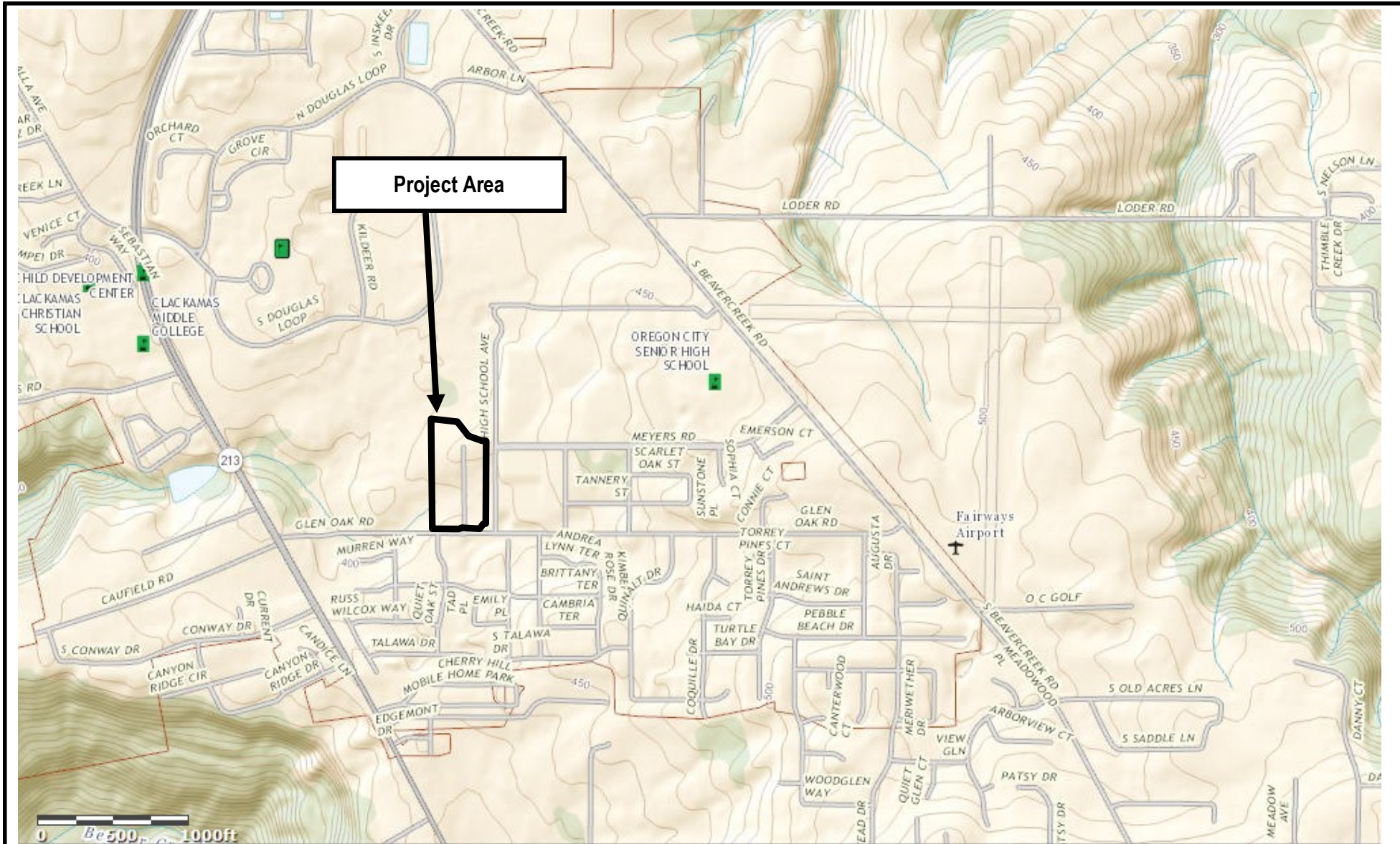
The number of trees and shrubs to be planted using Option 2 is calculated based on the size of the disturbance area within the NROD. Native trees and shrubs are required to be planted at a rate of five trees and twenty-five shrubs per every five hundred square feet of disturbance area. The total disturbance area within the NROD, which is comprised of only temporary impacts, is approximately 1,096 square feet, which requires in 11 trees and 55 shrubs to be planted. Remaining areas of removed roadway outside of the NROD will be broadcast seeded with native seed compliant with the Oregon City Native Plant List.

Option 2 will be utilized for the revegetation plan. The revegetation is proposed to occur in areas of temporary disturbance along the removed road. The existing vegetated corridor is in degraded condition. It is anticipated that the revegetation will improve the functional value of the vegetated corridor by removing invasive species and increasing native plant diversity and coverage, and increase the size of the VC by restoring the road prism and removed barn area. As the project is exempt, no mitigation plan report is proposed (Section 17.49.230). Mitigation Standards described in Section 17.49.180 do not apply.

Appendix A

Figures





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10/02/19

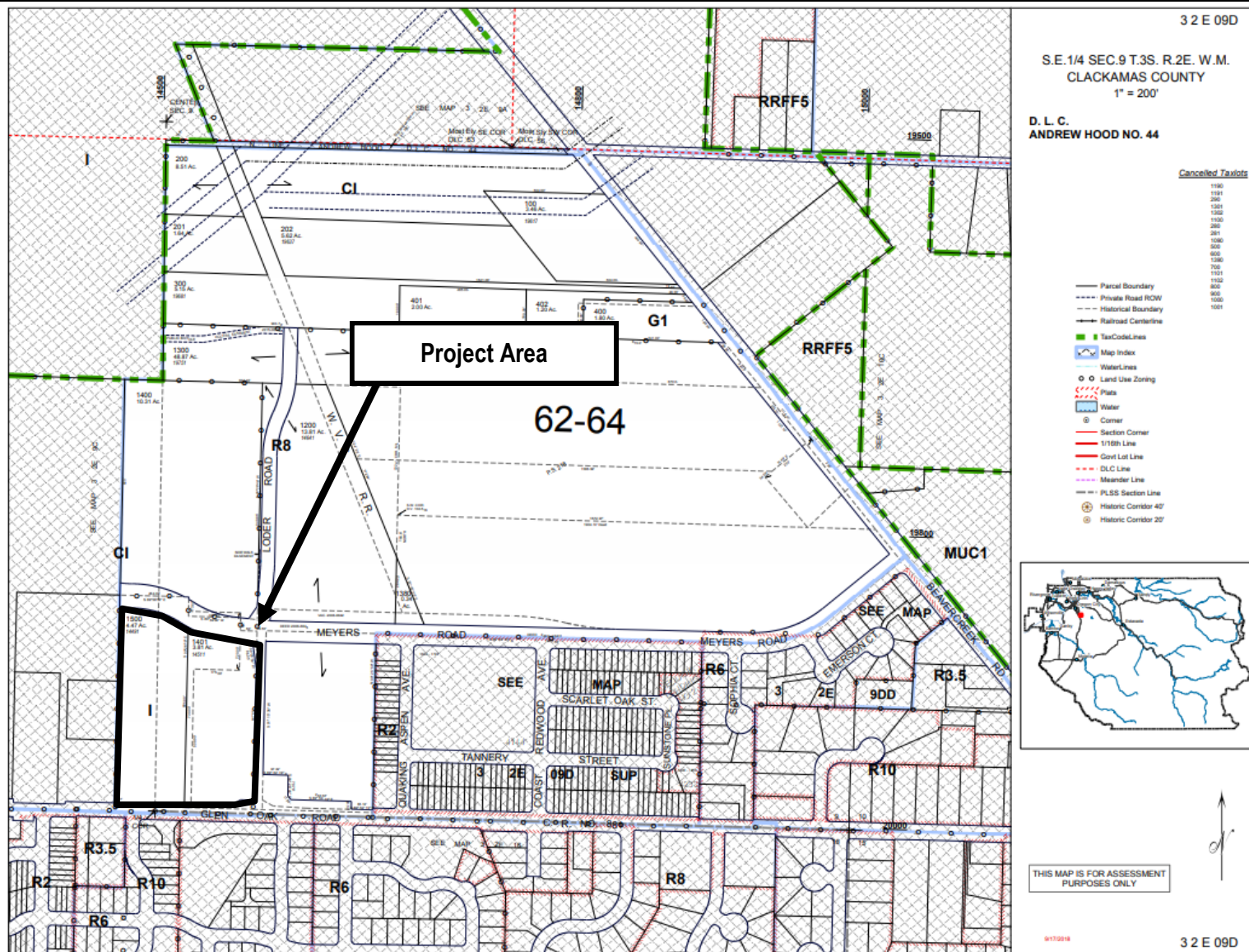


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Location and General topography
Tyrone S. Woods Park Project, Oregon City, Oregon
(USGS The National Map Viewer, 2019 - Oregon City, Oregon Quadrangle)

FIGURE

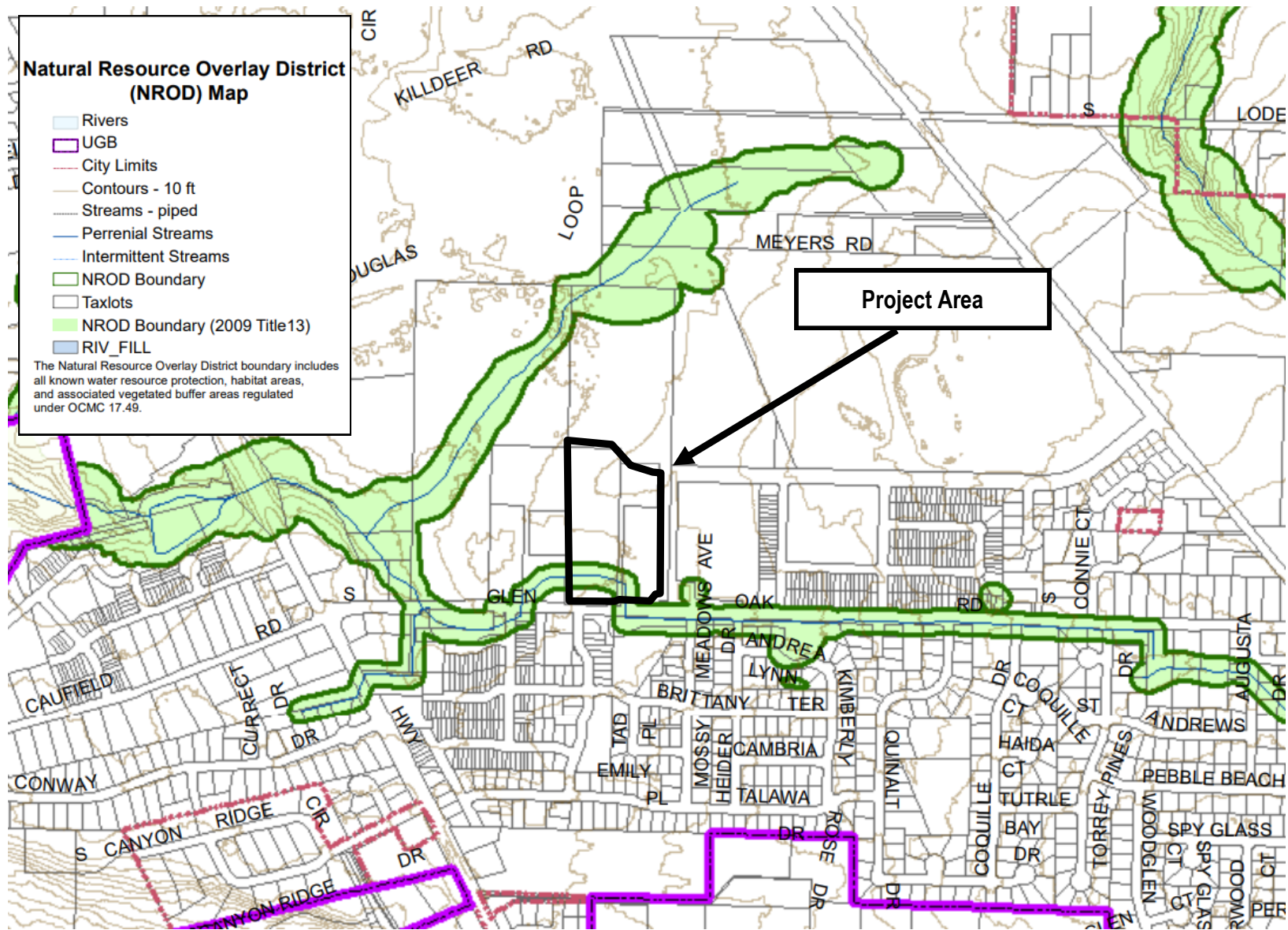
1



Natural Resource Overlay District (NROD) Map

- Rivers
- UGB
- City Limits
- Contours - 10 ft
- Streams - piped
- Perennial Streams
- Intermittent Streams
- NROD Boundary
- Taxlots
- NROD Boundary (2009 Title13)
- RIV_FILL

The Natural Resource Overlay District boundary includes all known water resource protection, habitat areas, and associated vegetated buffer areas regulated under OCMC 17.49.



