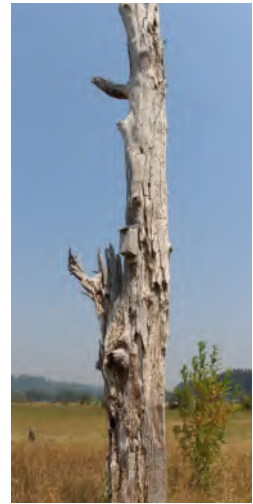




CRITICAL AREAS DETERMINATION

May 2, 2023



Lakeland Village
Mason County, Washington

Prepared for
Anderson & Sons, Inc.
PO Box 108
Allyn, Washington 98524
Phone (360) 801-0351

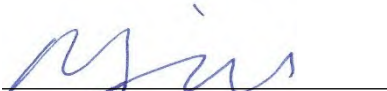
Prepared by
Ecological Land Services
1157 3rd Avenue, Suite 220A • Longview, WA 98632
(360) 578-1371 • Project Number 3910.01

SIGNATURE PAGE

The information in this report was compiled and prepared under the supervision and direction of the undersigned.



Joanne Bartlett
Senior Biologist



Megan Mill
Biologist



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TABLE OF CONTENTS

INTRODUCTION	3
SITE DESCRIPTION	3
METHODOLOGY	3
VEGETATION	4
SOILS	4
HYDROLOGY	5
CRITICAL AREA INVENTORIES	6
NATIONAL WETLANDS INVENTORY	6
MASON COUNTY CRITICAL AREA INVENTORY	6
CONCLUSION	6
LIMITATIONS	7
REFERENCES	8

FIGURES AND PHOTOPLATES

Figure 1	Vicinity Map
Figure 2	Existing Conditions Map
Figure 3	NRCS Soil Survey
Figure 4	USFWS National Wetlands Inventory
Figure 5	Mason County Critical Areas
Photoplates	Site Photos

APPENDIX A – ROUTINE DETERMINATION METHOD AND PLANT INDICATOR RATING DEFINITIONS

APPENDIX B – WETLAND DETERMINATION DATA FORMS

APPENDIX C – PRECIPITATION DATA

INTRODUCTION

Ecological Land Services, Inc. (ELS) was contracted by Anderson & Sons, Inc. to complete a critical areas determination for the eastern portion of Mason County Parcel Number 122184000000, hereinafter referred to as the study area. The study area is located at 400 E Sterling Drive in Allyn, Washington, within a portion of Section 18, Township 22, Range 1 West of the Willamette Meridian (Figure 1). This report summarizes the findings of the wetland determination according to the Mason County Code (MCC), *Chapter 8.52.110 - Wetlands* (2023).

METHODOLOGY

The study area was evaluated for the presence of wetlands using the Routine Determination Method according to the U.S. Army Corps of Engineers' 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory 1987); *Western Mountains, Valleys, and Coast Region (Version 2.0)* (Corps 2010). The Routine Determination Method and defining wetland criteria are discussed further in Appendix A. Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (Corps) and as "Waters of the State" by the Washington Department of Ecology (Ecology), and locally by Mason County.

To determine the presence or absence of critical areas within the study area, ELS biologists collected data on vegetation, hydrology, and soils on March 9 and 23, 2023. Due to the high level of precipitation leading up to the first site visit, a second site visit was conducted on March 23, 2023 after a period of more regular rainfall to verify if onsite hydrology was present for 14 consecutive days. Prior to conducting the site visit, ELS reviewed current and historic aerial photographs of the study area, and consulted online databases for soil, wetland, topography, priority habitat, and habitat conservation areas. Vegetation, hydrology, and soil data were collected at seven test plots that were located throughout the study area (Appendix B). The test plot locations were mapped using a handheld Global Positioning System (GPS) unit with submeter accuracy (Figure 2).

STUDY AREA DESCRIPTION

The approximate 38.15-acre study area is located at the west end of Sterling Drive in Allyn, Washington within Mason County (Figure 1). The study area has historically been used for livestock and agriculture and includes several existing structures on the northern half of the study area with a historic farm road that connects to Sterling Drive to the east and an access road to the west (Photoplate 1). Three constructed stormwater ponds are located throughout the study area, and a man-made farm ditch was identified at the center of the study area (Photoplates 2 through 5). A high-density residential community borders the study area to the east and north. Railroad tracks border the study area to the west, and undeveloped forestland is located to the south. East Virgil Drive enters the southern half of the study area from the eastern study area boundary. The majority of the study area consists of a grassy, herbaceous community, and a forested community dominates the northern portion. The topography slopes very moderately from the northeast down to the southwest (Figure 2).

VEGETATION

The study area consists of regularly mowed herbaceous vegetation within the central and southern portions, and scrub-shrub and forested vegetation with the northern portion. The plant indicator status following the plant scientific name is defined by the *National Wetland Plant List Indicator Rating Definitions* (Corps 2012) and can be found in Appendix A.

Vegetation within the test plots consisted of Scotch broom (*Cytisus scoparius*, UPL), annual bluegrass (*Poa annua*, FAC), tall fescue (*Schedonorus arundinaceus*, FAC), hairy cat's ear (*Hypochaeris radicata*, FACU), purple deadnettle (*Lamium purpureum*, FACU), bird's foot trefoil (*Lotus corniculatus*, FAC), lanceleaf plantain (*Plantago lanceolata*, FACU), and common sheep sorrel (*Rumex acetosella*, FACU). All of the Test Plots met the hydrophytic vegetation criterion because they had greater than 50 percent dominance by FAC and FACW species.

Vegetation within the forested areas onsite consisted of Douglas fir (*Pseudotsuga menziesii*, FACU), noble fir (*Abies procera*, FACU), Western red cedar (*Thuja plicata*, FAC), Western hemlock (*Tsuga heterophylla*, FACU), red alder (*Alnus rubra*, FAC), beaked hazelnut (*Corylus cornuta*, FACU), Scotch broom, salal (*Gaultheria shallon*, FACU), sword fern (*Polystichum munitum*, FACU), and Himalayan blackberry (*Rubus bifrons*, FAC).

SOILS

The Natural Resources Conservation Service (NRCS) maps the soils within the site as (NRCS 2022A; Figure 3):

- Alderwood gravelly sandy loam, 8 to 15 percent slopes (Ab);
- Alderwood gravelly sandy loam, 15 to 30 percent slopes (Ac);
- Everett gravelly loamy sand, 0 to 5 percent slopes (Ed);
- Everett very gravelly sandy loam, 0 to 8 percent slopes (Eg);
- Made land (Ma); and
- Norma silt loam, 0 to 3 percent slopes (Ne).

Alderwood soils (Ab and Ac) are described as moderately well drained soils that are typically found on ridges and hills. Alderwood soils formed in glacial drift and/or glacial outwash over dense glaciomarine deposits. The depth of the water table is about 18 to 37 inches below ground surface (BGS). Everett soils (Ed and Eg) are described as somewhat excessively drained soils that are typically found on terraces. Everett soils formed in glacial outwash and have a depth to water table at greater than 80 inches BGS. Norma silt loam soils (Ne) are described as poorly drained and are typically found in drainageways. Norma silt loam soils formed in alluvium and have water tables at about 0 inches. Norma silt loam is classified as a hydric soil, however, Alderwood and Everett soils are not classified as hydric (NRCS 2022B).¹

The soil throughout the study area revealed two to four layers of sandy silt, sandy silt loam, sandy clay, sandy clay loam, and sandy loam. The surface layer had a dark brown (10YR 4/2 to 10YR

¹ Areas mapped as hydric soils do not necessarily mean that an area is or is not a wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland.

