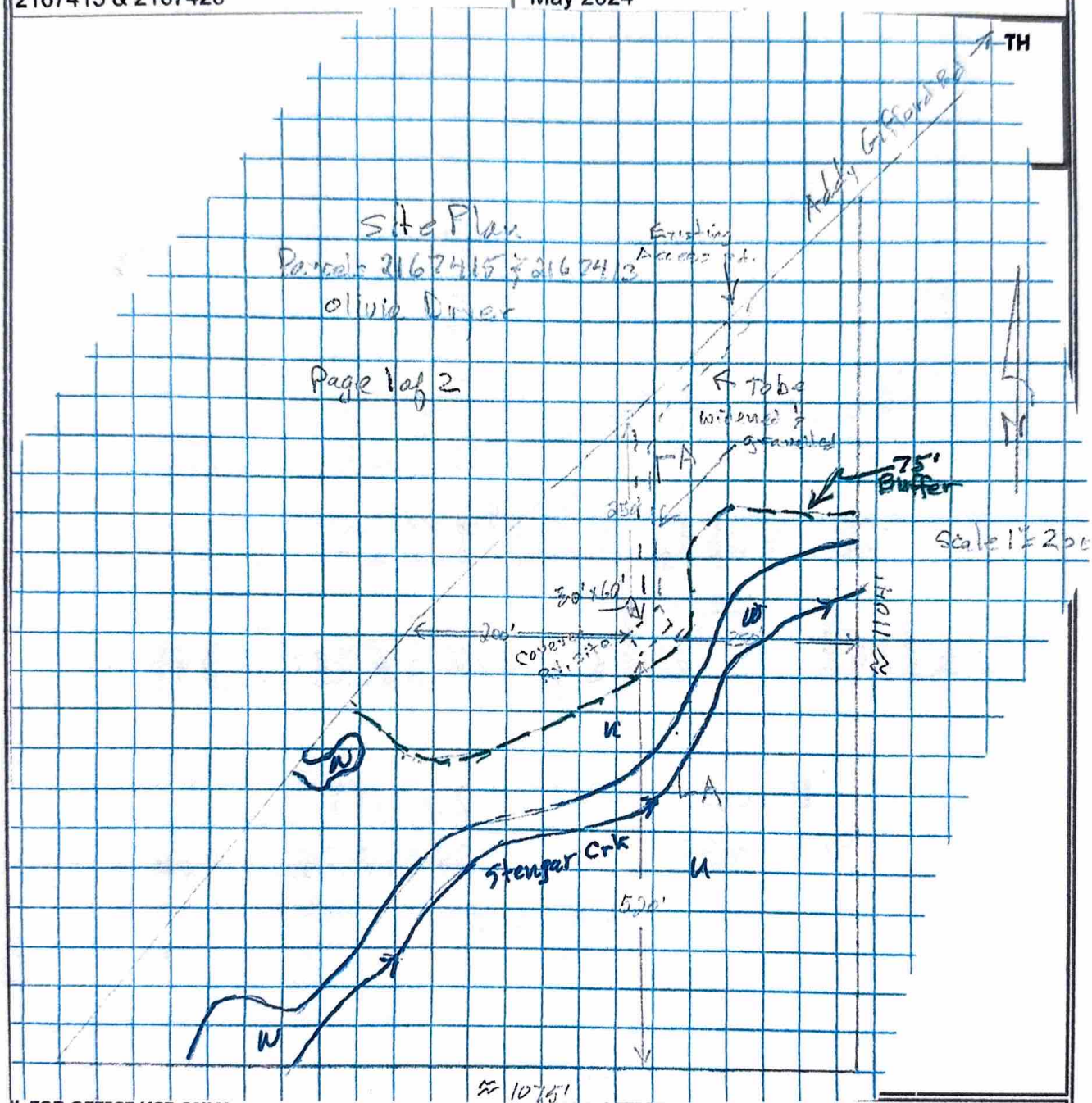
Wetland Delineation And Categorization

Parcels 2167415 & 2167413
Section 33 T. 33 N. R. 39 E.W.M.
Olivia Dyer

PREPARED BY:
Jim Gleaton
Jim Gleaton Resource Consulting, Addy, WA
May, 2024

SITE PLAN

SITE ADDRESS: None Assigned	NAME: Olivia Dyer
PARCEL # 2167415 & 2167423	DATE: May 2024



FOR OFFICE USE ONLY

Approval for _____

Complete on _____

Reviewed by _____

ANY modifications to this site plan will require additional review & approval by Stevens County Planning.

FOR OFFICE USE ONLY

TABLE OF CONTENTS

PHOTO 1: Access road to parcel will be re-graded and graveled to improve all weather access.

PHOTO 2: Stream channel is incised.

Summary of Findings

Parcel Number 2167415 & 2167413

This wetland determination was completed using wetland identification protocols identified in the 1987 Corps of Engineer Wetland Delineation Manual (Regional Supplement -- Western Mountains, Valleys, and Coast Region (Version 2.0) adopted by Washington State in March of 2011.

The wetlands were Categorized using Ecology's Eastern Washington Wetland Rating System (Jan. 2015). Copies of the Rating Work Sheets are attached.

The field work was completed on site in April, 2024. Data Forms (Western Mountains, Valleys, and Coast) -Version 2.0 are attached as part of the complete wetland report, as are all required maps.

These wetlands are:

[ ] **Lake Fringe wetlands** [ ] Category I [ ] Category II [ ] Category III [ ] Category IV

[ ] **Depressional wetlands** [ ] Category I [ ] Category II [ ] Category III [ ] Category IV

[ ] **Slope wetlands** [ ] Category I [ ] Category II [ ] Category III [ ] Category IV

[X] **Riverine wetlands.** [ ] Category I [X] Category II [ ] Category III [ ] Category IV

Any wetlands within 250 feet of the project that are not on this property have been remotely evaluated using the best available information as required by Ecology's Eastern Washington Wetland Rating System.

The acreage of the wetland being rated is approximately 4 Acres. The wetland on this project covers approximately 1 Acres.

The wetland Category is for the entire wetland being rated. The method is not sensitive enough, or complex enough, to allow division of a wetland into smaller units based on level of disturbance, property lines, or plant communities (Wetland Rating System for Eastern WA:2014 Update Jan.1 2015 No.4 pg. 14).

This Parcel is under the Jurisdiction of the Stevens County Critical Areas Ordinance. Buffers for Wetlands are based on 2 factors: 1. Land use intensity, 2. Habitat Score.

Land use intensity on this project is **Low** (1 Residence on 1 to >5 acres (this Parcel is 20 - acres)).
Habitat Score on the Wetland Rating System for Eastern WA is 7 points.
Stevens County's CAO (Table 13.30.020 (C)) wetland Buffers (Low Intensity Use) Cat. **II** wetland is **75** feet.

Riparian buffer (13.40.020 (B) (1a) Ag. & Rural) Type F (slopes < 10%) **85** ft. Buffer from the Ordinary High-Water Mark (OHWM).

A table of contents is included in the wetland report, listing all required maps, figures, etc.

That in accordance with all accepted standards, practices, and procedures of professional land management, I certify the foregoing to be true and accurate.

