

Sensitive Areas Certification Form

1. Property Information (example 1S234AB01400)

 Tax lot ID(s): 3S1060000104

 Site Address: 17433 SW Brookman Road

 City, State, Zip: Sherwood, Oregon, 97140

 Nearest Cross Street: SW Brookman Rd. & Pacific Hwy 99

2. Owner Information

 Name: Linda and Richard Scott

 Company: n/a

 Address: 17433 SW Brookman Road

 City, State, Zip: Sherwood, Oregon 97140

 Phone/Fax: _____

 E-Mail: _____

3. Development Activity (check *all* that apply)

- | | |
|--|---|
| <input type="checkbox"/> Addition to Single Family Residence (rooms, deck, garage) | <input type="checkbox"/> Minor Land Partition |
| <input type="checkbox"/> Lot Line Adjustment | <input type="checkbox"/> Commercial Condominium |
| <input type="checkbox"/> Residential Condominium | <input type="checkbox"/> Commercial Subdivision |
| <input checked="" type="checkbox"/> Residential Subdivision | <input type="checkbox"/> Multi Lot Commercial |
| <input type="checkbox"/> Single Lot Commercial | |
- Other _____

4. Applicant Information

 Name: Niki Munson

 Company: Riverside Homes

 Address: 17933 NW Evergreen Pkwy, #370

 City, State, Zip: Beaverton, Oregon 97006

 Phone/Fax: 503-645-0986

 E-Mail: nmunson@riversidehome.com

5. Check any of the following that apply to this project.

- Adds less than 500 square feet of impervious surface.
- Does not encroach closer to the Sensitive Area than existing development on the property.
- Is not located on a slope greater than 25%.

6. Applicant Information

 Name: Jack Dalton

 Company: Environmental Science & Assessment, LLC

 Address: 107 SE Washington Street, #249

 City, State, Zip: Portland, OR 97214

 Phone/Fax: 503-478-0424

 E-Mail: jack@esapdx.com

7. Will the project involve any off-site work? Yes No Unknown (check appropriate box)

 If yes, location and description of off-site work _____

8. Additional comments or information that may be needed to understand your project _____

SW Brookman Road right of way improvements will be deferred to Washington County until the time of actual improvements, which the county will be responsible for.

Sensitive Areas Certification Form *(continued)*

9. An on-site, water quality sensitive area reconnaissance was completed on:

Date	By	Title	Company
12/17-18/2019	K. Reavis, K. Sanderford	Wetland Scientists	Environmental Science and Assessment

10. Existence of Water Quality Sensitive Areas *(check all appropriate boxes)*

As defined in the Districts Design and Construction Standards:

- A. Water-quality-sensitive areas do do not exist on the tax lot.
- B. Water-quality-sensitive areas do do not exist within 200' on adjacent properties, or unable to evaluate adjacent property.
- C. Vegetated corridors do (136,610 SF) do not exist on the tax lot.
- D. Vegetated corridors do do not exist within 200' on adjacent properties, or unable to evaluate adjacent property.
- E. Impacts to sensitive areas and/or vegetated corridors will occur On-site Off-site None proposed at this time.
- F. If impacts, mitigation is On-site Off-site Other _____

11. Simplified Site Assessment containing the following information: *(check only items submitted).*

Please refer to Design and Construction Standards 17-05 section 3.02.2 for application requirements.

- Complete Certification Form (2 pages)
- Written description of the site and proposed activity.
- Site plan of the entire property.
- Photographs of the site labeled and keyed to the site plan.

12. Standard Site Assessment containing the following information: *(check only items submitted).*

Please refer to Design and Construction Standards 17-05 section 3.02.2 for application requirements.

- Complete Certification Form (2 pages)
- Written description per Design and Construction Standards 17-05 section 3.13.3 b. 1
- Wetland Data sheets
- Vegetated Corridor Data sheets
- Existing Site Condition Figures
- Proposed Development Figures

By signing this form the Owner, or Owner's authorized agent or representative, acknowledges and agrees that employees of Clean Water Services have authority to enter the project site at all reasonable times for the purpose of inspecting project site conditions and gathering information related to the project site.

I certify that I am familiar with the information contained in this document, and to the best of my knowledge and belief, this information is true, complete, and accurate.

Applicant:

Jack Dalton

 Print/Type Name

Senior Wetland Scientist

 Print/Type Title

 Signature

 Date

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INTRODUCTION

Environmental Science & Assessment, LLC (ES&A) was contracted by Riverside Homes to conduct a site assessment on 10.35-acre site at 17433 SW Brookman Road in Sherwood, Oregon (Figure 1). The study area includes one tax lot located in Section 6, Township 3 South, Range 1 West: Tax Lot 104 on Washington County's assessor's map 3S106.

SITE DESCRIPTION

The site is located within the Brookman Addition community in the south end of Sherwood, Oregon (Figure 1). The site is a large acre parcel with a residential subdivision to the north, Hazelnut orchard to the south, and Cedar Creek riparian corridor to the east. The site includes a single-family home and several outbuildings and structures. A packed dirt driveway extends into the site from SW Brookman Road at the southwest corner. The driveway splits into two dirt roads: one extends to the residence and the other extends into the open grass area near the outbuildings in the northwest site corner. The southern and eastern areas of the site are forested with a riparian forested community along Cedar Creek, which flows through the southwestern site corner (Figure 2, 3). There are multiple wetland areas within the Cedar Creek floodplain.

The site is bare ground and mowed grass in the northwest half of the site surrounding the residence and outbuildings. The remainder of the site is a mix of riparian and wetland communities. The riparian areas include mature Douglas fir (*Pseudotsuga menziesii*), Douglas Hawthorn (*Crataegus douglasii*), Oregon ash (*Fraxinus latifolia*), and Big Leaf Maple (*Acer macrophyllum*) with a canopy cover of up to 90 percent throughout. Understory plants include mainly native species such as Western Beaked Hazelnut (*Corylus cornuta*), Vine Maple (*Acer circinatum*), Snowberry (*Symphoricarpos albus*), Serviceberry (*Amelanchier alnifolia*), Osoberry (*Oemleria cerasiformis*) and Swordfern (*Polystichum munitum*).

The residence was built in 1976 and the site has been managed in its current condition since that time. The subdivision to the north was built in 1997. The parcel to the south is a large acreage single family home. Surrounding parcels to the north, east, and west are large acreage single-family properties slated for development of residential subdivisions (Figure 4).

The topography slopes from the northwest site corner southeast towards the Cedar Creek riparian corridor. The topography at the northwest corner is generally flat within the maintained grass areas but begins to slope 14-30% down through the riparian corridor approaching Cedar Creek. There is a high point in the southeast site corner, where topography slopes northwest approaching Cedar Creek with 21-28% slopes.

The soils within the northern half of the study area are mapped as Aloha silt loam (Map Unit 1) and Woodburn silt loam, 3 to 7 percent slopes (45B), with both soil

types of hydric rating 1. In the south end, along the Cedar Creek channel soils include Verboort silty clay loam, 0 to 3 percent slopes (2027A) and Wapato silty clay loam (43). Both these soil types have high hydric ratings; 99 and 92 rating respectively. The southeastern site corner is mapped a non-hydric soil, Willamette silt loam, 3 to 7 percent slopes (44B), with a hydric soil rating of 3.

The site is outside the study area for the Sherwood Local Wetlands Inventory (LWI) map and the National Wetland Inventory (NWI) maps Cedar Creek as a Freshwater Forested/Shrub wetland (PFO1). Additionally, the Brookman Addition Concept Plan maps Class 1 Riparian along the Cedar Creek corridor with wetlands located within the floodplain area.

Brookman Road Right of Way

The southern site boundary is in the public right of way (ROW) for SW Brookman Road and will be impacted for improvements. City of Sherwood has allowed the developer in this case to defer improvements and mitigation for encroachment into wetland and waters within the Cedar Creek floodplain.

From the existing driveway on the western site boundary to about 75-feet east along Brookman Rd., the right of way is forested with mature Douglas Fir canopy and dense English Ivy (*Hedera helix*) in the understory. The area between the constructed channel and SW Brookman Rd is good condition forested area and runs in a uniform strip east to the culvert where Cedar Creek passes under the road. East of this culvert the area in the right of way slopes steeply up with slopes >20% from Cedar Creek into a forested area with mature Douglas Fir and Sword Fern in the understory. This forested area continues offsite to the east.

Topography indicates Cedar Creek and the tributary historically converged in the southwest site corner to create Wetland A along the southern site edge. When SW Brookman Road was built, Cedar Creek was channelized offsite along the southern side of the road and flows through a flat bottom culvert into the southeast corner, which severed the historic connection between wetland A and Cedar Creek. A channel was dug on the eastern edge of the wetlands about 50-feet north of and parallel to Brookman Road, to convey the tributary/wetland waters to Cedar Creek. The channel is about 180-feet long, straight, uniform in width and depth, and was likely installed during the road construction (Photo 6, Figure 3).

METHODOLOGY

The primary guidance document for this report is the *Design and Construction Standards for Sanitary Sewer and Surface Water Management* (Resolution and Order 19-22; Clean Water Services, 2019), which provides the methodology for assessing the presence and extent of Sensitive Areas (SAs) within the development site and within 200 feet of the site, and the required Vegetated Corridors (VCs) adjacent to them.

