



PACIFIC HABITAT SERVICES, INC

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December 27, 2013

Environmental Plan Review

Clean Water Services
2550 SW Hillsboro Highway
Hillsboro, Oregon 97123

**Re: The Springs Living; Proposed facilities expansion
Clean Water Services File Number 13-002937
PHS Project # 5359**

Pacific Habitat Services, Inc. (PHS) completed a Simplified Site Assessment for a proposed residential development in Sherwood, Oregon (Township 2S, Range 1W, Section 32BA tax lots 400, 401, 402, 600, 4300 & 4400). The site within the limits of the tax lots as shown on Figure 2 is proposed for development entailing expansion of the existing assisted living facility. According to CWS protocol, an on-site assessment was completed by PHS on December 4, 2013. The following documentation has been submitted on behalf of the owner and applicant of the above referenced CWS file.

Site History

The northern parcel (lot 4400) and location of the existing assisted living facility contained a wetland that was filled in 2001 for construction of the original building. Mitigation for wetland impacts was initiated onsite in the spring of 2002 and was located just south of that original building. In 2005, the wetland mitigation site was deemed a failure and the applicant fulfilled wetland mitigation by purchasing wetland credits from a wetland mitigation bank and fulfilled CWS requirements for vegetated corridor mitigation by completing enhancement on another parcel in Sherwood (see CWS file number 06-001890). The removal of sensitive areas and regulated corridors from the site facilitated expansion of the assisted living facility in 2007.

During the summer of 2003, the prior site owner considered constructing apartments on lot 600 (to the south of lot 4400). In October 2003, a Service Provider Letter for development of lot 600 was obtained (CWS File #1380). That project never went beyond the conceptual phase and lot 600 remains a vacant lot, though it did include a home and associated outbuildings prior to 2002, and the northern half of the lot was utilized as a part of the staging area for the 2007 expansion.

Existing Conditions

Pacific Habitat Services, Inc. (PHS) completed a wetland determination of the study area, located west of Oregon Street from its intersection with SW Oregon and NE 1st streets, north to St. Francis Elementary School. The site includes three residential home sites (lots 400, 401, and 402); a former residential home with outbuildings now utilized as offices and support for the

main facility (on lot 4300); the existing assisted living facility (lot 4400); and an undeveloped lot (lot 600).

The residential parcels and facility office property, as well as the northern portion of lot 4400 are largely developed, with some small areas of landscaping, and in the case of lot 4400, a small garden area. Additional undeveloped areas are limited to the southwest portion of lot 4400 and the entirety of lot 600. The undeveloped area on lot 4400 includes a lawn that is crossed by a single sidewalk that provides access to the development's trash enclosure and western driveway. A small area north of the lawn is not landscaped but does include a mixed population of native and non-native shrubs and small trees. This community includes species that were planted as part of the failed wetland mitigation area.

In order to document the wetland determination, two sample points were recorded. The first is located in the shrub area north of the lawn on lot 4400, and the second in a local low point in the northwest portion of lot 600. The northern and eastern portions of lot 600 include manicured lawns. Beyond the limits of lawn care on lot 600, vegetation is a mix of non-native grasses and common herbaceous weeds. The most common species on lot 600 include Colonial bentgrass, English plantain, Queen Anne's lace, sweet vernal grass, orchardgrass, tall fescue, and common velvetgrass. Trees on lot 600 include big leaf maple, California black oak, sweet cherry, and apple; shrubs include rose, English hawthorn, cherry or plum, and Himalayan blackberry. Mature trees on lot 4400 include two Douglas fir and one each of elm, redwood, and an unidentified willow. The residential parcels in the south include a large Douglas fir tree as well as several hedge rows (*Arborvitae*) and ornamental deciduous trees.

Our work confirmed that there are no sensitive areas onsite or within 250 feet on properties adjoining the development site. There may be sensitive areas on the parcel due east of the site but Oregon Street separates the two properties and any regulated vegetated corridors would not extend onsite.