3/2) matrix chroma. The following layer had a dark brown to yellow brown (10YR 3/3 to 7.5YR 5/5) matrix chroma. Test Plots 1 had yellow brown (10YR 4/6) redoximorphic concentrations in the second layer. Test Plots 1, 3, and 5 had a third layer that revealed a dark brown to medium brown (10YR 3/4 to 2.5YR 5/2) matrix chromas. Test Plot 3 had yellow brown (10YR 4/6) redoximorphic concentrations in the third layer. Test Plots 3 and 5 had a fourth layer that revealed a medium brown to grey (2.5YR 5/1 to 10YR 4/3) matrix chroma. Test Plot 1 and 3 met the depleted matrix indicator, but none of the other test plots met the hydric soil criterion because their matrix chromas were too high or they had no redoximorphic features present.

HYDROLOGY

Precipitation data was gathered from the Shelton AP WETS Station located approximately 17 miles southwest of the study area. Precipitation data from Appendix C is summarized in the table below. Fieldwork was conducted on March 9, 2023 to determine if wetlands were present within the study area. Conditions were particularly wet leading up to March 9, 2023 with 2.71 inches of rainfall in the two weeks prior to the site visit. After observing a high-water table in most of the test plots, fieldwork was conducted again on March 23, 2023 after a period of more typical rainfall with 2.61 inches of rainfall prior to the site visit. Although there wasn't a large difference between the two weeks prior to each site visit, the more average conditions in mid-March 2023 allowed ELS biologists to confirm that wetlands were not present within the study area.

Table 1. Precipitation Data Prior to Site Visits & Data Collection.

Field-work Dates	Precipitation (inches)						
	Prior 14 Day Total	3 Months Prior		30 Year Monthly Average	Deviation from 30 Year Monthly Average	30% Below	30% Above
		Month	Monthly Total ¹				
03/09/23	2.71	12/2022	11.7	10.99	+0.71	8.32	12.81
		01/2023	7.93	11.13	-3.2	8.23	13.06
		02/2023	3.89	6.26	-2.37	4.41	7.43
		03/2023	1.85 ²	1.91 ³	-0.06	1.29 ⁴	2.28 ⁴
03/23/23	2.61	03/2023	4.46 ⁵	3.52 ⁶	+0.47	3.52 ⁷	6.22 ⁷

¹Based on 1993-2023 data for the site visits.

²Represents rainfall from 03/01/2023 to 03/08/2023.

³26% of WETS table avg precipitation for March

⁴Includes 26% of March 2023 rainfall.

⁵Represents rainfall from 03/01/2023 to 03/22/2023.

⁶71% of WETS table avg precipitation for March.

⁷Includes 71% of March 2023 rainfall.

Test Plot 1 had no water or evidence of wetland hydrology present. Hydrology was present at Test Plots 2 through 7 as a high-water table (A2) ranging from 3 to 12 inches deep or saturation (A3) ranging from the surface to 10 inches deep. After observing a high-water table in most of the test plots, fieldwork was conducted again on March 23, 2023 after a period of more typical rainfall. Test Plot 3 was sampled again and there was no water or evidence of wetland hydrology within the area.

Several man-made constructed stormwater ponds and a historic farm ditch were identified onsite. These features had several inches of surface water present at the time of the site visit. All of the features were historically used for agricultural and stormwater management purposes.

CRITICAL AREA INVENTORIES²

NATIONAL WETLANDS INVENTORY

The National Wetlands Inventory (NWI 2023) map indicates the presence of a freshwater pond (PUBH) and a freshwater emergent (PEM1/UBF) wetland within the northern portion of the study area. NWI also indicates two riverine systems (R4SBC), one that traverses the northern portion of the study area and one located within the southernmost portion. NWI indicates the presence of a freshwater emergent wetland, a freshwater pond, a freshwater forested/shrub wetland, and a riverine wetland to the west of the study area that are separated from the site by the railroad. There is also a small freshwater pond mapped to the north and a riverine wetland to the northeast (Figure 4). The NWI mapping is inconsistent with the findings of ELS biologists as no wetlands or riverine systems were observed onsite. The locations of the mapped freshwater pond and freshwater emergent wetland in approximately the same areas as the two northern constructed stormwater ponds. There was no riverine system observed within the northern portion of the study area. The southernmost mapped riverine system is in approximately the same area as the southern constructed stormwater pond. It is unknown if the offsite freshwater emergent wetland, freshwater forested/shrub wetland, and freshwater pond are mapped correctly, and vegetation and topography did not allow for onsite observations.

MASON COUNTY CRITICAL AREA INVENTORY

Mason County critical area (MCCA 2023) inventory map indicates the presence of water bodies in the location of the two northern constructed stormwater ponds as well as the presence of a Type F (fish-bearing) stream traversing the northern portion of the study area. The mapping is inconsistent with the findings of ELS biologists, as the mapped wetlands are in approximately the same areas as the two northern constructed stormwater ponds. However, there was no stream observed within the northern portion of the study area as indicated on the maps.

CONCLUSION

Three constructed stormwater ponds and a farm ditch were identified onsite and determined to be man-made. The ponds were constructed over the last thirty years as part of the surrounding residential development and golf course. The ditch was determined to be man-made due to the

² The USFWS and local critical area maps should generally be used with discretion because they are based on the NRCS and NWI maps, which indicate potential conditions and must be confirmed by field observations.

abrupt change in topography and the linear direction. According to *MCC 8.52.110.2.B.i*, “Artificial man-made wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway” are designated as non-regulated wetlands.”

Online database research, reviewing aerial photographs, observations made onsite, and test plot data collected within the study area did not indicate the presence of wetlands or other critical areas onsite. Although Test Plot 2 met wetland criteria on March 9, 2023, the same area was sampled two weeks later on March 23, 2023 and there was no hydrology present. Therefore, the sampled area did not meet wetland criteria as hydrology was not present for 14 consecutive days. As a result of the data collection there are no wetlands present onsite, and no buffers are required.

LIMITATIONS

ELS bases this report’s determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at your own risk until it has been approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

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FIGURES AND PHOTOPLATES

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WASHINGTON



47.3945° Latitude
-122.8501° Longitude

LOCATION MAP

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<i>22</i>					
<i>N</i>					
		31			36

PROJECT VICINITY MAP

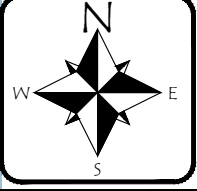
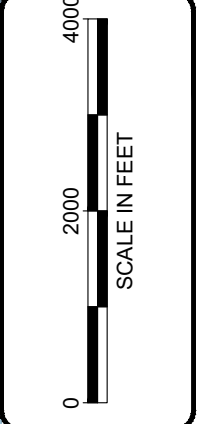
0 52
SCALE IN MILES



Figure 1
VICINITY MAP
Lakeland Village Determination
Anderson & Sons, Inc.
Allyn, Mason County, Washington
Section 18, Township 22N, Range 01W, W.M.