6782
10/02/19

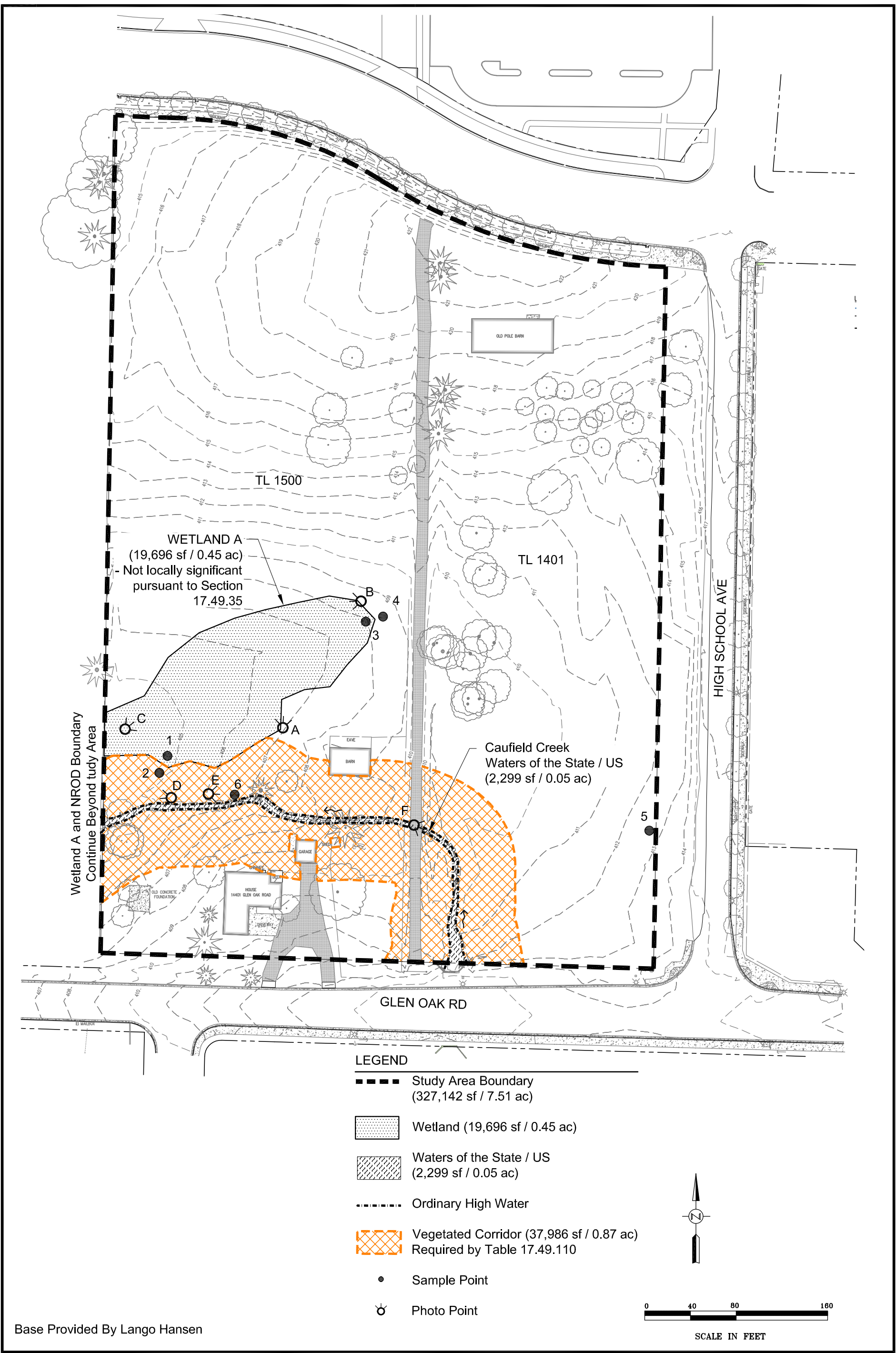


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Natural Resources Overlay District Map
Tyrone S. Woods Park Project, Oregon City, Oregon
(Oregon City Maps, 2019)

FIGURE

3



Base Provided By Lango Hansen

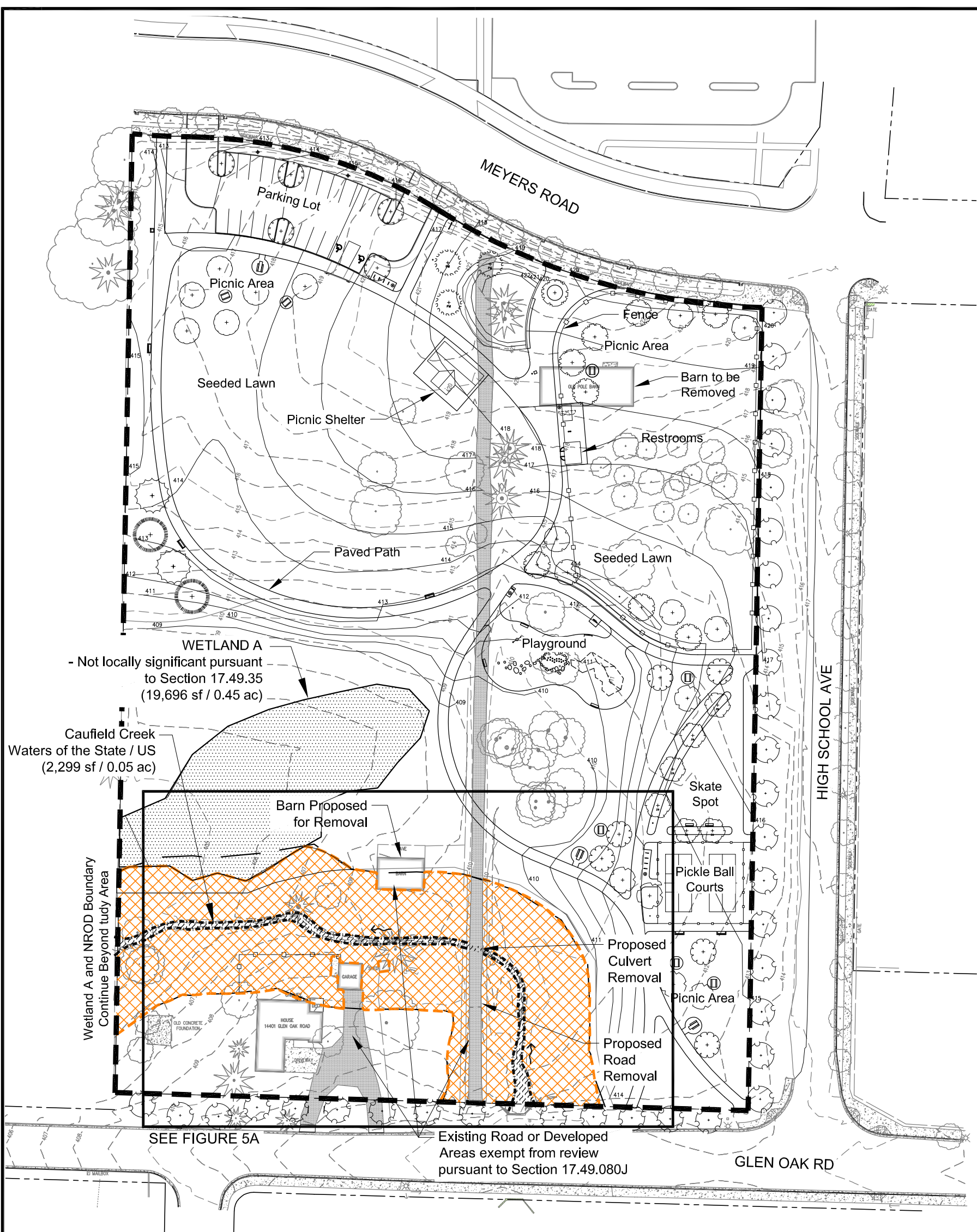


Existing Conditions
Natural Resource Overlay District Report

Tyrone S. Woods Memorial Park Project - Oregon City, Oregon

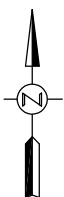
FIGURE
4

10-2-2019



LEGEND

	Study Area Boundary		Existing Contours
	Wetland		Proposed Contours
	Waters of the State / US		Existing Trees
	Ordinary High Water		Proposed Trees
	Vegetated Corridor		



0 40 80 160

SCALE IN FEET

Base Provided By Lango Hansen



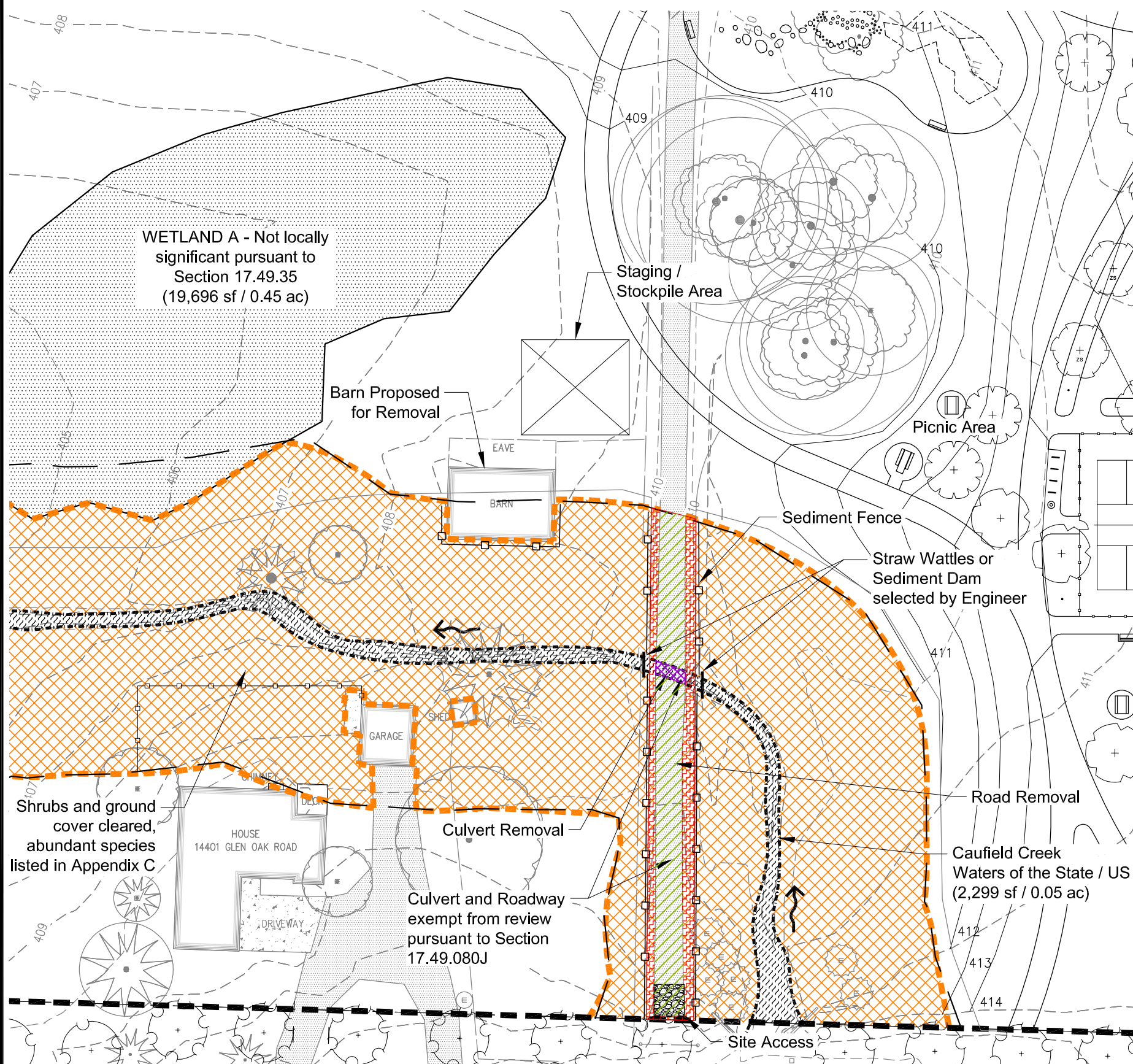
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax: (503) 570-0855