Two levels of investigation were used to evaluate the presence or absence of Sensitive Areas. The first level included a review of existing and available background data. The second level consisted of a data collection effort conducted during an on-site evaluation.

Reviewed background data included the following information:

- U.S. Geological Survey (USGS) 1:24,000 Topographic Map (MetroMap 2013).
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map Washington County, OR area (Wetlands Mapper, 2019)
- Sherwood Local Wetlands Inventory (David Evans, Inc, 1992)
- Natural Resource Conservation Service (NRCS) *Soil Survey of Washington County Area, Oregon* (Web Soil Survey, 2019)
- Brookman Addition Concept Plan – Final Report (Otak 2009)

ES&A wetland scientists, Kim Reavis and Kim Sanderford conducted the site investigations on December 17-18, 2019. ES&A collected wetland determination data at seventeen (17) locations to define the wetland boundaries (Figure 3). The wetlands are documented by wetland delineation data forms DP-1 through DP-17 (Appendix C). CWS VC data was recorded at seven (7) VC data plots to characterize the adjacent VC (Appendix D).

The wetland delineation data was collected using the methodology provided in the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE, 2010).

The Sensitive Area boundaries and the data plot locations were flagged in the field and subsequently surveyed by Pioneer Design Group, a professional land surveyor (Figure 3). The Vegetated Corridor data locations (VC1 –VC7) were mapped in the field from known locations and added to the base survey.

SENSITIVE AREAS

There are four main resource areas located within the southern portion of the site which include: eight (8) wetland areas, the main Cedar Creek channel, an unnamed tributary, and a constructed channel (Figure 3). The tributary flows seasonally from offsite through the driveway culvert west to southeast (Photo 1)

until it's outfall into Wetland A onsite. The constructed channel then flows from wetland A due east about 180-feet to an outfall into Cedar Creek. Cedar Creek flows into the site through a culvert under SW Brookman Road in the southeast site corner. The creek then flows south to northeast through the riparian corridor and extends offsite to the northeast. (Figure 3). All mapped water resources are within the 100-year Cedar Creek flood plain.

The plant community in the wetland areas of site is primarily Slough Sedge (*Carex obnupta*) with Oregon Ash canopy cover, with Wild Gooseberry (*Ribes divaricatum*) in the understory in wetland areas in the southeastern site corner.

Wetland A and Tributary

Wetland A is a Palustrine Forested Broad-leaved Deciduous seasonally flooded (PFO1C) wetland, totaling 10,582 square feet (0.24 acres). Topography indicates this wetland is associated with the area historically created where Cedar Creek and the tributary converged in the southwest site corner. The wetland determination data plots associated with Wetland A are DP-14 through DP-17 (Appendix C).

The plant community within and adjacent to Wetland A is Oregon Ash canopy cover with Red-Osier Dogwood (*Cornus sericea*) in the shrub strata and dense Slough sedge in the herbaceous layer.

Wetland hydrology is collection of overland flow from the onsite tributary, seasonal surface water ponding, and high seasonal groundwater. Hydric soils met Redox Dark Surface (F6) indicator (Appendix B).

Cedar Creek Wetlands

The Cedar Creek Wetlands are a series of seven small Palustrine Forested Broad-leaved Deciduous seasonally flooded (PFO1C) wetlands, totaling 11,577 square feet (0.26 acres), and are in the south-central, southeast and eastern area of the site (Figure 3). The wetlands are located both east and west of the Cedar Creek channel (Photo 4), all within 80-feet.

In the four wetland areas east of the creek in the southeast site corner at the toe of the forested slope, the vegetation is primarily mature Oregon Ash with dense patches of Slough Sedge. There are four small functional wetland areas, surrounded by riparian habitat. Shrub cover within and along the wetlands includes, Osoberry, Wild Gooseberry, and Red-Osier Dogwood. Other tree cover in the southeast site corner within the floodplain includes Douglas fir, Wild Cherry (*Prunus avium*) and Douglas Hawthorn.

In the three wetland areas west of Cedar Creek in the south-central and eastern portion of the site, the canopy is Oregon Ash with Red-Osier Dogwood in the understory and dense Slough Sedge in the herbaceous layer (Photo 2). Within one of the wetland areas associated with Cedar Creek is a mature Douglas Fir

with a buttressed base, a morphological adaptation indicating long term inundation in this area (DP-11).

The hydric soils met Redox Dark Surface (F6) indicators (Appendix B). The wetland determination data plots associated with the Cedar Creek Wetlands are DP-2 through DP-8 and DP-10 through DP-13 (Appendix C).

Cedar Creek

The Cedar Creek channel flows from a culvert under SW Brookman Road (Photo 5) at the southeastern edge of site in an “S” shape: curving northeast, northwest, then east and extending offsite along the southeastern property boundary. The constructed channel (Photo 6) conveys flow from wetland A in the southwest corner to Cedar Creek about 20-feet north of the Brookman Road culvert. Additionally, seasonal inundation from Cedar Creek backs up into the constructed channel.

The riparian forested community bordering both sides of Cedar Creek extends approximately 100-feet on both sides. The stream channel is 6 to 8 feet wide at the Ordinary High Water (OHW) line and is bordered by wetland areas intermingled with riparian areas (Figure 3). The vegetative community is forested wetland and riparian habitat comprised of species already discussed for the associated Cedar Creek Wetlands above.

VEGETATED CORRIDORS

The total area of vegetated corridor is 137,711-square feet on site (Figure 3). Seven (7) vegetated corridor plots were taken to identify the condition of the vegetated corridor. The VC in the southwest site corner along the tributary (VC-1) is in good condition despite a dense herbaceous layer of primarily English Ivy between the tributary and SW Brookman Road. VC east and west of the Cedar Creek channel within the floodplain is in good condition, with mature Oregon Ash, Western Beaked Hazelnut and Osoberry throughout and patches of dense Piggy Back Plant (*Tolmiea menziesii*) in the herbaceous layer (VC-3 to VC-6). In the southeast site corner, the VC adjacent to the wetland areas is in good condition (Photo 3) and plant community shifts to Douglas Fir and Serviceberry with Swordfern in the understory as the slopes increase towards SW Brookman Road (VC-7). The corridor adjacent to the constructed channel in the SW Brookman Road ROW is in good condition (Photo 6, VC-2).

There is extensive English Ivy cover from the driveway between SW Brookman Rd. and the tributary in the forested areas extending into the VC associated with wetland A in the southwest corner. The remainder of the riparian and wetland areas of the site have low percent relative cover of invasive and non-native plants.

The VC width for most of the corridor along wetland A, Cedar Creek, and the associated Cedar Creek Wetlands is 50 feet in areas of less than 25% slopes.

There are several areas onsite where slopes are greater than 25%, for these areas, a break in slope line was determined based on CWS methodology (R&O 19-22). All areas with steep slopes are within good condition corridor, so the 35-foot off-set from the slope break is used. The VC for the northern most wetland is 25 feet based on less than 25% slopes and the wetland being under 0.5 acres. The slope break was determined using the base topographic map provided by Pioneer Design Group, Inc (Figure 3).

PROPOSED SITE PLAN

The proposed project is a 28-lot residential subdivision. Access to the central area of the development is from SW Wapato Lake Drive extending east from the approved “Middlebrook” subdivision on the west side through to the northeast corner, where it connects to the “Middlebrook” subdivision at the end. Access to the northern lots is from SW Trillium Lane, an offsite road running east-west through the adjacent subdivision to the north (Figure 4).

The site plan clusters all lots on the northwestern side of Cedar Creek and the tributary with a community trail extending between the development and the riparian corridor. The trail will utilize the existing driveway and culvert crossing in the southwest corner before turning east to follow the riparian corridor corresponding to the VC corridor. The trail follows the VC corridor boundary until it reaches the northeast corner, where it passes through the VC to connect to the adjacent subdivision to the east (Figure 4). The community trail has a proposed retaining wall along its southern boundary necessary to keep the trail outside the steep slopes and reduce grading into the VC associated with Cedar Creek.

There are two open space tracts planned. One open space tract is in the northeast site corner adjacent to the northeast end of the community trail, and the other is a large open space tract containing the Cedar Creek floodplain and all water resources onsite, south of the community trail (Figure 4). The proposed plan also includes a water quality facility (Tract E) in the southwestern area of site between the proposed road and VC corridor north of the tributary.

Vegetated Corridor Impacts

Permanent VC Impacts (total: 6,451 SF) to be mitigated on site:

- Impacts from the community trail and retaining wall construction
 - Encroachment into the VC at several locations (1,036 SF)
 - Some tree removal recommended by arborist for safety reasons
- Right of Way impacts along SW Brookman Road (5,350 SF)
- Water Quality Facility pipe outfall (65 SF)

Temporary VC Impacts (total: 1,085 SF) to be mitigated on site:

- Installation of the stormwater pipe

See Figure 4 for location of all VC impacts

The current gravel driveway will be utilized for the community trail to the extent possible (Figure 4), minimizing impact to the surrounding good quality VC. Utilizing this existing feature in the construction of the community trail will decrease total impact. No permanent or temporary wetland or waterway impacts are proposed.

VC impacts will result from frontage improvements along about 145-feet of SW Brookman Road required by City of Sherwood. Frontage improvements impact VC in the southwest and southeast site corners in the right of way but exclude impacts within the Cedar Creek floodplain. The City of Sherwood has allowed the remainder of required frontage improvements to be deferred due to the complicated and expensive nature of replacing the stream crossing in a floodplain area, as discussed at the project pre-application conference on November 7, 2019. Washington County will address the floodplain, wetland, and waters encroachment later within the overall SW Brookman Road ROW improvements.