Site Development Plan

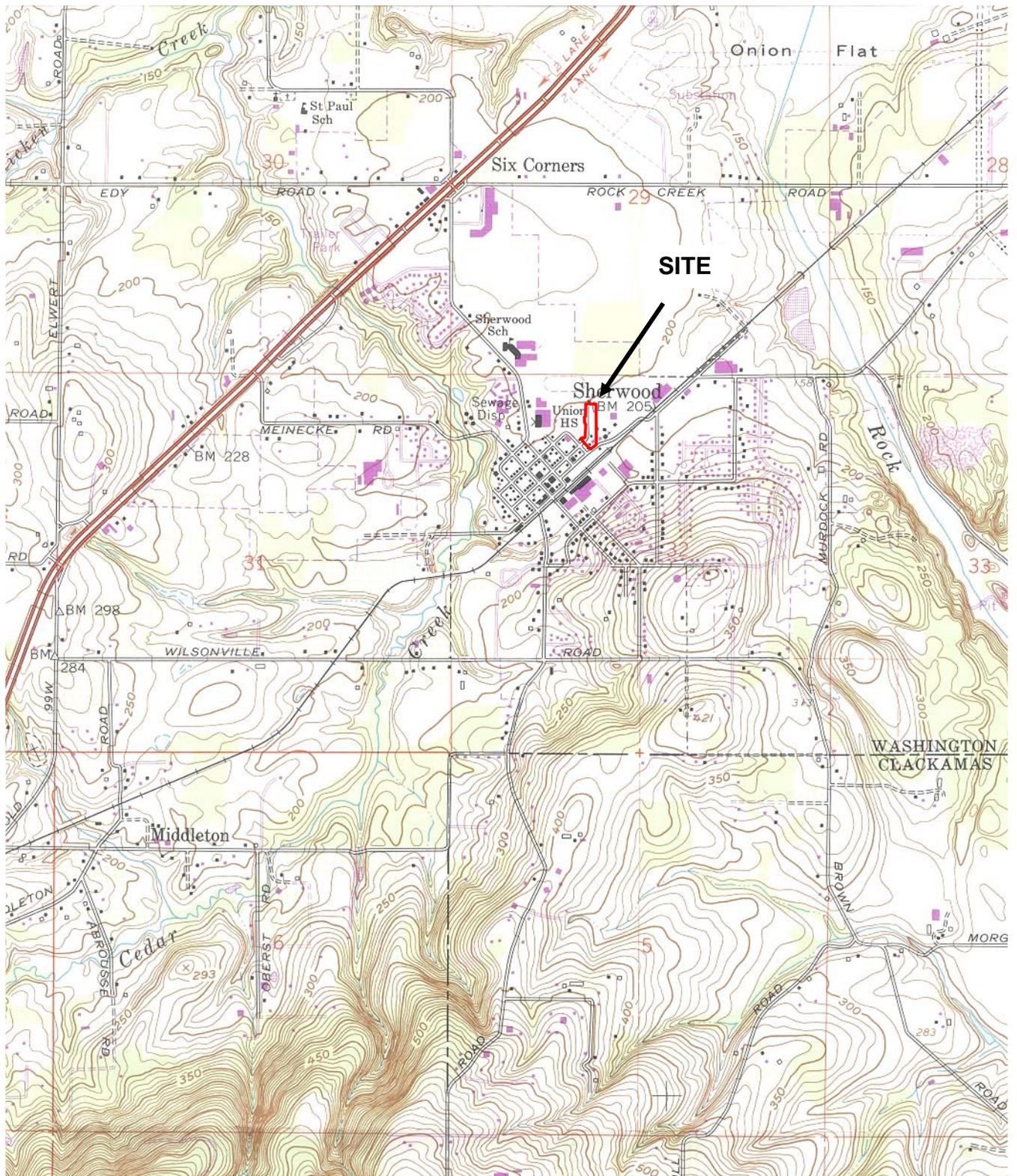
The proposed development plan will utilize all remaining undeveloped areas within the proposed project limits to expand the existing facility to include additional assisted living and independent living units (see enclosed).

Please confirm that the enclosed information is sufficient to issue a Service Provider Letter for the proposed project. Feel free to contact myself or the applicant, Chuck Archer of The Springs Living, for any additional information or clarification.

Thank you,



Shawn Eisner
Natural Resource Specialist



12/26/13

5359

Location and general topography for the vicinity of The Springs Living in Sherwood, Oregon (USGS, Sherwood, Oregon quadrangle, 1961, photorevised 1985).