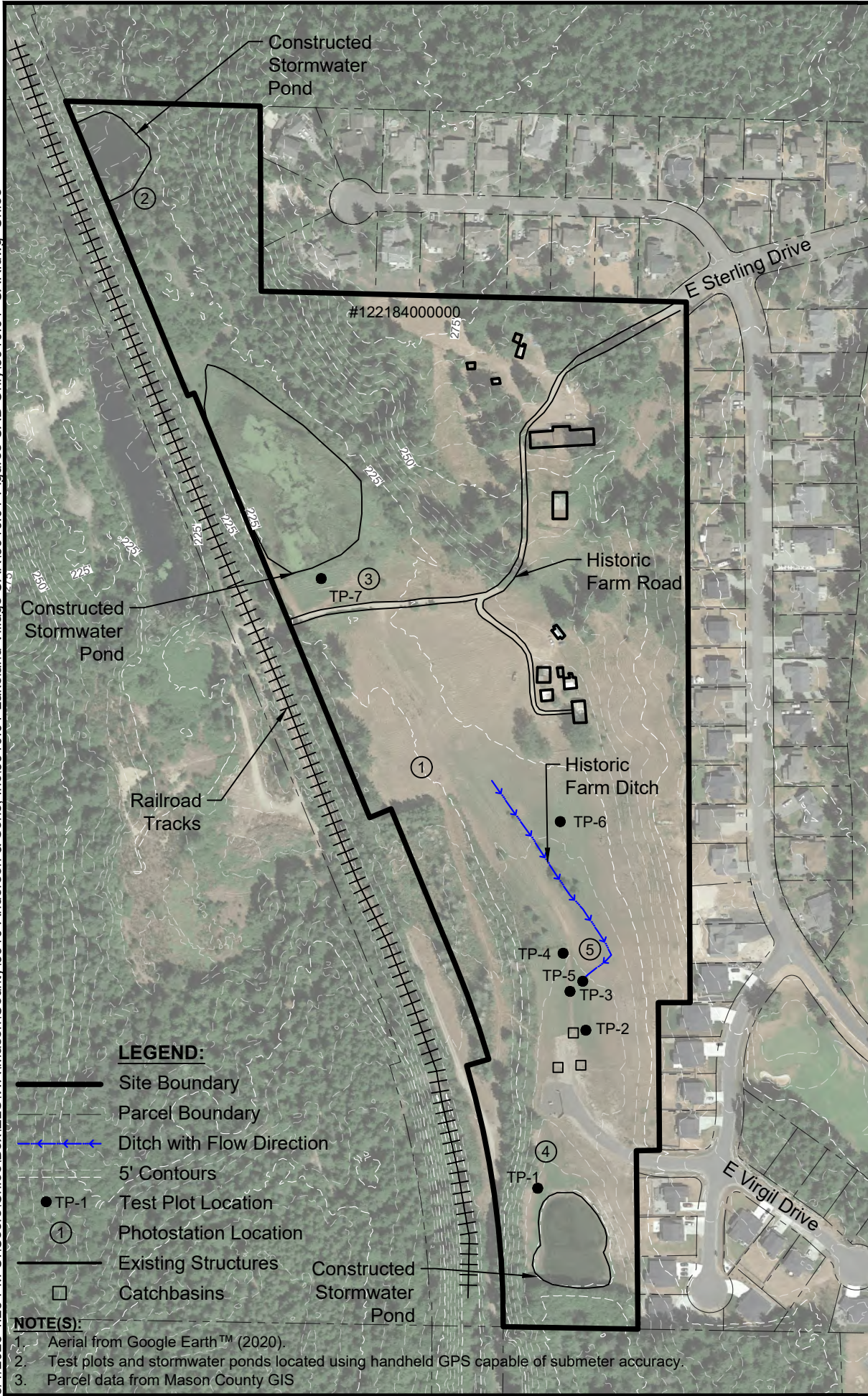
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DWN: CB
REQ. BY: MM
PRJ. MGR: MM
CHK:
PROJECT NO:
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NOTE:
Quadrangle topographic map from USGS.





LEGEND:

- Site Boundary
- Parcel Boundary
- Ditch with Flow Direction
- 5' Contours
- TP-1 Test Plot Location
- Photostation Location
- Existing Structures
- Catchbasins
- Constructed Stormwater Pond

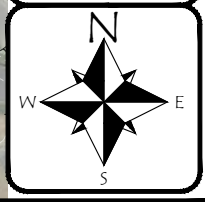
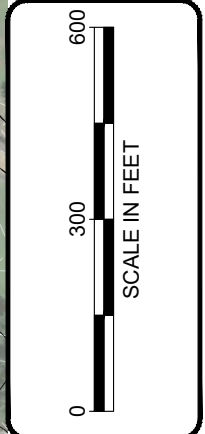
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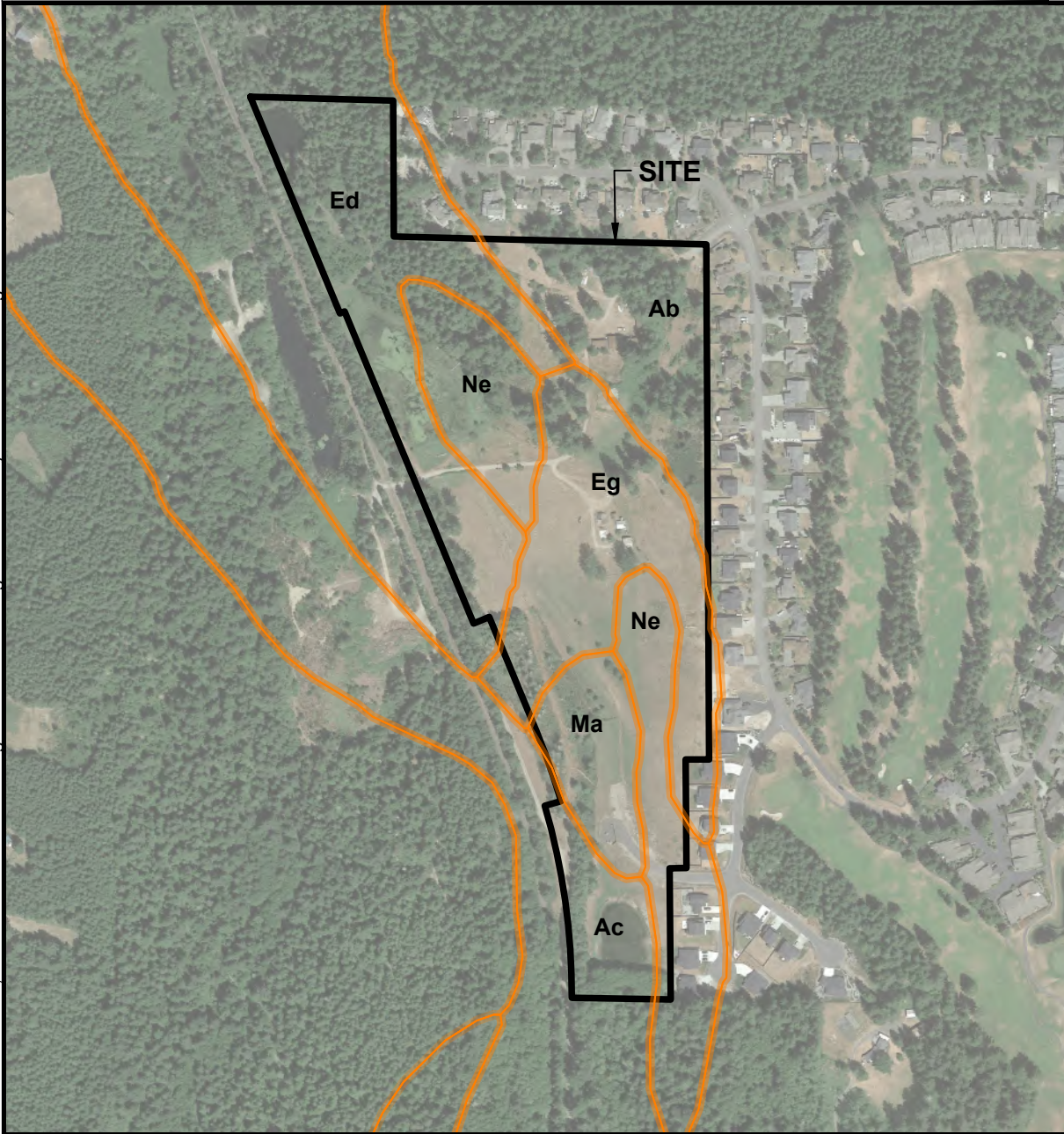
1. Aerial from Google Earth™ (2020).
2. Test plots and stormwater ponds located using handheld GPS capable of submeter accuracy.
3. Parcel data from Mason County GIS