Site Plan Overview Natural Resource Overlay District Report

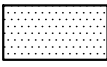
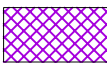
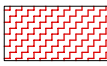
Tyrone S. Woods Memorial Park Project - Oregon City, Oregon

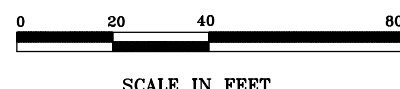
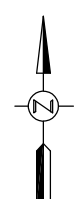
FIGURE
5

10-2-2019



LEGEND

- | | |
|--|--|
| ■■■■■ Study Area Boundary |  Road Removal Area (2,700 sf / 0.06 ac) |
|  Wetland |  Culvert Removal Area (12 cy) |
|  Waters of the State / US |  Temporary Vegetated Corridor Impact (1,096 sf / 0.03 ac) |
| ----- Ordinary High Water | —□— Sediment Fence |
|  Vegetated Corridor | |



Base Provided By Lango Hansen



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Site Plan
Natural Resource Overlay District Report

Tyrone S. Woods Memorial Park Project - Oregon City, Oregon

FIGURE
5A

10-2-2019



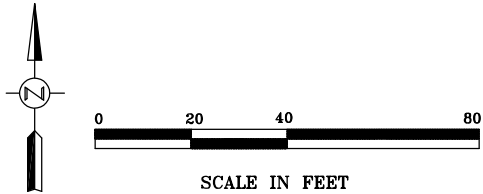
Symbol	Botanical Name	Common Name	Quantity
TREES (minimum of 11 plantings)			
	<i>Quercus garryana</i>	Oregon white oak	5
	<i>Pseudotsuga menziesii</i>	Douglas fir	3
	<i>Acer macrophyllum</i>	Big leaf maple	3

SHRUBS (minimum of 55 plantings)		Quantity
	<i>Amelanchier alnifolia</i>	Western serviceberry
	<i>Berberis aquifolium</i>	Tall Oregon grape
	<i>Ribes sanguineum</i>	Red flowering currant
	<i>Spiraea douglasii</i>	Douglas' spirea
	<i>Symphoricarpos albus</i>	Snowberry

Seed Mix		Quantity
	<i>Agrostis exarata</i>	Spike bentgrass
	<i>Bromus carinatus</i>	California brome
	<i>Deschampsia caespitosa</i>	Tufted hairgrass

*The applicant will approve individual plant material and location of plantings prior to installation. Plantings may vary in size dependent on whether they are live cuttings, bare root stock, or container stock, however, no initial plantings may be shorter than twelve inches in height. No more than one-third of the trees may be of the same genus and shrubs shall consist of at least three different species.

- LEGEND
- Study Area Boundary
 - Wetland
 - Waters of the State / US
 - Ordinary High Water
 - New Vegetated Corridor (40,035 sf / 0.92 ac)
 - Proposed Revegetation Area (2,049 sf / 0.05 ac)



Base Provided By Lango Hansen



Revegetation Plan
Natural Resource Overlay District Report
Tyrone S. Woods Memorial Park Project - Oregon City, Oregon

FIGURE
6
10-2-2019

Appendix B

Wetland Delineation Concurrence Letters





Oregon

John A. Kitzhaber, MD, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregonstatelands.us

January 12, 2015

City of Oregon City
Attn: Scott Archer
Parks and Recreation Department
625 Center Street
Oregon City, OR 97045

State Land Board

John A. Kitzhaber, MD
Governor

Re: WD #2014-0434 Wetland Delineation Report for Glen Oak Park
and Filbert Run Park; Clackamas County;
T 3N R 2E S 9D TL 1500 & 1401; S 12DB TL 8000 & 8100

Kate Brown
Secretary of State

Ted Wheeler
State Treasurer

Dear Mr. Archer:

The Department of State Lands has reviewed the wetland delineation report prepared by Pacific Habitat Services, Inc. for the two sites referenced above. Based upon the information presented in the report and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in revised Figures 6A and 6B of the report. Please replace all copies of the preliminary wetland map with these final Department-approved maps. Within the Glen Oak Park study area, one wetland (totaling approximately 0.45 acres) and one waterway (Caufield Creek) were identified on Figure 6A. Within the Filbert Run Park one waterway was identified on Figure 6B.

The wetland and waterway on Figure 6A are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in the wetlands or below the ordinary high water line (OHWL) of a waterway (or the 2 year recurrence interval flood elevation if OHWL cannot be determined). The waterway (ephemeral swale) on Figure 6B is not jurisdictional per OAR 141-085-0515(3).

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

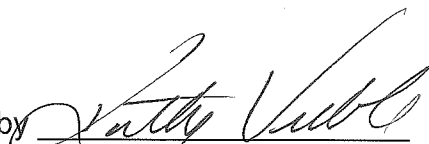
Thank you for having the site evaluated. Please phone me at 503-986-5218 if you have any questions.

Sincerely,



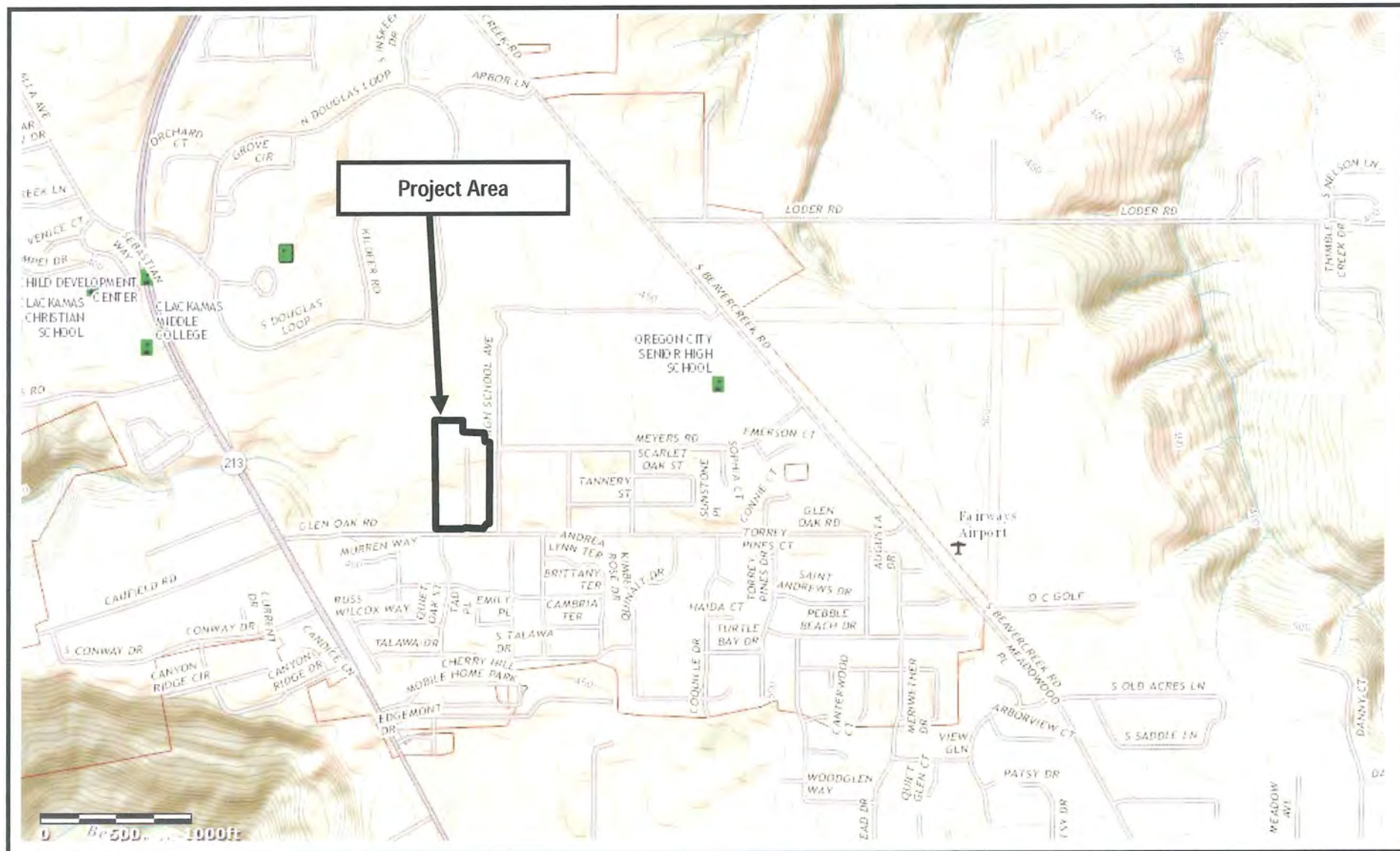
Lauren Brown
Jurisdiction Coordinator

Approved by


Kathy Verble, CPSS
Aquatic Resource Specialist

Enclosures

ec: Amy Hawkins, Pacific Habitat Services, Inc.
Planning Department (Maps enclosed for updating LWI)
Dominic Yballe, Corps of Engineers
Anita Huffman, DSL
Peter Ryan, DSL



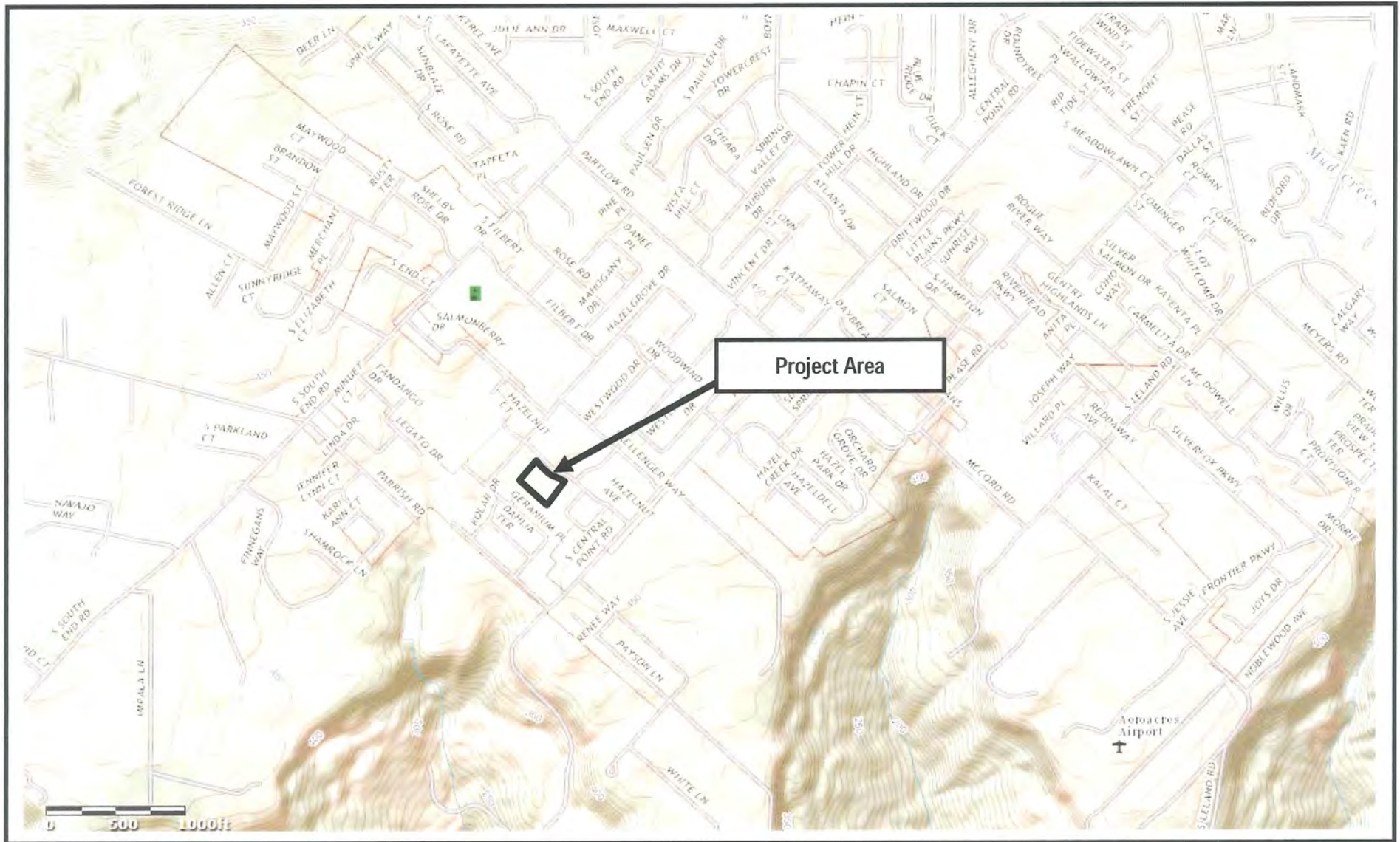
5431
8/19/14



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

Location and General topography
Glen Oak Park Project, Oregon City, Oregon
(USGS The National Map Viewer, 2014 - Oregon City, Oregon Quadrangle)