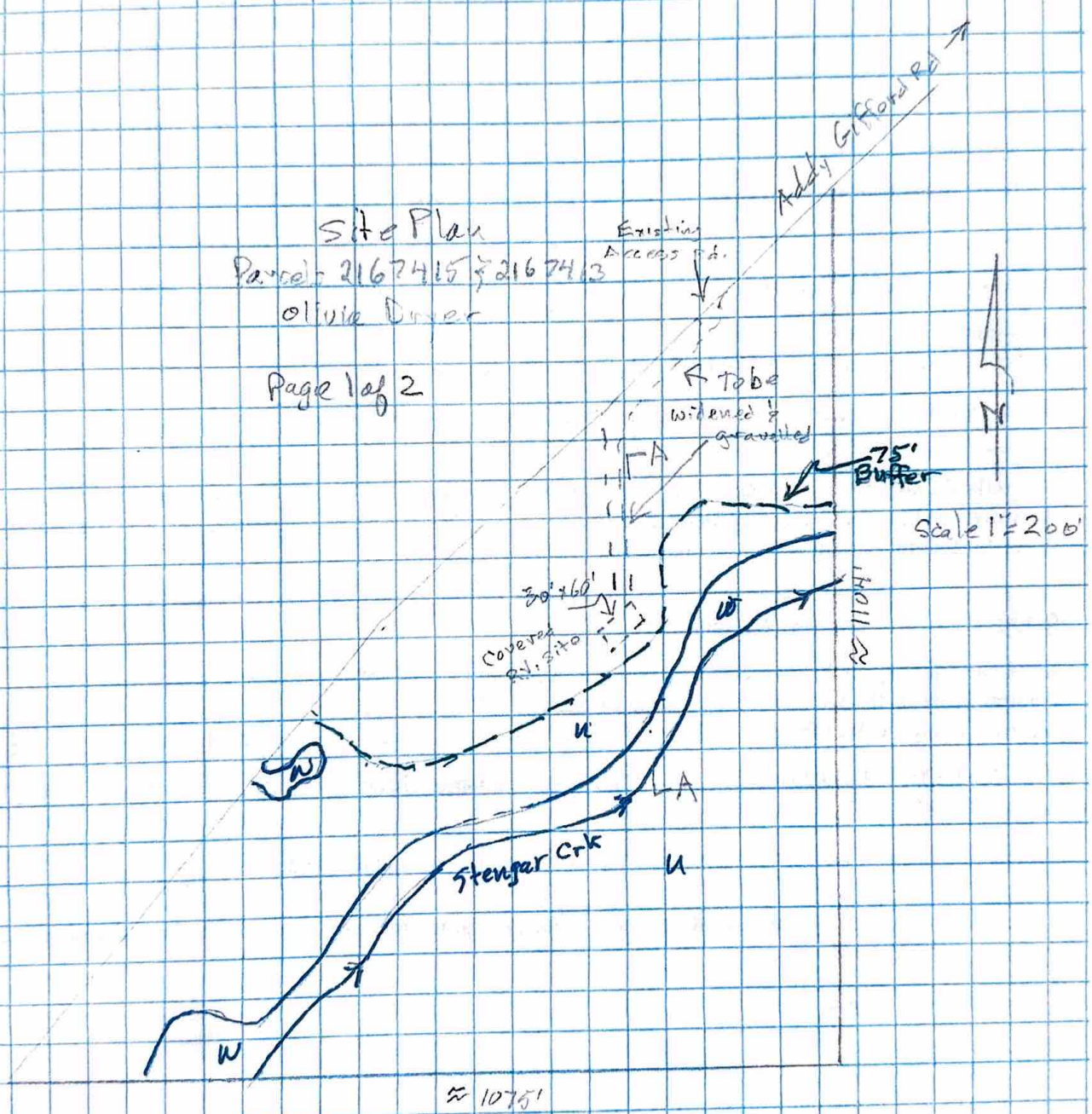
Jim Gleaton

Jim Gleaton
Resource Consultant
P.O. Box 98
Addy, WA 99101

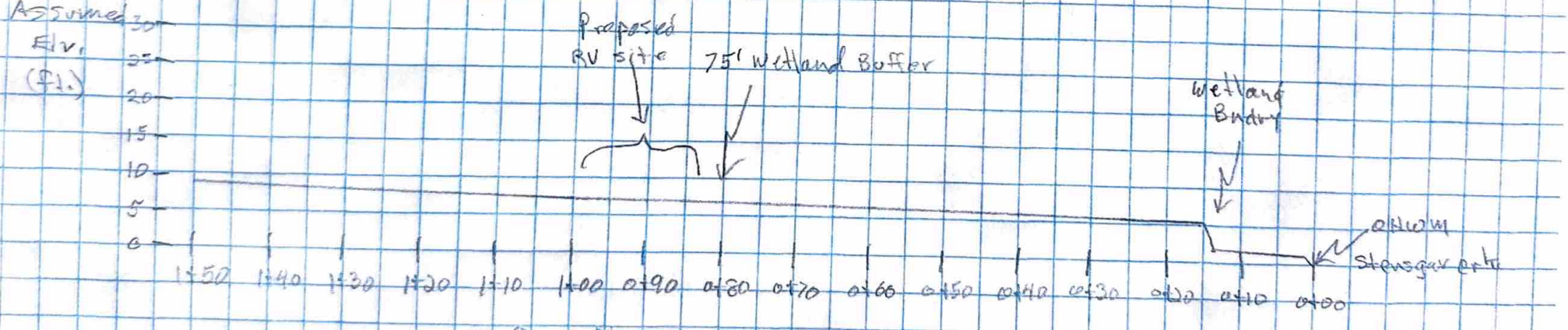
Site Plan

Parcel: 2167415 & 2167413

Olivia Diver



Site Plan
Parcels 2167415 & 2167413