Figure 2
EXISTING CONDITIONS
 Lakeland Village Determination
 Anderson & Sons, Inc.
 Allyn, Mason County, Washington
 Section 18, Township 22N, Range 01W, W.M.



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LEGEND:

-  Site Boundary
-  NRCS Soil Boundary
- Ab** Alderwood gravelly sandy loam, 8 to 15 percent slopes. Not hydric.
- Ac** Alderwood gravelly sandy loam, 15 to 30 percent slopes. Not hydric.
- Ed** Everett gravelly loamy sand, 0 to 5 percent slopes. Not hydric.
- Eg** Everett very gravelly sandy loam, 0 to 8 percent slopes. Not hydric.
- Ma** Made land. Not hydric.
- Ne** Norma silt loam, 0 to 3 percent slopes. Not hydric.

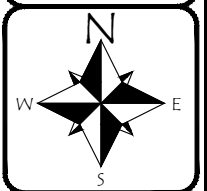
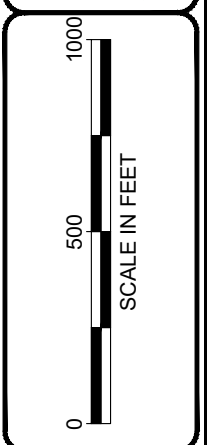
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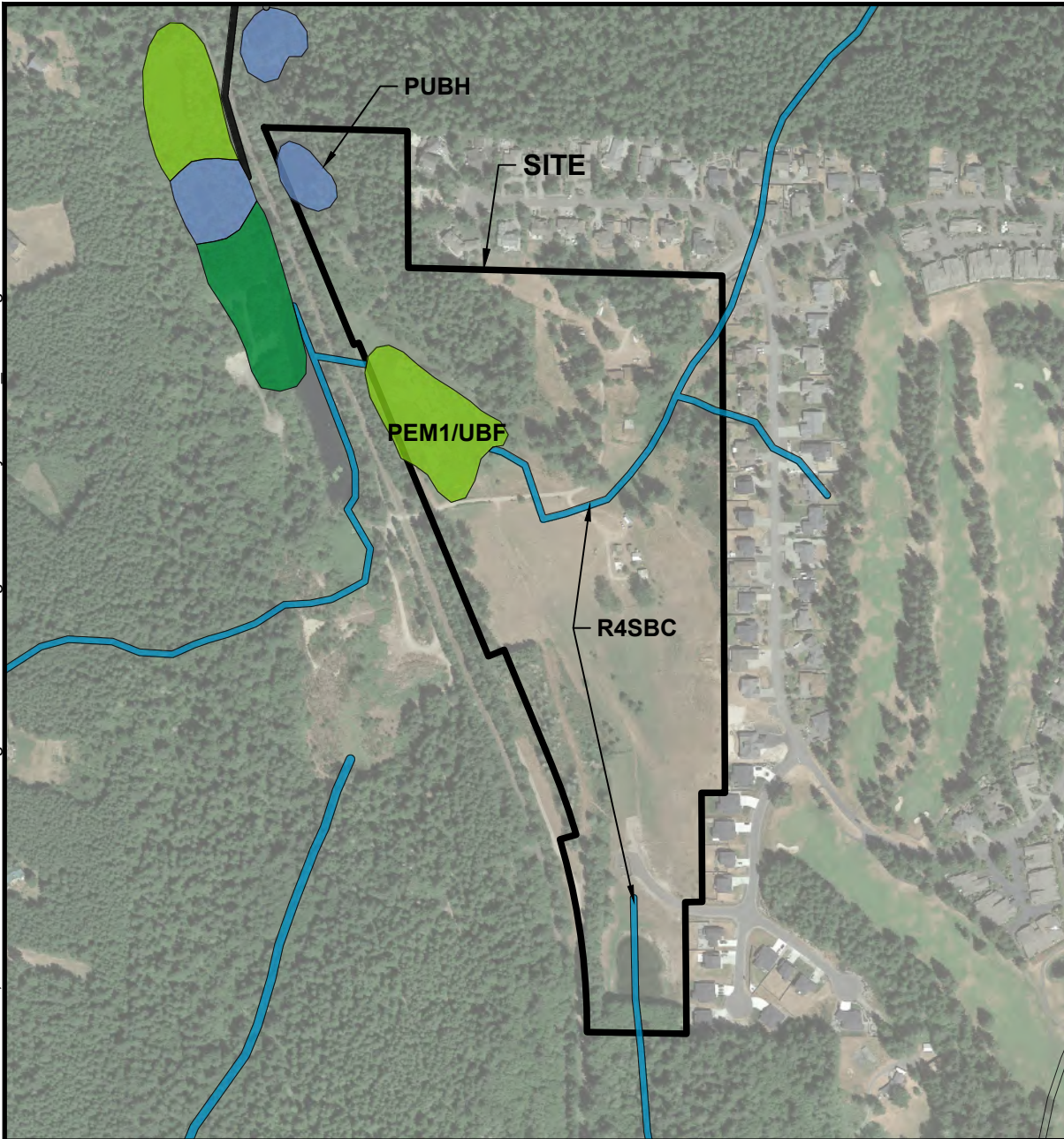
1. Map provided on-line by NRCS at web address:
<http://websoilsurvey.nrcs.usda.gov/app/>

Figure 3
NRCS SOIL SURVEY
 Lakeland Village Determination
 Anderson & Sons, Inc.
 Allyn, Mason County, Washington
 Section 18, Township 22N, Range 01W, W.M.






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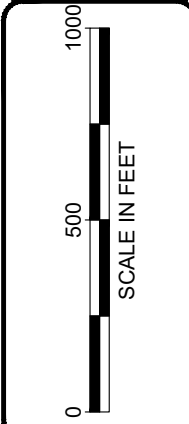
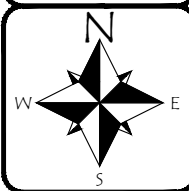
LEGEND:

-  Site Boundary
- Wetlands**
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Riverine

- PEM1/UBF** Palustrine, emergent, persistent, unconsolidated bottom, semipermanently flooded.
- PUBH** Palustrine, unconsolidated bottom, permanently flooded.
- R4SBC** Riverine, intermittent, streambed, seasonally flooded.

