

TECHNICAL MEMORANDUM

Prepared for: Brian Devereux
Director of Facilities Planning
Puyallup School District
Education Service Center
Puyallup, WA 98372

June 6, 2022

Prepared by: Grette Associates^{LLC}
2102 North 30th Street, St. A
Tacoma, WA 98403

File No.: 6156.001

Re: Aliza Property – Feasibility Assessment

1 INTRODUCTION

Grette Associates is under contract with Puyallup School District to prepare a technical memorandum summarizing the critical areas feasibility assessment that was performed at the subject property located at 1201 39th Avenue Southwest (Pierce County parcel 0419043115) in Puyallup, WA. The purpose of this memo is intended to summarize the conditions observed within the northern portion of the subject property referred to as “Parcel B” (Figure 1).

Figure 1. Assessment Area Map



2 METHODS

A Grette Associates City of Puyallup Qualified Professional traversed the subject property on May 26, 2022 to identify any areas that would meet wetland criteria as defined in the U.S. Army Corps of Engineers (USACE) *Federal Wetland Delineation Manual* (1987) and the USACE's *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (2010). Additionally, staff assessed the site for any features that would be classified as a stream according to WAC 222-16-030 and Chapter 21.06 of Puyallup Municipal Code (PMC).

3 BACKGROUND

3.1 City Critical Area Inventory

The City of Puyallup's Public Data Viewer was queried on May 31, 2022 to determine if any previously-identified wetlands are present within the subject property. According to the City's database, no wetland features are mapped within the subject property (see Attachment A).

3.2 National Wetland Inventory

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) was queried to determine if previously-identified wetlands are present in or near the subject property (USFWS 2022). According to the NWI Interactive Online Mapper, there are no wetlands identified within the subject property (see Attachment B).

3.3 Sensitive Wildlife and Plants

The Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) database on-line mapper was queried to determine if state or federally listed fish or wildlife species occur near the subject property (WDFW 2022a). According to the PHS database, there are no PHS species or habitats mapped within the subject property. The nearest mapped feature is located approximately 250 feet north of the subject property along Highway 512. According to WDFW, this feature is a small narrow wetland (see Attachment C).

Additionally, WDFW's SalmonScape on-line mapper was queried to determine what listed SalmonScape species are identified by WDFW to occur within subject property (WDFW 2022b). According to SalmonScape, no natural water features are mapped within the subject property (Attachment D).

The Washington Department of Natural Resources' (WDNR) Wetlands of High Conservation Value mapper was queried to determine if the subject property occurs in a location reported to contain high quality natural heritage wetland occurrences or occurrences of natural heritage features commonly associated with wetlands (WDNR 2019a). According to WDNR's mapper, there are no records of rare plants or high-quality native ecosystems occurring on or in the vicinity of the subject property (Attachment E).

3.4 Forest Practice Rules

The Washington Department of Natural Resources' (WDNR) Forest Practice Application Mapping Tool on-line mapper was queried to identify any streams mapped by WDNR (WDNR 2022). According to WDNR, there is a mapped Type F (fish habitat) stream situated within the eastern portion of the subject property (see Attachment F).

4 RESULTS

During the site assessment, Grette Associates identified a large stockpile mound that appears to be the spoils excavated during the construction of the neighboring Costco development and the construction of the large offsite storm pond situated north of the subject property. The stockpile mound occupies a significant portion of the subject property (see Attachment G, Topographic Survey prepared by Sitts & Hill Engineers (May 2022)).

In addition to the stockpile mound, Grette Associates identified a shallow depressional area located in the southeast portion of the subject property adjacent to the stockpile mound. Grette Associates collected wetland delineation data within the central portion of the shallow depressional area where vegetation suggests potential wetland conditions may be present (Figure 2). Conditions were evaluated according to the criteria defined in the USACE's *Manual* (1987) and the USACE's *Regional Supplement* (2010). See Field Datasheet, Attachment H).