FIGURE
1



Approximate limits of a site assessment for The Springs Living in Sherwood

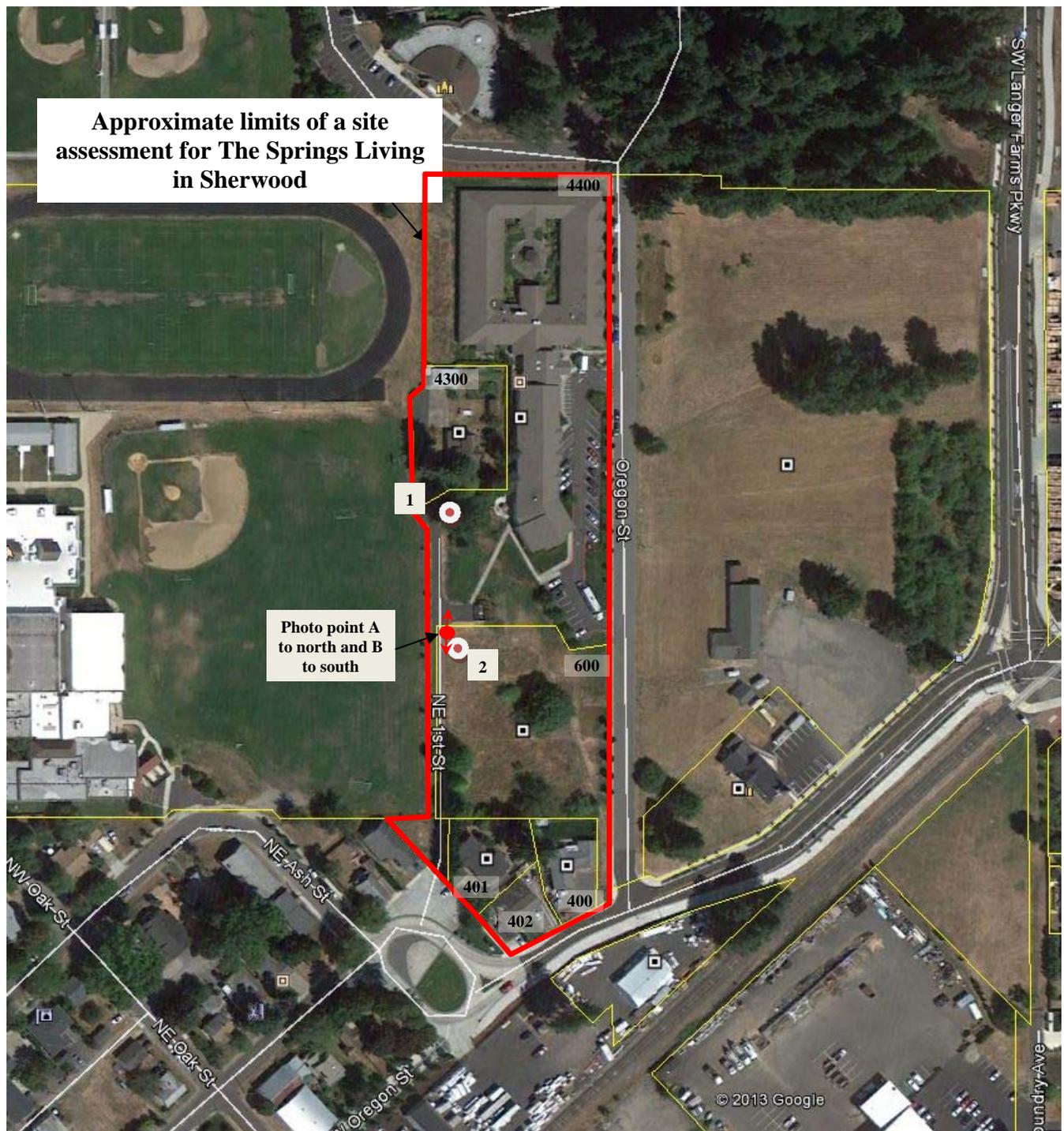


Photo point A to north and B to south

Project # 5339
12/23/2013

Existing conditions at The Springs Living in Sherwood (Google Earth, 2013). The approximate location of Sample Points 1 and 2 and Photo Points A and B are identified. Lot numbers are identified for each lot.

FIGURE
2



Pacific Habitat Services, Inc.

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

Project/Site: The Springs Living - Sherwood City/County: Sherwood / Washington Sampling Date: 12/4/2013
 Applicant/Owner: The Springs Living State: _____ Sampling Point: 1
 Investigator(s): S Eisner Section, Township, Range: Section 32BA, T 2 South, R 1 West
 Landform (hillslope, terrace, etc.): none Local relief (concave, convex, none): convex Slope (%): 0
 Subregion (LRR): LRR A Lat: 45.3592 Long: -122.8391 Datum: _____
 Soil Map Unit Name: Quatama loam NWI Classification: none
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:
Sample point is located in an area 24 to 36 inches lower in elevation than the bordering driveway and landscaped areas. Though the driveway has existed for decades, the areas to the south and west were raised for landscaping purposes when the adjoining facility was expanded in 2007.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: _____)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>0%</u> (A/B)
1	_____	_____	_____	
2	_____	_____	_____	
3	_____	_____	_____	
4	_____	_____	_____	
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>10</u>)				
1	<u>Rubus armeniacus</u> <u>65</u>	<u>X</u>	<u>FACU</u>	
2	<u>Physocarpus capitatus</u> <u>20</u>		<u>FACW</u>	
3	<u>Rosa nutkana</u> <u>10</u>		<u>FAC</u>	
4	<u>Crataegus monogyna</u> <u>20</u>		<u>FAC</u>	
5	_____	_____	_____	
	<u>115</u>	= Total Cover		
Herb Stratum (plot size: _____)				Prevalence Index Worksheet: Total % Cover of _____ Multiply by: OBL Species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC Species _____ x 3 = <u>0</u> FACU Species _____ x 4 = <u>0</u> UPL Species _____ x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1	_____	_____	_____	
2	_____	_____	_____	
3	_____	_____	_____	
4	_____	_____	_____	
5	_____	_____	_____	
6	_____	_____	_____	
7	_____	_____	_____	
8	_____	_____	_____	
	<u>0</u>	= Total Cover		
Woody Vine Stratum (plot size: _____)				
1	_____	_____	_____	
2	_____	_____	_____	
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>100</u>				