NOTE(S):

1. Map provided on-line by US Fish & Wildlife Service at web address:
<https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>



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Figure 4
 USFWS NATIONAL WETLANDS INVENTORY
 Lakeland Village Determination
 Anderson & Sons, Inc.
 Allyn, Mason County, Washington
 Section 18, Township 22N, Range 01W, W.M.

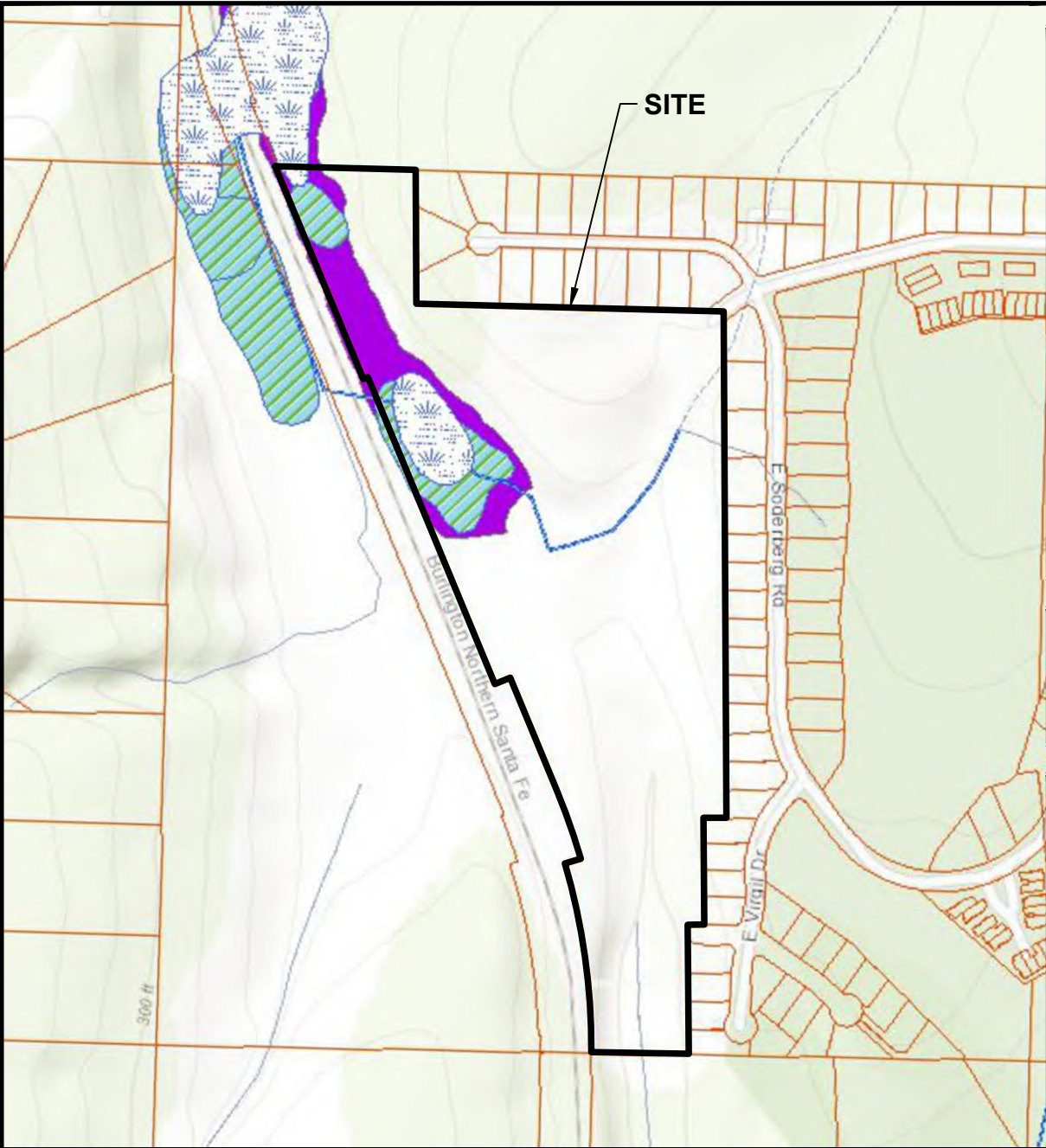


Figure 5
MASON COUNTY CRITICAL AREAS
 Lakeland Village Determination
 Anderson & Sons, Inc.
 Allyn, Mason County, Washington
 Section 18, Township 22N, Range 01W, W.M.

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 PROJECT NO: 3910.01

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LEGEND:

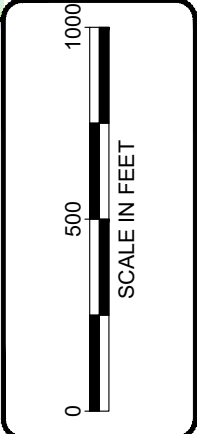
- Site Boundary
- National Wetlands Inventory
- FEMA FIRM Map
- A,
- AE,
- AE, FLOODWAY
- AO,
- OPEN WATER,
- VE,

NHD Water Bodies

- No Name
 - Name
- NHD Water Courses**
- No Name
 - Name

DNR Water Courses

- Fish
- Non-fish
- Shorelines of the State
- Unknown
- Waters with no type designation



NOTE(S):

1. Map provided on-line by Mason County at web address: <https://gis.masoncountywa.gov/mason/>



Photo 1. Facing north from Photo Point 1 showing the historical livestock and agriculture fields. March 2023.



Photo 2. Facing east from Photo Point 1 showing the existing structures. March 2023.



Photo 3. Facing south from Photo Point 1 showing the historical livestock and agriculture fields. March 2023.



Photo 4. Facing west from Photo Point 1 showing the historical livestock and agriculture fields. March 2023.



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Photoplate 1
Site Photos
Lakeland Village Determination
Mason County, Washington
Section 18, Township 22 North, Range 1 East, W.M.



Photo 5. Facing north from Photo Point 2 showing the northernmost constructed stormwater pond. March 2023.



Photo 6. Facing east from Photo Point 2 showing the area around the northernmost constructed stormwater pond. March 2023.



Photo 7. Facing south from Photo Point 2 showing the area around the northernmost constructed stormwater pond. March 2023.



Photo 8. Facing west from Photo Point 2 showing the area around the northernmost constructed stormwater pond. March 2023.



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PROJ.#: 3910.01

Photoplate 2
Site Photos
Lakeland Village Determination
Mason County, Washington
Section 18, Township 22 North, Range 1 East, W.M.



Photo 9. Facing north from Photo Point 3 showing the central constructed stormwater pond. March 2023.



Photo 10. Facing east from Photo Point 3 showing the area around the central constructed stormwater pond. March 2023.



Photo 11. Facing south from Photo Point 3 showing the area around the central constructed stormwater pond. March 2023.



Photo 12. Facing west towards Test Plot 7 from Photo Point 3. March 2023.



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Photoplate 3
Site Photos
Lakeland Village Determination
Mason County, Washington
Section 18, Township 22 North, Range 1 East, W.M.



Photo 13. Facing north from Photo Point 4 showing the area around the southern constructed stormwater pond. March 2023.