The depressional area predominantly consisted of reed canarygrass (*Phalaris arundinacea*), which meets the wetland criteria for hydrophytic vegetation. Soil conditions observed in this area consisted of an upper soil layer (0-8 inches) of very dark grayish brown (10YR3/2) gravelly loam with a layer (8-19 inches) of very dark grayish brown (10YR3/2) gravelly loam containing approximately five percent strong brown redox concentrations beneath. These soil conditions meet the *Redox Dark Surface* hydric soil indicator. No indicators of wetland hydrology were observed in the depressional area and soils were observed dry to a depth of approximately 19 inches.

In summary, the shallow depressional area did not meet all three wetland criteria defined in the USACE's *Regional Supplement* (2010). In addition, Grette Associates did not identify any natural water features within the subject property, including the area where WDNR maps a Type F stream.

Figure 2. General Conditions – Investigated Area



5 DISCUSSION

Based on Grette Associates' observations, it appears that the area where vegetation suggests potential wetland conditions may be present is a manmade depressional area intended to manage stormwater that falls within the subject property and that these conditions have likely established due to the previous grading and fill activities and the lack of regular site maintenance.

More specifically, the subject property appears to have historically been utilized for agricultural purposes and largely resembled a livestock pasture. It is our understanding that during the development of the neighboring Costco facility the subject property was utilized to stockpile spoils

during site preparation. Based on Grette Associates' observations it appears that the areas along the margins of the stockpile mound were graded to prevent stormwater from flowing towards the adjacent stormwater pond and to offsite areas once stockpiling was finished. The depressional area identified in the southeast portion of the subject property adjacent to the stockpile mound appears to have been graded to intercept any surface stormwater that falls on the stockpile mound and to prevent it from flowing offsite onto neighboring properties.

Although the depressional area contains wetland vegetation and hydric soil indicators, no primary wetland hydrology indicators (e.g., surface water, shallow groundwater table, soil saturation) were observed. According to climate data collected at the Seattle-Tacoma Weather Station (Station No. 457473)¹, May received approximately 3.82 inches of rainfall which is approximately 200 percent above the average precipitation (1.88 inches) that occurs in a normal May. Given the absence of surface water, shallow groundwater table, or soil saturation in a period with abnormally wet conditions, it is Grette Associates' professional opinion that the vegetation and soil conditions observed are artificially supported by stormwater runoff associated with previous grading activities and that the depressional area is not wetland given the absence of necessary supporting hydrology.

In addition, Grette Associates observed recent tracks through the central portion of the depressional area that appear to be associated with the work truck(s) accessing installed monitoring wells that were placed within the subject property approximately a month ago. No indication such as ruts or muddy vegetation were observed to suggest this area is supported by shallow groundwater.

6 CONCLUSION

In conclusion, based on the information summarized above, it is Grette Associates' professional opinion that the depressional area adjacent to the stockpile mound is a manmade feature that was constructed to manage surface stormwater runoff after stockpiling was completed and that the vegetation and hydric soil indicators observed have established as a result of the previous grading and fill activities. In summary, no wetland areas (USACE 2010) or natural waters (PMC 21.06.210) are located within Parcel B.

If you have any questions on this wetland verification, please contact me at (253) 573-9300, or by email at chadw@gretteassociates.com.

Regards,



Chad Wallin
Biologist

¹ The Sea-Tac weather station was used due to the incomplete climate data at the McMillin Reservoir (Station No. 455224).

References:

- Environmental Laboratory (Corps). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- U.S. Army Corps of Engineers (Corps). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS). 2022. Wetland Mapper [map online]. National Wetlands Inventory Queried May 31, 2022. URL: <http://www.fws.gov/wetlands/Wetlands-Mapper.html> Interactive Layer = “Wetlands”.
- Washington Department of Fish and Wildlife (WDFW). 2022a. PHS on the Web [map online]. Priority Habitats and Species Queried June 6, 2022. URL: <http://wdfw.wa.gov/mapping/phs/>.
- Washington Department of Fish and Wildlife (WDFW). 2022b. SalmonScape [map online]. All SalmonScape Species. Queried June 6, 2022. URL: <http://wdfw.wa.gov/mapping/phs/>.
- Washington Department of Natural Resources (WDNR). 2022a. Wetlands of High Conservation Value Mapper [map online]. Queried June 6, 2022. URL: <https://www.dnr.wa.gov/NHPwetlandviewer>
- Washington Department of Natural Resources (WDNR). 2022. Forest Practices Application Mapping Tool [map online]. Streams and Water Type Breaks. Queried May 31, 2022. URL: <https://fortress.wa.gov/dnr/protectiongis/fpamt/index.html>