VC Mitigation and Enhancement

There will be two mitigation areas for permanent impacts. One is in the southwest corner adjacent to the proposed community trail and improvements along SW Brookman Road; the other is in the northeast site corner along the community trail and adjacent to the VC associated with Cedar Creek. The two mitigation areas total 6,451 square feet. Considering the good condition of the CWS VC habitat in both planned mitigation areas, minimal plantings are proposed to replace removed trees in combination with invasive species removal. Temporary impacts will be mitigated in place, totaling 1,085 square feet (Figure 4).

- VC Permanent Impact Mitigation (6,451 SF)
 - Total plantings: 7 trees to be planted in mitigation areas
 - Invasive plant removal
- VC Enhancement (137,711 SF)
 - Invasive plant removal in all VC area
- VC Temporary Impact Mitigation (1,085 SF)
 - Plant 11 trees, 55 shrubs

Planting Guidelines

Final locations of enhancement plantings will be determined in the field based on site conditions following the removal of the invasive non-native species. After plant removal, all areas of bare ground within the good condition and planting areas that exceed 25 square feet upon removal of the invasive non-native species shall be planted to CWS density standards (shrubs 5 foot on center spacing, or clustered 3 foot on center and trees 10-foot on-center spacing).

Table 1 is a suggested list of native species that can be planted in the VC temporary impact mitigation area. Table 2 is a suggested seed mix to be distributed in areas disturbed or denuded by the proposed site plan or invasive removal, as well as in areas with low understory diversity in the enhancement

and mitigation areas. This is a recommended seed mix, but any mix of herbaceous species native to shady riparian areas of western Oregon would be well suited to mitigation and enhancements areas planned for this site.

The plant list and planting densities are subject to final approval from CWS environmental review staff. A condition of the Service Provider Letter will be to coordinate with CWS on the final quantity and placement of the enhancement plantings.

Table 1: Recommended Plant List for VC Enhancement/ Mitigation Areas A

Common Name	Scientific Name	Plant Form/Size ¹	Plant Spacing (ft on center)	Total Number of plants
VC MITIGATION AREAS (7,536 SF)				
Trees				18
Vine Maple	<i>Acer circinatum</i>	1 gal/18"	10 ft O.C.	5
Oregon Ash	<i>Fraxinus latifolia</i>	2 gal/36"	10 ft O.C.	5
Douglas fir	<i>Pseudotsuga menziesii</i>	2 gal/36"	10 ft O.C.	5
Western red cedar	<i>Thuja plicata</i>	2 gal/36"	10 ft O.C.	3
Shrubs				55
Serviceberry	<i>Amelanchier alnifolia</i>	1 gal/18"	Single 5 ft O.C.	5
Beaked Hazelnut	<i>Corylus cornuta</i>	1 gal/18"	Single 5 ft O.C.	5
Oregon Grape	<i>Mahonia aquifolium</i>	1 gal/18"	Cluster 3-5, 3 ft O.C.	5
Osoberry	<i>Oemleria cerasiformis</i>	1 gal/18"	Single 5 ft O.C.	10
Swordfern	<i>Polystichum munitum</i>	1 gal/18"	Cluster 3-5, 3 ft O.C.	10
Red Flowering Currant	<i>Ribes sanguineum</i>	1 gal/18"	Single 5 ft O.C.	5
Red Elderberry	<i>Sambucus racemosa</i>	1 gal/18"	Single 5 ft O.C.	5
Snowberry	<i>Symphoricarpos albus</i>	1 gal/18"	Cluster 3-5, 3 ft O.C.	10

NOTES: ¹ Substitutes for plant form and species may be used based on availability. ² Individual species quantities to be determined in landscape plan.

Table 2. Enhancement Area Seed Mix

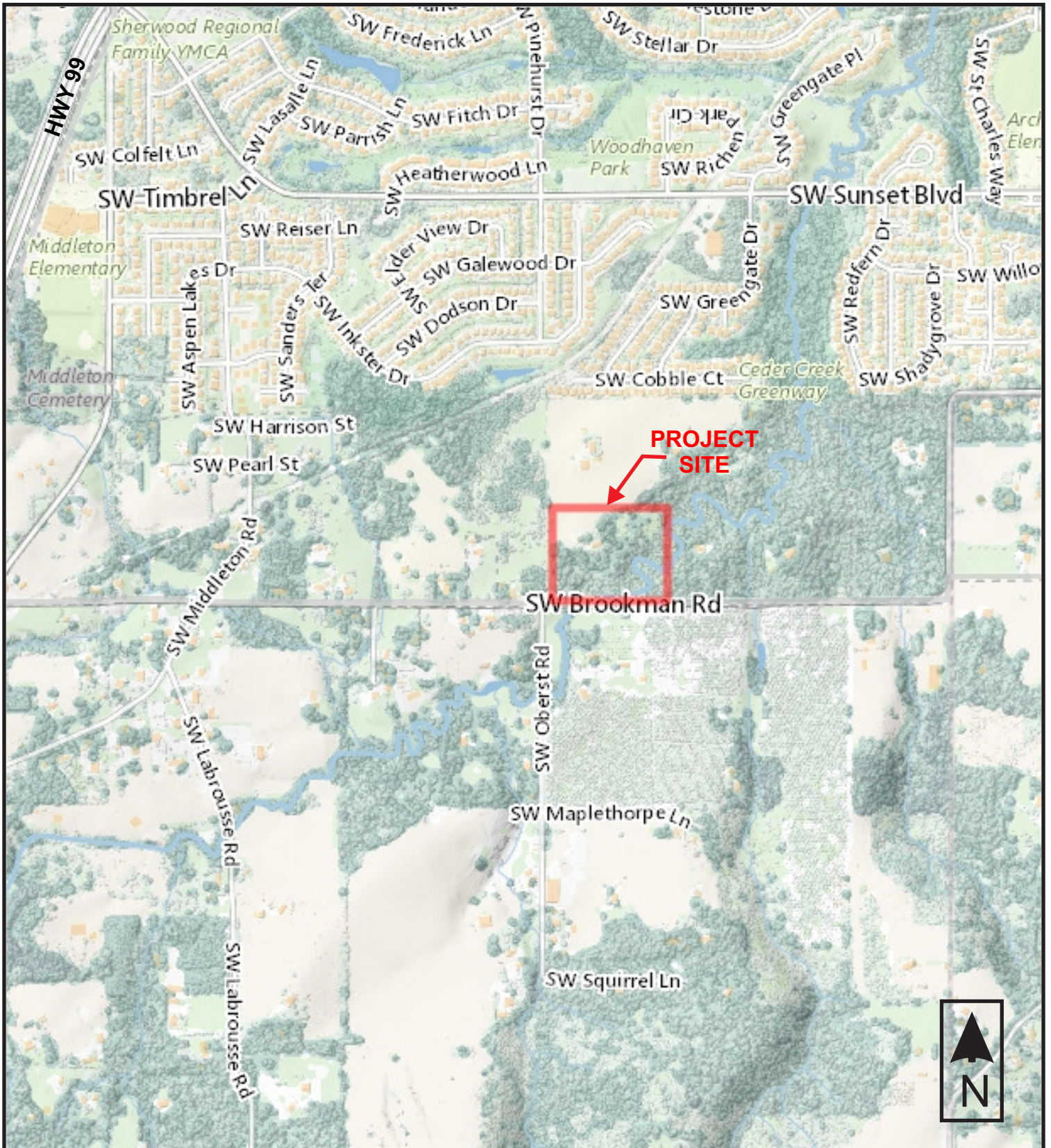
Common Name	Scientific Name	Percentage of Seed Mix **
Native Wildflower/Grass Mix		
Native California brome	<i>Bromus carinatus</i>	15
Blue wildrye	<i>Elymus glaucus</i>	30
Meadow barley	<i>Hordeum brachyantherum</i>	15
Spike bentgrass	<i>Agrostis exarata</i>	20
California Oat Grass	<i>Danthonia californica</i>	20
TOTAL		100

*Seeding rate of pure live seed (PLS) in pounds per acre for hydroseed application. **Seed mix application quantity is to be calculated for VC planting area and is subject to availability and measure PLS.

REFERENCES

- Clean Water Services, 2017. *Design and Construction Standards for Sanitary Sewer and Surface Water Management. R&O 19-22.*
- David Evans Associates, 1992. Sherwood Local Wetlands Inventory.
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- Google Earth. 2020. Aerial Photography. <https://earth.google.com/>. Accessed December 2019
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- Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed December 2019
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- The Oregon Map. Tax lot map 3S106, Washington County. www.ormap.net.
- U.S. Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*, ed. J.S. Wakeley, R. W. Lichvar, and C.V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U. S. Fish and Wildlife Service. 2016. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Available online at <http://www.fws.gov/wetlands/>. Accessed December 2019

APPENDIX A: FIGURES



Source: MetroMap, <https://gis.oregonmetro.gov/metromap/>.

Environmental
Science &
Assessment, LLC

Vicinity Map
Riverside at Cedar Creek
Sherwood, Oregon

Figure 1

Approx. Scale:
1 in. = 760 ft.



Source: MetroMap, <https://gis.oregonmetro.gov/metromap/>.