Photo 14. Facing east from Photo Point 4 showing the area around the southern constructed stormwater pond. March 2023.



Photo 15. Facing south from Photo Point 4 showing the southern constructed stormwater pond. Test Plot 1 was conducted just northwest of the pond. March 2023.



Photo 16. Facing west from Photo Point 4 showing the southern constructed stormwater pond. March 2023.



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Photoplate 4
Site Photos
Lakeland Village Determination
Mason County, Washington
Section 18, Township 22 North, Range 1 East, W.M.



Photo 17. Facing north from Photo Point 5 showing the historical farm ditch. March 2023.



Photo 18. Facing east from Photo Point 5 showing the historical farm ditch. March 2023.



Photo 19. Facing south towards Test Plot 3 from Photo Point 5. March 2023.



Photo 20. Facing west towards Test Plot 4 from Photo Point 5. March 2023.



1157 3rd Ave., Suite 220A
Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305

DATE: 4.26.23
DWN: MAM
PRJ. MGR: MAM
PROJ.#: 3910.01

Photoplate 5
Site Photos
Lakeland Village Determination
Mason County, Washington
Section 18, Township 22 North, Range 1 East, W.M.

APPENDIX A

ROUTINE DETERMINATION METHOD AND PLANT INDICATOR RATING DEFINITIONS

ROUTINE DETERMINATION METHOD

The Routine Determination Method is defined according to the U.S. Army Corps of Engineers' 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory 1987); *Western Mountains, Valleys, and Coast Region (Version 2.0)* (Corps 2010). The Routine Determination Method examines three parameters – vegetation, soils, and hydrology – to determine if wetlands exist in a given area. Hydrology is critical in determining what is a wetland, but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for a long enough duration to support a wetland plant community. By definition, wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

VEGETATION INDICATOR STATUS

The indicator status, following the scientific names of plant species, indicates the likelihood of the species to be found in wetlands according to the *National Wetland Plant List Indicator Rating Definitions* (Corps 2012). Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) - occur almost always under natural conditions in wetlands.
- **FACW** (facultative wetland) - usually occur in wetlands, but occasionally found in non-wetlands.
- **FAC** (facultative) - equally likely to occur in wetlands or non-wetlands.
- **FACU** (facultative upland) - usually occur in non-wetlands, but occasionally found in wetlands.
- **UPL** (obligate upland) - occur almost always under natural conditions in non-wetlands.
- **NI** (no indicator) - insufficient data to assign to an indicator category.

APPENDIX B

WETLAND DETERMINATION DATA FORMS

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-9-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 1
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3900681 Long: -122.8488399 Datum: NAD83
 Soil Map Unit Name: Ac - Alderwood gravelly sandy loam, 15 to 30 percent slopes NWI classification: None
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 1 was conducted within the southern half of the study area, just north of the southernmost constructed stormwater pond.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>67</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum (Plot size: 10' diameter)</u>																				
1. <u>Schedonorus arundinaceus</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Poa annua</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Hypochaeris radicata</u>	<u>10</u>	<u>no</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum (Plot size: 10' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Hydrophytic Vegetation Indicators:																				
<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.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks: **The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.**

SOIL

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		
0-5	10YR 3/3	100					sa lo	No redox features
5-12	10YR 4/2	90	10YR 4/6	10	C	M	sa lo	
12-16	10YR 5/2	50	10YR 5/6	50	C	M	sa cl	
								sa - sandy
								cl - clay
								lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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 Soils Present? Yes No

Remarks: The soil profile met the hydric soil criterion because the depleted matrix indicator was present.

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)
- 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 Stresses 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? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: There was no water or evidence of wetland hydrology present.

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-9-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 2
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3910189 Long: -122.8484582 Datum: NAD83
 Soil Map Unit Name: Ma - Made land NWI classification: None
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 2 was conducted within the southern portion of the study area within a slight depression.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum (Plot size: 10' diameter)</u>																				
1. <u>Schedonorus arundinaceus</u>	<u>40</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Poa annua</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Plantago lanceolata</u>	<u>15</u>	<u>no</u>	<u>FACU</u>																	
4. <u>Hypochaeris radicata</u>	<u>15</u>	<u>no</u>	<u>FACU</u>																	
5. <u>Lotus corniculatus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Lamium purpureum</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum (Plot size: 10' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.

SOIL

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 3/2	100	_____	_____	_____	_____	sa si lo	No redox features
11-16	10YR 3/3	100	_____	_____	_____	_____	sa si	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	si - silt
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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 Soils Present? Yes No

Remarks: The soil profile does not meet the hydric soil criterion because the matrix chroma is too high and there are no redoximorphic features.

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)
- 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 Stresses 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): 3
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0

Wetland Hydrology Present? Yes No

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

Remarks: The wetland hydrology criterion was met because there was a high water table at 3 inches and saturation to the surface.

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-23-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 3
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3912475 Long: -122.848608 Datum: NAD83
 Soil Map Unit Name: Ma - Made land NWI classification: None
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?	
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

Remarks: **The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 3 was conducted within the southern portion of the study area. Although there was a high water table observed on 3/9/23, a second site visit was conducted on 3/23/23 and there was no hydrology present. Therefore, this sampled area is not within a wetland.**

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: 20' diameter)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: 10' diameter)																				
1. <u>Juncus effusus</u>	<u>40</u>	<u>yes</u>	<u>FACW</u>																	
2. <u>Schedonorus arundinaceus</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Poa annua</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
4. <u>Hypochaeris radicata</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
5. <u>Lamium purpureum</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: 10' diameter)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____																				

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

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.

SOIL

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 3/3	100	_____	_____	_____	_____	sa cl lo	No redox features
6-7	2.5YR 4/2	100	_____	_____	_____	_____	sa cl lo	No redox features
7-12	2.5YR 5/2	95	10YR 4/6	5	C	M	sa cl lo	Redox features
12-16	2.5YR 5/1	93	10YR 4/6	7	C	M	sa cl lo	Redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	cl - clay
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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 Soils Present? Yes No

Remarks: The soil profile met the hydric soil indicator Depleted Matrix (F3).

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)
- 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 Stresses 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? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: Conditions were particularly wet during leading up to the March 9, 2023 site visit. After observing a high-water table in most of the test plots, fieldwork was conducted again on March 23, 2023 after a period of more typical rainfall. During the March 23, 2023 site visit there was no water or evidence of wetland hydrology within Test Plot 3.

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-9-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 4
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3914737 Long: -122.8486786 Datum: NAD83
 Soil Map Unit Name: Ma - Made land NWI classification: None
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 4 was conducted in an area that contained a small patch of slough sedge.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum (Plot size: 10' diameter)</u>																				
1. <u>Poa annua</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Schedonorus arundinaceus</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																	
3. <u>Hypochaeris radicata</u>	<u>10</u>	<u>no</u>	<u>FACU</u>																	
4. <u>Carex obnupta</u>	<u>10</u>	<u>no</u>	<u>OBL</u>																	
5. <u>Lamium purpureum</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum (Plot size: 10' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 3/2	100	_____	_____	_____	_____	sa lo	No redox features
9-16	7.5YR 4/4	100	_____	_____	_____	_____	sa lo	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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 Soils Present? Yes No

Remarks: The soil profile does not meet the hydric soil criterion because the matrix chroma was too high and there were no redoximorphic features.

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)
- 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 Stresses 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): 10
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: The wetland hydrology criterion was met because there was a high water table at 10 inches.