Olivia Dryer

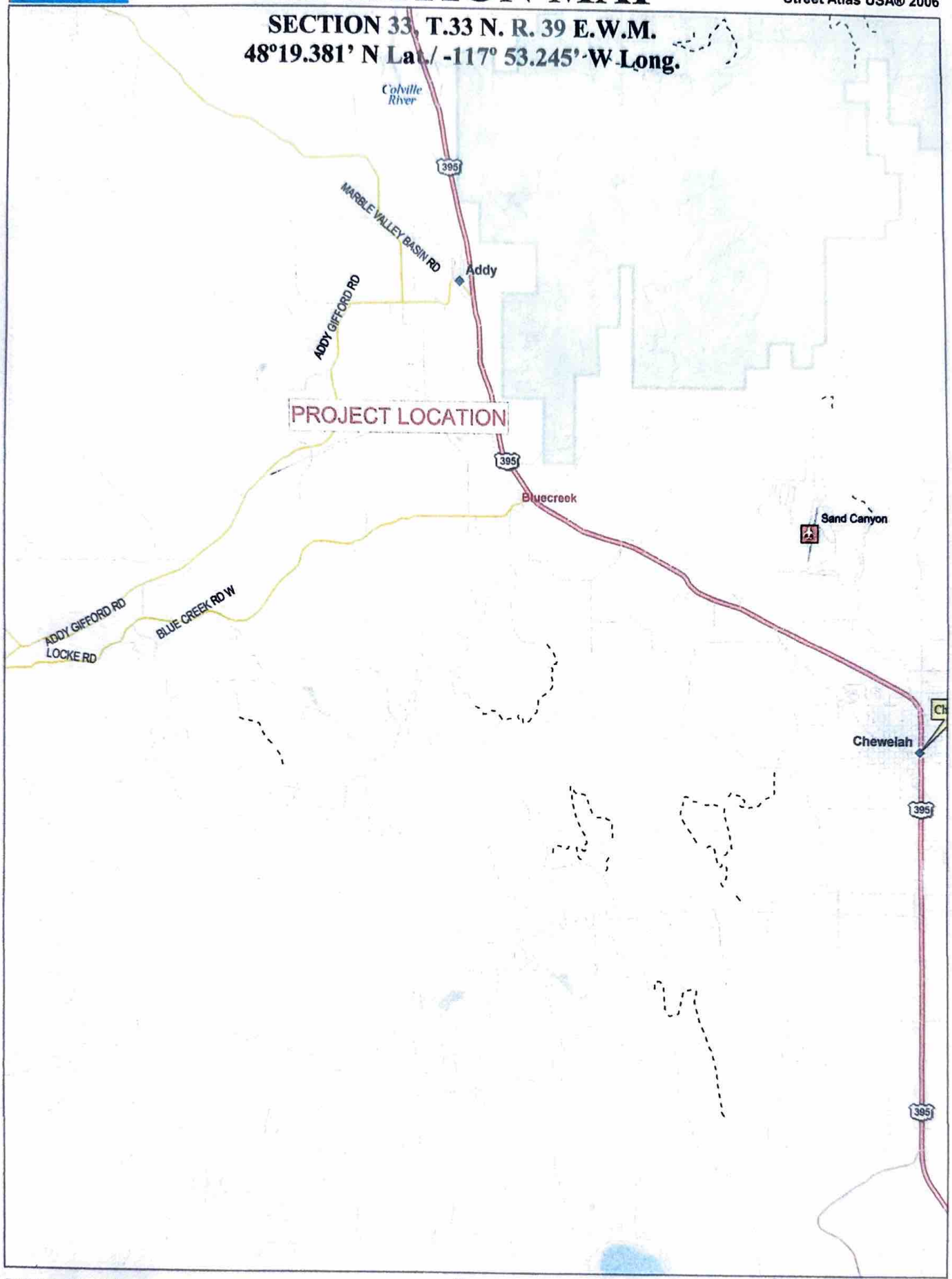


Profile A-A Scale: 1" = 20' V & H.

LOCATION MAP

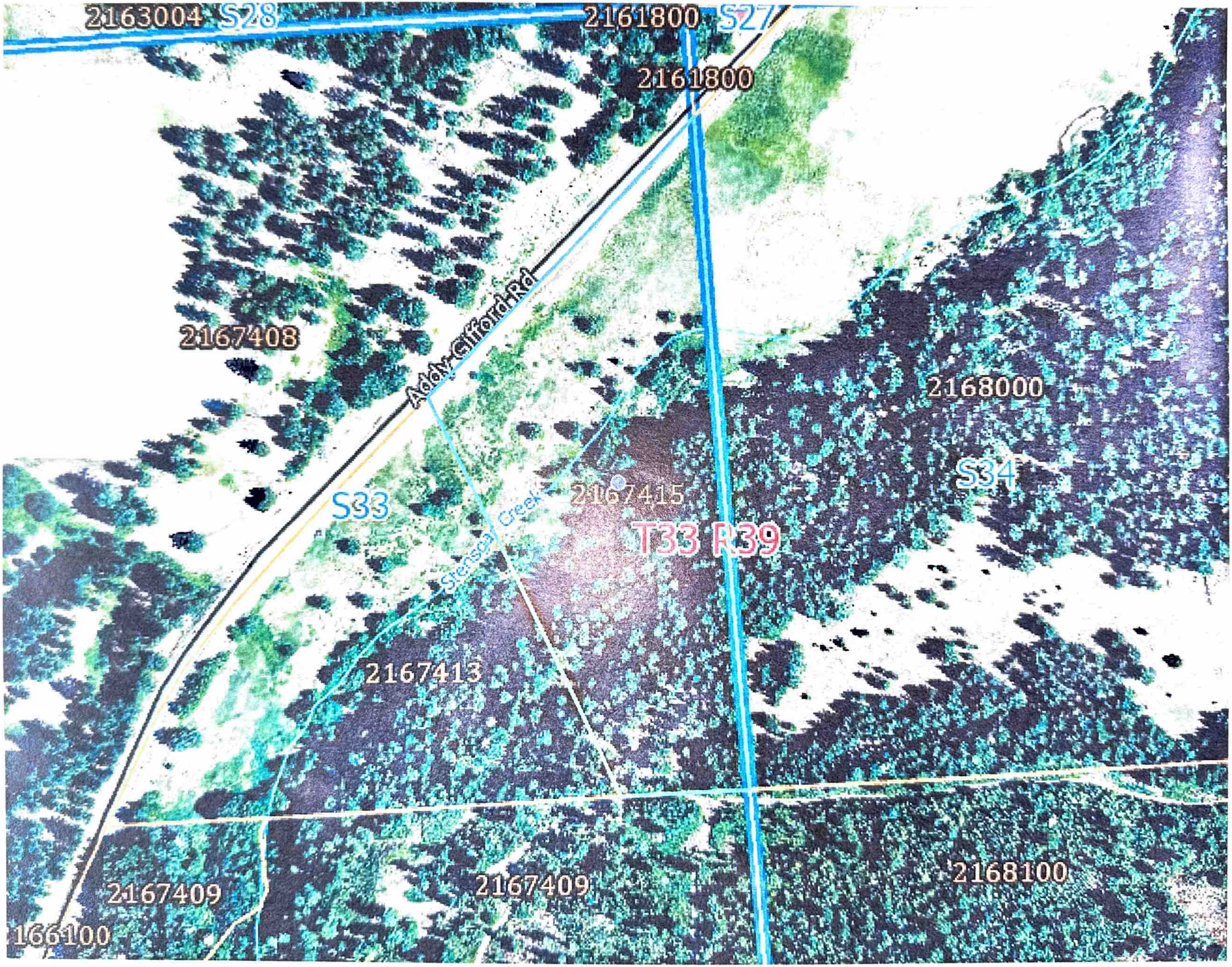
Street Atlas USA® 2006

SECTION 33, T.33 N. R. 39 E.W.M.
48°19.381' N Lat./ -117° 53.245' W Long.