Hydrophytic Vegetation Indicators:

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

Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
This comparably lower area also includes several Berberis aquifolium, but these were more than 10 feet from the sample area. No herbaceous cover; this area is heavily shaded not only by a dense shrub layer but also by a large elm and a large black cottonwood located north and west of the sample site. There is as a result a very thick layer of leaf litter on the ground as well.

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		
0-11	10YR 3/3	100					Silt loam	
11-13	10YR 3/3	95	10YR 3/6	5	C	M	Silt loam	medium mottles
13-15	10YR 4/2	85	10YR 3/6	15	C	M	Silt loam	medium mottles

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric 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)	
<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)	

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

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<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) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >15
 Saturation Present? Yes _____ No X Depth (inches): >15
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

none

Remarks:

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

Project/Site: The Springs Living - Sherwood City/County: Sherwood / Washington Sampling Date: 12/4/2013
 Applicant/Owner: The Springs Living State: _____ Sampling Point: 2
 Investigator(s): S Eisner Section, Township, Range: Section 32BA, T 2 South, R 1 West
 Landform (hillslope, terrace, etc.): none Local relief (concave, convex, none): convex Slope (%): 0
 Subregion (LRR): LRR A Lat: 45.3592 Long: -122.8391 Datum: _____
 Soil Map Unit Name: Verboort silty clay loam NWI Classification: none
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No _____ (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? If needed, explain any answers in Remarks.)

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

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

Remarks:
Sample point taken in lowest topographical area in this portion of the site. This lower area appears to have resulted from building up of areas adjoining it; including the driveway to the west, landscaped areas to the north/northeast, and modified grades for site staging to the east and south.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Agrostis capillaris</u>	<u>90</u>	<u>X</u>	<u>FAC</u>
2 <u>Bromus sp.</u>	<u>7</u>		<u>(FAC)</u>
3 <u>Juncus tenuis</u>	<u>1</u>		<u>FAC</u>
4 <u>Plantago lanceolata</u>	<u>3</u>		<u>FACU</u>
5 <u>Rumex crispus</u>	<u>1</u>		<u>FAC</u>
6 <u>Daucus carota</u>	<u>3</u>		<u>FACU</u>
7 <u>Festuca arundinacea</u>	<u>2</u>		<u>FAC</u>
8 <u>Trifolium pratense</u>	<u>2</u>		<u>FACU</u>
	<u>109</u>	= Total Cover	
Woody Vine Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum	<u>0</u>		

Dominance Test worksheet:

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

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

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

Prevalence Index Worksheet:

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

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

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

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		
0-6	10YR 3/2	74	7.5YR 3/3	15	C	M	silt loam	fine to medium mottles
0-6			7.5YR 3/4	1	C	PL		OR's
0-6		10					gravel	
6-12	10YR 3/2	10					silt loam	heavily compacted
6-12		90					gravel	
12-15	2.5Y 4/2	65	7.5YR 3/4	10	C	M	silt loam	medium mottles
12-15			5YR 4/6	25	C	M		coarse mottles

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric 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)	
<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)	

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

Restrictive Layer (if present):

Type: compacted gravels
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

Gravel is apparently left over from when this area was used as part of the staging area associated with construction of the adjoining facility in 2007.

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) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): 3 to 7
 (includes capillary fringe)

Wetland Hydrology Present?

Yes No

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

none

Remarks:

Portions of the soils column from 3 to 7 inches were saturated. Saturation was localized and not complete. It is likely the result of recent rains. These soils appear to retain water longer than adjoining areas due to the presence of heavily compacted gravel soils located at depth (beginning at 6 inches).



Photo A

View to the north across the southwest portion of lot 4400.

Photo B

View to the south across the west portion of lot 600. The large Douglas fir is located among the residential parcels at the southern limits of the site.



Location of SP-2

#5359

12/26/13



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

Photodocumentation of conditions at The Springs Living in Sherwood, Oregon. Both photos taken December 4, 2013.