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-9-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 5
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3913101 Long: -122.8484981 Datum: NAD83
 Soil Map Unit Name: Ma - Made land NWI classification: None
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 5 was conducted at the terminus of the historical farm ditch.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum (Plot size: 10' diameter)</u>																				
1. <u>Poa annua</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Schedonorus arundinaceus</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																	
3. <u>Phalaris arundinacea</u>	<u>10</u>	<u>no</u>	<u>FACW</u>																	
4. <u>Plantago lanceolata</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
5. <u>Hypochaeris radicata</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
6. <u>Rumex acetosella</u>	<u>3</u>	<u>no</u>	<u>FACU</u>																	
7. <u>Juncus effusus</u>	<u>2</u>	<u>no</u>	<u>FACW</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum (Plot size: 10' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Hydrophytic Vegetation Indicators:																				
<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.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks: **The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.**

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100	_____	_____	_____	_____	sa lo	No redox features
4-8	2.5YR 4/2	100	_____	_____	_____	_____	sa lo	No redox features
8-10	10YR 4/2	100	_____	_____	_____	_____	sa lo	No redox features
10-16	10YR 4/3	50	_____	_____	_____	_____	sa lo	No redox features
10-16	10YR 4/4	50	_____	_____	_____	_____	sa lo	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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

- 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 Soils Present? Yes No

Remarks: The soil profile does not meet the hydric soil criterion because the matrix chroma was too high and there were no redoximorphic features.

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)
- 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 Stresses 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): 6
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: The wetland hydrology criterion was met because there was a high water table at 6 inches.

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-9-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 6
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3922582 Long: -122.8487379 Datum: NAD83
 Soil Map Unit Name: Eg - Everett very gravelly sandy loam, 0 to 8 percent slopes NWI classification: None
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 6 was conducted within a patch of reed canarygrass.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum (Plot size: 10' diameter)</u>																				
1. <u>Phalaris arundinacea</u>	<u>70</u>	<u>yes</u>	<u>FACW</u>																	
2. <u>Poa annua</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Carex obnupta</u>	<u>5</u>	<u>no</u>	<u>OBL</u>																	
4. <u>Schedonorus arundinaceus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum (Plot size: 10' diameter)</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks: **The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.**

SOIL

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 3/2	100	_____	_____	_____	_____	sa lo	No redox features
11-12	10YR 3/4	100	_____	_____	_____	_____	sa lo	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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 Soils Present? Yes No

Remarks: The soil profile does not meet the hydric soil criterion because the matrix chroma was too high and there were no redoximorphic features.

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)
- 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 Stresses 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): 12
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: The wetland hydrology criterion was met because there was a high water table at 12 inches.

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

Project Site: Lakeland Village Determination City/County: Allyn/Mason Sampling Date: 3-9-2023
 Applicant/Owner: Anderson & Sons, Inc. State: WA Sampling Point: TP 7
 Investigator(s): M. Mill Section, Township, Range: S18, T22, R1W WM
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1%
 Subregion (LRR): MLRA 2 Lat: 47.3936643 Long: -122.8509006 Datum: NAD83
 Soil Map Unit Name: Ed - Everett gravelly loamy sand, 0 to 5 percent slopes NWI classification: PEM1/UBF
 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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: The study area is located off of E. Sterling Dive in Allyn, Washington and contains forested vegetation in the northern portion, and regularly mowed emergent vegetation within the central and southern portions. There are two large constructed stormwater ponds in the northern portion of the study area, and a smaller constructed stormwater pond in the southern portion. Test Plot 7 was conducted just south of the central constructed stormwater pond.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
<u>Herb Stratum (Plot size: 10' diameter)</u>				Column Totals: _____ (A)	_____ (B)
1. <u>Phalaris arundinacea</u>	85	yes	FACW	Prevalence Index = B/A = _____	
2. <u>Poa annua</u>	15	no	FAC		
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:	
4. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
7. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
9. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
10. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
11. _____	_____	_____	_____		
50% = <u>50</u> , 20% = <u>20</u>	100	= Total Cover			
<u>Woody Vine Stratum (Plot size: 10' diameter)</u>				Hydrophytic Vegetation Present?	
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species.

SOIL

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	10YR 3/3	100	_____	_____	_____	_____	sa lo	No redox features
8-16	10YR 3/2	100	_____	_____	_____	_____	sa lo	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

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

- 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 Soils Present? Yes No

Remarks: The soil profile does not meet the hydric soil criterion because the matrix chroma was too high and there were no redoximorphic features.

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 Stresses 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): 8
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks: The wetland hydrology criterion was met because there was a high water table at 8 inches.

APPENDIX C

PRECIPITATION DATA

AgACIS for Mason County

AgACIS

Format for export

Print



WETS Station: SHELTON AP, WA

Requested years: 1993 - 2023

Month	Temperature (°F)			Precipitation (inches)				
	Avg daily max	Avg daily min	Avg daily mean	Avg	30% chance will have		Avg number of days with 0.10 inch or more	Average total snowfall
					less than	more than		
Jan	45.9	33.6	39.7	11.13	8.23	13.06	15	-
Feb	48.3	32.3	40.3	6.26	4.41	7.43	11	-
Mar	52.8	34.4	43.6	7.33	4.96	8.76	14	-
Apr	58.4	37.2	47.8	4.37	2.98	5.21	10	-
May	65.2	43.3	54.2	2.70	1.37	3.30	7	-
Jun	70.6	48.5	59.6	1.64	0.75	2.00	4	-
Jul	77.4	52.0	64.7	0.51	0.18	0.54	1	-
Aug	78.2	52.1	65.2	1.01	0.24	1.11	2	-
Sep	72.2	47.4	59.8	2.54	1.04	3.09	5	-
Oct	60.5	40.9	50.7	6.90	3.90	8.40	11	-
Nov	50.6	35.7	43.2	11.66	8.22	13.82	15	-
Dec	44.4	32.8	38.6	10.99	8.32	12.81	15	-
Annual:					60.16	72.72		
Average	60.4	40.8	50.6	-	-	-	-	-
Total	-	-	-	67.03			110	-

Climatological Data for SHELTON AP, WA - December 2022

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2022-12-01	35	23	29.0	0	0	0.04	M	M
2022-12-02	35	23	29.0	0	0	0.75	M	M
2022-12-03	42	33	37.5	0	0	0.18	M	M
2022-12-04	40	32	36.0	0	0	0.21	M	M
2022-12-05	38	32	35.0	0	0	0.00	M	M
2022-12-06	40	33	36.5	0	0	0.06	M	M
2022-12-07	43	34	38.5	0	0	0.09	M	M
2022-12-08	44	34	39.0	0	0	0.34	M	M
2022-12-09	40	33	36.5	0	0	1.51	M	M
2022-12-10	48	35	41.5	2	0	0.21	M	M
2022-12-11	47	39	43.0	3	0	0.09	M	M
2022-12-12	45	31	38.0	0	0	T	M	M
2022-12-13	43	29	36.0	0	0	0.00	M	M
2022-12-14	41	31	36.0	0	0	0.00	M	M
2022-12-15	44	27	35.5	0	0	0.00	M	M
2022-12-16	43	26	34.5	0	0	0.00	M	M
2022-12-17	39	30	34.5	0	0	0.00	M	M
2022-12-18	42	29	35.5	0	0	T	M	M
2022-12-19	33	29	31.0	0	0	0.17	M	M
2022-12-20	37	30	33.5	0	0	0.79	M	M
2022-12-21	31	20	25.5	0	0	0.00	M	M
2022-12-22	25	21	23.0	0	0	0.04	M	M
2022-12-23	34	24	29.0	0	0	0.88	M	M
2022-12-24	53	33	43.0	3	0	1.78	M	M
2022-12-25	51	43	47.0	7	0	0.73	M	M
2022-12-26	55	44	49.5	10	0	1.43	M	M
2022-12-27	52	42	47.0	7	0	0.53	M	M
2022-12-28	46	38	42.0	2	0	0.02	M	M
2022-12-29	44	41	42.5	3	0	0.99	M	M
2022-12-30	51	44	47.5	8	0	0.78	M	M
2022-12-31	50	38	44.0	4	0	0.08	M	M
Average Sum	42.3	32.3	37.3	49	0	11.70	M	M