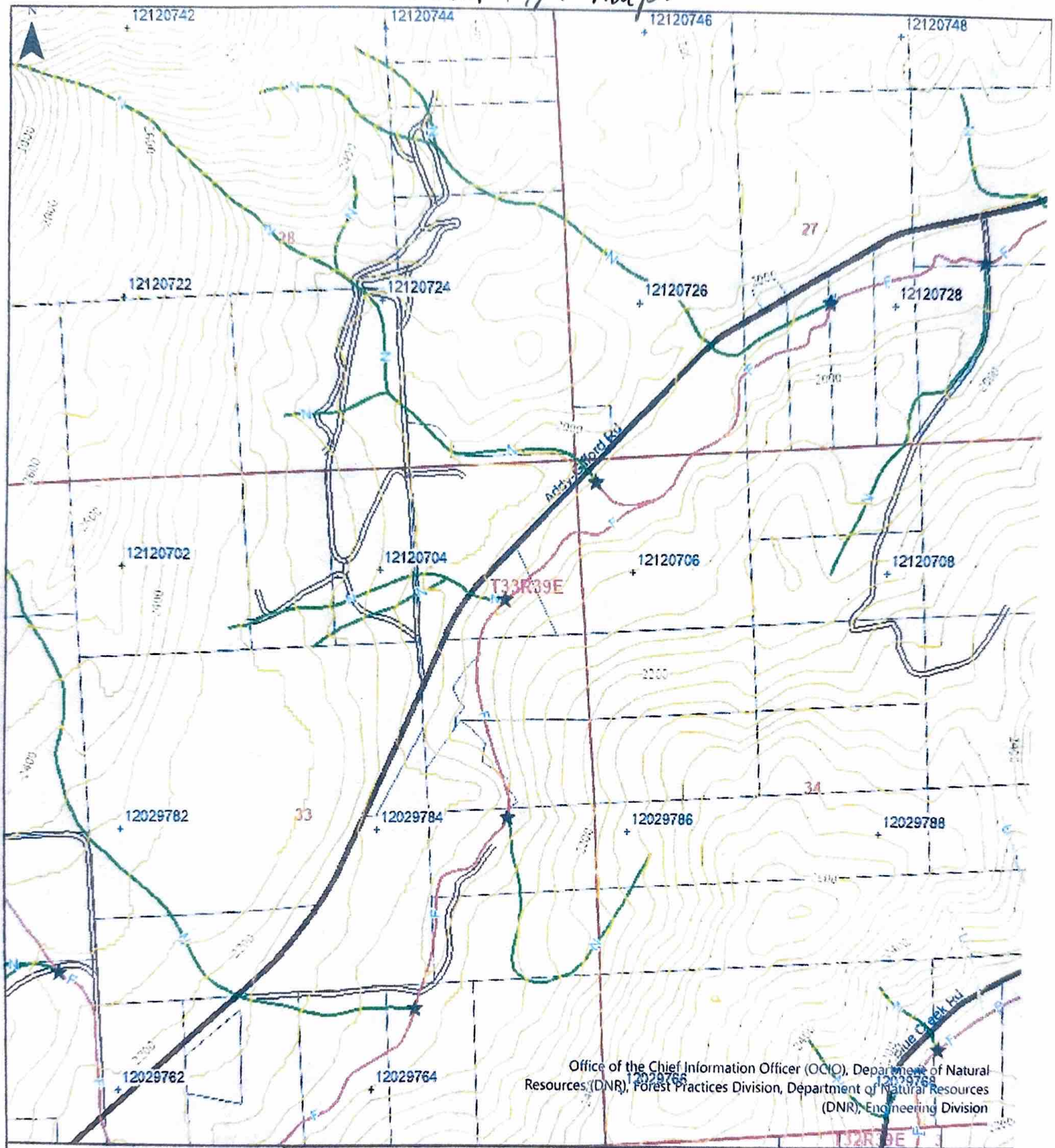


TN
MN (13.3°E)

Scale 1 : 100,000
1" = 1.58 mi
Data Zoom 11-0


2163004
S28
2161800
S27
2161800
Ardoch-Clifford Rd
2167408
2168000
S34
S33
2167415
Stensgar Creek
T33 R39
2167413
2167409
2167409
2168100
166100

Water type Map.



Office of the Chief Information Officer (OCIO), Department of Natural Resources (DNR), Forest Practices Division, Department of Natural Resources (DNR), Engineering Division

Map Symbols

- Harvest Boundary
- Road Construction
- Stream
- RMZ / WMZ Buffers
- Rock Pit
- Landing
- Waste Area
- Clumped WRTS/GRTS
- Existing Structure

Additional Information

Legal Description

S33 T33.0N R39.0E, S28 T33.0N R39.0E, S34 T33.0N R39.0E, S27 T33.0N R39.0E

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

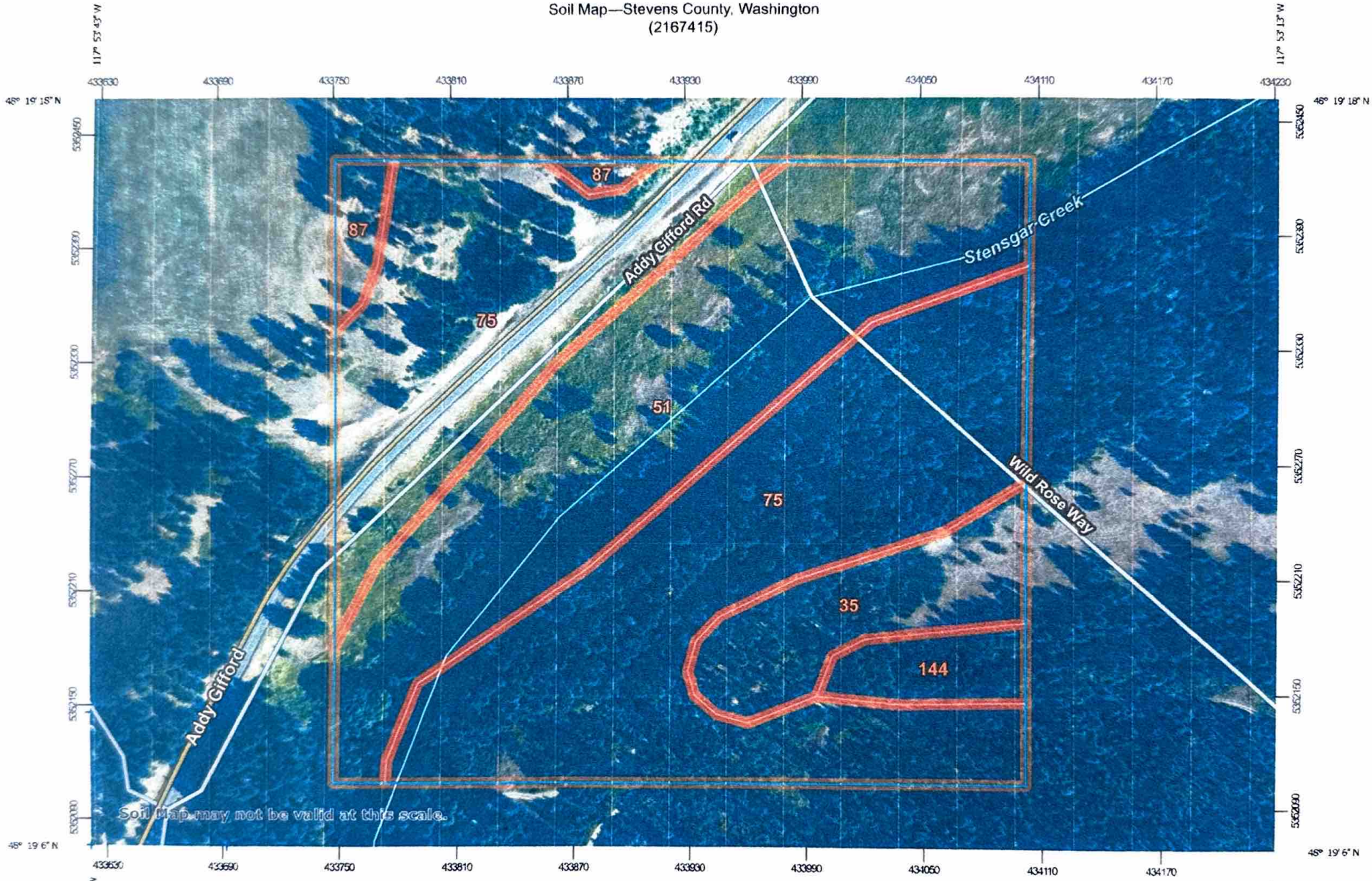
Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.