FIGURE
1A



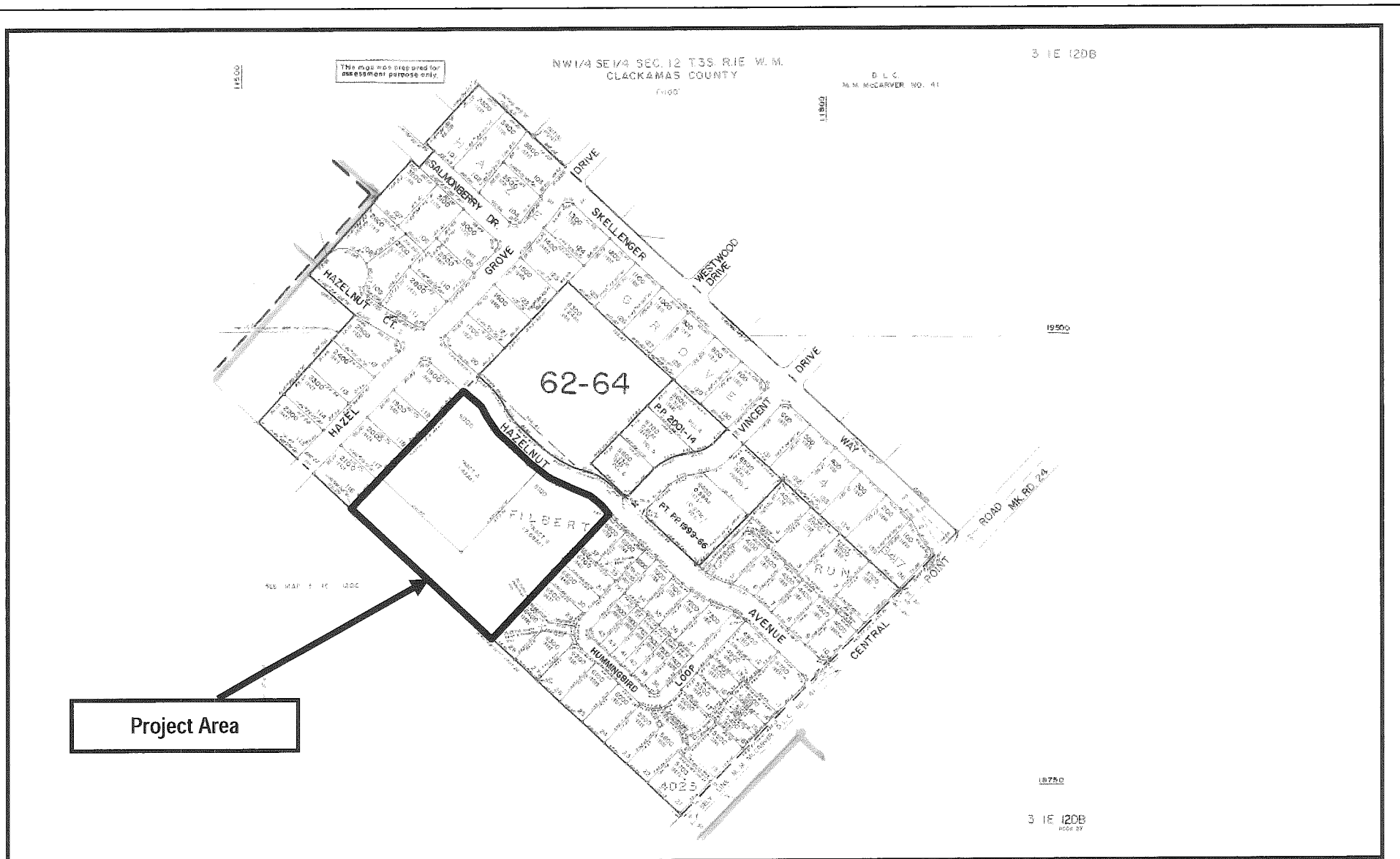
5431
8/19/14



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

Location and General topography
Filbert Run Park Project, Oregon City, Oregon
(USGS The National Map Viewer, 2014-Oregon City, Oregon Quadrangle)

FIGURE
1B



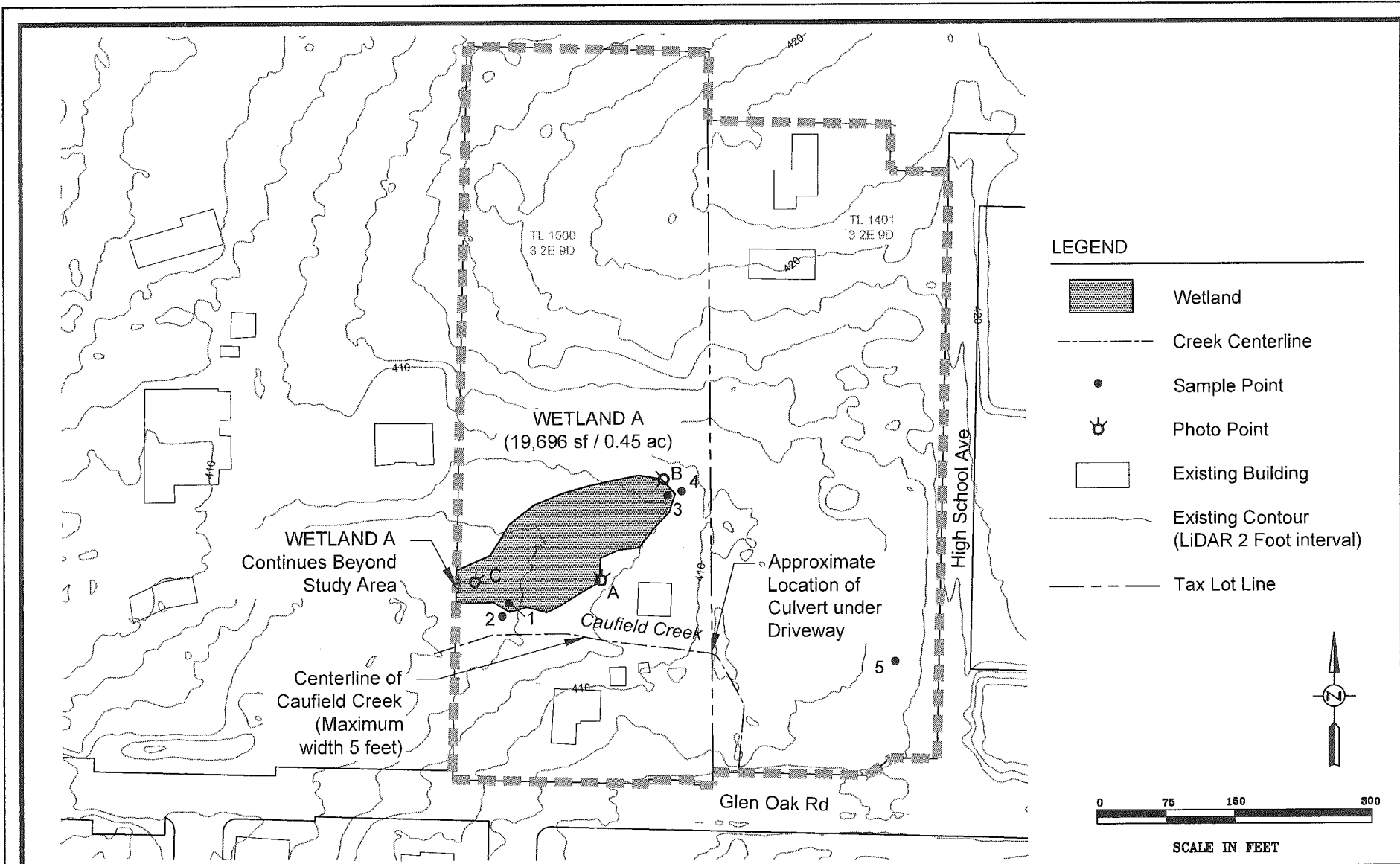
5431
8/19/14



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

Tax Lot map 3 1E 12DB tax lots 8000 & 8100, Clackamas County
Filbert Run Park Project, Oregon City, Oregon
(ormap.net, 2014)

FIGURE
2B



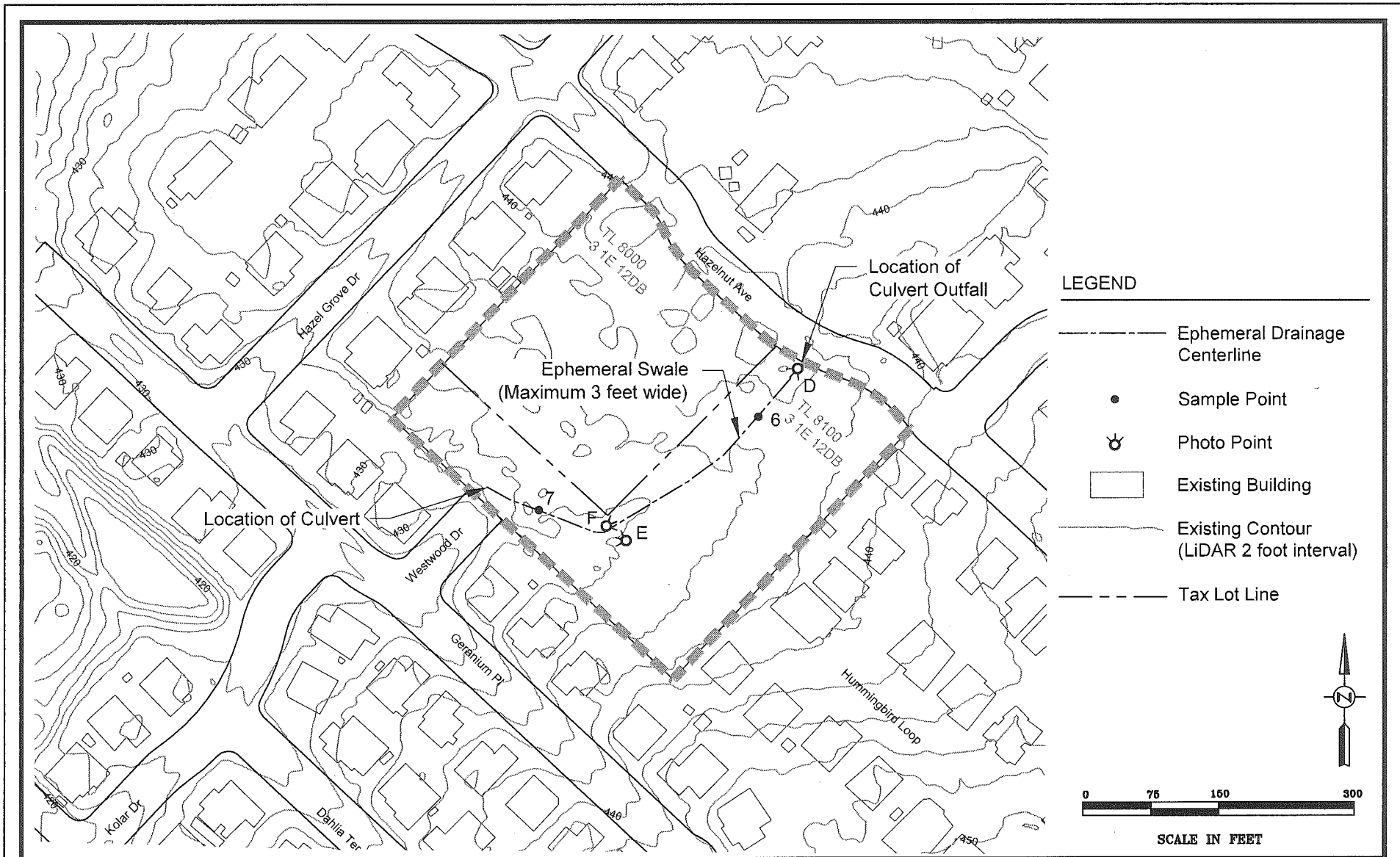
Base map data source: Regional Land Information System (RLIS)
 GPS of wetland boundaries and creek centerline by Pacific Habitat
 Service Inc. GPS and sample point accuracy is ± 3 feet.

Wetland # 2014-0434
 Approval Issued 01/12/2015
 Approval Expires 01/12/2020

Wetland Delineation
 Glen Oak Park Site - Oregon City, Oregon

**FIGURE
6A**

01-07-15



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax: (503) 570-0855

Base map data source Regional Land Information System (RLIS)
GPS of Ephemeral Swale centerline by Pacific Habitat Service Inc. GPS and sample point accuracy is ± 3 feet.

DSL WD # 2014-0434
Approval Issued 01/12/2015
Approval Expires 01/12/2020

Wetland Delineation
Filbert Run Park Site - Oregon City, Oregon

FIGURE
6B

01-07-15

Appendix C

Vegetated Corridor Data Sheets and Site Photos



WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Tyrone S. Woods Park City/County: Oregon City/Clackamas Sampling Date: 7/29/2014

Applicant/Owner: Lango Hanson State: OR Sampling Point: 1

Investigator(s): AH/DG Section, Township, Range: 3 2E 9D

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slope Slope (%): <5%

Subregion (LRR): LRR A Lat: 45.317536° Long: -122.568486° Datum: _____

Soil Map Unit Name: Cottrell silty clay loam, 2 to 8 percent slopes NWI Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)

Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	_____
Hydric Soil Present?	Yes	<u>X</u>	No	_____
Wetland Hydrology Present?	Yes	<u>X</u>	No	_____

Is Sampled Area within a Wetland? Yes X No _____

Remarks: _____

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: _____)			
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
	<u>0</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1	<u>Trifolium repens</u>	<u>30</u>	<u>X</u> <u>FAC</u>
2	<u>Parentucellia viscosa</u>	<u>10</u>	<u>FAC</u>
3	<u>Leucanthemum vulgare</u>	<u>5</u>	<u>FACU</u>
4	<u>Rumex crispus</u>	<u>5</u>	<u>FAC</u>
5	<u>Unidentified grass (grazed)</u>	<u>50</u>	<u>X</u> <u>FAC</u>
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
	<u>100</u>	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1	_____	_____	_____
2	_____	_____	_____
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			
Remarks: _____			

Dominance Test worksheet:

Number of Dominant Species
That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species
That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:
OBL Species _____	x 1 = <u>0</u>
FACW species _____	x 2 = <u>0</u>
FAC Species _____	x 3 = <u>0</u>
FACU Species _____	x 4 = <u>0</u>
UPL Species _____	x 5 = <u>0</u>
Column Totals <u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- 1- Rapid Test for Hydrophytic Vegetation
- X 2- Dominance Test is >50%
- 3- Prevalence Index is ≤ 3.0¹
- 4- Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
- 5- Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/2	80	7.5YR 3/4	15	C	M	Silty Clay Loam	Medium
0-7			7.5YR 3/4	5	C	PL	Silty Clay Loam	Medium
7-16	10YR 3/1	75	7.5YR 3/4	20	C	M	Silty Clay Loam	Medium to course
7-16			5YR 4/6	5	C	M	Silty Clay Loam	Medium to course

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	
☐ Thick Dark Surface (A12)	☒ Redox Dark Surface (F6)	
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)	
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes

X

No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	☐ Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Sediment Deposits (B2)	☒ Oxidized Rhizospheres along Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Plowed Soils (C6)	☐ Fac-Neutral Test (D5)
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)
☐ Inundation Visible on Aerial Imagery (B7)		
☐ Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? YesNo

X

Depth (inches):

Water Table Present? YesNo

X

Depth (inches):

>16

Saturation Present? Yes

X

NoDepth (inches):

14

(includes capillary fringe)

Wetland Hydrology Present? Yes

X

No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Tyrone S. Woods Park City/County: Oregon City/Clackamas Sampling Date: 7/29/2014

Applicant/Owner: Lango Hanson State: OR Sampling Point: 2

Investigator(s): AH/DG Section, Township, Range: 3 2E 9D

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slope Slope (%): <5%

Subregion (LRR): LRR A Lat: 45.317536° Long: -122.568486° Datum: _____

Soil Map Unit Name: Cottrell silty clay loam, 2 to 8 percent slopes NWI Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)

Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Remarks:			

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1 _____			
2 _____			
3 _____			
4 _____			
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: _____)			
1 _____			
2 _____			
3 _____			
4 _____			
5 _____			
	<u>0</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Rubus armeniacus</u>	<u>10</u>		<u>FACU</u>
2 <u>Holcus lanatus</u>	<u>45</u>	<u>X</u>	<u>FAC</u>
3 <u>Schedonorus arundinaceus</u>	<u>30</u>	<u>X</u>	<u>FAC</u>
4 <u>Agrostis sp.</u>	<u>20</u>		<u>(FAC)</u>
5 <u>Vicia sp.</u>	<u>5</u>		<u>(FAC)</u>
6 _____			
7 _____			
8 _____			
	<u>110</u>	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1 _____			
2 _____			
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			
Remarks:			

Dominance Test worksheet:

Number of Dominant Species
That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species
That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- 1- Rapid Test for Hydrophytic Vegetation
- 2- Dominance Test is >50% X
- 3- Prevalence Index is $\leq 3.0^1$
- 4- Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
- 5- Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/3	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)	
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	☐ Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Plowed Soils (C6)	☐ Fac-Neutral Test (D5)
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)
☐ Inundation Visible on Aerial Imagery (B7)		
☐ Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No

X

 Depth (inches):

Water Table Present? Yes No

X

 Depth (inches):

>16

Saturation Present? Yes No

X

 Depth (inches):

>16

 (includes capillary fringe)

Wetland Hydrology Present? Yes No

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Tyrone S. Woods Park City/County: Oregon City/Clackamas Sampling Date: 7/29/2014

Applicant/Owner: Lango Hanson State: OR Sampling Point: 3

Investigator(s): AH/DG Section, Township, Range: 3 2E 9D

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slope Slope (%): <5%

Subregion (LRR): LRR A Lat: 45.317536° Long: -122.568486° Datum: _____

Soil Map Unit Name: Cottrell silty clay loam, 2 to 8 percent slopes NWI Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)

Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	<u>X</u>	No	_____
Hydric Soil Present?	Yes	<u>X</u>	No	_____
Wetland Hydrology Present?	Yes	<u>X</u>	No	_____

Is Sampled Area within a Wetland? Yes X No _____

Remarks: _____

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Parentucellia viscosa</u>	<u>1</u>	_____	<u>FAC</u>
2 <u>Rumex crispus</u>	<u>1</u>	_____	<u>FAC</u>
3 <u>Hypochaeris radicata</u>	<u>2</u>	_____	<u>FACU</u>
4 <u>Plantago lanceolata</u>	<u>2</u>	_____	<u>FACU</u>
5 <u>Kickxia elatine</u>	<u>5</u>	_____	<u>FAC</u>
6 <u>Trifolium repens</u>	<u>1</u>	_____	<u>FAC</u>
7 <u>Agrostis sp.</u>	<u>90</u>	<u>X</u>	<u>(FAC)</u>
8 <u>Festuca arundinacea</u>	<u>10</u>	_____	<u>FAC</u>
	<u>112</u>	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			
Remarks: _____			

Dominance Test worksheet:

Number of Dominant Species
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant
Species Across All Strata: 1 (B)

Percent of Dominant Species
That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

1- Rapid Test for Hydrophytic Vegetation
X

2- Dominance Test is >50%

3-Prevalence Index is ≤ 3.0¹

4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)

5- Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

SOIL			PHS #		6782		Sampling Point:		3	
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth (Inches)	Matrix		Redox Features				Texture	Remarks		
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²				
0-4	10YR 3/2	93	7.5YR 3/4	5	C	M	Silty Clay Loam	Medium		
0-4			7.5YR 3/4	2	C	PL	Silty Clay Loam	Medium		
4-16	10YR 3/2	98	10YR 2/1	2	C	M	Silty Clay Loam	Medium		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.										
² Location: PL=Pore Lining, M=Matrix.										
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils ³ :				
☐ Histosol (A1)			☐ Sandy Redox (S5)			☐ 2 cm Muck (A10)				
☐ Histic Epipedon (A2)			☐ Stripped Matrix (S6)			☐ Red Parent Material (TF2)				
☐ Black Histic (A3)			☐ Loamy Mucky Mineral (F1) (except MLRA 1)			☐ Very Shallow Dark Surface (TF12)				
☐ Hydrogen Sulfide (A4)			☐ Loamy Gleyed Matrix (F2)			☐ Other (explain in Remarks)				
☐ Depleted Below Dark Surface (A11)			☐ Depleted Matrix (F3)							
☐ Thick Dark Surface (A12)			☒ Redox Dark Surface (F6)							
☐ Sandy Mucky Mineral (S1)			☐ Depleted Dark Surface (F7)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
☐ Sandy Gleyed Matrix (S4)			☐ Redox Depressions (F8)							
Restrictive Layer (if present):										
Type:										
Depth (inches):						Hydric Soil Present? Yes ☐ X No ☐				
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators:										
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (2 or more required)				
☐ Surface Water (A1)			☐ Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)			☐ Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)				
☐ High Water Table (A2)						☐ Drainage Patterns (B10)				
☐ Saturation (A3)			☐ Salt Crust (B11)			☐ Dry-Season Water Table (C2)				
☐ Water Marks (B1)			☐ Aquatic Invertebrates (B13)			☐ Saturation Visible on Aerial Imagery (C9)				
☐ Sediment Deposits (B2)			☐ Hydrogen Sulfide Odor (C1)			☐ Geomorphic Position (D2)				
☐ Drift Deposits (B3)			☒ Oxidized Rhizospheres along Living Roots (C3)			☐ Shallow Aquitard (D3)				
☐ Algal Mat or Crust (B4)			☐ Presence of Reduced Iron (C4)			☐ Fac-Neutral Test (D5)				
☐ Iron Deposits (B5)			☐ Recent Iron Reduction in Plowed Soils (C6)			☐ Raised Ant Mounds (D6) (LRR A)				
☐ Surface Soil Cracks (B6)			☐ Stunted or Stressed Plants (D1) (LRR A)			☐ Frost-Heave Hummocks (D7)				
☐ Inundation Visible on Aerial Imagery (B7)			☐ Other (Explain in Remarks)							
☐ Sparsely Vegetated Concave Surface (B8)										
Field Observations:										
Surface Water Present?		Yes ☐	No ☒	Depth (inches):		Wetland Hydrology Present? Yes ☐ X No ☐				
Water Table Present?		Yes ☐	No ☒	Depth (inches):						
Saturation Present? (includes capillary fringe)		Yes ☐	No ☒	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:										

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Tyrone S. Woods Park City/County: Oregon City/Clackamas Sampling Date: 7/29/2014

Applicant/Owner: Lango Hanson State: OR Sampling Point: 4

Investigator(s): AH/DG Section, Township, Range: 3 2E 9D

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slope Slope (%): <5%

Subregion (LRR): LRR A Lat: 45.317536° Long: -122.568486° Datum: _____

Soil Map Unit Name: Cottrell silty clay loam, 2 to 8 percent slopes NWI Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)

Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Remarks:			

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Rumex crispus</u>	<u>5</u>	_____	<u>FAC</u>
2 <u>Schedonorus arundinaceus</u>	<u>25</u>	<u>X</u>	<u>FAC</u>
3 <u>Leucanthemum vulgare</u>	<u>5</u>	_____	<u>FACU</u>
4 <u>Trifolium repens</u>	<u>30</u>	<u>X</u>	<u>FAC</u>
5 <u>Hypochaeris radicata</u>	<u>5</u>	_____	<u>FACU</u>
6 <u>Plantago lanceolata</u>	<u>3</u>	_____	<u>FACU</u>
7 <u>Persicaria maculosa</u>	<u>1</u>	_____	<u>FACW</u>
8 <u>Poa sp.</u>	<u>35</u>	<u>X</u>	<u>(FAC)</u>
	<u>109</u>	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			
Remarks: Also in Herb Stratum - Parentucellia viscosa 1%, Kickxia elatine 1%			

Dominance Test worksheet:

Number of Dominant Species
That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant
Species Across All Strata: 3 (B)

Percent of Dominant Species
That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

1- Rapid Test for Hydrophytic Vegetation
X

2- Dominance Test is >50%

3-Prevalence Index is ≤ 3.0¹

4-Morphological Adaptations¹ (provide supporting
data in Remarks or on a separate sheet)

5- Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless
disturbed or problematic.

**Hydrophytic
Vegetation
Present?** Yes X No _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Tyrone S. Woods Park City/County: Oregon City/Clackamas Sampling Date: 7/29/2014

Applicant/Owner: Lango Hanson State: OR Sampling Point: 5

Investigator(s): AH/DG Section, Township, Range: 3 2E 9D

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slope Slope (%): <5%

Subregion (LRR): LRR A Lat: 45.317536° Long: -122.568486° Datum: _____

Soil Map Unit Name: Cottrell silty clay loam, 2 to 8 percent slopes NWI Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)

Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Remarks:			

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Schedonorus arundinaceus</u>	<u>80</u>	<u>X</u>	<u>FAC</u>
2 <u>Hypericum perforatum</u>	<u>2</u>	_____	<u>FACU</u>
3 <u>Cirsium vulgare</u>	<u>1</u>	_____	<u>FACU</u>
4 <u>Anthoxanthum odoratum</u>	<u>25</u>	<u>X</u>	<u>FACU</u>
5 _____	_____	_____	_____
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
	<u>108</u>	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			
Remarks:			

Dominance Test worksheet:

Number of Dominant Species
That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant
Species Across All Strata: 2 (B)

Percent of Dominant Species
That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- 1- Rapid Test for Hydrophytic Vegetation
- 2- Dominance Test is >50%
- 3-Prevalence Index is ≤ 3.0¹
- 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
- 5- Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	7.5YR 3/2	100					Silt Loam	Medium sub angular
9-16	7.5YR 3/3	100					Silt Loam	Medium sub angular

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)	
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)	
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (explain in Remarks)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)		
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)		
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)		
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	☐ Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Plowed Soils (C6)	☐ Fac-Neutral Test (D5)
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)
☐ Inundation Visible on Aerial Imagery (B7)		
☐ Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No ☒ Depth (inches):

Water Table Present? Yes No ☒ Depth (inches):

Saturation Present? Yes No ☒ Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present? Yes No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Tyrone S. Woods Park City/County: Oregon City/Clackamas Sampling Date: 9/3/2019

Applicant/Owner: Lango Hanson State: OR Sampling Point: 6

Investigator(s): CM Section, Township, Range: 3 1E 12DB

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): ~1

Subregion (LRR): LRR A Lat: 45.323346° Long: -122.627007° Datum: WSG85

Soil Map Unit Name: Cottrell silty clay loam, 2 to 8 percent slopes, non-hydric NWI Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (if no, explain in Remarks)

Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	
Remarks:			

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				Dominance Test worksheet:
1 <u><i>Picea pungens</i></u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Number of Dominant Species
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	That are OBL, FACW, or FAC: <u>3</u> (A)
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Species Across All Strata: <u>4</u> (B)
	<u>10</u>	= Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (plot size: <u>15</u>)				That are OBL, FACW, or FAC: <u>75%</u> (A/B)
1 <u><i>Rubus armeniacus</i></u>	<u>100</u>	<u>X</u>	<u>FACU</u>	Prevalence Index Worksheet:
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of <u> </u> Multiply by: <u> </u>
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL Species <u> </u> x 1 = <u>0</u>
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u> x 2 = <u>0</u>
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>
	<u>100</u>	= Total Cover		FACU Species <u> </u> x 4 = <u>0</u>
Herb Stratum (plot size: <u>5</u>)				UPL Species <u> </u> x 5 = <u>0</u>
1 <u><i>Agrostis capillaris</i></u>	<u>40</u>	<u>X</u>	<u>FAC</u>	Column Totals <u>0</u> (A) <u>0</u> (B)
2 <u><i>Holcus lanatus</i></u>	<u>20</u>	<u>X</u>	<u>FAC</u>	Prevalence Index = B/A = <u>#DIV/0!</u>
3 <u><i>Parentucellia viscosa</i></u>	<u>5</u>	<u> </u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:
4 <u><i>Daucus carota</i></u>	<u>5</u>	<u> </u>	<u>UPL</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation
5 <u><i>Cirsium arvense</i></u>	<u>10</u>	<u> </u>	<u>FAC</u>	<u>X</u> 2- Dominance Test is >50%
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 3-Prevalence Index is ≤ 3.0 ¹
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4-Morphological Adaptations ¹ (provide supporting
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	data in Remarks or on a separate sheet)
	<u>80</u>	= Total Cover		<u> </u> 5- Wetland Non-Vascular Plants ¹
Woody Vine Stratum (plot size: <u> </u>)				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	disturbed or problematic.
	<u>0</u>	= Total Cover		Hydrophytic
% Bare Ground in Herb Stratum <u>20</u>				Vegetation Yes <u>X</u> No <u> </u>
Remarks:				Present?
<u>Himalayan blackberry</u> was recently cleared adjacent to Caufield Creek.				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 2/2	100					Silt	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)	
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)	
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (explain in Remarks)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)		
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)		
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)		
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes No

X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	☐ Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Plowed Soils (C6)	☐ Fac-Neutral Test (D5)
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)
☐ Inundation Visible on Aerial Imagery (B7)		
☐ Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No

X

Water Table Present? Yes No

X

Saturation Present? Yes No

X

(includes capillary fringe)

Depth (inches):

Depth (inches):

>13

Depth (inches):

>13

Wetland Hydrology Present? Yes No

X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Vegetated Corridor Sample Sites

Glen Oak Park Property

Vegetated Corridor			
Sample Point	2	6	
TREES			
Non native			
<i>Picea pungens</i>		10	
SHRUBS & SAPLINGS			
Nuisance			
<i>Rubus armeniacus</i>	10	100	
HERBS			
Native			
<i>Persicaria maculosa</i>			
Non native			
<i>Agrostis capillaris</i>		40	
<i>Agrostis</i> sp.	20		
<i>Kickxia elatine</i>			
<i>Plantago lanceolata</i>			
<i>Poa</i> sp.			
<i>Vicia</i> sp.	5		
Nuisance			
<i>Cirsium arvense</i>		10	
<i>Daucus carota</i>		5	
<i>Holcus lanatus</i>	45	20	
<i>Hypochaeris radicata</i>			
<i>Leucanthemum vulgare</i>			
<i>Parentucellia viscosa</i>		5	
<i>Rumex crispus</i>			
<i>Schedonorus arundinaceus</i>	30		
<i>Trifolium repens</i>			
	A		Average
*Canopy cover	0	10	5
% Native Species	0	0	0
% Invasive Species	77	74	75
Total cover	110	190	150
Condition: Canopy/Natives	Degrade		

*Canopy cover totals reflect multi-layer coverage



Photo A:

Looking north at the Wetland A boundary.

(Photo taken: July 29, 2014)

Photo B:

Looking west at Wetland A.

(Photo taken: July 29, 2014)



Project #6782
9/30/2019



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

Photo documentation

Tyrone S. Woods Park Project—Oregon City, Oregon



Photo C:

Looking northeast at Wetland A.

(Photo taken: July 29, 2014)

Photo D:

Looking west at Caufield Creek.

(Photo taken: September 3, 2019)



Project #6782

9/30/2019



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

Photo documentation

Tyrone S. Woods Park Project—Oregon City, Oregon



Photo E:

Looking east at Caufield Creek
and sample point 6.

(Photo taken: September 3, 2019)

Photo F:

Looking southeast at Caufield
Creek.

(Photo taken: September 3, 2019)



Project #6782

9/30/2019



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

Photo documentation

Tyrone S. Woods Park Project—Oregon City, Oregon



Photo G:

Looking north at an existing road and trees in an upland area.

(Photo taken: September 3, 2019)

Project #6782

9/30/2019



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

Photo documentation

Tyrone S. Woods Park Project—Oregon City, Oregon

Appendix D

OFWAM Summary Sheet



Wetland Information Worksheet

9/3/2019

Project Name:	Glen Oak Park Property
Project Location:	Oregon City, North of Glen Oak Road

Wetland Mapping Code:	CA-Wetland A
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Wetland Location:	North of Caufield Creek (CA-6B, 6C)
Legal description:	Township 3 South, Range 2 East, Section 9D
Tax Lot(s):	1500
Hydrologic basin:	Beaver Creek (HUC 170900070403)

Date(s) of field work:	9/3/2019
Onsite Assessment?:	Yes
Investigator(s):	CM
Data sheet numbers:	1, 3

Wetland Type(s):	PEMB
HGM Classification(s):	Slope/Flat
Approx. Area (acres):	0.45
Hydrologic source:	Precipitation, some groundwater
Soil - Mapped Series:	Cottrell silty clay loam, 2 to 8 percent slopes

GRANTS PASS LWI --OFWAM FIELD DATA SHEET

Wetland Code: CA-Wetland A Data Point #: 1, 3Hydrologic Basin: Beaver Creek Photo ? YesInvestigators: CMAssessment Date(s): 9/3/2019Onsite / Offsite: OnsiteStreet address or
location description Glen Oak Park

Cowardin classes (>10%)		HGM Subclasses	
%	%	%	%
☐ PFO	☐ PEMf	☐ RFT	☐ DO
☐ PSS	☐ PAB	☐ RI	☒ S/F
☒ PEM	☐ PUB	☐ Other Cowardin:	
How many Cowardin Classes?			
☐ 2 or more	☒ 1 class > 5 species	☐ 1 class ≤ 5 species	
Dominant wetland vegetation cover (one)			
☐ woody	☐ emergent/ponded or open water only	☒ emergent/wet meadow	
What percentage of the wetland's area is covered by the following Cowardin classes? (10% or more of the overall wetland)			
A. 70%-100% B. 50% -69% C. 20% - 49% D. 10%-19%			
☐ Open Water	☒ Emergent	☐ Scrub-shrub	☐ Forested
Cowardin class (or upland) interspersion - small scale			
☐ High	☐ Moderate	☒ Low	
Area of unvegetated open water (<6.6 feet deep) - if present			
☐ >1 acre	☐ 0.5-1 acre	☒ <0.5 acre	
How is the wetland connected to stream, lake or pond?			
☐ by surface H ₂ O	☒ No surface, but within 1 mile of stream, lake, pond		
☐ No surface; not within 1 mile of stream, lake, or pond			
How is the wetland connected to other wetland within a 3-mile radius?			
☐ Channel (peren or intermit), ditch, culvert, canal or lake			
☒ No surface water connection, but other wetlands within 3 miles			
☐ No surface connection, no wetlands within 3 miles			
Existing Land Use/Dominant--w/in 500 feet of wetland's edge? (one)			
☐ Excls. Forest Use or Open Space	☐ Agriculture	☒ Developed Uses	
What percentage of the area within 500 feet of the wetland's edge is dedicated to the land uses listed below?			
A. < 20% B. Between 20% and 50% C. > 50%			
☐ Open Space	☐ Agriculture	☐ Forest	☒ Developed
Other List:			
Existing Land Use/Dominant--downstream/downslope 500 feet ? (one)			
☒ Developed	☐ Agriculture (incl. Pasture)	☐ Forest Use or Open Space	
Dominant Land Use--upstream from the assessment area?			
☒ Urban/	☐ Agriculture	☐ Excls. Forest Use or Open Space	
Urbanizing			
Vegetated Buffer around wetland (25' or greater, undisturbed; 150' for rural)			
☒ >40%	☐ 10-40%	☐ <10%	

Complete this section if wetland connected by surface water to stream, lake or pond.

STREAM:

What percent of the stream is shaded by vegetation?		
☐ >75%	☐ 50-75%	☐ <50%
What is the physical character of the channel?		
☐ Natural	☐ Portions	☐ Extensively modified or confined in non-
or Recovering	modified	vegetated channel or pipe
Percent of entire stream has instream structures (LWD, rocks, floating veg.)		
☐ >25%	☐ 10-25%	☐ <10%
Are fish in stream associated with the wetland		
☐ Salmon, Trout	☐ Other species	☐ None
Sensitive species		

LAKES AND PONDS:

Percent of shoreline shaded by forest or scrub-shrub vegetation		
☐ >60%	☐ 20-60%	☐ <20%
Are fish in lake or pond associated with the wetland		
☐ Salmon, Trout	☐ Other species	☐ None
Sensitive species		
Percent of lake/pond with cover (LWD, rocks, floating/submerged veg)		
☐ >25%	☐ 10-25%	☐ <10%
Does it contain both shallow & deep water?		
☐ Yes	☐ Uncertain	☐ No
Wetlands primary source of water? (check one)		
☐ Surface Flow	☒ Precipitation or sheet flow	☐ Groundwater
If surface flow or sheet flow, is flow into wetland artificially restricted?		
☐ No, or if blocked, removed easily		
☐ Yes; but can be breached, or new channel created		
☐ Yes; and can't be restored		

Is waterflow out of wetland artificially restricted (beaver dam/under sized culvert/ concrete structure), or has no outlet?

☐ Yes (or no outlet) ☐ Minor restriction slow flow ☒ No

Mapped Soils Series

Cottrell silty clay loam, 2 to 8 percent slopes

All or part within 100-year floodplain or within an enclosed basin?

☐ Yes ☒ No

Wetland Code: CA-Wetland A**What is the degree of wetland vegetative cover?**☒ >60% ☐ ~ 60% ☐ <60%**Evidence of flooding or ponding during the growing season?****If yes, describe evidence in Comments**☐ Yes ☐ N/A or unable to determine ☒ No**Wetland area in acres**☐ >5 acre ☐ 0.5 - 5 acres ☒ < 0.5 acres**If <0.5 acre, is it connected by surface water to other waters within a 3 mile radius?**☐ Yes ☒ No**Has stream flow or bank been modified by human activities less than 1 mile above the wetland? (includes dams, chanelization, levees and culverting)**☒ Yes ☐ No**Open to the PUBLIC?**☒ Yes ☐ Yes, w/ permission ☐ No**Visible hazards? (busy roads, steep embankment, no sidewalks, etc)**☐ None ☒ 1-2 ☐ >2**Public access point (w/in 250 feet of the wetland's edge)?**☐ Yes, maintained ☒ Yes, unmaintained ☐ None; or hazardous**Is there existing physical public access to other features? (natural landscape features, forest, or ag land; contiguous or adjacent)**☐ Yes ☒ No**Can it be created easily?** ☐ Yes ☒ No**Can other features be observed from the site?** ☒ Yes ☐ No**Viewing spot or wetland edge for people w/limited mobility?**☐ Yes ☒ No**Is the wetland accessible by boat**☐ Yes, existing boat launch on site or within 1/2 mile
☐ Potential to develop boat launch (>1/2 mile <1 mile)
☒ No, no potential to develop**Trails or viewing areas?**☐ Yes, developed, maintained
☐ Yes, undeveloped; do not disrupt habitat
☒ None or disrupt habitat**Fishing allowed?** ☐ Yes ☒ No**Hunting allowed?** ☐ Yes ☒ No**Dominant Wetland Plants***white clover and bentgrass***Other Comments: including topographic position; land uses; significant alterations; other***Slope/Flat topography, may have a groundwater connection to Caufield Creek.***Is adjacent or upstream water on 303 (d) list?**☐ Yes ☒ No**Is wetland within 1/4 mile of 303(d) waterbody?**☐ Yes ☒ No**Does wetland have a direct surface connection to ODFW essential salmonid stream?**☐ Yes ☒ No**Does the wetland have locally unique or rare plant community?**☐ Yes ☒ No**How many wetland plant species are present?**☒ 5 ☐ 2 to 5 ☐ 1**What percentage of the area within 500 feet of the wetland's edge is zoned to the land uses listed below?****A. < 20%****B. Between 20% and 50%****C. > 50%**☐ Open Space ☐ Agriculture ☐ Forest ☒ Developed☐ Other List:**What is dominant zoned land use within 500' of wetland's edge?**☒ Developed ☐ Agriculture ☐ Exc. Forest/Open Space

Project Name: Glen Oak Park Property
Project Location: Oregon City, North of Glen Oak Road
Wetland code: CA-Wetland A
Wetland Type(s): PEMB

Area (acres)
0.45

Wildlife Habitat:		
1	How many Cowardin wetland classes are present? A Two or more B One class with more than five plant species C One class with five or fewer plant species	C
2	What is the dominant wetland vegetation cover type? A Woody vegetation B Emergent vegetation and ponding, or open water only C Emergent vegetation or wet meadow	C
3	What is the degree of Cowardin class interspersion? A High B Moderate C Low	C
4	How many acres of unvegetated open water are present? A More than 1 acre B Between 0.5 and 1 acre C Less than 0.5 acres	C
5	How is the water body connected to another body of water, such as stream, lake, or pond? A The wetland is connected by surface water to another body of water B No surface water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland. C No surface water connection exists to another body of water, <u>and no</u> other bodies of water lie within 1 mile of the wetland.	B
6	How is the wetland connected to other wetlands? A Connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, culvert, canal or lake. B Not connected by surface waters, <u>but other</u> unconnected wetlands lie within a 3-mile radius. C Not connected by surface waters <u>and no</u> other unconnected wetlands lie within a 3-mile radius.	B
7	What is the water quality condition of stream reaches in the watershed upstream of the wetland or adjacent to the wetland? A No upstream or adjacent reaches listed as <i>water quality limited</i> and all upstream or adjacent reaches are listed as <i>no problem</i> (or no data available) for nonpoint source pollutants. B One or more upstream or adjacent reaches are listed in <i>moderate</i> water quality condition for nonpoint source pollutants. C One or more upstream or adjacent reaches are listed as <i>water quality limited</i> or in <i>severe water quality condition for</i> nonpoint source pollutants.	A
8	What is the dominant existing land use within 500 feet of the wetland's edge? A Exclusive Forest Use or Open Space B Agriculture C Developed uses	C
9b	What percent of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide? A Greater than 40% B Between 10 and 40% C Less than 10%	A
Assessment: Wetland provides habitat for some wildlife species		

If the wetland does not contain the potential for fish habitat, check this button:

Or, to evaluate fish habitat, check this button:

☒

☐

Is the wetland associated with a river, creek, stream, etc.?

Is the wetland associated with a lake or pond?

☒

☐

Fish Habitat (Streams):

1

What percentage of the stream is shaded by stream-side (riparian) vegetation? (W. Oregon)

A

More than 75%

B

Between 50% and 75%

C

Less than 50%

B

2

What is the physical character of the stream channel?

A

The stream is in a natural channel, or modified portions of the stream are returning to a natural channel

B

Only portions of the stream channel are modified

C

The stream is extensively modified or confined in a non-vegetated channel or pipe

A

3

What percentage of the entire stream contains instream structures such as large woody debris, floating submerged vegetation, large rocks, or boulders?

A

More than 25%

B

Between 10% and 25%

C

Less than 10%

C

4

What is the water quality condition of stream reaches in the watershed upstream of the wetland or adjacent to the wetland?

A

No upstream or adjacent reaches listed as *water quality limited* and all upstream or adjacent reaches are listed as *no problem* (or no data available) for nonpoint source pollutants.

B

One or more upstream or adjacent reaches are listed in *moderate* water quality condition for nonpoint source pollutants.

C

One or more upstream or adjacent reaches are listed as *water quality limited* or in *severe water quality condition for* nonpoint source pollutants.

A

(automatic)

5

What is the dominant existing land use within 500 feet of the wetland's edge?

A

Exclusive Forest Use or Open Space

B

Agriculture

C

Developed uses

A

(automatic)

6

Are fish present in a stream, lake or pond associated with the wetland?

A

Salmon, trout or sensitive species are present at some time during the year

B

Species not covered in "A" are present at some time during the year

C

No species are present at any time during the year

C

Assessment:

Wetland's fish habitat function is impacted or degraded

Fish Habitat (Lakes and Ponds):		
1	Does the lake or pond contain areas of both deep and shallow water?	
	A Yes	
	B Cannot be determined	
	C No	
2	What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?	
	A More than 25%	
	B Between 10% and 25%	
	C Less than 10%	
3	What percentage of the shoreline is shaded at the water's edge by forested or scub-shrub vegetation?	
	A 60% or more	
	B 20% or more, but less than 60%	
	C Less than 20%	
4	What is the water quality condition of stream reaches in the watershed upstream of the wetland or adjacent to the wetland?	A (automatic)
	A No upstream or adjacent reaches listed as <i>water quality limited</i> and all upstream or adjacent reaches are listed as <i>no problem</i> (or no data available) for nonpoint source pollutants.	
	B One or more upstream or adjacent reaches are listed in <i>moderate</i> water quality condition for nonpoint source pollutants.	
	C One or more upstream or adjacent reaches are listed as <i>water quality limited</i> or in <i>severe water quality condition for</i> nonpoint source pollutants.	
5	What is the dominant existing land use within 500 feet of the wetland's edge?	C (automatic)
	A Exclusive Forest Use or Open Space	
	B Agriculture	
	C Developed uses	
6	Are fish present in a stream, lake or pond associated with the wetland?	
	A Salmon, trout or sensitive species are present at some time during the year	
	B Species not covered in "A" are present at some time during the year	
	C No species are present at any time during the year	
Assessment: Wetland's fish habitat function is impacted or degraded		

Water quality (pollutant removal)		
1	What is the wetland's primary source of water? A Surface flow, including streams and ditches B Precipitation or sheet flow C Groundwater, including seeps and springs	B
2	Is there evidence of flooding or ponding during a portion of the growing season? A Yes B Unable to determine or not applicable C No	C
3	What is the degree of wetland vegetation cover? A High (greater than 60%) B Moderate (approximately 60%) C Low (less than 60%)	A
4	What is the wetland's areas in acres? A More than 5 acres B Between 0.5 acres and 5 acres; or wetland area is less than 0.5 acres, and the wetland is connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, canal or lake. C Less than 0.5 acres, and the wetland is not connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, canal or lake.	C
5	What is the dominant existing land use within 500 feet of the wetland's edge? A Developed uses B Agriculture C Exclusive Forest Use or Open Space	A (automatic)
6	What is the water quality condition of stream reaches in the watershed upstream of the wetland or adjacent to the wetland? A One or more upstream or adjacent reaches are listed as <i>water quality limited</i> or in <i>severe water quality condition for</i> nonpoint source pollutants. B One or more upstream or adjacent reaches are listed in <i>moderate</i> water quality condition for nonpoint source pollutants. C No upstream or adjacent reaches listed as <i>water quality limited</i> and all upstream or adjacent reaches are listed as <i>no problem</i> (or no data available) for nonpoint source pollutants.	C (automatic)
Assessment: Wetland's water-quality function is impacted or degraded		

Hydrologic Control (flood control & water supply)		
1	Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?	B
	A Yes	
	B No	
2	Is there evidence of flooding or ponding during a portion of the growing season?	C (automatic)
	A Yes	
	B Unable to determine or not applicable	
	C No	
3	What is the wetland's areas in acres?	C
	A More than 5 acres	
	B Between 0.5 and 5 acres	
	C Less than 0.5 acres	
4	Is waterflow out of the wetland restricted (e.g. beaver dam, concrete structure, undersized culvert)?	C
	A Yes, the outlet is restricted or the wetland has no outlet	
	B Minor restrictions slow down the water (e.g., undersized culvert.)	
	C No, the outlet has unrestricted flow	
5	What is the dominant wetland vegetation cover type?	C (automatic)
	A Woody vegetation	
	B Emergent vegetation and ponding, or open water only	
	C Emergent vegetation or wet meadow	
6	What is the dominant existing land use, within 500 feet of the wetland on the downstream or down slope edge of the wetland?	A
	A Developed uses	
	B Agriculture	
	C Exclusive Forest Use or Open Space	
7	What is the dominant land use in the watershed upstream from the assessment area?	A
	A Urban or urbanizing	
	B Agriculture	
	C Forested or natural area	
Assessment: Wetland's hydrologic control function is lost or not present		

Sensitivity to future impacts		
1	Has the stream flow or stream bank been modified by human activities less than 1 mile above the wetland, or is the wetland isolated?	B
	A Yes	
	B No	
2	Is water being taken out of the stream(s) through diking, drainage or irrigation districts upstream of the assessment area or is the wetland isolated?	B
	A Yes	
	B No	
3	What is the water quality condition of stream reaches in the watershed upstream of the wetland or adjacent to the wetland?	C
	A One or more upstream or adjacent reaches are listed as <i>water quality limited</i> or in <i>severe water quality condition for</i> nonpoint source pollutants.	
	B One or more upstream or adjacent reaches are listed in <i>moderate</i> water quality condition for nonpoint source pollutants.	
	C No upstream or adjacent reaches listed as <i>water quality limited</i> and all upstream or adjacent reaches are listed as <i>no problem</i> (or no data available) for nonpoint source pollutants.	
4	What is the dominant existing land use within 500 feet of the wetland's edge?	A
	A Developed uses	
	B Agriculture	
	C Exclusive Forest Use or Open Space	
5	What is the dominant <u>zoned</u> land use within 500 feet of the wetland's edge?	A
	A Developed uses	
	B Agriculture	
	C Exclusive Forest Use or Open Space	
6	What is the dominant wetland vegetation cover type?	C
	A Woody vegetation	
	B Emergent vegetation and ponding, or open water only	
	C Emergent vegetation or wet meadow	
Assessment:		0

Enhancement Potential		
1	What are the assessment results for wildlife habitat, fish habitat, water quality and hydrologic control?	A
	A One or more of the functions is impacted or degraded	
	B The wetland has lost one or more of the functions or one or more of the functions is not present	
2	What is the wetland's primary source of water?	C
	A Surface flow, including streams and ditches	
	B Groundwater, including seeps and springs	
	C Precipitation or sheet flow	
3	If the primary source of water is surface flow, is the water flow into the wetland restricted?	
	A Flow is not restricted, or if blocked, the obstruction can be removed easily	
	B Permanent blockage to the flow exists, but may be breached or a new flow channel created	
	C Flow is restricted and cannot be restored	
4	What is the wetland's areas in acres?	C
	A More than 5 acres	
	B Between 0.5 and 5 acres	
	C Less than 0.5 acres	
5b	What percent of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide?	A
	A Greater than 40%	
	B Between 10 and 40%	
	C Less than 10%	
6	What is the result of the sensitivity to impact index?	C
	A The wetland is not sensitive to future impacts	
	B The wetland is potentially sensitive to future impacts	
	C The wetland is sensitive to future impacts	
Assessment:		

Education		
1	Is the wetland site open to the public for direct access or observation?	A
	A Yes, the wetland is open to the public	
	B Yes, but wetland access is allowed only by permission of the landowner or managing entity	
	C No, access is not allowed	
2	Are there visible hazards to the public at the wetland site?	B
	A No	
	B One or two visible safety hazards exist	
	C More than two visible safety hazards exist	
3	What are the results of the wildlife habitat and fish habitat assessment criteria?	B (automatic)
	A The wetland provides diverse wildlife habitat, or the fish habitat function is intact	
	B Results for the wildlife habitat and fish habitat assessment criteria do not meet the criteria for responses "a" or "c"	
	C Both wildlife habitat function and fish habitat function are lost or not present	
4	Is there existing physical public access to other features? If not, can such access be created easily, or can other habitats be observed from the site?	B
	A Public access to other habitats exists or can be created easily	
	B Public access doesn't exist and can't be created easily, but observation of other features can be made from the site	
	C Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site	
5	Is there a public access point within 250 feet of the wetland's edge?	B
	A Yes, a maintained access point exists	
	B Yes, an unmaintained access point exists	
	C No access point exists, or the access point is hazardous	
6	Does it appear that access to a viewing spot or wetland edge is available for individuals with limited mobility?	B
	A Yes	
	B No	
Assessment: Wetland has potential for educational use		

Recreation		
1	Is there a public access point within 250 feet of the wetland's edge?	B (automatic)
	A Yes, a maintained access point exists	
	B Yes, an unmaintained access point exists	
	C No access point exists, or the access point is hazardous	
2	Is the wetland accessible by boat?	C
	A Boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of water	
	B Potential to develop boat launching areas or access points exist, or such features are more than 1/2 mile, but less than 1 mile from the wetland	
	C No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited	
3	Area there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?	C
	A Yes, developed or maintained trails or viewing areas exist	
	B Yes, undeveloped or maintained trails or viewing areas exist that do not disrupt wildlife or plant habitat	
	C No trails or viewing areas exist, or those that do disrupt wildlife or plant	
4	What is the result of the wildlife habitat index?	B (automatic)
	A The wetland provides diverse wildlife habitat	
	B The wetland provides habitat for some species	
	C The wetland's wildlife habitat function is lost or not present	
5	Is fishing allowed at the wetland or adjacent water body?	B
	A Yes	
	B No, or not applicable	
6	Is hunting allowed at the wetland?	B
	A Yes	
	B No	
Assessment: Wetland has the potential to provide recreational activities		

Aesthetic Quality		
1	How many Cowardin classes are visible from the primary viewing areas(s)? A More than two B Two C One	C
2	How much of the wetland is visible from the viewing areas(s)? A Greater than 50% B Between 25% and 50% C Less than 25%	A
3	What is the general appearance of the wetland as visible from the primary viewing location(s)? A No visual detractors B Visual detractors exist, but can be removed easily C Visual detractors exist and cannot be removed easily	A
4	What is the extent of visual contrast with the visual character of the surrounding area? A Open space or naturally landscaped areas B Areas landscaped or manipulated by people C Developed with no landscaping	C
5	What odors are present at the primary viewing location(s)? A Natural, pleasant odors only B Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times. C Unpleasant odors are distinct and continuously present	B
6	What noises are audible at the primary viewing location (s)? A Some traffic and other similar background sounds are audible in addition to naturally occurring sounds B Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds C Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are	A
Assessment: Aesthetic quality is degraded		

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet



Pacific Habitat Services, Inc.

Project Name:	Glen Oak Park Property	Wetland:	CA-Wetland A
Project Location:	on City, North of Glen Oak	Wetland Type(s):	PEMB
Date(s) of field work:	9/3/2019	Approx. Area (acres):	0.45
Onsite Assessment?:	Yes	Investigator(s):	CM
Wetland Location:	North of Caufield Creek (CA-6B, 6C)		

Ecological Functions - Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control	
Q	A	Q	A	Q	A	Q	A
Q-1	C	Q-1	B	Q-1	B	Q-1	B
Q-2	C	Q-2	A	Q-2	C	Q-2	C
Q-3	C	Q-3	C	Q-3	A	Q-3	C
Q-4	C	Q-4	A	Q-4	C	Q-4	C
Q-5	B	Q-5	C	Q-5	A	Q-5	C
Q-6	B	Q-6	C	Q-6	C	Q-6	A
Q-7	A					Q-7	A
Q-8	C						
Q-9A							
Q-9B	A						

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Wetland's fish habitat function is impacted or degraded
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control function is lost or not present

Social Functions - Function and Condition Assessment Answers:

Education		Recreation	
Q	A	Q	A
Q-1	A	Q-1	B
Q-2	B	Q-2	C
Q-3	B	Q-3	C
Q-4	B	Q-4	B
Q-5	B	Q-5	B
Q-6	B	Q-6	B

Results:

Education	Wetland has potential for educational use
Recreation	Wetland has the potential to provide recreational activities

Oregon Freshwater Wetland Assessment Methodology

Functions and Conditions Summary Sheet



Project:	Glen Oak Park Property		Wetland:	CA-Wetland A
Location:	Oregon City, North of Glen Oak Road	Approx. Area (acres):		0.45
Date:	9/3/2019	Wetland Types(s):		PEMB
Result:	Wetland provides habitat for some wildlife species			
Rationale:	One Class with less than 5 species	No adjacent Water Quality limited streams		
	Herbaceous vegetation, no ponding	Adjacent land is mostly developed		
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%		
Result:	Wetland's fish habitat function is impacted or degraded			
Rationale:	50-75% of stream is shaded	No adjacent Water Quality Limited streams		
	Stream is in a natural channel	Adjacent land is mostly developed		
	<10% of stream has instream structures	Stream does not contain fish		
Result:	Wetland's water-quality function is impacted or degraded			
Rationale:	Primary water source is precipitation	Isolated from other wetlands		
	Wetland does not flood or pond	Adjacent land is mostly developed		
	High wetland vegetation cover	No adjacent Water Quality Limited streams		
Result:	Wetland's hydrologic control function is lost or not present			
Rationale:	Wetland is not within 100 year floodplain	Herbaceous vegetation, no ponding		
	Wetland does not flood or pond	Development downslope of wetland		
	Water has unrestricted flow out of wetland	Development upslope of wetland		
Result:	Wetland has potential for educational use			
Rationale:	Wetland is open to the public	Unmaintained public access within 250 feet		
	1 or 2 visible safety hazards	Wetland is not limited mobility accessible		
	Other habitats can be observed not accessed			
Result:	Wetland has the potential to provide recreational activities			
Rationale:	Unmaintained public access within 250 feet	Wetland provides habitat for some wildlife		
	No boat launching can be developed	No fishing is allowed		
	No trails or viewing areas exist	No hunting is allowed		

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)



Project Name:	Glen Oak Park Property	Wetland:	CA-Wetland A
Project Location:	Oregon City, North of Glen Oak Park	Approx. Area (acres):	0.45
Date:	9/3/2019	Wetland Types(s):	PEMB

Exclusions : This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".

1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		No

Mandatory Locally Significant Wetland Criteria : This wetland is locally significant if "Yes" is the answer to any of the criteria below.

1 Does the wetland provide <i>diverse wildlife habitat</i> ?		No
2 Is the wetland's <i>fish habitat function</i> intact ?		No
3 Is the wetland's <i>water quality function</i> intact ?		No
4 Is the wetland's <i>hydrologic control function</i> intact ?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a <u>water quality limited water body (303(d) list) and</u> is the wetland's <i>water quality function</i> intact, or impacted or degraded ?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment <u>mapped by ODFW as habitat for indigenous anadromous salmonids and</u> is the wetland's <i>fish habitat function</i> intact, or impacted or degraded ?		No
Mandatory Locally Significant Wetland criteria satisfied ?		No

Optional Locally Significant Wetland Criteria : local governments may identify a wetland as significant if "Yes" is the answer to the criteria below

1 Does the wetland represent a locally unique native plant community <u>and</u> provides <i>diverse wildlife habitat</i> or <i>habitat for some species</i> <u>or</u> has a <i>intact, or impacted or degraded fish habitat function</i> <u>or</u> has a <i>intact, or impacted or degraded water quality function</i> <u>or</u> has a <i>intact, or impacted or degraded hydrologic control function</i> .		No
2 Is the wetland publicly owned and used by a school or organization <u>and</u> does the wetland provide <i>educational uses</i> ?		No
Optional Locally Significant Wetland criteria satisfied ?		No

Does not satisfy the criteria, Not a Locally Significant Wetland

Wetland Characterization Sheet



Project Name: Glen Oak Park Property

		Wetland Code:	CA-Wetland A
Date(s) of field work:	9/3/2019	Size (acres):	0.45
Data Sheet Numbers:	1, 3	Cowardin Class(es):	PEMB
Investigator(s):	CM	HGM Class(es):	Slope/Flat

Location --	Legal:	Township 3 South, Range 2 East, Section 9D
	Other:	North of Caufield Creek (CA-6B, 6C)
	Tax Lots:	1500
	Hydrologic basin:	Beaver Creek (HUC 170900070403)
Soil --	Mapped series:	Cottrell silty clay loam, 2 to 8 percent slopes
	Hydrologic Source:	Precipitation, some groundwater

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
<i>Picea pungens</i>	<i>Himalayan blackberry</i>		<i>Trifolium repens</i>
			<i>Agrostis sp.</i>

Comments:

Wetland is dominated by weedy grasses and some forbs. Himalayan blackberry dominates the adjacent uplands, and has been mowed. No standing water present.

COWARDIN CODES:

PFO = palustrine forested

E2FO = estuarine forested

PSS = palustrine scrub-shrub

E2SS = estuarine scrub shrub

PEM = palustrine emergent

E2EM = estuarine emergent

PUB = palustrine unconsolidated bottom

HGM CODES:

RI = River Impounding

EFB = Estuarine Fringe Embayment

LFH = Lacustrine Fringe Headwater

EFR = Estuarine Fringe Riverine

LFV = Lacustrine Fringe Valley

RFT = Riverine Flow Through

DB = Depressional Bog

DA- Depressional Alkaline

DO = Depressional Outflow

DCP = Depressional Closed Permanent

DCNP = Depressional Nonpermanent

S = Slope

FL= Flats