City of Puyallup Public Data Viewer

Data layers

- ▶ Utilities ...
- ▶ Transportation ...
- ▶ Recreation ...
- ▼ Environment ...
 - City Maintained Street Trees
 - Regulated Floodplain
 - Seclusion Areas
 - General Habitat Areas
 - Potential Landslide Hazard
 - Puyallup Soils
 - Lahar Hazard Area
 - Wetlands
 - Shoreline Master



Legend

Environment

Wetlands

Status Code

- Field-verified Delineated
- Field-verified
- Unverified
- Unverified
- Unverified
- Buffer
- Mitigation Site

Parcels

Tax Parcels

TaxParcelType

- Base Parcel
- Condominium
- Condominium
- Other



U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands Attachment B



May 31, 2022

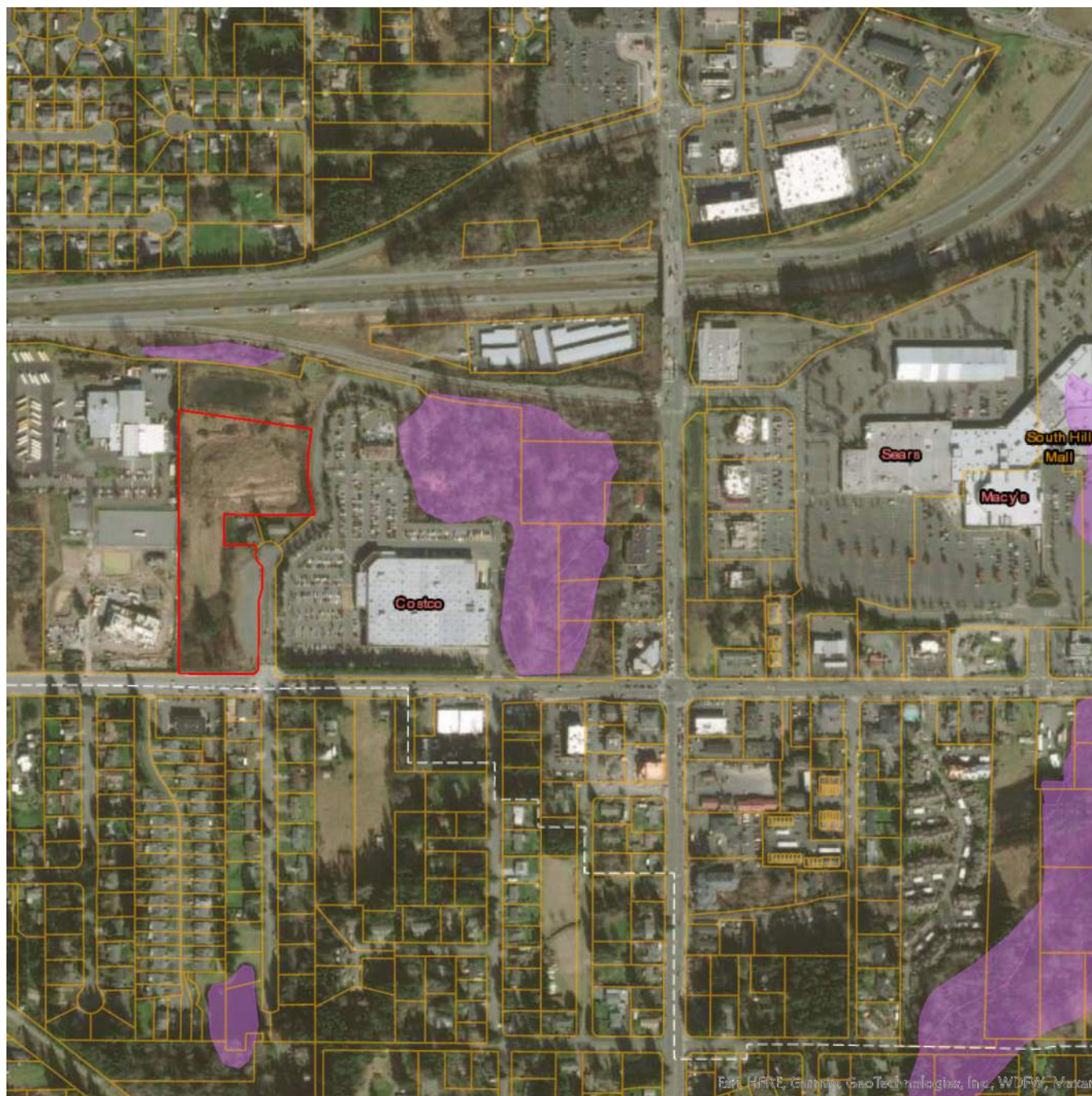
Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Priority Habitats and Species on the Web Attachment C