Approximate Scale : 1:12,000

0 500 1,000 2,000 Feet

Date: 5/15/2024 Time: 8:12 AM

Soil Map—Stevens County, Washington
(2167415)



Map Scale: 1:2,770 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

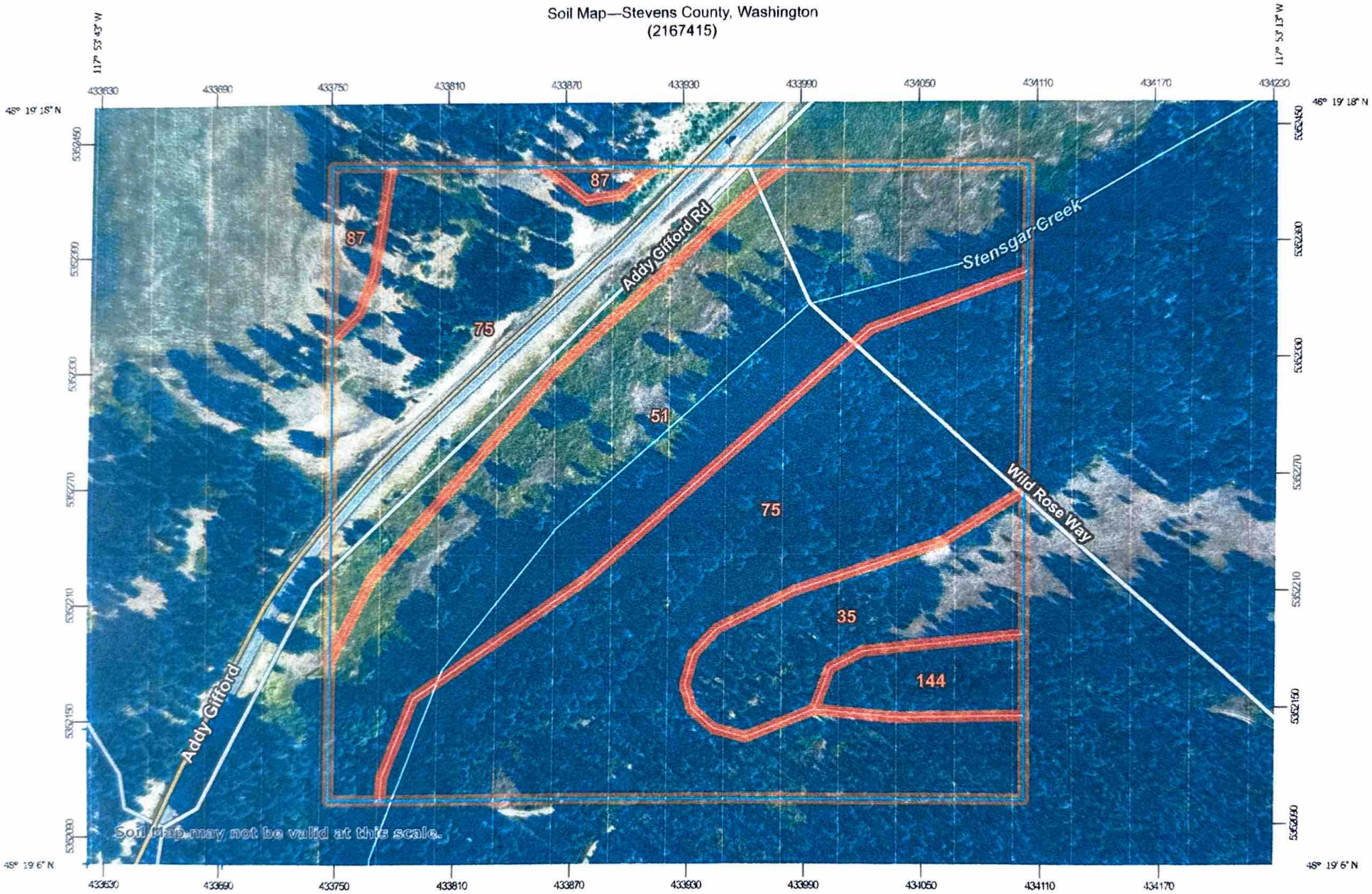
Soil Survey Area: Stevens County, Washington
Survey Area Data: Version 21, Aug 29, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 4, 2022—Sep 24, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Soil Map—Stevens County, Washington
(2167415)



Map Scale: 1:2,770 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
35	Bonner silt loam, 0 to 10 percent slopes	2.4	8.2%
51	Chamokane loam	9.0	31.2%
75	Donavan stony loam, 30 to 65 percent slopes	16.0	55.3%
87	Green Bluff silt loam, 5 to 15 percent slopes	0.6	2.1%
144	Martella ashy silt loam, 5 to 15 percent slopes	0.9	3.2%
Totals for Area of Interest		28.8	100.0%

U.S. Fish and Wildlife Service

National Wetlands Inventory

2167415

April 10, 2024

Wetlands

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

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
35	Bonner silt loam, 0 to 10 percent slopes	2.4	8.2%
51	Chamokane loam	9.0	31.2%
75	Donavan stony loam, 30 to 65 percent slopes	16.0	55.3%
87	Green Bluff silt loam, 5 to 15 percent slopes	0.6	2.1%
144	Martella ashy silt loam, 5 to 15 percent slopes	0.9	3.2%
Totals for Area of Interest		28.8	100.0%

WETLANDS AND DEEPWATER HABITATS CLASSIFICATION

L-LACUSTRINE

SYSTEM

SUBSYSTEM

1 – LIMNETIC

CLASS

- RM – ROCK BOTTOM
- UB – UNCONSOLIDATED BOTTOM
- AB – AQUATIC BED
- OW – OPEN WATER (UNKNOWN BOTTOM)

SUBCLASS

- RM: 1 BEDROCK; 2 RUBBLE
- UB: 1 COBBLE-GRAVEL; 2 SAND; 3 MUD; 4 ORGANIC
- AB: 1 ALGAL; 2 AQUATIC MOSS; 3 ROOTED VASCULAR; 4 FLOATING VASCULAR; 5 UNKOWN SUBMERGENT; 6 UKNOWN SURFACE

2 – LITORAL

CLASS

- RM – ROCK BOTTOM
- UB – UNCONSOLIDATED BOTTOM
- AB – AQUATIC BED
- RS – ROCKY SHORE
- US – UNCONSOLIDATED SHORE
- EM – EMERGENT
- OW – OPEN WATER (UNKNOWN BOTTOM)

SUBCLASS

- RM: 1 BEDROCK; 2 RUBBLE
- UB: 1 COBBLE-GRAVEL; 2 SAND; 3 MUD; 4 ORGANIC
- AB: 1 ALGAL; 2 AQUATIC MOSS; 3 ROOTED VASCULAR; 4 FLOATING VASCULAR; 5 UNKOWN SUBMERGENT; 6 UKNOWN SURFACE
- RS: 1 BEDROCK; 2 RUBBLE
- US: 1 COBBLE-GRAVEL; 2 SAND; 3 MUD; 4 ORGANIC; 5 VEGETATED
- EM: 2 NONPERSISTENT

P - PALUSTRINE

SYSTEM

CLASS

- RM – ROCK BOTTOM
- UB – UNCONSOLIDATED BOTTOM
- AB – AQUATIC BED
- UN – UNCONSOLIDATED SHORE
- ML – MOSSES LICHENS
- EM – EMERGENT
- SS – SCRUB/SHRUB
- FO – FORESTED
- OW – OPEN WATER (UNKNOWN BOTTOM)