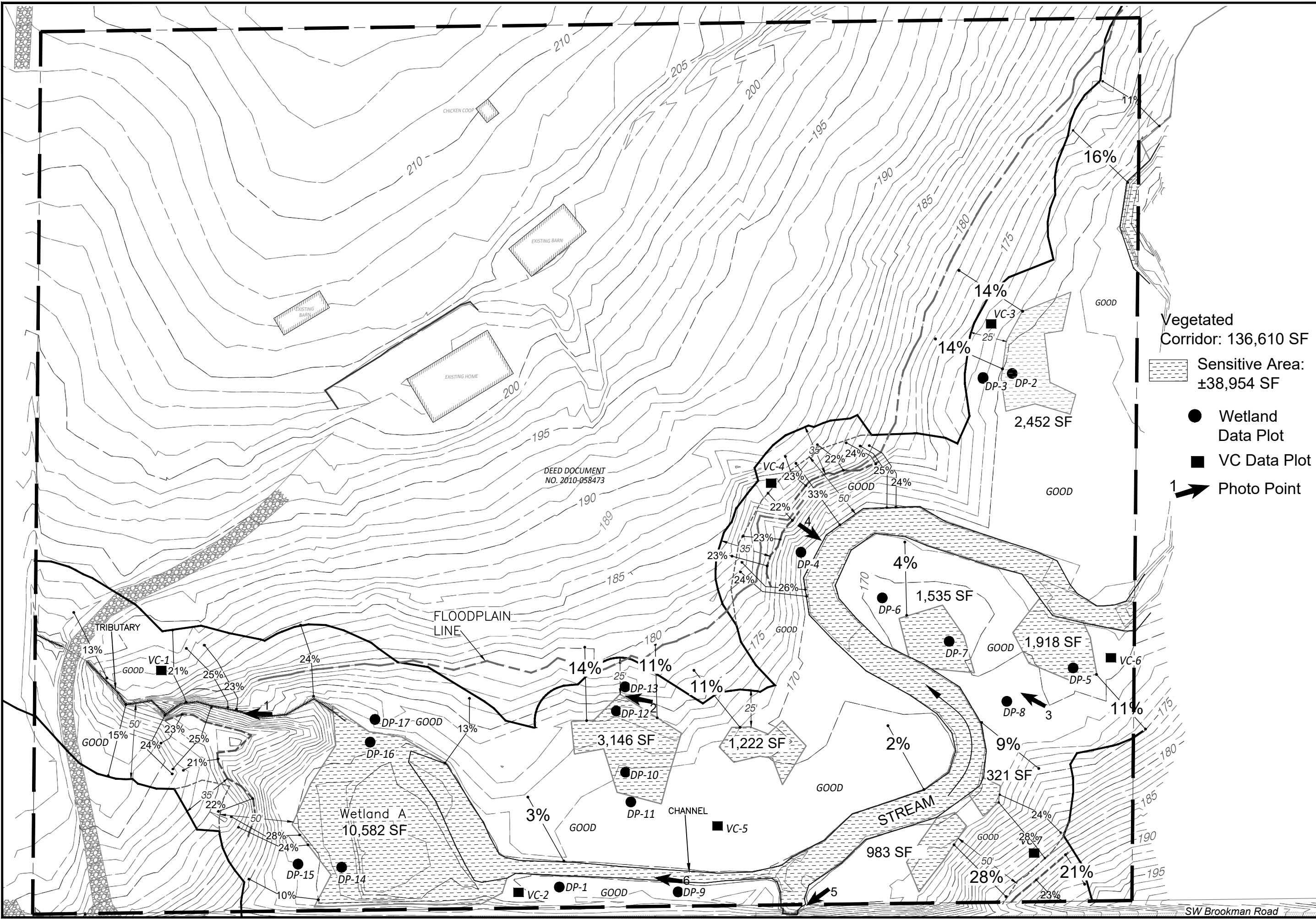
Environmental
Science &
Assessment, LLC



Aerial Map
Riverside at Cedar Creek
Sherwood, Oregon

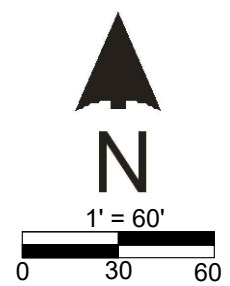
Figure 2

Approx. Scale:
1in. = 110 ft.



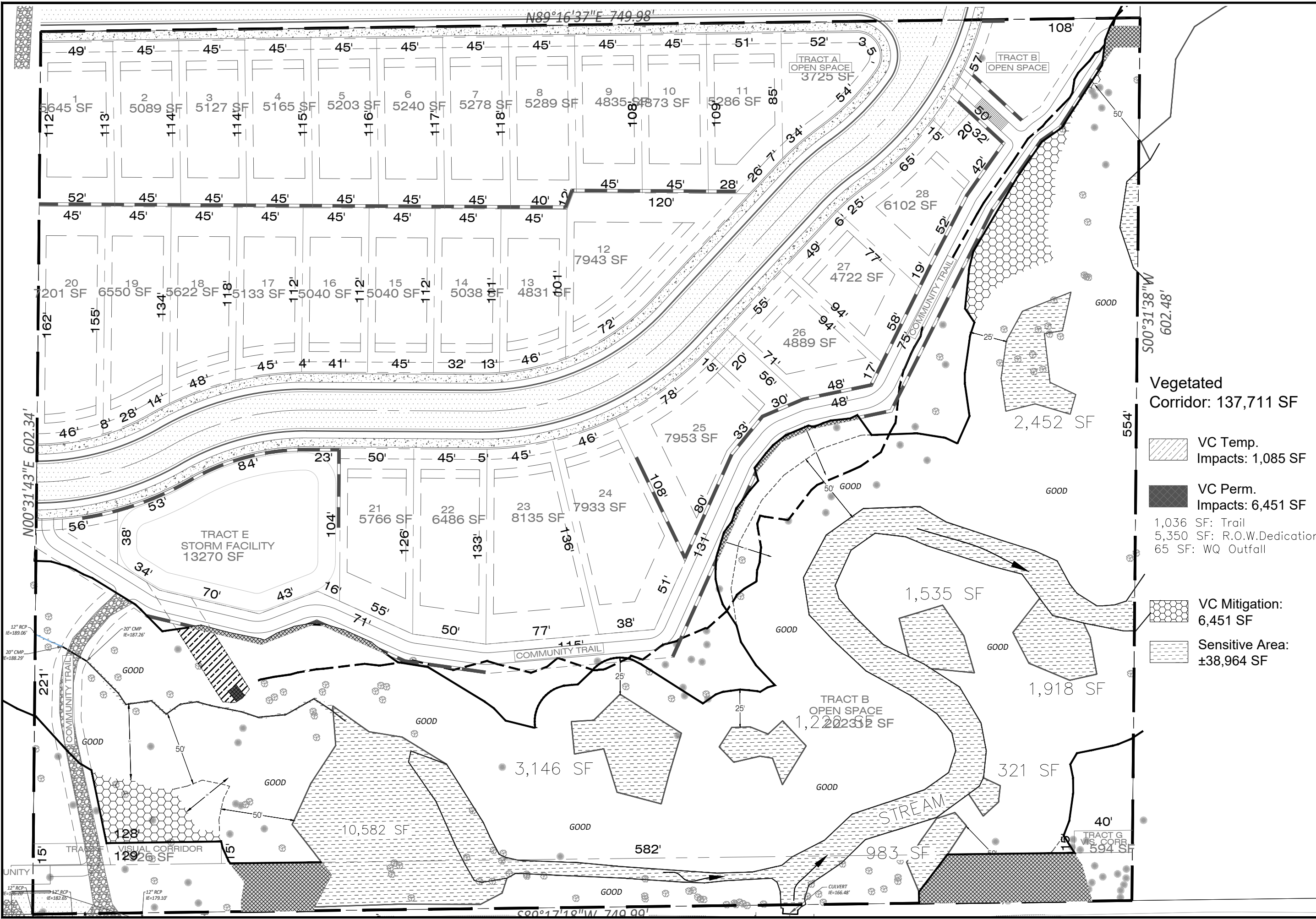
- Vegetated Corridor: 136,610 SF
- Sensitive Area: ±38,954 SF
- Wetland Data Plot
- VC Data Plot
- Photo Point

Existing Conditions
Riverside at Cedar Creek
Sherwood, Oregon



Base Map Source:	PDG, Inc.
Modified By:	KR
Date:	12/19
Job:	19029
Rev:	00/00

Figure 3




Environmental
Science &
Assessment, LLC





107 SE Washington St.,
Suite 249
Portland, OR 97214
Phone: 503.478.0424
www.esapdx.com


Site Plan
 Riverside at Cedar Creek
 Sherwood, Oregon

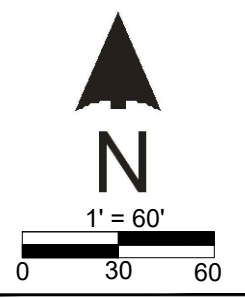
**Vegetated
Corridor: 137,711 SF**

 VC Temp.
Impacts: 1,085 SF

 VC Perm.
Impacts: 6,451 SF
1,036 SF: Trail
5,350 SF: R.O.W. Dedication
65 SF: WQ Outfall

 VC Mitigation:
6,451 SF

 Sensitive Area:
±38,964 SF



Base Map Source:	PDG, Inc.
Modified By:	KR
Date:	12/19
Job:	19029
Rev:	00/00

Figure 4

APPENDIX B: SITE PHOTOGRAPHS



Photo 1: Pointing west up unnamed tributary



Photo 2: Edge of wetland, wetland on the left, upland on the right



Photo 3: View northwest in VC associated with east side of Cedar Creek (DP-8)



Photo 4: Cedar creek showing Slough Sedge (*Carex obnupta*) patches on both sides



Photo 5: Pointing south where Cedar Creek passes under SW Brookman Rd.



Photo 6: Pointing west along constructed channel with SW Brookman Rd. and VC-2 to the left

APPENDIX C: WETLAND DETERMINATION DATA FORMS

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-1
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): none Slope (%): <5%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Aloha Silt Loam, map unit 1, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: <u>Precipitation for the water year to date is 36%</u>	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>75</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. <u>Pseudotsuga menziesii</u>	<u>10</u>		<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
	<u>85</u>	= Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>30' diameter</u>)			Prevalence Index worksheet:
1. <u>Rosa pisocarpa</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Acer circinatum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	OBL species <u>75</u> x 1 = <u>75</u>
3. <u>Cornus sericea</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	FACW species <u>95</u> x 2 = <u>190</u>
4. _____				FAC species <u>60</u> x 3 = <u>180</u>
5. _____				FACU species <u>10</u> x 4 = <u>40</u>
	<u>80</u>	= Total Cover		
UPL species <u>0</u> x 5 = <u>0</u>				Column Totals: <u>240</u> (A) <u>485</u> (B)
Herb Stratum	(Plot size: <u>5' diameter</u>)			Prevalence Index = B/A = <u>2.02</u>
1. <u>Carex obnupta</u>	<u>75</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Polystichum munitum</u>	<u>trace</u>		<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	<u>75</u>	= Total Cover		
Woody Vine Stratum	(Plot size: _____)			Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____				
2. _____				
% Bare Ground in Herb Stratum <u>25</u>				
Remarks: _____				

SOIL

Sampling Point: DP-1

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		
0-12"	7.5 YR 2.5/3	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.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: root refusal
 Depth (inches): 12"

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

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: Data plot location is between the the constructed channel and the road fill slope for SW Brookman Road and above the elevation of the ordinary high water line.

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-2
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 14%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Woodburn Silt Loam, 3 to 7% slopes, map unit 45B, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Precipitation for the water year to date is 36%</u>	

VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' diameter</u>)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Fraxinus latifolia</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>40</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				
1. <u>Cornus sericea</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>60</u> = Total Cover				
Herb Stratum (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Carex obnupta</u>	<u>80</u>	<u>Y</u>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>80</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20</u>				
Remarks: _____				

SOIL

Sampling Point: DP-2

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		
0-8"	7.5 YR 2.5/2	100					silt loam	
8-14"	10 YR 3/2	93	7.5 YR 4/3	7	C	M	silt loam	some clay
14-17"	7.5 YR 3/2	90	5 YR 3/4	10	C	M	silt clay 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.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

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: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-3
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 14%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Woodburn Silt Loam, 3 to 7% slopes, map unit 45B, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks: <u>Precipitation for the water year to date is 36%</u>					

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Pseudotsuga menziesii</u>	25	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. <u>Alnus rubra</u>	20	Y	FAC	Total Number of Dominant Species Across All Strata:	6 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	50% (A/B)
4. _____				Prevalence Index worksheet:	
45 = Total Cover				Total % Cover of: _____ Multiply by: _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)				OBL species _____ x 1 = _____	
1. <u>Cornus sericea</u>	50	Y	FACW	FACW species _____ x 2 = _____	
2. <u>Corylus cornuta</u>	20	Y	FACU	FAC species _____ x 3 = _____	
3. <u>Oemleria cerasiformis</u>	10		FACU	FACU species _____ x 4 = _____	
4. <u>Acer circinatum</u>	10		FAC	UPL species _____ x 5 = _____	
5. _____				Column Totals: _____ (A) _____ (B)	
90 = Total Cover				Prevalence Index = B/A = _____	
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Polystichum munitum</u>	40	Y	FACU	___ 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Carex leptopoda</u>	10	Y	FAC	___ 2 - Dominance Test is >50%	
3. _____				___ 3 - Prevalence Index is ≤3.0 ¹	
4. _____				___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____				___ 5 - Wetland Non-Vascular Plants ¹	
6. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____					
9. _____					
10. _____					
11. _____					
50 = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
<u>Woody Vine Stratum</u> (Plot size: _____)					
1. _____					
2. _____					
_____ = Total Cover					
<u>% Bare Ground in Herb Stratum</u> <u>10</u>					
Remarks:					

SOIL

Sampling Point: DP-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		
0-7"	10 YR 2/2	100					silt loam	
7-10"	10 YR 2/2	90	7.5 YR 4/3	10	C	M	silt loam	
10-20"	10 YR 3/4	100					silt loam	
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 Soils³:		
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> 2 cm Muck (A10)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Red Parent Material (TF2)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Depleted Matrix (F3)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Redox Dark Surface (F6)						
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Depleted Dark Surface (F7)						
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Redox Depressions (F8)						
Restrictive Layer (if present):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	<input type="checkbox"/> Sediment Deposits (B2)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Drift Deposits (B3)		
<input type="checkbox"/> Algal Mat or Crust (B4)			<input type="checkbox"/> Algal Mat or Crust (B4)		
<input type="checkbox"/> Iron Deposits (B5)			<input type="checkbox"/> Iron Deposits (B5)		
<input type="checkbox"/> Surface Soil Cracks (B6)			<input type="checkbox"/> Surface Soil Cracks (B6)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
Field Observations:					
Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>		
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	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: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-4
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian Local relief (concave, convex, none): concave Slope (%): 26%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Wapato Silty Clay Loam, map unit 43, rating 92 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Precipitation for the water year to date is 36%.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Corylus cornuta</u>	25	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. <u>Acer circinatum</u>	25	Y	FAC	
3. <u>Fraxinus latifolia</u>	15	Y	FACW	
4. _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
	65	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83</u> (A/B)
1. <u>Rubus armeniacus</u>	20	Y	FAC	
2. <u>Acer circinatum</u>	15	Y	FAC	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>15</u> x 2 = <u>60</u> FAC species <u>65</u> x 3 = <u>195</u> FACU species <u>35</u> x 4 = <u>140</u> UPL species _____ x 5 = _____ Column Totals: <u>195</u> (A) <u>475</u> (B) Prevalence Index = B/A = <u>2.43</u>
3. <u>Rosa pisocarpa</u>	5		FAC	
4. <u>Ilex aquifolium</u>	trace		FACU	
5. _____				
	40	= Total Cover		
Herb Stratum (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Carex obnupta</u>	80	Y	OBL	
2. <u>Polystichum munitum</u>	10		FACU	
3. <u>Ranunculus repens</u>	trace		FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	90	= Total Cover		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum _____				
Remarks: _____				

SOIL

Sampling Point: DP-4

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"	10 YR 3/3	99	10 YR 3/6	1	C	M	silt loam clay	

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/18/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-5
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): none Slope (%): 11%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Wapato Silty Clay Loam, map unit 43, rating 92 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Precipitation for the water year to date is 36%.</u>	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus latifolia</u>	80	Y	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>42%</u> (A/B)																
2. _____																				
3. _____																				
4. _____																				
<u>80</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>100</u></td> <td style="text-align: center;"><u>x 1 = 100</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td style="text-align: center;"><u>x 2 = 160</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td style="text-align: center;"><u>x 3 = 60</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td style="text-align: center;"><u>x 4 = 440</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td style="text-align: center;"><u>x 5 = 0</u></td> </tr> <tr> <td>Column Totals: <u>310</u> (A)</td> <td style="text-align: center;"><u>760</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.45</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>100</u>	<u>x 1 = 100</u>	FACW species <u>80</u>	<u>x 2 = 160</u>	FAC species <u>20</u>	<u>x 3 = 60</u>	FACU species <u>110</u>	<u>x 4 = 440</u>	UPL species <u>0</u>	<u>x 5 = 0</u>	Column Totals: <u>310</u> (A)	<u>760</u> (B)	Prevalence Index = B/A = <u>2.45</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>100</u>	<u>x 1 = 100</u>																			
FACW species <u>80</u>	<u>x 2 = 160</u>																			
FAC species <u>20</u>	<u>x 3 = 60</u>																			
FACU species <u>110</u>	<u>x 4 = 440</u>																			
UPL species <u>0</u>	<u>x 5 = 0</u>																			
Column Totals: <u>310</u> (A)	<u>760</u> (B)																			
Prevalence Index = B/A = <u>2.45</u>																				
<u>70</u> = Total Cover																				
<u>100</u> = Total Cover																				
<u>60</u> = Total Cover																				
<u>60</u> = Total Cover																				

Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
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¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Herb Stratum (Plot size: <u>5' diameter</u>)				
1. <u>Carex obnupta</u>	100	Y	OBL	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				

Woody Vine Stratum (Plot size: _____)				
1. <u>Rubus ursinus</u>	40	Y	FACU	
2. <u>Rubus laciniatus</u>	20	Y	FACU	
<u>60</u> = Total Cover				

Remarks: The plant community is marginal with a more upland shrub community and a wet herbaceous community. The worksheet results are mixed between an upland and wetland plant community. Given the size of the Carex obnupta community wetland and the proximity to Cedar Creek it is best professional judgement that this data plot meets the hydrophytic vegetation criteria.