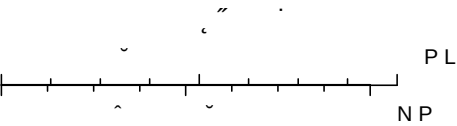
Report Date: 06/06/2022, Parcel ID: [0419043115](#)

The Priority Habitats and Species (PHS) datasets do not contain information for your project area. This does not mean that species and habitats do not occur in your project area. PHS data, points, lines and polygons are mapped only when occurrences of these species or habitats have been observed in the field. Unfortunately, we have not been able to comprehensively survey all sections in the state and therefore, it is important to note that priority species and habitats may occur in areas not currently known to the Department.

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.



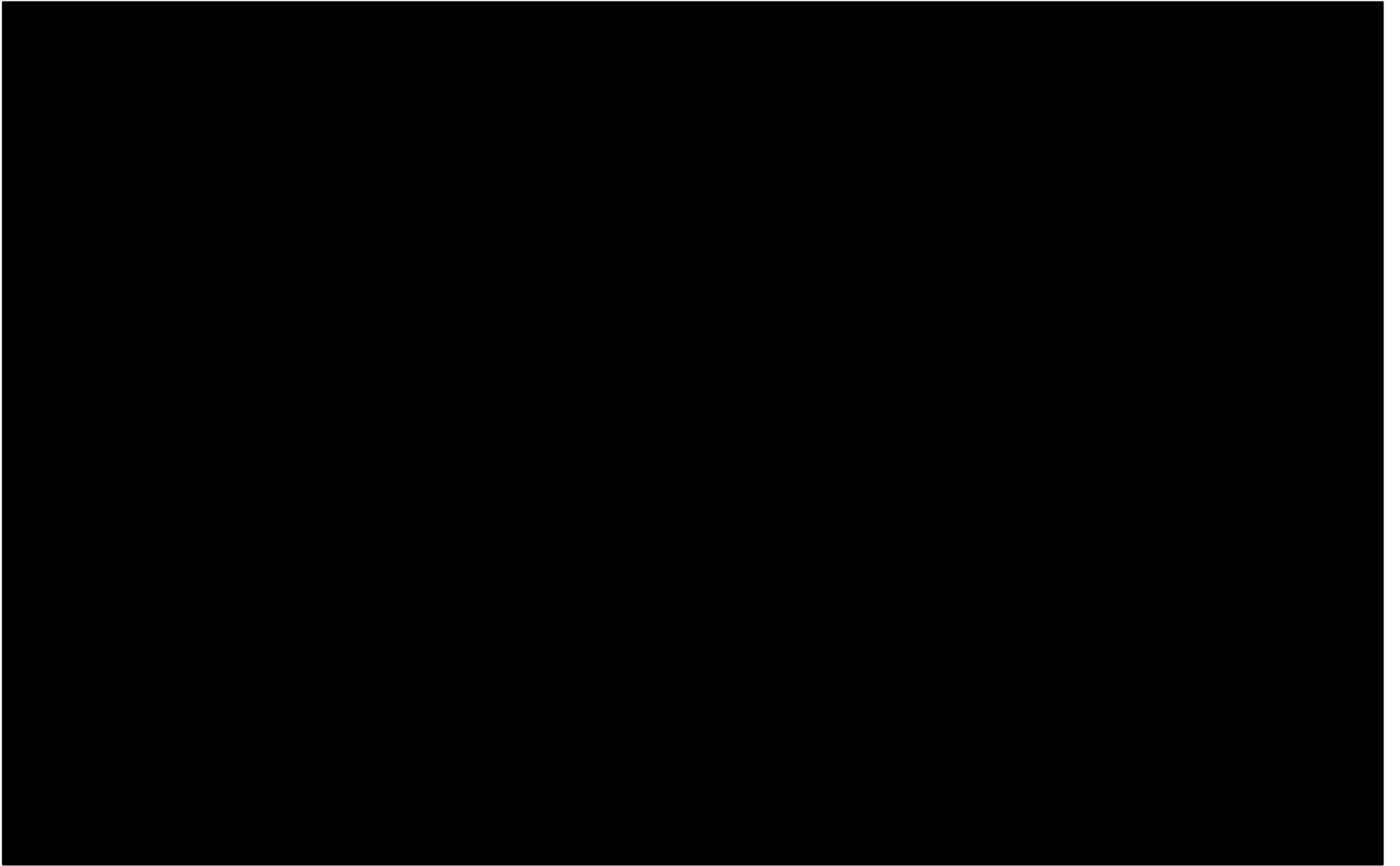
-XQH ~



&RXQW\ RI .LQJ %XUHDX RI /DQG 0DQDJHPPHQW (VU
*DUPLQ *HR7HFKQRORJLHV ,QF ,QWHUPDS 86*6 0(
86*6 1+ 'DOH *RPEHUW :) :):