SUBCLASS

- RM: 1 BEDROCK; 2 RUBBLE
- UB: 1 COBBLE-GRAVEL; 2 SAND; 3 MUD; 4 ORGANIC
- AB: 1 ALGAL; 2 AQUATIC MOSS; 3 ROOTED VASCULAR; 4 FLOATING VASCULAR; 5 UNKOWN SUBMERGENT; 6 UNKNOWN SURFACE
- UN: 1 COBBLE-GRAVEL; 2 SAND; 3 MUD; 4 ORGANIC
- ML: 1 MOSSES; 2 LICHENS
- EM: 1 PERSISTENT; 2 NONPERSISTENT
- SS: 1 BROAD-LEAVED DECIDUOUS; 2 NEEDLE-LEAVED DECIDUOUS; 3 BROAD-LEAVED EVERGREEN; 4 NEEDLE-LEAVED; 5 DEAD; 6 DECIDUOUS; 7 EVERGREEN
- FO: 1 BROAD-LEAVED DECIDUOUS; 2 NEEDLE-LEAVED DECIDUOUS; 3 BROAD-LEAVED EVERGREEN; 4 NEEDLE-LEAVED EVERGREEN; 5 DEAD; 6 DECIDUOUS; 7 EVERGREEN

MODIFIERS

In order to more adequately describe the wetland and deepwater habitats one or more of the water regime, chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

NON-TIDAL

- A Temporarily Flooded
- B Saturated
- C Seasonally Flooded
- D Seasonally Flooded, Well-Drained
- E Seasonally Flooded, Saturated
- F Semi-permanently Exposed
- G Intermittently Exposed
- H Permanently Flooded
- J Intermittently Flooded
- K Artificially Flooded
- U Unknown

WATER CHEMESTRY

Inland Salinity

- 7 Hypersaline
- 8 Eusaline
- 9 Misosaline
- 0 Fresh

pH Modifiers for All Fresh Water

- a Acid
- t Circumneutral
- i Alkaline

SOIL

- g Organic
- n Mineral

SPECIAL MODIFIERS

- b. Beaver
- d. Partially drained
- f. Farmed
- h. Dike/Impound
- k. Sand/Rock
- r. Artificial substrate
- s. Spoil
- x. Excavated
- z. None

WETLAND DOCUMENTATION RECORD
GENERAL SITE INFORMATION

Applicant/Landowner: Olivia Dyer **County/State** Stevens WA
Field Investigator: Jim Clayton **Date:** 4/24/22
Legal Description: Parcels **Section:** 33 **T.** 32 **N. R.** 39 **E.W.M.**
GPS Coordinates: N 48.9.381 **W** -117.53245
Elevation: _____ **Notes:** _____

Site map attached showing location, Base line(s), transect location(s) and plot locations.

GEOMORPHIC DATA

1. DEPRESSIONAL

1. VERNAL POOL	2. BOG	3. POTHOLE	4. SIZE (ac)
5. DEPTH (ft)	6. OUTLET? [ ]Y [ ]N	OTHER:	

2. RIVERINE

Stream Name:	Stream Flow (cfs)	Average Land Slope (%)
Stranger Cr.	2 cfs	1-10 %

3. FRINGE

1. Estuarine	2. Lacustrine	3. Average Width (ft)

4. SLOPE

Average Land Slope (%)	Concentrated Flow?	Surface Water?

Antecedent Moisture Conditions

1. Prior Month Rainfall (in) .60	2. Normal (in) 1.01	3. Station Name: Colville
4. Prior Week Rainfall (in) .0	5. Normal (in) .25	6. Current Weather (sunny, rain)

Soil information:

Soil Mapping Unit No.(s) Chamokane loam

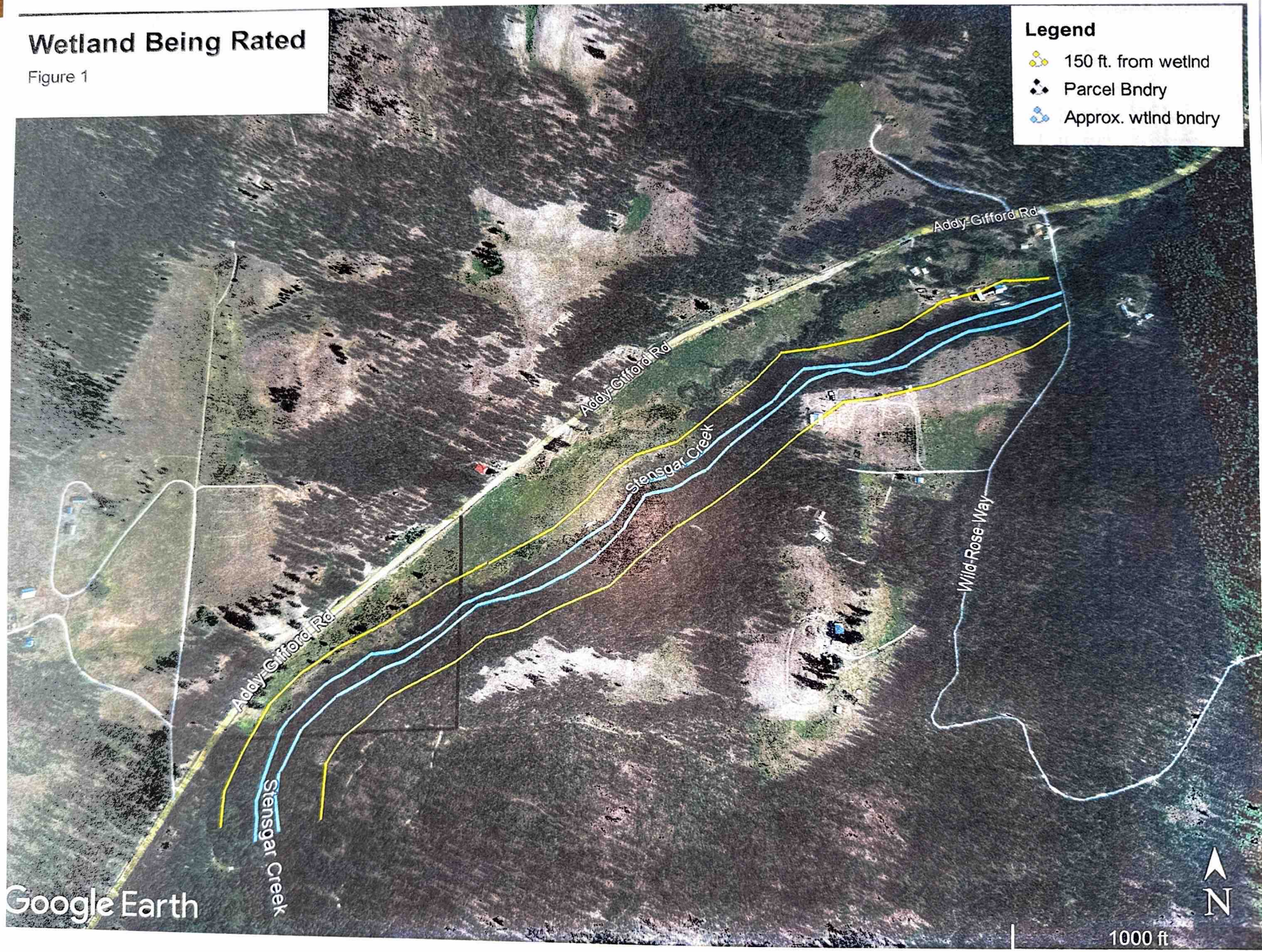
Transects required

Baseline length: 300 Ft. <.25 miles to 1 mile [ ] 1 mile to 2 miles [ ] 2 miles to 4 miles [ ]	Transects: 1 or 2 [4] 3 [ ] 5 [ ] 8 [ ]	Notes: (If modified number of transects explain)