Climatological Data for SHELTON AP, WA - January 2023

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-01-01	47	29	38.0	0	0	0.00	M	M
2023-01-02	41	29	35.0	0	0	T	M	M
2023-01-03	45	33	39.0	0	0	0.13	M	M
2023-01-04	47	37	42.0	2	0	0.16	M	M
2023-01-05	55	46	50.5	11	1	0.12	M	M
2023-01-06	46	33	39.5	0	0	0.40	M	M
2023-01-07	46	38	42.0	2	0	0.58	M	M
2023-01-08	49	39	44.0	4	0	0.76	M	M
2023-01-09	52	40	46.0	6	0	1.25	M	M
2023-01-10	54	37	45.5	6	0	0.07	M	M
2023-01-11	53	39	46.0	6	0	0.32	M	M
2023-01-12	51	45	48.0	8	0	1.67	M	M
2023-01-13	52	48	50.0	10	0	0.71	M	M
2023-01-14	57	46	51.5	12	2	0.06	M	M
2023-01-15	47	44	45.5	6	0	0.80	M	M
2023-01-16	49	38	43.5	4	0	0.01	M	M
2023-01-17	47	41	44.0	4	0	0.17	M	M
2023-01-18	47	35	41.0	1	0	0.30	M	M
2023-01-19	39	28	33.5	0	0	0.00	M	M
2023-01-20	46	28	37.0	0	0	0.00	M	M
2023-01-21	40	28	34.0	0	0	0.28	M	M
2023-01-22	41	25	33.0	0	0	0.00	M	M
2023-01-23	48	31	39.5	0	0	0.00	M	M
2023-01-24	44	33	38.5	0	0	0.02	M	M
2023-01-25	48	35	41.5	2	0	0.00	M	M
2023-01-26	46	39	42.5	3	0	0.02	M	M
2023-01-27	48	41	44.5	5	0	0.03	M	M
2023-01-28	45	36	40.5	1	0	0.07	M	M
2023-01-29	42	22	32.0	0	0	0.00	M	M
2023-01-30	41	17	29.0	0	0	0.00	M	M
2023-01-31	40	24	32.0	0	0	0.00	M	M
Average Sum	46.9	35.0	40.9	93	3	7.93	M	M

Climatological Data for SHELTON AP, WA - February 2023

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-02-01	48	26	37.0	0	0	0.00	M	M
2023-02-02	50	22	36.0	0	0	0.00	M	M
2023-02-03	49	32	40.5	1	0	0.54	M	M
2023-02-04	49	43	46.0	6	0	0.35	M	M
2023-02-05	51	40	45.5	6	0	0.25	M	M
2023-02-06	51	42	46.5	7	0	0.17	M	M
2023-02-07	51	37	44.0	4	0	0.99	M	M
2023-02-08	46	32	39.0	0	0	0.05	M	M
2023-02-09	55	38	46.5	7	0	0.05	M	M
2023-02-10	53	35	44.0	4	0	0.03	M	M
2023-02-11	48	28	38.0	0	0	0.00	M	M
2023-02-12	50	26	38.0	0	0	0.03	M	M
2023-02-13	47	34	40.5	1	0	0.13	M	M
2023-02-14	46	27	36.5	0	0	0.00	M	M
2023-02-15	47	24	35.5	0	0	0.00	M	M
2023-02-16	47	27	37.0	0	0	0.02	M	M
2023-02-17	50	39	44.5	5	0	0.09	M	M
2023-02-18	52	40	46.0	6	0	0.09	M	M
2023-02-19	52	40	46.0	6	0	0.00	M	M
2023-02-20	49	40	44.5	5	0	0.08	M	M
2023-02-21	44	36	40.0	0	0	0.06	M	M
2023-02-22	39	28	33.5	0	0	0.10	M	M
2023-02-23	35	24	29.5	0	0	0.05	M	M
2023-02-24	40	20	30.0	0	0	0.00	M	M
2023-02-25	44	16	30.0	0	0	0.15	M	M
2023-02-26	41	31	36.0	0	0	0.43	M	M
2023-02-27	38	31	34.5	0	0	0.22	M	M
2023-02-28	43	27	35.0	0	0	0.01	M	M
Average Sum	47.0	31.6	39.3	58	0	3.89	M	M

Climatological Data for SHELTON AP, WA - March 2023

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-03-01	46	22	34.0	0	0	0.07	M	M
2023-03-02	48	33	40.5	1	0	0.52	M	M
2023-03-03	43	33	38.0	0	0	0.44	M	M
2023-03-04	42	29	35.5	0	0	0.61	M	M
2023-03-05	48	27	37.5	0	0	0.02	M	M
2023-03-06	48	28	38.0	0	0	T	M	M
2023-03-07	50	30	40.0	0	0	0.03	M	M
2023-03-08	47	29	38.0	0	0	0.16	M	M
2023-03-09	44	33	38.5	0	0	0.27	M	M
2023-03-10	49	34	41.5	2	0	0.36	M	M
2023-03-11	45	29	37.0	0	0	0.30	M	M
2023-03-12	42	27	34.5	0	0	0.88	M	M
2023-03-13	50	35	42.5	3	0	0.26	M	M
2023-03-14	51	30	40.5	1	0	0.01	M	M
2023-03-15	51	29	40.0	0	0	T	M	M
2023-03-16	57	24	40.5	1	0	0.00	M	M
2023-03-17	62	25	43.5	4	0	0.00	M	M
2023-03-18	65	27	46.0	6	0	0.00	M	M
2023-03-19	58	35	46.5	7	0	0.14	M	M
2023-03-20	54	41	47.5	8	0	0.39	M	M
2023-03-21	59	32	45.5	6	0	0.00	M	M
2023-03-22	63	28	45.5	6	0	0.00	M	M
2023-03-23	46	34	40.0	0	0	0.25	M	M
2023-03-24	45	33	39.0	0	0	0.10	M	M
2023-03-25	48	31	39.5	0	0	0.02	M	M
2023-03-26	47	27	37.0	0	0	0.05	M	M
2023-03-27	57	26	41.5	2	0	0.00	M	M
2023-03-28	58	47	52.5	13	3	0.00	M	M
2023-03-29	63	30	46.5	7	0	0.00	M	M
2023-03-30	54	40	47.0	7	0	0.01	M	M
2023-03-31	45	39	42.0	2	0	0.73	M	M
Average Sum	51.1	31.2	41.2	76	3	5.62	M	M