: \$: HWODQGV RI +LJK &RQVHODWLRQ 9D0

Attachment 5



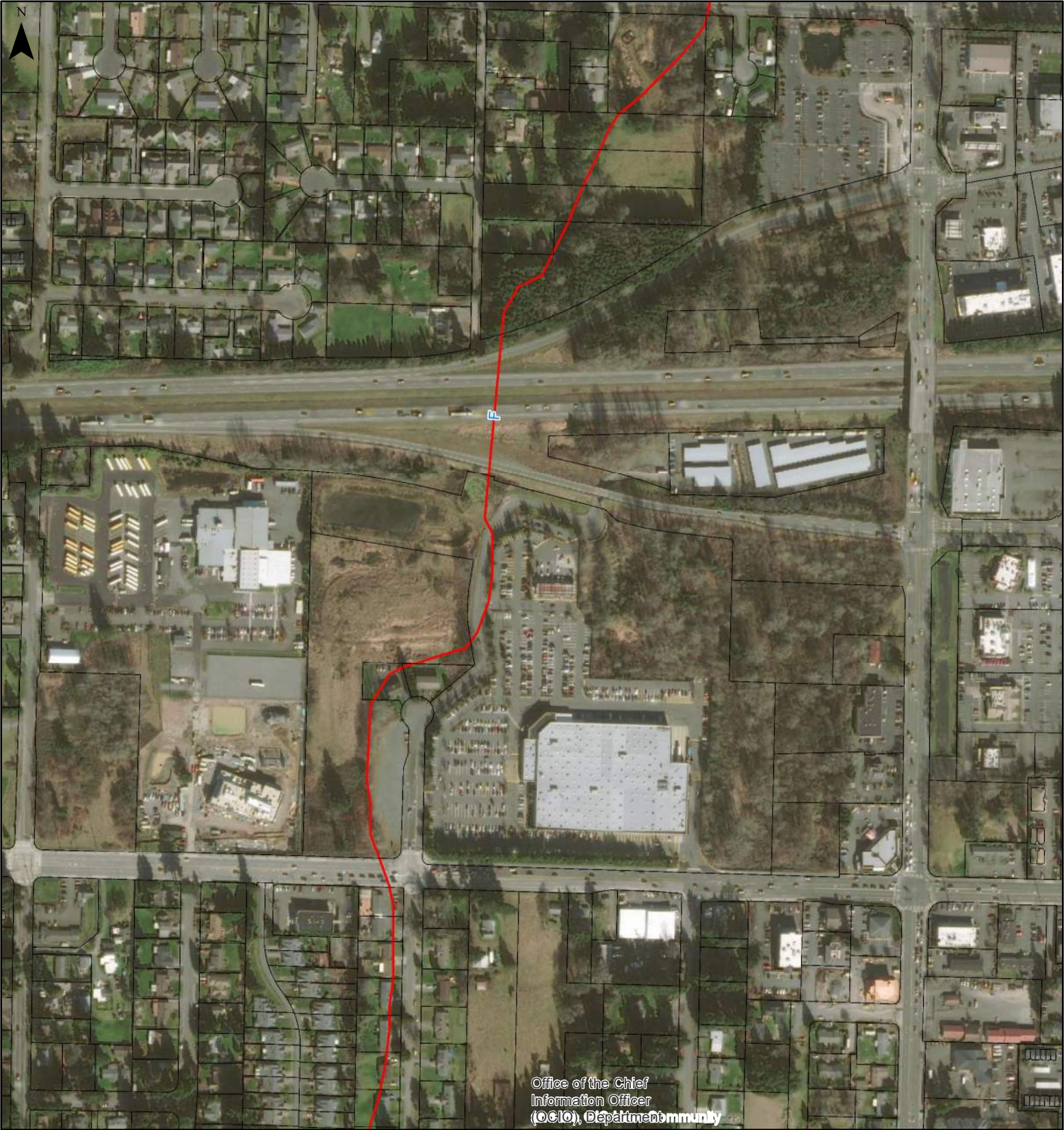
~ ~ ~ ~ \$0

 &RXQWLHV

PL
NP

6RXUFH, (VUL 0D[DU (DUWKVWDU *HRJUDSKLFV DQG

:DVKLQJWRQ 1DWXUDO +HULWD
:DVKLQJWRQ 6WDWH 'HSDUWPHQW RI 1DWXUDO 5HVRXUFHV _ :DVKLQJWRQ 1DWXUDO +HULWDJH 3

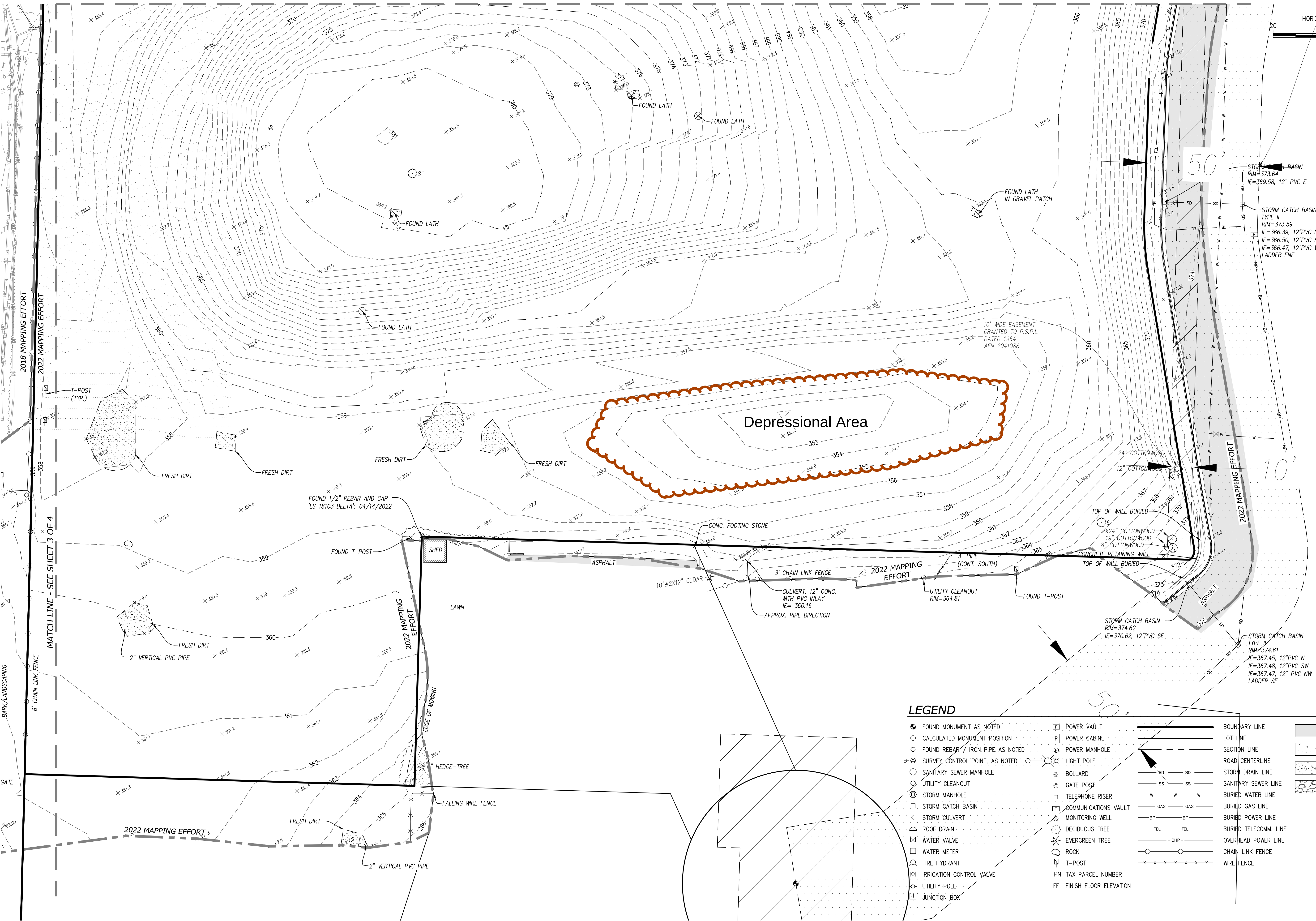


Map Symbols	Additional Information	Legal Description
~~~~ Harvest Boundary   --- Road Construction   ~ Stream   RMZ / WMZ Buffers   Rock Pit	Landing   Waste Area   Clumped WRTS/GRTS   Existing Structure	S08 T19.0N R04.0E, S04 T19.0N R04.0E   S05 T19.0N R04.0E, S09 T19.0N R04.0E
 WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES	Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.	0 0.1 Miles   Date: 5/31/2022 Time: 12:09:16 PM



HORIZONTAL SCALE: 1"=20'

CONTINUES SHEET 4 OF 4



LEGEND

- |                                    |                           |                         |                    |
|------------------------------------|---------------------------|-------------------------|--------------------|
| ● FOUND MONUMENT AS NOTED          | ⊞ POWER VAULT             | — BOUNDARY LINE         | ▨ ASPHALT SURFACE  |
| ⊕ CALCULATED MONUMENT POSITION     | ⊞ POWER CABINET           | — LOT LINE              | ▨ CONCRETE SURFACE |
| ○ FOUND REBAR / IRON PIPE AS NOTED | ⊞ POWER MANHOLE           | — SECTION LINE          | ▨ GRAVEL SURFACE   |
| ⊕ SURVEY CONTROL POINT, AS NOTED   | ⊞ LIGHT POLE              | — ROAD CENTERLINE       | ▨ RIPRAP SURFACE   |
| ○ SANITARY SEWER MANHOLE           | ⊞ BOLLARD                 | — STORM DRAIN LINE      |                    |
| ○ UTILITY CLEANOUT                 | ⊞ GATE POST               | — SANITARY SEWER LINE   |                    |