Wetland >5 Acres [ ] Y [X] N

Wetland Being Rated

Figure 1



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

Project/Site: Parcels 2167415 & 2167413 City/County: Stevens Sampling Date: 4/24/24
Applicant/Owner: Olivia Dyer State: WA Sampling Point: 1
Investigator(s): Jim Clinton Section, Township, Range: 33-33-39
Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): Concave Slope (%): 1-5%
Subregion (LRR): E Lat: 48°19.20.12 Long: -117°53.16.63 Datum: GPS
Soil Map Unit Name: Chamokane Loam 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 No significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No ✓	Is the Sampled Area within a Wetland? Yes ___ No ✓
Hydric Soil Present?	Yes ___	No ✓	
Wetland Hydrology Present?	Yes ___	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20X20)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus ponderosa	15	N	FACU-
2.			
3.			
4.			
	15 = Total Cover		

Sapling/Shrub Stratum (Plot size: 10X10)			
1. Symphoricarpos albus	25	Y	FACU
2. Rosa woodsii	10	N	FACU
3.			
4.			
5.			
	35 = Total Cover		

Herb Stratum (Plot size: 10X10)			
1. Bromus inermis	30	Y	UPL
2. Poa bulbosa	20	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		

Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	___ = Total Cover		

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ___ (A)
Total Number of Dominant Species Across All Strata: ___ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: ___ (A/B)

Prevalence Index worksheet:

Total % Cover of	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 70	x 4 =	280
UPL species 30	x 5 =	150
Column Totals: 100 (A)		430 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No ✓

Remarks:

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

Project/Site: Parcels 2167415 & 2167413 City/County: Stevens Sampling Date: 4/24/24
Applicant/Owner: Olivia Dyer State: WA Sampling Point: 2
Investigator(s): Jim Gleaton Section, Township, Range: 33-33-39
Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): Concave Slope (%): 1-5%
Subregion (LRR): E Lat: 48°19'19.85" Long: -117°53'12.94" Datum: GPS
Soil Map Unit Name: Chamokane Loam NWI classification: PSSC
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 No significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	Is the Sampled Area within a Wetland?	Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____		
Wetland Hydrology Present?	Yes ✓ No ____		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20x20)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus incana	20	Y	FACW
2.			
3.			
4.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10x10)			
1. Cornus sericea	10	N	FACW
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 10x10)			
1. Phalaris arundinacea	60	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of	Multiply by:
OBL species ____	x 1 = ____
FACW species 100	x 2 = 200
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ 5 - Wetland Non-Vascular Plants[1]
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

RATING SUMMARY – Eastern Washington

Name of wetland (or ID #): Dyer Date of site visit: 4/24/2024

Rated by Jim Gleaton Trained by Ecology? ☑ Yes ☐ No Date of training 2011

HGM Class used for rating Riverine Wetland has multiple HGM classes? ☐ Yes ☑ No

NOTE: Form is not complete with out the figures requested (*figures can be combined*).
Source of base aerial photo/map Google Earth

OVERALL WETLAND CATEGORY II (based on functions ☑ or special characteristics ☐)

1. Category of wetland based on FUNCTIONS

_____ **Category I** - Total score = 22 - 27
X **Category II** - Total score = 19 - 21
_____ **Category III** - Total score = 16 - 18
_____ **Category IV** - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List appropriate rating (H, M, L)			
Site Potential	M	M	M	
Landscape Potential	M	M	H	
Value	H	M	M	Total
Score Based on Ratings	7	6	7	20

Score for each function based on three ratings (*order of ratings is not important*)

9 = H, H, H
8 = H, H, M
7 = H, H, L
7 = H, M, M
6 = H, M, L
6 = M, M, M
5 = H, L, L
5 = M, M, L
4 = M, L, L
3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Vernal Pools	
Alkali	
Wetland of High Conservation Value	
Bog and Calcareous Fens	
Old Growth or Mature Forest - slow growing	
Aspen Forest	
Old Growth or Mature Forest - fast growing	
Floodplain forest	
None of the above	X

HGM Classification of Wetland in Eastern Washington

For questions 1 - 4, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1 - 4 apply, and go to Question 5.

1. Does the entire unit **meet both** of the following criteria?
   - ☐ The vegetated part of the wetland is on the water side of the Ordinary High Water Mark of a body of permanent open water (without any plants on the surface) that is at least 20 ac (8 ha) in size
   - ☐ At least 30% of the open water area is deeper than 10 ft (3 m)

   ☑ NO - go to 2 ☐ **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe)

2. Does the entire wetland unit meet all of the following criteria?
   - ☑ The wetland is on a slope (*slope can be very gradual*),
   - ☑ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks;
   - ☑ The water leaves the wetland **without being impounded.**

   ☐ NO - go to 3 ☑ **YES** - The wetland class is **Slope**

   NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 foot deep).

3. Does the entire wetland unit **meet all** of the following criteria?
   - ☑ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river;
   - ☑ The overbank flooding occurs at least once every 10 years.

   ☐ NO - go to 4 ☑ **YES** - The wetland class is **Riverine**

   NOTE: The Riverine wetland can contain depressions that are filled with water when the river is not flooding.

4. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year. *This means that any outlet, if present, is higher than the interior of the wetland.*

   ☐ NO - go to 5 ☐ **YES** - The wetland class is **Depressional**

5. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1 - 4 APPLY TO DIFFERENT AREAS IN THE WETLAND UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

RIVERINE WETLANDS **Water Quality Functions** - Indicators that the site functions to improve water quality		Points (only 1 score per box)
R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		1
Depressions cover > 1/3 area of wetland	points = 6	
Depressions cover > 1/10 area of wetland	points = 3	
Depressions present but cover < 1/10 area of wetland	points = 1	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with > 90% cover at person height; **not** Cowardin classes):		5
Forest or shrub > 2/3 the area of the wetland	points = 10	
☑ Forest or shrub 1/3 – 2/3 area of the wetland	points = 5	
☐ Ungrazed, herbaceous plants > 2/3 area of wetland	points = 5	
Ungrazed herbaceous plants 1/3 – 2/3 area of wetland	points = 2	
Forest, shrub, and ungrazed herbaceous < 1/3 area of wetland	points = 0	
Total for R 1	Add the points in the boxes above	6

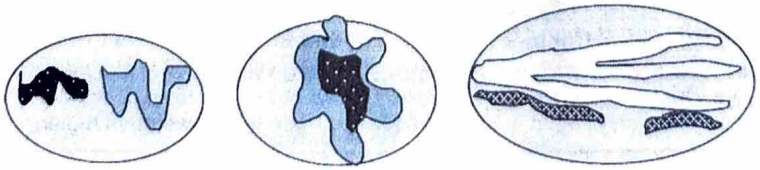
Rating of Site Potential If score is: ☐ 12 - 16 = H ☑ - 11 = M ☐ - 5 = L *Record the rating on the first page*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	0
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	0
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	1
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	0
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1 - R 2.4? Sources	Yes = 1 No = 0	0
Total for R 2	Add the points in the boxes above	1