SOIL

Sampling Point: DP-5

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		
0-12"	10 YR 3/3	100					silt loam	
12-22"	10 YR 3/2	100					silt loam	

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/18/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-6
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): convex Slope (%): 4
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Wapato Silty Clay Loam, map unit 43, rating 92 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Precipitation for the water year to date is 36%.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	75	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
75 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				
1. <u>Oemleria cerasiformis</u>	60	Y	FACU	Total % Cover of: _____ Multiply by: _____
2. <u>Acer circinatum</u>	20	Y	FAC	OBL species _____ x 1 = _____
3. <u>Symphoricarpos albus</u>	10	_____	FACU	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
90 = Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: <u>5' diameter</u>)				
1. <u>Tolmiea menziesii</u>	40	Y	FAC	Column Totals: _____ (A) _____ (B)
2. <u>Ranunculus repens</u>	30	Y	FAC	Prevalence Index = B/A = _____
3. <u>Glechoma hederacea</u>	10	_____	FACU	Hydrophytic Vegetation Indicators:
4. <u>Galium aparine</u>	trace	_____	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
80 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20</u>				
Remarks: _____				

SOIL

Sampling Point: DP-6

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"	10 YR 3/2	100					silt clay loam	
16-20"	10 YR 3/2	90	7.5 YR 4/4	10	C	M	silt clay loam	

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-7
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): _____ Slope (%): 4%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Wapato Silty Clay Loam, map unit 43, rating 92 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			
Remarks: <u>Precipitation for the water year to date is 36%.</u>					

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	90	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
4. _____				
	90	= Total Cover		Prevalence Index worksheet:
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Oemleria cerasiformis</u>	60	Y	FACU	OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
	60	= Total Cover		Column Totals: _____ (A) _____ (B)
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)				Prevalence Index = B/A = _____
1. <u>Carex obnupta</u>	100	Y	OBL	Hydrophytic Vegetation Indicators:
2. _____				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
3. _____				<input type="checkbox"/> 2 - Dominance Test is >50%
4. _____				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
5. _____				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
7. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
8. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
9. _____				
10. _____				
11. _____				
	100	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____				
2. _____				
% Bare Ground in Herb Stratum _____				
Remarks: _____				

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-8
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): none Slope (%): 4%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Wapato Silty Clay Loam, map unit 43, rating 92 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Precipitation for the water year to date is 36%.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	95	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
4. _____				Prevalence Index worksheet:
	95	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				OBL species <u>0</u> x 1 = <u>0</u>
1. <u>Oemleria cerasiformis</u>	40	Y	FACU	FACW species <u>105</u> x 2 = <u>210</u>
2. <u>Acer circinatum</u>	30	Y	FAC	FAC species <u>60</u> x 3 = <u>180</u>
3. <u>Malus fusca</u>	10		FACW	FACU species <u>50</u> x 4 = <u>200</u>
4. <u>Symphoricarpos albus</u>	10		FACU	UPL species <u>0</u> x 5 = <u>0</u>
5. _____				Column Totals: <u>215</u> (A) <u>590</u> (B)
	90	= Total Cover		Prevalence Index = B/A = <u>2.74</u>
Herb Stratum (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Tolmiea menziesii</u>	20	Y	FAC	
2. <u>Ranunculus repens</u>	10	Y	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	30	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
% Bare Ground in Herb Stratum <u>70</u>				
Remarks: _____				

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-9
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): convex Slope (%): 10%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Aloha Silt Loam, map unit 1, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Precipitation for the water year to date is 36%.</u>			

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Fraxinus latifolia</u>	50	Y	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57</u> (A/B)																
2. <u>Crataegus douglasii</u>	20	Y	FAC																	
3. <u>Prunus avium</u>	10		FACU																	
4. _____																				
80 = Total Cover																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><u>Total % Cover of:</u></td> <td style="width: 50%;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>185</u> (A)</td> <td><u>570</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.08</u></td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>185</u> (A)	<u>570</u> (B)	Prevalence Index = B/A = <u>3.08</u>	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>70</u>	x 3 = <u>210</u>																			
FACU species <u>65</u>	x 4 = <u>260</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>185</u> (A)	<u>570</u> (B)																			
Prevalence Index = B/A = <u>3.08</u>																				
1. <u>Crataegus douglasii</u>	20	Y	FAC																	
2. <u>Symphoricarpos albus</u>	20	Y	FACU																	
3. <u>Acer circinatum</u>	10		FAC																	
4. <u>Rosa pisocarpa</u>	10		FAC																	
5. <u>Ribes divaricatum</u>	trace		FAC																	
60 = Total Cover																				
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Carex leptopoda</u>	10	Y	FAC																	
2. <u>Tellima grandiflora</u>	5	Y	FACU																	
3. <u>Galium aparine</u>	trace		FACU																	
4. <u>Polystichum munitum</u>	trace		FACU																	
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
15 = Total Cover																				
<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____																
1. <u>Rubus ursinus</u>	30	Y	FACU																	
2. _____																				
30 = Total Cover																				
% Bare Ground in Herb Stratum <u>85</u>																				
Remarks: <u>Marginal plant community: Prevalence Index is 3.08</u>																				

SOIL

Sampling Point: DP-9

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"	7.5 YR 2.5/3	100					silt loam	
7-9"	7.5 YR 2.5/3	98	7.5 YR 3/4	2	C	M	silt loam	
9-14"	10 YR 3/2	100					silt loam	
14-18"	10 YR 3/2	75	7.5 YR 3/4	10	C	M	silt clay loam	
	10 YR 4/2	15						
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 Soils³:		
<input type="checkbox"/> Histosol (A1)		<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> 2 cm Muck (A10)				
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Red Parent Material (TF2)				
<input type="checkbox"/> Black Histic (A3)		<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)				
<input type="checkbox"/> Hydrogen Sulfide (A4)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)		<input type="checkbox"/> Depleted Matrix (F3)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
<input type="checkbox"/> Thick Dark Surface (A12)		<input type="checkbox"/> Redox Dark Surface (F6)						
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Depleted Dark Surface (F7)						
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Redox Depressions (F8)						
Restrictive Layer (if present):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	<input type="checkbox"/> Sediment Deposits (B2)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Drift Deposits (B3)		
<input type="checkbox"/> Drift Deposits (B3)			<input type="checkbox"/> Algal Mat or Crust (B4)		
<input type="checkbox"/> Algal Mat or Crust (B4)			<input type="checkbox"/> Iron Deposits (B5)		
<input type="checkbox"/> Iron Deposits (B5)			<input type="checkbox"/> Surface Soil Cracks (B6)		
<input type="checkbox"/> Surface Soil Cracks (B6)			<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
Field Observations:					
Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>		
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	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: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-10
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 11
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Verboort silty clay loam, 0 to 3% slopes, map unit 2027A, rating 99 NWI classification: n/a
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: <u>Precipitation for the water year to date is 36%.</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____				Prevalence Index worksheet:	
	<u>40</u> = Total Cover				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				OBL species _____ x 1 = _____	
1. <u>Cornus sericea</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	FACW species _____ x 2 = _____	
2. _____				FAC species _____ x 3 = _____	
3. _____				FACU species _____ x 4 = _____	
4. _____				UPL species _____ x 5 = _____	
5. _____				Column Totals: _____ (A) _____ (B)	
	<u>5</u> = Total Cover			Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Carex obnupta</u>	<u>65</u>	<u>Y</u>	<u>OBL</u>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____					<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____					<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____					<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____					<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____					<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____					
9. _____					
10. _____					
11. _____					
	<u>65</u> = Total Cover			Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
% Bare Ground in Herb Stratum <u>35</u>					
Remarks:					

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-11
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 11
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Verboort silty clay loam, 0 to 3% slopes, map unit 2027A, rating 99 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			
Remarks: <u>Precipitation for the water year to date is 36%.</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. <u>Acer macrophyllum</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)																
2. <u>Fraxinus latifolia</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)																
3. <u>Ilex aquifolium</u>	<u>5</u>		<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)																
4. _____				Prevalence Index worksheet:																
	<u>75</u>	= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>155</u> (A)</td> <td><u>545</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.52</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>155</u> (A)	<u>545</u> (B)	Prevalence Index = B/A = <u>3.52</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>30</u>	x 2 = <u>60</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>110</u>	x 4 = <u>440</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>155</u> (A)	<u>545</u> (B)																			
Prevalence Index = B/A = <u>3.52</u>																				
1. <u>Symphoricarpos albus</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Rosa pisocarpa</u>	<u>5</u>		<u>FAC</u>																	
3. <u>Amelanchier alnifolia</u>	<u>5</u>		<u>FACU</u>																	
4. <u>Oemleria cerasiformis</u>	<u>5</u>		<u>FACU</u>																	
5. _____																				
	<u>55</u>	= Total Cover																		
Herb Stratum (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Carex leptopoda</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>																	
2. <u>Galium aparine</u>	<u>trace</u>		<u>FACU</u>																	
3. <u>Tolmiea menziesii</u>	<u>trace</u>		<u>FAC</u>																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
	<u>10</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>																
1. <u>Rubus ursinus</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																	
2. _____																				
	<u>15</u>	= Total Cover																		
% Bare Ground in Herb Stratum <u>90</u>																				
Remarks: _____																				

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-12
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 11
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Verboort silty clay loam, 0 to 3% slopes, map unit 2027A, rating 99 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Precipitation for the water year to date is 36%.</u>	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
	<u>30</u> = Total Cover				Total % Cover of: _____ Multiply by: _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)				OBL species _____ x 1 = _____	
1. _____				FACW species _____ x 2 = _____	
2. _____				FAC species _____ x 3 = _____	
3. _____				FACU species _____ x 4 = _____	
4. _____				UPL species _____ x 5 = _____	
5. _____				Column Totals: _____ (A) _____ (B)	
	_____ = Total Cover			Prevalence Index = B/A = _____	
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Carex obnupta</u>	<u>100</u>	<u>Y</u>	<u>OBL</u>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	<u>100</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
1. _____					
2. _____					
	_____ = Total Cover				
% Bare Ground in Herb Stratum _____					
Remarks: _____					

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-13
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 11
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Verboort silty clay loam, 0 to 3% slopes, map unit 2027A, rating 99 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks: <u>Precipitation for the water year to date is 36%.</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <u>Acer circinatum</u>	50	Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)	
2. <u>Pseudotsuga menziesii</u>	30	Y	FAC	Total Number of Dominant Species Across All Strata:	5 (B)	
3. <u>Ilex aquifolium</u>	10		FACU	Percent of Dominant Species That Are OBL, FACW, or FAC:	16 (A/B)	
4. <u>Acer macrophyllum</u>	10		FACU			
	100	= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:		
1. <u>Ilex aquifolium</u>	50	Y	FACU			Total % Cover of:
2. <u>Oemleria cerasiformis</u>	20	Y	FACU	OBL species _____ x 1 = _____		
3. <u>Mahonia aquifolium</u>	10		FACU	FACW species _____ x 2 = _____		
4. _____				FAC species _____ x 3 = _____		
5. _____				FACU species _____ x 4 = _____		
	80	= Total Cover		UPL species _____ x 5 = _____		
Herb Stratum (Plot size: <u>5' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals:	(A) _____ (B) _____	
1. <u>Polystichum munitum</u>	25	Y	FACU	Prevalence Index = B/A = _____		
2. _____				Hydrophytic Vegetation Indicators:		
3. _____						<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
4. _____						<input type="checkbox"/> 2 - Dominance Test is >50%
5. _____						<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
6. _____						<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____						<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
8. _____						<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
9. _____						¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10. _____						
11. _____						
	25	= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>		
1. _____						
2. _____						
		= Total Cover				
% Bare Ground in Herb Stratum <u>75</u>						
Remarks:						

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-14
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 10
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Aloha Silt loam, map unit 1, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Precipitation for the water year to date is 36%</u>	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
<u>0</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Cornus sericea</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>	OBL species _____ x 1 = _____
2. _____	_____	_____	_____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
<u>100</u> = Total Cover				Column Totals: _____ (A) _____ (B)
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)				Prevalence Index = B/A = _____
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>0</u> = Total Cover				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>100</u>				
Remarks: _____				

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-15
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 15
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Aloha Silt Loam, map unit 1, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <u>Precipitation for the water year to date is 36%.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	40	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
4. _____				Prevalence Index worksheet:
	40	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>30' diameter</u>)				OBL species <u>0</u> x 1 = <u>0</u>
1. <u>Acer circinatum</u>	30	Y	FAC	FACW species <u>40</u> x 2 = <u>80</u>
2. <u>Symphoricarpos albus</u>	10		FACU	FAC species <u>40</u> x 3 = <u>120</u>
3. <u>Crataegus douglasii</u>	10		FAC	FACU species <u>30</u> x 4 = <u>120</u>
4. <u>Oemleria cerasiformis</u>	5		FACU	UPL species <u>0</u> x 5 = <u>0</u>
5. <u>Rubus laciniatus</u>	trace		FACU	Column Totals: <u>110</u> (A) <u>320</u> (B)
	55	= Total Cover		Prevalence Index = B/A = <u>2.9</u>
Herb Stratum (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Polystichum munitum</u>	15	Y	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	15	= Total Cover		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. <u>Rubus ursinus</u>	trace		FACU	
2. <u>Hedera helix</u>	trace		FACU	
	<5	= Total Cover		
% Bare Ground in Herb Stratum <u>85</u>				
Remarks: Marginal plant community: Prevalence Index is 3.02				

SOIL

Sampling Point: DP-15

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		
0-14"	10 YR 3/2	100					silt clay loam	
14-16"	10 YR 3/2	99	7.5 YR 4/6	1	C	M	silt clay loam	

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

Project/Site: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-16
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 13
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Aloha Silt Loam, map unit 1, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>Precipitation for the water year to date is 36%.</u>	

VEGETATION – Use scientific names of plants.

Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)				Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				Prevalence Index worksheet:
	<u>60</u> = Total Cover			Total % Cover of: _____ Multiply by: _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)				OBL species _____ x 1 = _____
1. <u>Cornus sericea</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	FACW species _____ x 2 = _____
2. _____				FAC species _____ x 3 = _____
3. _____				FACU species _____ x 4 = _____
4. _____				UPL species _____ x 5 = _____
5. _____				Column Totals: _____ (A) _____ (B)
	<u>40</u> = Total Cover			Prevalence Index = B/A = _____
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators:
1. <u>Carex leptopoda</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____				<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
	<u>5</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
	_____ = Total Cover			
% Bare Ground in Herb Stratum <u>95</u>				
Remarks:				

SOIL

Sampling Point: DP-16

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"	7.5 YR 2.5/2	100					silt clay loam	
7-13"	7.5 YR 2.5/2	95	7.5 YR 3/4	5	C	M	silt clay loam	
13-18"	10 YR 3/2	90	7.5 YR 3/4	10	C	M	silt clay loam	
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 Soils³:		
___ 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)		<input checked="" type="checkbox"/> Redox Dark Surface (F6)					³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
___ Sandy Mucky Mineral (S1)		___ Depleted Dark Surface (F7)						
___ Sandy Gleyed Matrix (S4)		___ Redox Depressions (F8)						
Restrictive Layer (if present):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
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) (MLRA 1, 2, 4A, and 4B)
___ High Water Table (A2)	___ Salt Crust (B11)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	<input checked="" type="checkbox"/> 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)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Shallow Aquitard (D3)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes ___ No <input checked="" type="checkbox"/>	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: Brookman/Sherwood City/County: Sherwood Sampling Date: 12/17/2019
 Applicant/Owner: Riverside Homes State: OR Sampling Point: DP-17
 Investigator(s): K. Reavis, K. Sanderford Section, Township, Range: township 3 south, range 1 west, section 6
 Landform (hillslope, terrace, etc.): riparian, floodplain Local relief (concave, convex, none): concave Slope (%): 13%
 Subregion (LRR): A-Northwest Forests and Coasts Lat: _____ Long: _____ Datum: n/a
 Soil Map Unit Name: Aloha Silt Loam, map unit 1, rating 1 NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Precipitation for the water year to date is 36%.</u>	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Acer circinatum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)	
4. _____				Prevalence Index worksheet:	
	<u>40</u>	= Total Cover			Total % Cover of: _____ Multiply by: _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' diameter</u>)				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u>Acer circinatum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	FACW species <u>0</u> x 2 = <u>0</u>	
2. _____				FAC species <u>65</u> x 3 = <u>195</u>	
3. _____				FACU species <u>35</u> x 4 = <u>140</u>	
4. _____				UPL species <u>0</u> x 5 = <u>0</u>	
5. _____				Column Totals: <u>100</u> (A) <u>335</u> (B)	
	<u>20</u>	= Total Cover		Prevalence Index = B/A = <u>3.35</u>	
<u>Herb Stratum</u> (Plot size: <u>5' diameter</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Polystichum munitum</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Carex leptopoda</u>	<u>5</u>		<u>FAC</u>		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____					<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____					<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____					<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____					<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____					
9. _____					
10. _____					
11. _____					
	<u>40</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
<u>Woody Vine Stratum</u> (Plot size: _____)					
1. _____					
2. _____					
% Bare Ground in Herb Stratum <u>60</u>					
Remarks: <u>Marginal plant community: Prevalence Index is 3.35</u>					

APPENDIX D: VEGETATED CORRIDOR DATA FORMS

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Riverside Homes / Riverside at Cedar Creek	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-1, near driveway and onsite tributary
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Township/Range/Section: T3S R1W S06	Lot(s): 104
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Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.

Site Investigator Name: Kim Reavis, Kim Sanderford	Date of Investigation: 12/17/2019, 12/18/2019
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Plant Community Type: Riparian forest

	Herbaceous Stratum	Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
				Yes	No	Yes	No	Yes	No
1	<i>Polystichum munitum</i>	40	22	X			X		X
2	<i>Carex leptopoda</i>	1	1	X			X		X
3	40% moss/leaf litter		0						
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
	Shrub Stratum		0						
1	<i>Corylus cornuta</i>	30	16	X			X		X
2	<i>Rubus ursinus</i>	15	8	X			X		X
3	<i>Acer circinatum</i>	30	16	X			X		X
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
	Tree Stratum		0						
1	<i>Pseudotsuga menziesii</i>	30	16	X			X		X
2	<i>Prunus avium</i>	20	11		X		X		X
3	<i>Fraxinus latifolia</i>	20	11	X			X		X
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
	Total	186	100						

Total percent relative native species cover	89%
Total percent aerial cover of tree canopy	70%
Total percent relative cover of non-native, noxious, and invasive species	11%

X	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Brookman/Sherwood	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-2, in Brookman ROW, south of channel
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Township/Range/Section: Township 3 south, range 1 west, section 6	Lot(s): 104
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Tax Map: T3S R1W S06
Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.

Site Investigator Name: Kim Reavis, Kim Sanderford	Date of Investigation: 12/17/2019, 12/18/2019
--	---

Herbaceous Stratum	Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
			Yes	No	Yes	No	Yes	No
1 <i>Tolmiea menziesii</i>	20	10	X			X		X
2 <i>Carex leptopoda</i>	15	8	X			X		X
3 <i>Galium aparine</i>	5	3	X			X		X
4 60% leaf litter		0						
5		0						
6		0						
7		0						
8		0						
9		0						
10		0						
Shrub Stratum		0						
1 <i>Rosa pisocarpa</i>	30	15	X			X		X
2 <i>Cornus sericea</i>	30	15	X			X		X
3 <i>Symphoricarpos albus</i>	10	5	X			X		X
4 <i>Physocarpus capitatus</i>	5	3	X			X		X
5 <i>Acer circinatum</i>	5	3	X			X		X
6		0						
7		0						
8		0						
9		0						
10		0						
Tree Stratum		0						
1 <i>Fraxinus latifolia</i>	80	40	X			X		X
2		0						
3		0						
4		0						
5		0						
6		0						
7		0						
8		0						
9		0						
Total	200	100						

Total percent relative native species cover	100%
Total percent aerial cover of tree canopy	80%
Total percent relative cover of non-native, noxious, and invasive species	0%

X	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Brookman/Sherwood	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-3, west of northern most wetland area
--	---	---

Township/Range/Section: Township 3 south, range 1 west, section 6

Tax Map: T3S R1W S06

Lot(s): 104

Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.

Site Investigator Name: Kim Reavis, Kim Sanderford

Date of Investigation: 12/17/2019, 12/18/2019

Plant Community Type:

	Herbaceous Stratum	Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
				Yes	No	Yes	No	Yes	No
1	<i>Polystichum munitum</i>	60	30	X			X		X
2	40% leaf litter		0						
3			0						
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
	Shrub Stratum		0						
1	<i>Symphoricarpos albus</i>	15	8	X			X		X
2	<i>Corylus cornuta</i>	25	13	X			X		X
3	<i>Ilex aquifolium</i>	10	5		X		X		X
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
	Tree Stratum		0						
1	<i>Corylus cornuta</i>	80	40	X			X		X
2	<i>Pseudotsuga menziesii</i>	5	3	X			X		X
3	<i>Thuja plicata</i>	5	3	X			X		X
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
Total		200	100						

Total percent relative native species cover	95%
Total percent aerial cover of tree canopy	90%
Total percent relative cover of non-native, noxious, and invasive species	5%

X	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Brookman/Sherwood	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-4, top of slope on west side of creek at bend
Township/Range/Section: Township 3 south, range 1 west, section 6		
Tax Map: T3S R1W S06	Lot(s): 104	
Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.		

Site Investigator Name: Kim Reavis, Kim Sanderford	Date of Investigation: 12/17/2019, 12/18/2019
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Plant Community Type:								
Herbaceous Stratum	Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
			Yes	No	Yes	No	Yes	No
1 <i>Polystichum munitum</i>	50	28	X			X		X
2 50% leaf litter		0						
3		0						
4		0						
5		0						
6		0						
7		0						
8		0						
9		0						
10		0						
Shrub Stratum								
1 <i>Mahonia nervosa</i>	5	3	X			X		X
2 <i>Ilex aquifolium</i>	15	8		X		X		X
3 <i>Acer circinatum</i>	5	3	X			X		X
4 <i>Corylus cornuta</i>	20	11	X			X		X
5		0						
6		0						
7		0						
8		0						
9		0						
10		0						
Tree Stratum								
1 <i>Pseudotsuga menziesii</i>	60	33	X			X		X
2 <i>Tsuga heterophylla</i>	10	6	X			X		X
3 <i>Corylus cornuta</i>	10	6	X			X		X
4 <i>Thuja plicata</i>	5	3	X			X		X
5		0						
6		0						
7		0						
8		0						
9		0						
Total	180	100						

Total percent relative native species cover	92%
Total percent aerial cover of tree canopy	85%
Total percent relative cover of non-native, noxious, and invasive species	8%

X	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Brookman/Sherwood	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-5, north of constructed channel
Township/Range/Section: Township 3 south, range 1 west, section 6		
Tax Map: T3S R1W S06	Lot(s): 104	
Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.		

Site Investigator Name: Kim Reavis, Kim Sanderford	Date of Investigation: 12/17/2019, 12/18/2019
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Plant Community Type:		Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
Herbaceous Stratum				Yes	No	Yes	No	Yes	No
1	<i>Tolmiea menziesii</i>	50	23	X			X		X
2	<i>Carex leptopoda</i>	5	2	X			X		X
3	<i>Ranunculus repens</i>	30	14		X		X	X	
4	<i>Galium aparine</i>	1	0		X		X		X
5	15% leaf litter		0						
6			0						
7			0						
8			0						
9			0						
10			0						
Shrub Stratum			0						
1	<i>Sambucus racemosa</i>	10	5	X			X		X
2	<i>Acer circinatum</i>	20	9	X			X		X
3	<i>Rubus laciniatus</i>	5	2		X		X	X	
4	<i>Cornus sericea</i>	30	14	X			X		X
5	<i>Physocarpus capitatus</i>	10	5	X			X		X
6			0						
7			0						
8			0						
9			0						
10			0						
Tree Stratum			0						
1	<i>Acer circinatum</i>	15	7	X			X		X
2	<i>Fraxinus latifolia</i>	40	19	X			X		X
3			0						
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
Total		216	100						

Total percent relative native species cover	83%
Total percent aerial cover of tree canopy	55%
Total percent relative cover of non-native, noxious, and invasive species	17%

X	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Brookman/Sherwood	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-6, east of Cedar Creek at
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Township/Range/Section: Township 3 south, range 1 west, section 6	Lot(s): 104
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Tax Map: T3S R1W S06
Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.

Site Investigator Name: Kim Reavis, Kim Sanderford	Date of Investigation: 12/17/2019, 12/18/2019
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Herbaceous Stratum		Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
				Yes	No	Yes	No	Yes	No
1	<i>Tolmiea menziesii</i>	25	14	X			X		X
2	<i>Glechoma hederacea</i>	5	3		X		X	X	
3	70% leaf litter		0						
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
Shrub Stratum			0						
1	<i>Oemleria cerasiformis</i>	50	28	X			X		X
2	<i>Symphoricarpos albus</i>	10	6	X			X		X
3	<i>Acer circinatum</i>	15	8	X			X		X
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
10			0						
Tree Stratum			0						
1	<i>Fraxinus latifolia</i>	75	42	X			X		X
2			0						
3			0						
4			0						
5			0						
6			0						
7			0						
8			0						
9			0						
Total		180	100						

Total percent relative native species cover	97%
Total percent aerial cover of tree canopy	75%
Total percent relative cover of non-native, noxious, and invasive species	3%

X	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.

VEGETATED CORRIDOR DATA SHEET

Client/Project Name: Riverside Homes / Riverside at Cedar Creek	Site Address: 17433 SW Brookman Rd., Sherwood, OR 97140	Plot ID: VC-7, on steep slope between Brookman and creek, south
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Township/Range/Section: T3S R1w S06

Tax Map: T3S R1W S06 **Lot(s):** 104

Brief Description of Plot Location: The site is located within the Brookman Addition community in the south end of Sherwood, Oregon. The lot is a rectangle with southern side along SW Brookman Rd.

Site Investigator Name: Kim Reavis, Kim Sanderford **Date of Investigation:** 12/17/2019, 12/18/2019

	Percent Aerial Cover	Percent Relative Cover	Native? (1)		Noxious?(2)		Invasive? (3)	
			Yes	No	Yes	No	Yes	No
Herbaceous Stratum								
1	75	28	X			X		X
2	10	4	X			X		X
3	5	2	X			X		X
4		0						
5		0						
6		0						
7		0						
8		0						
9		0						
10		0						
Shrub Stratum								
1	10	4	X			X		X
2	50	19	X			X		X
3	30	11	X			X		X
4		0						
5		0						
6		0						
7		0						
8		0						
9		0						
10		0						
Tree Stratum								
1	75	28	X			X		X
2	10	4	X			X		X
3		0						
4		0						
5		0						
6		0						
7		0						
8		0						
9		0						
Total	265	100						

Total percent relative native species cover	100%
Total percent aerial cover of tree canopy	85%
Total percent relative cover of non-native, noxious, and invasive species	0%

<input checked="" type="checkbox"/>	Good Condition (native species >80% of the community and tree canopy >50% aerial cover)
<input type="checkbox"/>	Marginal Condition (native species 50-80% of the community and tree canopy 26-50% aerial cover)
<input type="checkbox"/>	Degraded Condition (native species <50% of the community and tree canopy <25% aerial coverage)

Comments:

(1) Portland Plant List, 2011.
 (2) Noxious Weed List, ODA.
 (3) R 07-20, Clean Water Services, June, 2007.