| ⊞ STORM MANHOLE                    | ⊞ TELEPHONE RISER         | — BURIED WATER LINE     |                    |
| ⊞ STORM CATCH BASIN                | ⊞ COMMUNICATIONS VAULT    | — BURIED GAS LINE       |                    |
| ⊞ STORM CULVERT                    | ⊞ MONITORING WELL         | — BURIED POWER LINE     |                    |
| △ ROOF DRAIN                       | ⊞ DECIDUOUS TREE          | — BURIED TELECOMM. LINE |                    |
| ⊞ WATER VALVE                      | ⊞ EVERGREEN TREE          | — OVERHEAD POWER LINE   |                    |
| ⊞ WATER METER                      | ⊞ ROCK                    | — CHAIN LINK FENCE      |                    |
| ⊞ FIRE HYDRANT                     | ⊞ T-POST                  | — WIRE FENCE            |                    |
| ⊞ IRRIGATION CONTROL VALVE         | TPN TAX PARCEL NUMBER     |                         |                    |
| ⊞ UTILITY POLE                     | FF FINISH FLOOR ELEVATION |                         |                    |
| ⊞ JUNCTION BOX                     |                           |                         |                    |

DESIGNED: ---  
DRAWN: CHS  
CHECKED: DMS  
DATE: 05/09/2022  
SCALE: AS NOTED



**shitts & hill**  
CIVIL | STRUCTURAL | SURVEY  
4815 CENTER STREET | TACOMA, WA 98409  
PHONE (253) 474-8449 | FAX (253) 474-0153  
http://www.shitts-hill.com/

PUYALLUP SCHOOL DISTRICT  
SUPPORT CAMPUS - ALIZA SITE  
SOUTH HILL, PUYALLUP, WA  
323 - 12TH ST NW  
PUYALLUP, WA 98371

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

Project Site: Aliza Property - "Parcel B3" City/County: Pyralis / Pierce Sampling Date: 5/6/22  
 Applicant/Owner: _____ State: WA Sampling Point: SP-1  
 Investigator(s): Walter Section, Township, Range: _____  
 Landform (hillslope, terrace, etc.): Depressional Local relief (concave, convex, none): _____ Slope (%): _____  
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____  
 Soil Map Unit Name: _____ NWI classification: _____  
 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"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: <u>- Many climate conditions appear to be wetter than normal.</u> <u>- Site has extensive clearing, grading, and stockpiling. Topo doesn't reflect historical conditions.</u>			

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) 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% = _____	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> <table border="0"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </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">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 = _____																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ = Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b> 1. <u>PIAZ</u> <u>90%</u> <u>Y</u> <u>FACW</u> 2. <u>Galium spp (GAAP)</u> <u>10%</u> <u>N</u> <u>FACU</u> 3. <u>CEAR</u> <u>5%</u> <u>N</u> <u>FAC</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = _____, 20% = _____ <u>105%</u> = Total Cover																				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ 50% = _____, 20% = _____ = Total Cover % Bare Ground in Herb Stratum _____																				
<b>Hydrophytic Vegetation Indicators:</b> <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.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				

Remarks:

Project Site: _____

**SOIL**Sampling Point: SP-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>0-8</u>	<u>10YR 3/2</u>	<u>100%</u>	<u>7.5YR 4/6</u>	<u>5%</u>	<u>C</u>	<u>M</u>	<u>1 cm w/ gravel</u>	
<u>8-19</u>	<u>10YR 3/2</u>	<u>95%</u>					<u>1 cm w/ gravel</u>	

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

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

- |                                                            |                                                                   |
|------------------------------------------------------------|-------------------------------------------------------------------|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                         |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                     |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                 |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input checked="" type="checkbox"/> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)               |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                   |

Indicators for Problematic Hydric Soils³:

- |                                                           |
|-----------------------------------------------------------|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> 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:

- 4 in.  
 - Flo layer starting just w/ 12 inches.  
 - SP-1 appears to be w/ gleyed depression area associated with stockpile of fill.  
 - Constructed to potentially manage runoff from large mound.

**HYDROLOGY**

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present?

Yes ☐ No ☒

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

Remarks:

- Soils dry to a depth of 19 inches.  
No primary hydros. observed.