Rating of Landscape Potential If score is: ☐ 3 - 6 = H ☑ 1 or 2 = M ☐ = L *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	0
R 3.2. Does the river or stream have TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	1
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (*Answer YES if there is a TMDL for the drainage in which the unit is found*).	Yes = 2 No = 0	2
Total for R 3	Add the points in the boxes above	3

Rating of Value If score is: ☑ 2 - 4 = H ☐ 1 = M ☐ = L *Record the rating on the first page*

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat	(only 1 score per box)
H 1.0. Does the wetland have the potential to provide habitat for many species?	
H 1.1. Structure of plant community: *Check the Cowardin vegetation classes present and categories of emergent plants. Size threshold for each category is > = ¼ ac or > = 10% of the wetland if wetland is < 2.5 ac.* ☐ Aquatic bed ☐ Emergent plants 0 - 12 in (0-30 cm) high are the highest layer and have > 30% cover ☑ Emergent plants > 12 - 40 in (> 30-100 cm) high are the highest layer with >30% cover ☐ Emergent plants > 40 in (> 100 cm) high are the highest layer with >30% cover ☑ Scrub-shrub (areas where shrubs have > 30% cover) ☐ Forested (areas where trees have > 30% cover) 4 or more checks: points = 3 3 checks: points = 2 2 checks: points - 1 1 check: points = 0	1
H 1.2. Is one of the vegetation types Aquatic Bed? Yes = 1 No = 0	0
H 1.3. Surface water H 1.3.1. Does the wetland have areas of open water (without emergent or shrub plants) over at least ¼ ac **OR** 10% of its area during the March to early June **OR** in August to the end of September? *Answer YES for Lake Fringe wetlands.* ☐ Yes = 3 points & go to H 1.4 No = go to H 1.3.2 H 1.3.2. Does the wetland have an intermittent or permanent, and unvegetated stream within its boundaries, or along one side, over at least ¼ ac or 10% of its area? *Answer yes only if H 1.3.1 is No.* ☐ Yes = 3 No = 0	3
H 1.4. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. *Different patches of the same species can be combined to meet the size threshold. You do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Russian olive, Phragmites, Canadian thistle, yellow-flag iris, and saltcedar (Tamarisk)* # of species 4 Scoring: > 9 species: points = 2 4 - 9 species: points = 1 < 4 species: points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among types of plant structures (described in H 1.1), and unvegetated areas (open water or mudflats) is high, moderate, low, or none. *Use map of Cowardin and emergent plant classes prepared for questions H 1.1 and map of open water from H 1.3. If you have four or more plant classes or three classes and open water, the rating is always high.*  **None** = 0 points **Low** = 1 point **Moderate** = 2 points All three diagrams in this row are **HIGH** = 3 points  Riparian braided channels with 2 classes	1

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate category. NOTE: A wetland may meet the criteria for more than one set of special characteristics. Record all those that apply. NOTE: All wetlands should also be characterized based on their functions.

Wetland Type	Category
Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0. Vernal Pools Is the wetland **less than 4000 ft²**, and does it meet at least **two** of the following criteria? ☐ Its only source of water is rainfall or snowmelt from a small contributing basin and has no groundwater input. ☐ Wetland plants are typically present only in the spring; the summer vegetation is typically upland annuals. *If you find perennial, obligate, wetland plants, the wetland is probably NOT a vernal pool.* ☐ The soil in the wetland is shallow [< 1 ft (30 cm) deep] and is underlain by an impermeable layer such as basalt or clay. ☐ Surface water is present for less than 120 days during the wet season. ☐ Yes - Go to **SC 1.1** ☑ No = **Not vernal pool** SC 1.1. Is the vernal pool relatively undisturbed in February and March? ☐ Yes – Go to **SC 1.2** ☑ No = **Not a vernal pool with special characteristics**	
SC 1.2. Is the vernal pool in an area where there are at least 3 separate aquatic resources within 0.5 mi (other wetlands, rivers, lakes etc.)? ☐ Yes = **Category II** ☐ No = **Category III**	
SC 2.0. Alkali wetlands Does the wetland meet **one** of the following criteria? ☐ The wetland has a conductivity > 3.0 mS/cm. ☐ The wetland has a conductivity between 2.0 and 3.0 mS, and more than 50% of the plant cover in the wetland can be classified as "alkali" species (see Table 4 for list of plants found in alkali systems). ☐ If the wetland is dry at the time of your field visit, the central part of the area is covered with a layer of salt. **OR** does the wetland unit meet two of the following three sub-criteria? ☐ Salt encrustations around more than 75% of the edge of the wetland ☐ More than ⅓ of the plant cover consists of species listed on Table 4 ☐ A pH above 9.0. All alkali wetlands have a high pH, but please note that some freshwater wetlands may also have a high pH. Thus, pH alone is not a good indicator of alkali wetlands. ☐ Yes = **Category I** ☑ No = **Not an alkali wetland**	
SC 3.0. Wetlands of High Conservation Value (WHCV) SC 3.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ☐ Yes - Go to **SC 3.2** ☑ No - Go to **SC 3.3** SC 3.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes = **Category I** ☑ No = **Not WHCV** SC 3.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ☐ Yes - **Contact WNHP/WDNR and to SC 3.4** ☑ No = **Not WHCV** SC 3.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ☐ Yes = **Category I** ☑ No = **Not WHCV**	

Appendix B: WDFW Priority Habitats in Eastern Washington

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.
http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here:
http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE**: This question is independent of the land use between the wetland unit and the priority habitat.*

- ☐ **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- ☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- ☐ **Old-growth/Mature forests**: Old-growth east of Cascade crest – Stands are highly variable in tree species composition and structural characteristics due to the influence of fire, climate, and soils. In general, stands will be >150 years of age, with 10 trees/ac (25 trees/ha) that are > 21 in (53 cm) dbh, and 1-3 snags/ac (2.5-7.5 snags/ha) that are > 12-14 in (30-35 cm) diameter. Downed logs may vary from abundant to absent. Canopies may be single or multi-layered. Evidence of human-caused alterations to the stand will be absent or so slight as to not affect the ecosystem's essential structures and functions. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west and 80-160 years old east of the Cascade crest.
- ☐ **Oregon White Oak**: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).
- ☑ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- ☐ **Caves**: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- ☐ **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- ☐ **Talus**: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ☑ **Snags and Logs**: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- ☐ **Shrub-steppe**: A nonforested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs (see Eastside Steppe for sites with little or no shrub cover).
- ☐ **Eastside Steppe**: Nonforested vegetation type dominated by broadleaf herbaceous flora (i.e., forbs), perennial bunchgrasses, or a combination of both. Bluebunch wheatgrass (*Pseudoroegneria spicata*) is often the prevailing cover component along with Idaho fescue (*Festuca idahoensis*), Sandberg bluegrass (*Poa secunda*), rough fescue (*F. campestris*), or needlegrasses (*Achnatherum* spp.).
- ☐ **Juniper Savannah**: All juniper woodlands.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Base Map

Figure 2

LEGEND:

BASE LINE:

PLOT NO. & LOCATION: P1

WETLAND BOUNDARY:

WETLAND . . . . W

UPLAND . . . . . U

APPROX. PARCEL BNDRY: