Exhibit A

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS

TECHNICAL MEMORANDUM

To: Jeremiah Cromie, Planner II
Kittitas County Community Development Services
411 N Ruby St. Suite 2
Ellensburg, WA 98926

RECEIVED
By Jeremiah Cromie at 3:57 pm, Jun 07, 2023

From: Eron Drew, Biologist II
151 South Worthen, Suite 101
Wenatchee, Washington 98801

Re: **Marlatt Mitigation Plan for Reasonable Use Exception Application #RU-22-00004**
Parcel #336336 at 3300 Pasco Road Cle Elum, WA 98922

1. INTRODUCTION

Property owners Kyle and Shala Marlatt applied to Kittitas County Community Development for a Reasonable Use Exception on parcel #336336 along Pasco Road in rural Kittitas County, WA (Application RU-22-00004 Marlatt). Due to the small lot size and its location directly adjacent to a Category II Depressional Wetland, a 150-foot wetland buffer encumbers the entire upland of the site. The parcel is therefore unusable unless a Reasonable Use Exception is granted pursuant to Kittitas County Code (KCC) 17A.01.060.2, relieving the owners of the 150ft buffer restrictions and 15ft building setback required for moderate intensity land uses adjacent to the wetland.

On April 17, 2023, Kittitas County Community Development Services issued a letter to the applicant requesting a mitigation plan to mitigate for the presence of the existing structure, the proposed cargo container, and the portion of the parking area located within 25 ft of the wetland boundary in order to continue processing the Reasonable Use Exception request. This Technical Memo serves as the requested mitigation plan and has been prepared pursuant to KCC 17A.01.080 and 17A.01.100. Installation of the proposed mitigation will increase the wetland and wetland buffer value and function as compared to the existing conditions, and a Reasonable Use Exception will not result in adverse impacts to ecological value or function at the site.

Exhibit A

2. EXISTING CONDITIONS

Subject parcel #336336 is located at 3300 Pasco Road in rural Kittitas County near Cle Elum, WA. The parcel is a recreational property, 1.34 acres in size and relatively triangular in shape with a south facing aspect. Pasco Road forms the northern property boundary and the Category II Depressional Wetland is located along the southern boundary. Based on available aerial photography of the site, development activities began in or around 2011 when a gravel driveway and parking area were constructed. In 2021, the previous owner constructed a 175 sq. ft. storage cabin with a small deck, and subsequently added a 16' x 12' deck abutting the structure (the "large deck"). The project proposes removing the large deck and placing an 8' x 20' cargo container in the upland north of the existing driveway. The storage cabin, driveway and parking area will remain.

A wetland delineation was conducted on the parcel by Grette Associates, LLC on June 2, 2022. See Appendix A, *Marlatt Wetland: Wetland Delineation Report (October 2022)*. The delineation confirmed the presence of a Category II Depressional Wetland along the southern parcel boundary, as indicated by United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapping of the parcel. The boundary was marked in the field with orange flagging and the location of the boundary was recorded by sub-meter dGPS for incorporation into site figures (Sheets 1-2). According to KCC 17A.07.030 and Table 17A.07.030, the Category II Depressional Wetland is assigned a 150 ft buffer for Moderate Impact Land Use. This buffer encompasses the entirety of the parcel and extends across Pasco Road onto neighboring parcels to the north. The size of the buffer in relation to the size of the parcel makes the parcel unusable without a Reasonable Use Exception.

During the June 2022 site visit it was also determined that a drainage channel is present on the eastern half of the parcel. This drainage channel does not meet the definition of a stream as it does not connect to a higher order waterbody. The status of the drainage was verified in the field by Washington Department of Fish and Wildlife (WDFW), Kittitas County, and Grette Associates, LLC during a site visit conducted on April 17, 2023. As the drainage does not qualify as a stream, it does not have an assigned buffer. However, in their comments regarding the applicant's Reasonable Use Exception request, WDFW indicated that the drainage should not be filled or relocated as part of the site development. As such, there will be no change to the channel resulting from the granting of the Reasonable Use request at the site. Based on the Washington Department of Natural Resources (WDNR) Forest Practices Application online mapping tool, no other surface hydrology is present at the site.

No additional critical areas were identified at the site. The WDFW Priority Habitats and Species (PHS) online mapping tool indicates broad mapping for Northern Spotted Owl (*Strix occidentalis*) and Gray Wolf (*Canis lupus*). However, there are no specific point of polygon data located at the site for either species and the resolution of the mapped data is to a Township level of accuracy. The site does not contain habitat that would support spotted owl rearing or foraging and is not large enough to significantly benefit gray wolves. According to WDFW, the nearest identified wolf pack is the Teanaway Pack whose range is located east of the site and does not overlap with the project area. The WDNR Natural Heritage Information System was also queried for the site and did not indicate that any rare plant species are mapped within the vicinity of the project area. Additional

information on critical areas is included in the attached wetland delineation report. No mitigation is required for impacts to priority habitats or species or rare plants.

During the April 2023 site visit, it was determined by WDFW, Kittitas County, and Grette Associates, LLC that appropriate mitigation for the approval of a Reasonable Use Exception would include the planting of native shrubs along the wetland margin at a 1:1 ratio for development impacts at the site. Development impacts include the existing structure, the proposed cargo container, and the portion of the parking area located within 25 ft of the wetland margin; approximately 2,013 sq. ft in total. (Per 5/9/23 correspondence with Kittitas County, the previous KCC 17A.04.020 which was in effect at the time of driveway construction in 2011 required a 25 ft buffer for Cat. II wetlands over 2,000 sq. ft in size. This buffer is being retroactively applied to the mitigation required for the existing parking area, as mitigation was never installed at the time of original installation. Mitigation is not being required for portions of the parking area located greater than 25 ft landward of the wetland margin.)

The wetland margin is currently vegetated with alder (*Alnus incana*), grasses and herbaceous species and is lacking in shrubby understory vegetation. The wetland itself is also dominated by reed canary grass (*Phalaris arundinacea*) in the vicinity of the site and is lacking in significant native woody vegetation near the project area. It was agreed upon by all parties in attendance that increasing understory shrubs and native woody vegetation would provide additional protections to the wetland from recreational use of the upland by the applicant and would provide additional resources to wildlife which potentially utilize the site. The native woody vegetation would increase the water quality and habitat functions of the buffer and wetland from existing conditions and would help to limit recreational trespass into the wetland.

The proposed planting plan and associated monitoring and contingency planning is discussed in detail below.

3. MITIGATION SEQUENCING

Mitigation sequencing has been applied as required in KCC 17A.01.100.1:

a. Avoiding the impact altogether by not taking a certain action or parts of an action;

Avoidance of all impacts is not possible for the proposed project as many of the project elements are already present at the site including the existing structure, the deck, and the portion of the gravel parking area located within 25 ft of the wetland margin. However, the project avoids future impacts to the wetland by not increasing recreational use any closer to the wetland margin than what already exists at the site. Impacts to existing buffer vegetation adjacent to the wetland margin will be avoided. The cargo container will be placed in a portion of the parcel that is comprised of grasses and herbaceous species, avoiding the removal of mature trees at the site. The project will also avoid impacting the seasonal drainage located on the eastern half of the parcel as requested by WDFW.

b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;

The project will minimize impacts to the wetland by locating the proposed cargo container—the only *new* development activity—on the north side of the existing driveway and in the vicinity of Pasco Road. The proposed location for the cargo container is as far from the wetland margin as is feasible given the site conditions. Placement of the cargo container will utilize the existing driveway and will not require additional excavation at the site.

c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

The applicant will remove the large deck from the existing structure as requested by Kittitas County. The large deck is partially constructed within the wetland. Its removal will restore this area of wetland to a condition that existed prior to construction of the large deck. The applicant proposes to increase woody vegetation in the wetland by locating the mitigation planting in the portion of the wetland where the large deck is removed. Prior to deck removal, BMPs such as silt fencing will be placed around the work area in order to minimize impacts to the wetland. All deck materials will be removed utilizing hand tools. Removed materials will be disposed of in an appropriate off-site upland location and no deck materials will remain within the wetland.

d. Reducing or eliminating the impact over time by preservation and maintenance operations.

The applicant will maintain the proposed mitigation planting area for 10 years as required by KCC 17A.01.100.2.d.i. Noxious weeds will be controlled within the planting area for five years to ensure that noxious weed cover does not exceed 20 percent of the planting area. Weed control may utilize mechanical or chemical controls consistent with the recommendations of the Kittitas County Noxious Weed Control Board. As this is a sensitive area, chemical controls are not advised. As reed canary grass (*Phalaris arundinacea*) is the most likely weed to invade the planting site, mechanical controls may include weed whipping or mowing around the installed mitigation plants until the

plants are large enough to outcompete the grass.

Maintenance will also include replacing dead plants with like and in-kind species to ensure benchmarks of success are achieved during the first five years of planting. See Section 4.2, *Performance Standards*. Additionally, the property owner will perform site monitoring as discussed in paragraph (*f*) below.

In accordance with 17A.01.090.5, the mitigation planting area will be recorded with the Auditor's office as a Notice on Title and preserved in perpetuity or for the life of the use.

e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments;

The applicant proposes to provide 2,013 sq. ft of native woody vegetation as 1:1 mitigation for impacts of the existing and proposed development described in the Reasonable Use Exception application. The mitigation would be installed on-site within the wetland and wetland buffer; the preferred location. See Section 10, Sheet 1. The native woody plants would be installed in portions of the wetland and adjacent buffer that are currently dominated by grassy and herbaceous species and lacking in understory woody vegetation. See Section 10, Sheet 2. The planting would occur prior to the installation of the cargo container at the site, either in the spring or fall when the chance of survivorship is highest due to favorable climatic conditions. The proposed mitigation would improve the water quality functions provided by the buffer and would increase habitat complexity and availability to wildlife which may be utilizing the site.

f. Monitoring the impact and the compensation project and taking appropriate corrective measures.

The site would be monitored for five years as required with additional monitoring in years 7 and 10 upon the request of Kittitas County. For the duration of the monitoring period, any dead plants within the mitigation area would be replaced at a 1:1 ratio with like and in-kind species in order to achieve success benchmarks. Monitoring reports including photos of the mitigation area and live plant counts will be submitted to Kittitas County in years 1, 2, 3 and 5. After achieving five years of successful monitoring, the applicant will contact Kittitas County in years 7 and 10 to see if additional monitoring is required.

Exhibit A

4. PLANTING PLAN AND CONTINGENCY MEASURES

4.0 Impacts and Objectives. The mitigation would be installed within the wetland and adjoining buffer and on-site; the preferred location. The trees and shrubs would be planted in portions of the wetland and buffer that are currently dominated by grassy and herbaceous species and are lacking in understory shrub and woody vegetation. The proposed mitigation would improve the water quality functions provided by the buffer and would increase habitat complexity and availability to wildlife which may be utilizing the site.

4.1 Planting Plan. The applicant proposes to provide 2,013 sq. ft of native trees and shrubs as 1:1 mitigation for impacts of the existing and proposed development described in the Reasonable Use Exception application. Native species to be installed include mountain alder (*Alnus incana*), aspen (*Populus tremuloides*), Douglas spirea (*Spiraea douglasii*), Nootka rose (*Rosa nutkana*), pacific willow (*Salix lasiandra*), redosier dogwood (*Cornus stolonifera*), black hawthorn (*Crataegus douglasii*), snowberry (*Symphoricarpos albus*) and Oregon grape (*Mahonia aquifolium*). See Section 10, Sheet 2 for specifications of the planting plan.

The planting would occur prior to the installation of the cargo container at the site, either in the spring or fall when the chance of survivorship is highest due to favorable climatic conditions.

4.2 Performance Standards. Benchmarks of success include 100% survivorship in year one following planting and 80% survivorship in years two through five. Monitoring will be conducted by site visits, photo documentation, and planting inventory performed by the property owner.

4.3 Contingency Plan. The applicant would maintain the proposed mitigation planting area for 10 years as required by KCC 17A.01.100.2.d.i. For the duration of the monitoring period, any dead plants would be replaced with like and in-kind species to ensure benchmarks of success are achieved during the first five years of planting. After achieving five years of successful monitoring, the applicant would contact Kittitas County in years 7 and 10 to see if the monitoring period should be extended. Financial guarantees are not required for the proposed project.

Exhibit A

5. CONCLUSION

The applicant proposes to install 2,013 sq. ft of native trees and shrubs as 1:1 mitigation for development impacts associated with their application for a Reasonable Use Exception for parcel #336336 in rural Kittitas County, WA. The applicant will also remove the existing 16' x 12' deck that is currently located on the front of the structure and overhangs the wetland margin.

The mitigation is being provided to compensate for the continued use of the existing 175 sq. ft. structure, the proposed installation of the 8' x 20' cargo container, and portions of the existing gravel parking area located within 25 ft of the wetland margin. The proposed mitigation is consistent with the requirements of Kittitas County for granting a Reasonable Use Exception, and satisfies WDFW mitigation goals for increasing wetland and buffer function and habitat value at the site as compared to existing conditions. Granting the Reasonable Use Exception subject to this mitigation plan will ultimately result in no-net-loss of ecological value or function at the site.

Exhibit A

6. STATEMENT OF ACCURACY

I attest that all critical areas information presented in this document is true and accurate to the best of my knowledge and is based on the best available science at the time of publication.

Exhibit A

7. QUALIFICATIONS

Eron Drew is a professional biologist who meets the qualifications for Wetlands, Habitat Conservation Areas and Vegetation Management qualified professional. Eron holds Bachelor of Science degrees in Geology, Conservation Biology, and Zoology from the University of Wisconsin, Madison with a focus on geomorphology, conservation ecology, and limnology. Professional experience includes over 12 years of natural resource management experience in limnology, fisheries, freshwater ecology, wetland ecology, ESA and PHS species protection, and wildlife habitat assessment, management, and mitigation. She is an Army Corps of Engineers certified wetland delineator with 5 years of professional delineation expertise and has completed the Department of Ecology training for Using the Revised Washington State Wetland Rating System (2014) in Eastern Washington. She completed the Department of Ecology training for Using the Credit-Debit Method for Estimating Wetland Mitigation Needs. She has completed the Department of Ecology training for Determining the Ordinary High Water Mark and the WDNR Ecological Integrity Assessment training. She is also a Cornell Lab of Ornithology eBird data contributor and a member of the Washington Native Plant Society. Eron has over 13 years of professional experience in agriculture and landscape management within Central Washington, and 6 years of experience as a WSU Chelan-Douglas Master Gardener and Master Gardener instructor; with over 75 hours of continuing education through the WSU Research Extension in vegetation management including soils, tree and shrub identification, pruning, site and variety selection, trellising and support, fire-wise landscaping, forest health, xeric and native vegetation, plant health diagnosis, and disease and pest management. Eron can be reached at erond@gretteassociates.com or by phone at (509) 663-6300.

Ryan Walker is a Senior Biologist who meets the qualifications for Wetlands, Habitat Conservation Areas and Vegetation Management with experience in shoreline permitting, forestry, wetland biology, riparian restoration, fish and wildlife habitat and code administration. He is an Army Corps of Engineers certified wetland delineator and is on Ecology's qualified list for wetland ratings in eastern and western Washington and use of the credit/debit mitigation system. His background includes natural resource management, land-use planning, ESA compliance, storm water management planning and Shoreline Management Act permitting. Ryan manages a team of employees whose work includes designing projects to meet the requirements of the Clean Water Act (Section 404 and 401), Rivers and Harbors Act, construction stormwater regulations, Washington State Hydraulic Code Rules and local jurisdiction Shoreline Master Programs and critical area regulations. His work also includes bid administration, contracting and construction management of restoration and salmon recovery projects. He holds a B.S. degree in Natural Resource Management from Washington State University and has completed the Department of Ecology's course on determining the ordinary high water mark. He has worked with federal, state, and local agencies in north-central Washington on environmental permitting issues for over 23 years.

Exhibit A

8. REFERENCES

Kittitas County Code. Kittitas County Board of County Commissioners | County Code

Grette Associates, LLC. Marlatt Wetland. Wetland Delineation Report, October 2022. 51 p.

United States Fish and Wildlife Service (USFWS). National Wetlands Inventory (NWI) online mapping tool. National Wetlands Inventory (usgs.gov)

Washington Department of Fish and Wildlife (WDFW). Priority Habitats and Species (PHS) online mapping tool. PHS on the Web (wa.gov)

Washington Department of Fish and Wildlife (WDFW). Washington Gray Wolf Conservation and Management 2018 Annual Report. Washington Gray Wolf Conservation and Management 2018 Annual Report | Washington Department of Fish & Wildlife

Washington Department of Natural Resources (WDNR). Forest Practices Application Mapping Tool (FPAMT). Forest Practices Application Mapping Tool (FPAMT) (wa.gov)

Washington Department of Natural Resources (WDNR). WNHP Data Explorer. Rare Plant and Ecosystem Locations. Rare Plant and Ecosystem Locations | WNHP Data Explorer (arcgis.com)

Exhibit A

9. PHOTOGRAPHS

Photograph 1: Proposed Mitigation Area; facing east

Photograph 2: Proposed Mitigation Area; facing west

Exhibit A

Photograph 3: Large deck will be removed as part of the Reasonable Use Exception project

Exhibit A

10. SHEETS

Sheet 1: Site Plan

Sheet 2: Planting Plan

Exhibit A

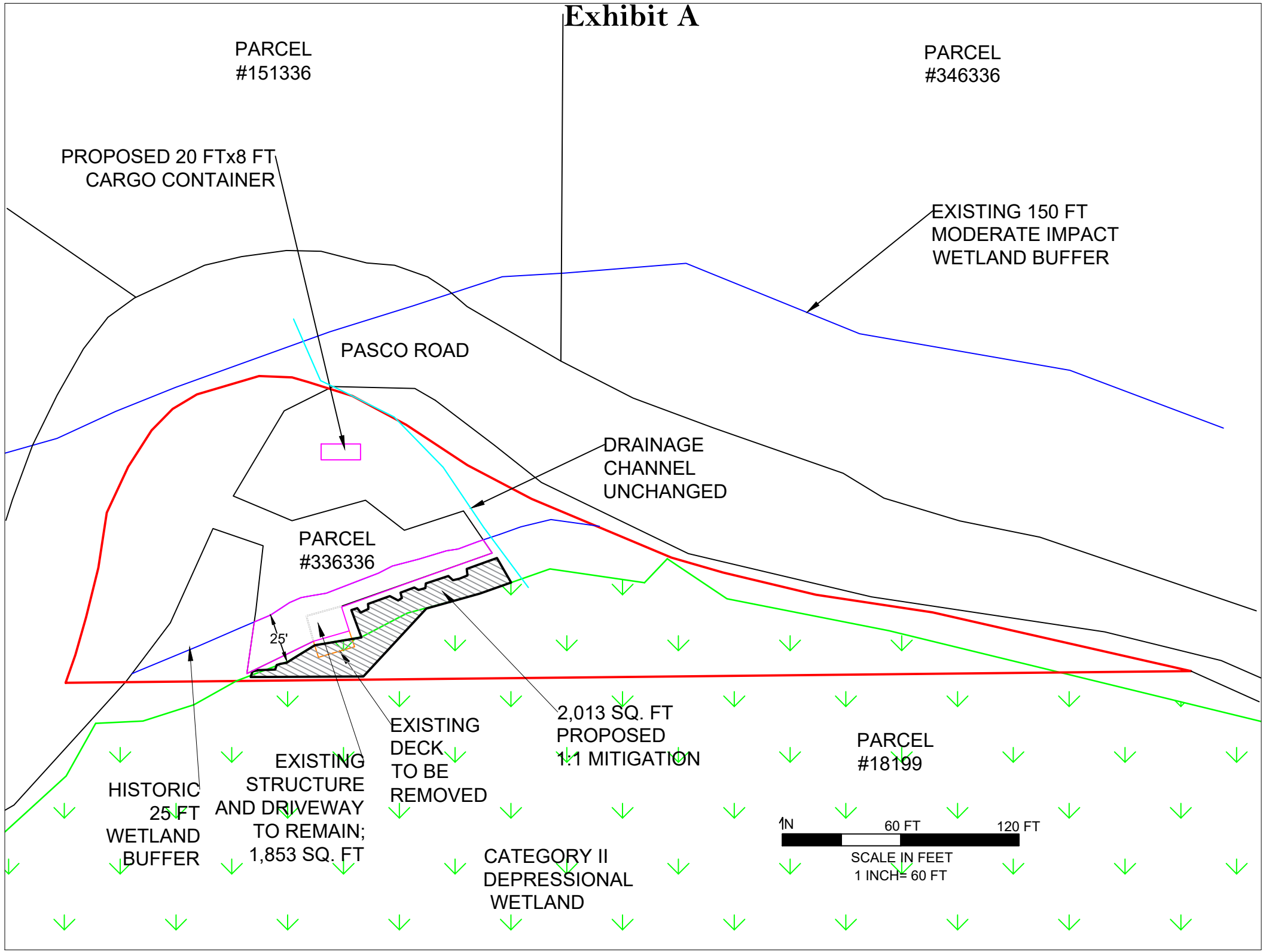
PARCEL
#151336
PARCEL
#346336
PROPOSED 20 FTx8 FT
CARGO CONTAINER
EXISTING 150 FT
MODERATE IMPACT
WETLAND BUFFER
PASCO ROAD
DRAINAGE
CHANNEL
UNCHANGED
PARCEL
#336336
25'
HISTORIC
25 FT
WETLAND
BUFFER
EXISTING
STRUCTURE
AND DRIVEWAY
TO REMAIN;
1,853 SQ. FT
EXISTING
DECK
TO BE
REMOVED
2,013 SQ. FT
PROPOSED
1:1 MITIGATION
PARCEL
#18199
CATEGORY II
DEPRESSIONAL
WETLAND
1IN
60 FT
120 FT
SCALE IN FEET
1 INCH= 60 FT

Exhibit A

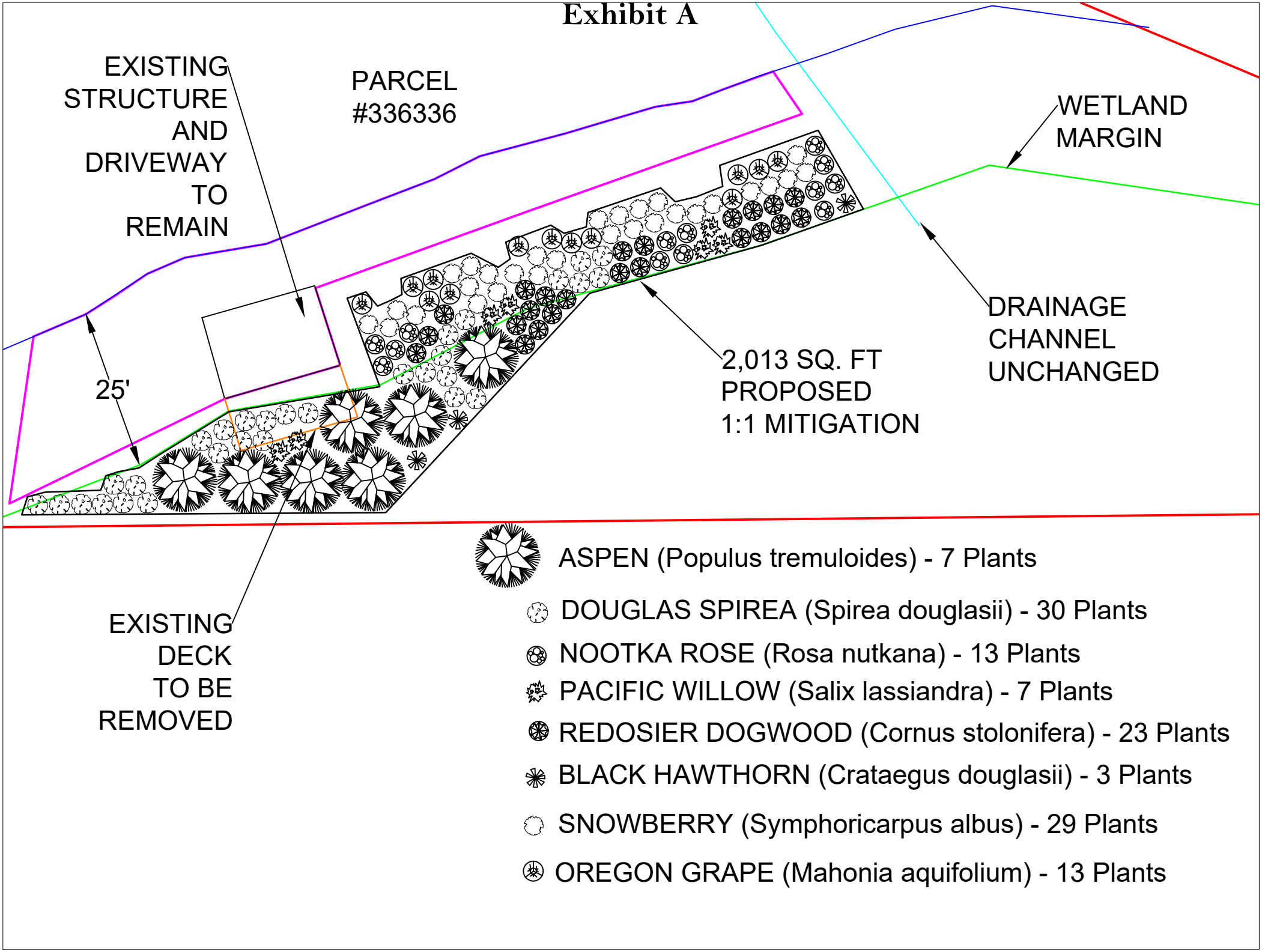
EXISTING STRUCTURE AND DRIVEWAY TO REMAIN
PARCEL #336336
WETLAND MARGIN
25'
2,013 SQ. FT PROPOSED 1:1 MITIGATION
DRAINAGE CHANNEL UNCHANGED
EXISTING DECK TO BE REMOVED
ASPEN (Populus tremuloides) - 7 Plants
DOUGLAS SPIREA (Spirea douglasii) - 30 Plants
NOOTKA ROSE (Rosa nutkana) - 13 Plants
PACIFIC WILLOW (Salix lassiandra) - 7 Plants
REDOSIER DOGWOOD (Cornus stolonifera) - 23 Plants
BLACK HAWTHORN (Crataegus douglasii) - 3 Plants
SNOWBERRY (Symphoricarpus albus) - 29 Plants
OREGON GRAPE (Mahonia aquifolium) - 13 Plants

Exhibit A

11. APPENDIX A

Marlatt Wetland: Wetland Delineation Report
(October 2022)

Exhibit A

MARLATT WETLAND

WETLAND DELINEATION REPORT

PREPARED FOR:

SHALA AND KYLE MARLATT
25849 145TH PL SE
KENT, WA 98042

PREPARED BY:

GRETTE ASSOCIATES LLC
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WENATCHEE, WASHINGTON 98801
(509) 663-6300

OCTOBER 2022

Grette Associates LLC
ENVIRONMENTAL CONSULTANTS

Exhibit A

TABLE OF CONTENTS

LIST OF TABLES

Exhibit A

LIST OF FIGURES

LIST OF PHOTOGRAPHS

LIST OF ATTACHMENTS

Exhibit A

1 INTRODUCTION

Grette Associates, LLC was contracted by Shala and Kyle Marlatt to conduct a wetland delineation and classification on parcel #336336, located at 3300 Pasco Road, near Cle Elum, WA; Township 19 North, Range 14 E.W.M, Section 2. The purpose of this study was to determine the presence/absence of wetlands and, if present, to flag the boundaries and determine appropriate wetland buffers on the site. The determination of wetland buffers is necessary in order for the permitting of moderate impact uses to occur on the property; including use of the existing cabin and the placement of a 20-ft cargo container for equipment storage.

On June 2, 2022 Grette Associates conducted a field wetland delineation at the site to determine the presence, type, and extent of wetlands and waters of the U.S. within the parcel. This report presents the study methods and findings of the field investigation. Field data sheets are attached for reference in Attachment 1 and a wetland rating form is included as Attachment 2.

Figure 1. Vicinity Map

2 WETLAND SUMMARY

During the site investigation, the study area (defined as the subject parcel) was inspected for the presence of jurisdictional wetlands. The site visit identified one wetland located on parcel #336336 (Figure 2, Photographs 1-9). The Marlatt Wetland is classified as a Category II Depressional Wetland.

Exhibit A

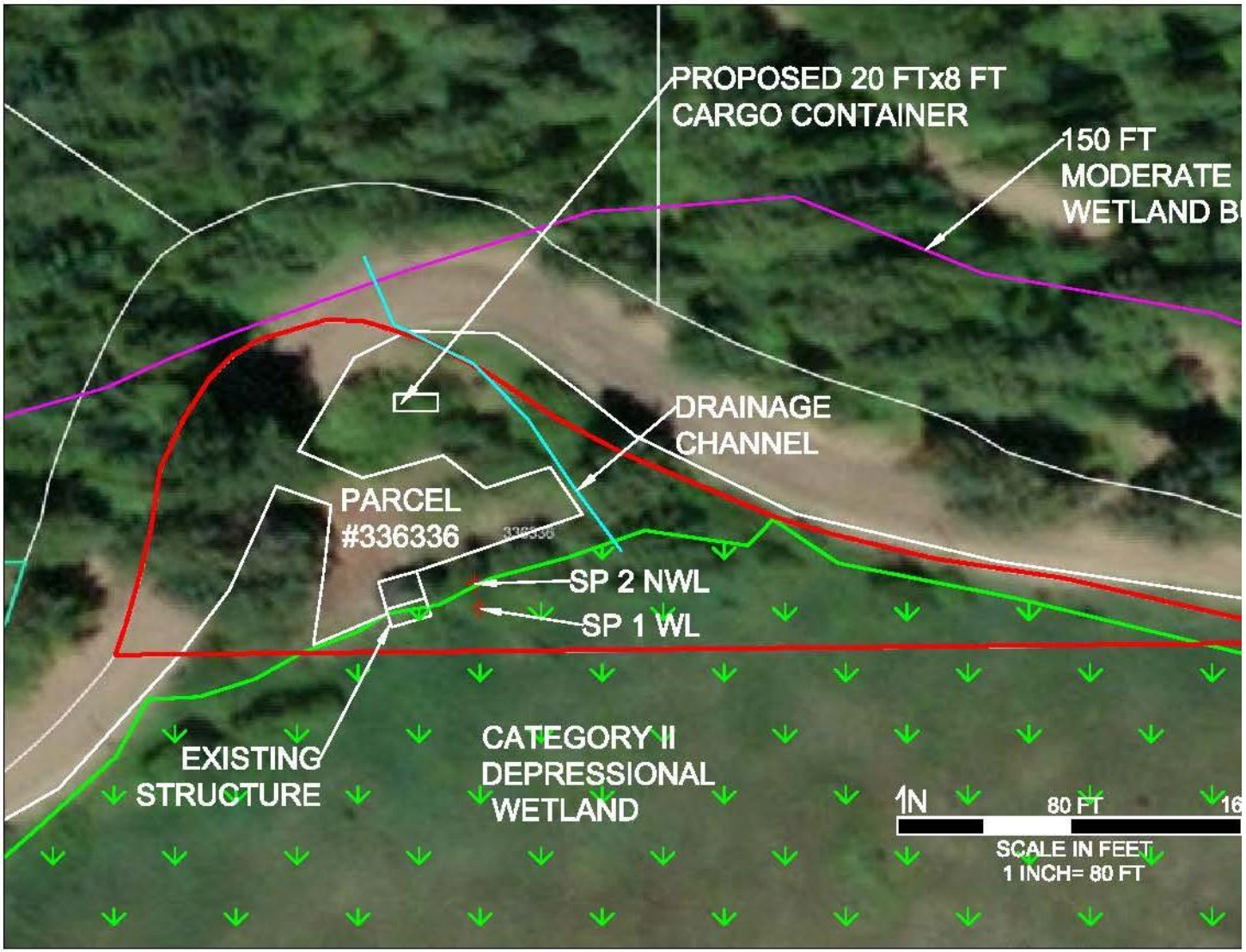


Figure 2. Wetland map of the study area.

3 METHODS

The study area was traversed on foot and two formal data plots and soil test pits plus several informal soil test pits were excavated to evaluate wetland conditions. Wetland boundaries were established based on changes in vegetation, signs of hydrology, and topographic changes. Data plots were established in and adjacent to the wetland areas. The locations of the on-site wetland boundaries and data points were identified with orange flagging and were recorded in the field by sub-meter dGPS.

During the site visit, a drainage channel was also identified on the parcel. The channel was not flowing surface water on the day of the visit. After leaving the property, the channel disappears and does not connect to a higher order water by an above-ground channel. Per KCC 17A.04.020(4)(d), the channel does not meet the definition of a type Ns water and therefore does not have a Riparian Management Zone or buffer. Although this channel does not qualify as a stream it does convey stormwater from Pasco Road into the subject wetland across the subject parcel.

3.1 WETLAND DELINEATION

The boundaries between wetlands and uplands were determined using the data collected from the data pit locations. Guidance from the 1987 Army Corps of Engineers Wetlands Delineation Manual ("1987 Manual") (USACE 1987), as well as the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) ("Western Mountain Supplement") (USACE 2010) was used to perform the wetland delineation. The methods in these manuals recognize that the three parameters of hydrology, hydric soils, and hydrophytic vegetation are generally found in wetlands and that these parameters are important in the establishment and maintenance of wetland communities. The methods evaluate each of the three parameters to determine if a wetland is present and to establish wetland boundaries.

The presence of dominant hydrophytic vegetation and indicators of wetland hydrology are used to delineate the boundary between wetland and upland areas. Wetland boundaries are then confirmed by checking the soil color and organic content to verify presence of hydric soils. Wetlands are classified using the U.S. Fish and Wildlife Service's (USFWS) Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979) and are categorized using Ecology's Washington State Wetlands Rating System for Eastern Washington – Revised (Hruby 2014).

3.1.1 Hydrophytic Vegetation

The USACE's most recent National Wetland Plant List, ver. 3.5 (USACE, 2020) was used to determine vegetation indicator status. This system assigns an indicator status to commonly occurring plant species on the basis of their frequency of occurrence in wetlands (Table 1). Species indicator status expresses the range in which plants typically occur in wetlands and non-wetlands (uplands). Under this system, vegetation is considered hydrophytic when there is an indicator status of facultative (FAC), facultative wetland (FACW) or obligate wetland (OBL) (Table 1).

Table 1. Definitions for USACE plant indicator status

Plant Indicator Status Category	Indicator Status Abbreviation	Definition (Estimated Probability of Occurrence)
Obligate Upland	UPL	Occur rarely (<1 percent) in wetlands, and almost always (>99 percent) in uplands
Facultative Upland	FACU	Occur sometimes (1 percent to <33 percent) in wetlands, but occur more often (>67 percent to 99 percent) in uplands
Facultative	FAC	Similar likelihood (33 percent to 67 percent) of occurring in both wetlands and uplands
Facultative Wetland	FACW	Occur usually in wetlands (>67 percent to 99 percent), but also occur in uplands (1 percent to 33 percent)
Obligate Wetland	OBL	Occur almost always (>99 percent) in wetlands, but rarely occur in uplands (<1 percent)
Not Listed	NL	Not listed due to insufficient information to determine status

Under the Western Mountains Supplement, the hydrophytic vegetation criterion is determined by three tests, in order of priority: the rapid test, the dominance test, and the prevalence index. Passing any one of these tests results in a determination of hydrophytic vegetation. The rapid test is passed if all dominant species across all strata are "FACW" or wetter. The dominance test is met when more than 50 percent of the dominant species in the plant community are "FAC" or wetter. The percent dominance for each plant strata is determined using the "50-20 Rule". The prevalence index is a weighted formula that determines whether or not a plant community is hydrophytic based on the relative abundance of more or less strongly hydrophytic species. More strongly hydrophytic species (e.g. OBL) are weighted more heavily in the formula than less strongly hydrophytic species (e.g. FAC). The formula produces a numerical score, which determines whether or not the plant community is hydrophytic. Additionally, the observation of morphological plant adaptations and the presence of wetland non-vascular plants can be used as hydrophytic vegetation indicators. Non-hydrophytic vegetation can also be considered problematic hydrophytic vegetation if supported by best professional judgment and the hydric soils and hydrology indicators are also passed.

3.1.2 Hydric Soils

Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper soil horizons are considered hydric soils. Hydric soil indicators are formed primarily by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated or anaerobic environment. The Western Mountains Supplement includes six hydric soils indicators that apply to all soil types, including histosols, histic epipedon layer, black histic layer, a sulfidic odor, depleted soil matrix below dark surface, and thick dark surface. Additional indicators also apply based on the soil type (USACE 2010). Some soils, even under wetland conditions, do not readily develop redoximorphic features or otherwise display typical hydric soil indicators due to their physical or chemical characteristics. Under certain circumstances described in the Western Mountains Supplement, these soils may be determined to be "Problematic Hydric Soils" if hydrophytic vegetation and wetland hydrology are present. An alpha-alpha dipyridyl (AADP) solution test would be used to provide additional information about soils in this case.

3.1.3 Wetland Hydrology

Evidence of permanent or periodic inundation or soil saturation to the surface for a minimum of 5% of the growing season (soil temperatures above 41°F at 19.7 inches below the surface) meets the hydrology criterion. This duration is approximated as 14 consecutive days.

The Western Mountains Supplement includes several indicators of wetland hydrology, divided into four categories: Category A (observation of surface water or saturated soils), Category B (evidence of recent inundation), Category C (evidence of current or recent soil saturation), and Category D (evidence from other site conditions or data). Category A includes direct observations of hydrology, and Categories B-D include indirect observations. Within each category, indicators are further divided into "primary" and "secondary" indicators. One primary indicator or at least two secondary indicators are required to confirm the presence of wetland hydrology. According to the Western Mountains Supplement, all indicators are "intended as one-time observations that are sufficient evidence of wetland hydrology in areas where hydric soils and hydrophytic vegetation are present" (U.S. Army Corps of Engineers, 2010, p. 69).

In the Western Mountains Supplement, nineteen primary indicators have been established, including surface water, high water table, soil saturation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, presence of reduced iron as determined by a positive reaction to AADP, hydrogen sulfide odor, and oxidized rhizospheres along live roots in the top 12 inches. Eight secondary indicators have been established, including drainage patterns, dry-season water table, saturation visible on aerial imagery, and a positive FAC-neutral test.

4 BACKGROUND INFORMATION

The subject property is located at 3300 Pasco Road near Cle Elum, WA. To access the site from Ellensburg, head west on I-90 for approximately 28 miles. Use Exit 78 and follow the signs for Golf Course Road. Turn left onto Golf Course Road and continue approximately 0.9 miles. Turn left onto Westside Road and continue 0.9 miles. Keep straight onto Fowler Creek Road and continue 0.8 miles. The road name will change to Pasco Road. Continue on Pasco Road another 2.2 miles. The subject parcel will be on the right directly adjacent to the road. Park and continue on foot to the subject wetland.

4.1 STUDY AREA CHARACTERISTICS

4.1.1 Physical Characteristics

The project site is comprised of one small property located directly adjacent to Pasco Road. The parcel is 1.34 acres in size and mildly slopes to the south before flattening out within the subject wetland. The parcel is comprised of a portion of Pasco Road, a cleared and graveled high use area with small cabin, upland vegetation and the northern edge of the subject wetland. The deck of the small cabin extends out over the wetland boundary. In addition to the small cabin the graveled area is also utilized for RV parking and equipment storage. A drainage channel is located near the center of the parcel. This channel funnels stormwater from Pasco Road to the subject wetland and runs from north to south across the parcel. The parcel is zoned Forest and Range. Surrounding parcels

are comprised of Forest and Range and Rural 5 zoning and are undeveloped or comprised of low density residential and recreational uses.

4.1.2 Hydrology

Wetland hydrology at the site is derived from a shallow water table resulting from surface and sub-surface drainage of snowmelt and storm events from the surrounding ridges. As the wetland is located in the valley between two ridgelines, the hydrology becomes confined and results in the formation of hydric conditions. The outlet for the subject wetland is located approximately 0.5 miles to the west of the site where the topography begins to increase in slope toward the west and away from the wetland. Water from the subject wetland feeds Fowler Creek, which is located just to the west of the outlet and bends to the north through a confined valley before joining the Yakima River approximately 2 miles from the subject parcel.

4.1.3 Vegetation

The parcel is located within the Ponderosa pine (*Pinus ponderosa*) and Douglas fir (*Pseudotsuga menziesii*) forest of Kittitas County, WA.

The vegetative community within the upland adjacent to the wetland is comprised of species including *Pseudotsuga menziesii*, *Pinus ponderosa,* vine maple (*Acer circinatum*), speckled alder (*Alnus incana*), water birch (*Betula occidentalis*), snowberry (*Symphoricarpos albus*), mullein (*Verbascum thapsis*), reed canary grass (*Phalaris arundinacea*), stream violet (*Viola glabella*) and stinging nettle (*Urtica dioica*).

Wetland areas are vegetated with *Alnus incana* and *Phalaris arundinacea*. Offsite wetland vegetation also includes unidentified sedges and rushes, redosier dogwood (*Cornus stolonifera*) and various willow species. These species are visible from Pasco Road.

4.2 HYDROLOGIC CONDITIONS

The NOAA/NCEI Climate Division Precipitation Anomalies (CDPA) map was utilized to assess the severity of drought conditions in the three months leading up to the site visit. The dataset ranges from a value of -13 to 13, with positive values indicating wetter than normal periods and negative values representing drought conditions. The CDPA map covers specific regions of the state and is updated monthly. For the subject parcel, the East Slope of the Cascade region was utilized. CDPA precipitation data from April to June of 2022 scored a 3, indicating that precipitation for this time of year was in the range of above normal. Therefore, special wetland delineation procedures specific to drought conditions were not utilized during the site investigation.

Exhibit A

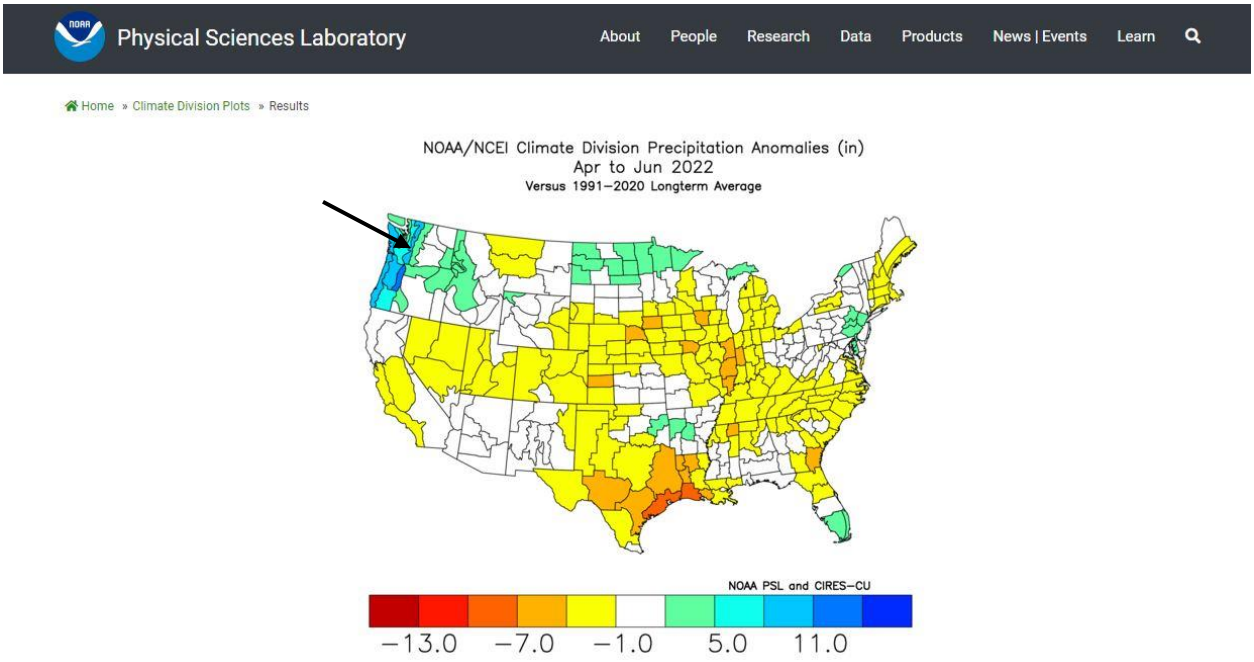


Figure 3. CDPA data for "East Slope Cascades" Division for the months preceding the site visit; blue indicates wetter, red indicates drier.

The site visit was conducted in early June of 2022. Total precipitation in 2022 prior to the field investigations (through May 31) was 22.58 inches (NRCS 2021a), which is approximately 105% of normal (21.37 inches; NRCS 2021b). The average annual rainfall within the last 10 Water Years was 41.28 inches (NRCS 2021b). Table 3 below presents an analysis of the appropriate NRCS WETS table (NRCS 2021b) for the three full months preceding the field investigation (Table 2). Bins were established to determine the overall rainfall period during the field investigation; drier (sum in 6-9), normal (sum is 10-14), wet (sum is 15-18). Based on the recorded rainfall, the WETS table sum is 15, indicating wet conditions.

Table 2. NRCS WETS table analysis for Easton (AgACIS Station EASTON, WA)

Preceding Month	WETS Rainfall Percentile (inches)		Measured Rainfall[1] (inches)	Conditions[2]	Condition Value[3]	Month Weight[4]	Value
	30%	70%					
May	1.77	2.80	5.32	Wet	3	3	6
April	1.84	3.26	3.81	Wet	3	2	5
March	2.77	5.58	5.91	Wet	3	1	4
						Sum:	15

[1] Observed rainfall for the month
[2] Dry conditions are below 30% WETS table value, Normal conditions are between 30% and 70% of the WETS table values, Wet conditions are above 70% of the WETS table value.
[3] Dry equals a value of 1, normal equals a value of 2, wet equals a value of 3.
[4] More weight is given to the most recent months.

4.3 NATIONAL WETLANDS INVENTORY

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) was queried to determine if previously identified wetlands are present on or near the study area (USFWS 2021). According to the NWI Interactive Online Mapper, a freshwater emergent wetland (PEM1A) is mapped at the site (Figure 4).

Figure 4. National Wetland Inventory data of the subject property and surrounding area.

4.4 SENSITIVE WILDLIFE AND PLANTS

The Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) database and the U.S. Fish and Wildlife Service (USFWS) IPaC database for Endangered Species were queried to determine if state- or federally-listed fish or wildlife species occur on or near the study area. According to the PHS database the parcel is broadly mapped for Northern Spotted Owl (*Strix occidentalis*) Occurrence mapped to Township and Gray Wolf (*Canis lupus*) Occurrence mapped to township. However, habitat to support these species is not present at the site.

Exhibit A

Priority Habitats and Species on the Web

Report Date: 10/03/2022, Parcel ID: 19-14-02040-0008

PHS Species/Habitats Overview:

Occurence Name	Federal Status	State Status	Sensitive Location
Northern Spotted Owl	Threatened	Endangered	Yes
Gray wolf	Endangered	Endangered	Yes
Freshwater Emergent Wetland	N/A	N/A	No

PHS Species/Habitats Details:

Figure 5. WDFW PHS mapping of the subject parcel and surrounding vicinity.

According to the USFWS IPaC database the parcel is broadly mapped for Gray Wolf (*Canis Lupus*)-Endangered, North American Wolverine (*Gulo gulo luscus*)-Proposed Threatened, Northern Spotted Owl (*Strix occidentalis*)-Threatened, Yellow-billed cuckoo (*Coccyzus americanus*)-Threatened, Bull Trout (*Salvenlinus confluentus*)-Threatened, and Monarch Butterfly (*Danaus plexippus*)-Candidate. However, none of the above species were observed at the time of the site visit.

The Washington Department of Natural Resources' (WDNR) Natural Heritage Information System was queried to determine if the study area includes high-quality natural heritage wetland occurrences or occurrences of natural heritage features commonly associated with wetlands. According to WDNR data, no rare plant populations are mapped in the same Township/Range/Section as the subject wetland.

4.5 SOIL INFORMATION

The Natural Resource Conservation Service's (NRCS) Web Soil Survey (Kittitas County Area) was consulted to determine the mapped soil present on the property. The project site is primarily comprised of Haplosaprists, 0 to 2 percent slopes (214) and Volperie very paragravelly ashy sandy loam, warm, 30 to 60 percent slopes (265) (Figure 5).

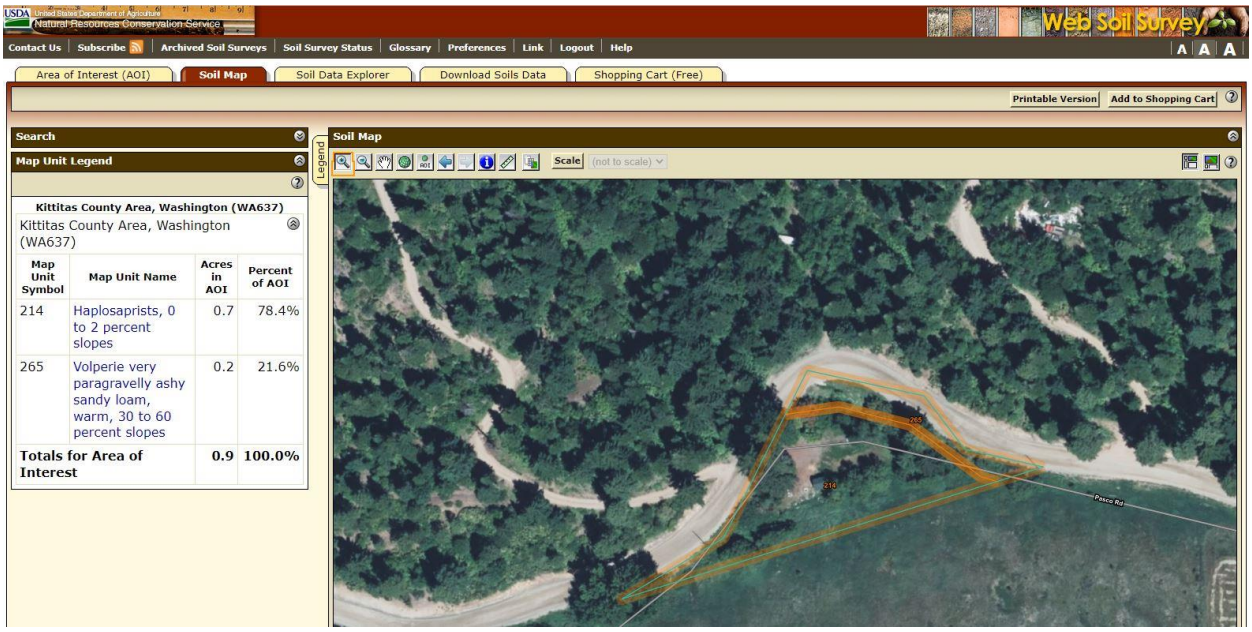


Figure 6. NRCS Web Soil Survey map of the Subject property.

Haplosaprists (214) is a deep soil formed on basin floors from herbaceous organic material over alluvium. A typical profile contains brown (10YR 4/3) muck from 0 to 8 inches, dark grayish brown (10YR 4/2) muck from 8 to 20 inches and very dark gray (10YR 3/1) muck from 20 to 43 inches with silty clay loam from 43 to 60 inches. Depth to a restrictive layer is more than 80 inches. The soil is very poorly drained but is not listed as a hydric soil in Kittitas County.

Volperie very paragravelly ashy sandy loam (265) is a relatively shallow soil formed on mountain slopes from residuum from phyllite and schist with a mantle of volcanic ash. A typical profile contains forest litter from 0-1 inches, dark brown (10YR 3/3) sandy loam from 1-7 inches, dark yellowish brown (10YR 3/4) loam from 7 to 15 inches, olive brown (2.5Y 4/4) gravelly loam from 15 to 37 inches and bedded phyllite and mica schist at 37 inches. Depth to a restrictive layer is 30 to 40 inches. The soil is well drained and is not listed as a hydric soil for Kittitas County.

5 RESULTS

Observations at 2 formal sampling locations (SP1 and SP2) and several informal test pits throughout the property were used to determine the presence and extent of wetland conditions (data sheets are presented in Attachment 1). This resulted in the identification of one depressional wetland on parcel #336336 (Figure 2, Photographs 1-9). The Marlatt Wetland is discussed below.

5.1 MARLATT WETLAND

The Marlatt Wetland is a 77.65-acre depressional wetland located from east to west in a confined valley approximately 2 miles south of the Yakima River and outside of Cle Elum, WA. On the subject parcel the wetland runs from east to west in the southern half of the property. The wetland extends onto neighboring parcels to the east, south and west. The wetland is roughly oval shape, with the long axis running from east to west approximately 5,258 ft and the short axis running north to south approximately 1,145 ft. Hydrology is primarily driven by the surface and sub-surface drainage of the surrounding ridgelines which coalesce in the valley bottom and form hydric soil conditions. The wetland margin is well established and defined by topography and a distinct shift in vegetation.

5.1.1 Vegetation

The site visit was conducted in early June, so much of the vegetation was identifiable or actively growing. Vegetation within the wetland sampling location (SP1) is dominated by *Alnus incana (FACW)* and *Phalaris arundinacea (FACW).*

Vegetation within the upland along the wetland boundary (SP2) is dominated by *Alnus incana* (FACW), *Phalaris arundinacea* (FACW), and Kentucky bluegrass (*Poa pratense*) (FAC). Upland areas adjacent to the wetland are mowed and maintained lawngrass.

Based on the dominance of hydrophytic plant species at sampling location SP1, the hydrophytic vegetation criterion for a wetland is passed.

5.1.2 Soils

As mentioned above, three formal test pits were dug within the vicinity of the Marlatt Wetland. Additional informal pits were dug to properly establish the wetland boundaries.

Wetland pit SP1 soils consist of 100% very dark brown (10YR 2/2) mucky sand from 0-4 inches and black (10YR 2/1) mucky sand from 5 to 16 inches in depth.

Upland Pit SP2 soils consist of 100% dark yellowish brown (10YR 3/4) loamy sand from 0-13 inches in depth.

Based on the presence of sandy mucky mineral soils at SP1, the hydric soils criterion is passed.

5.1.3 Hydrology

As discussed above, hydrology within the Marlatt Wetland is provided by surface and subsurface contributions from the drainage of snowmelt and storm events from the surrounding ridgelines. Primary indicators of hydrology include a high water table and saturation. The water table was present at 11 inches in depth and saturation was visible starting at 5 inches. Secondary indicators include the FAC-Neutral Test for vegetation.

Based on these observations, the qualification for wetland hydrology is satisfied for the Marlatt Wetland.

6 DISCUSSION

6.1 FUNCTIONS AND VALUES

Wetlands provide a number of values and functions, such as fish and wildlife habitats, natural water quality improvement, flood storage, shoreline erosion protection and opportunities for recreation and aesthetic appreciation. Protecting wetlands can, in turn, protect our health and safety by reducing flood damage and preserving water quality. Although every wetland serves some function, the type and the degree to which a particular function is served varies from wetland to wetland.

To rate the relative functions of a certain wetland in comparison to other wetlands in the region, Ecology has developed the *Washington State Wetland Rating System for Eastern Washington - Revised* (Hruby 2014). This rating system categorizes wetlands using a function-based approach. Possible ratings range from Category I (highest-quality) to Category IV (lowest-quality). Wetlands are categorized based on their potential and opportunity to perform certain water quality, hydrologic, and habitat functions. These functions include filtering runoff, reducing flooding and erosion, and providing diverse and undisturbed habitat for a variety of wildlife species.

Ecology's 2014 wetland rating system evaluates the three main functions of a wetland (Water Quality Improvement, Hydrologic function, and Habitat function) at three scales: "Site Potential," "Landscape Potential," and "Value". A rating of High ("H"), Medium ("M"), and Low ("L") is assigned for each scale/function, for a total of nine ratings (Table 3). Ratings are worth 3 points for "H," 2 points for "M," and 1 point for "L." These ratings are summed to generate a score for each function, which are then summed to generate an overall wetland score and category (Table 4). The functional scores and category ratings for the wetlands are included in Table 5.

Exhibit A

Table 3. Functional rating matrix

Marlatt Wetland				
Function	**Improving Water Quality**	**Hydrologic**	**Habitat**	**Total**
Site Potential	H / **M** / L	H / M / **L**	H / **M** / L	
Landscape Potential	**H** / M / L	H / **M** / L	**H** / M / L	
Value	**H** / M / L	H / **M** / L	H / **M** /L	
Score Based on Ratings	**8**	**5**	**7**	**20**

Table 4. Category of wetland based on functions

Category	Total Score
Category I	22-27
Category II	19-21
Category III	16-18
Category IV	9-15

Table 5. Wetland rating and categorization summary

Wetland Name	Wetland Size (acres)	Cowardin Class	HGM Class	Water Quality	Hydrology	Habitat	Total	Function Category	Special Characteristics
Marlatt Wetland	77.65	PEM1A	Depression	8	5	7	20	II	None

Based on the wetland rating form the **Marlatt Wetland** rates as **Category II Depressional** wetland based on function. Wetland function/value categories are discussed below.

6.2 MARLATT WETLAND

The wetland provides moderately high water quality functions. The wetland has an intermittently flowing outlet and un-grazed vegetation from 1/3 to 2/3 of its area. There is seasonal ponding. The wetland receives stormwater discharges and has land uses that generate pollutants within 150 ft. The wetland is in a basin or sub-basin with water quality issues and is in a drainage or basin that has a TMDL for water quality.

The wetland has a moderately low potential for providing hydrologic functions. The wetland has an intermittently flowing outlet but seasonal ponding is minimal. The wetland receives stormwater discharges. There are surface flooding problems in a sub-basin farther down-gradient.

The wetland provides a moderately high level of habitat function. The wetland has high structural complexity and several special habitat features. Potential of the surrounding landscape to support habitat function is high due to the level of undisturbed and low intensity land abutting the wetland. The wetland has one WDFW priority habitat within 100 meters.

Scoring for specific elements of the wetland function is determined by the Wetland Rating Form, which is provided in Attachment 2.

6.3 REGULATORY CONSIDERATIONS

Wetland buffer widths and mitigation requirements in Kittitas County are determined based on the wetland rating. Standard buffer widths for wetlands outside of shoreline jurisdiction are presented in Kittitas County Code (KCC) Title 17A.07.030 Wetland Buffers. Based on Table 17A.07.030: Standard Buffer Widths, the buffer width for a **Category II** wetland with a **Moderate Impact** Land Use is **150 ft**. The footnotes for the table define the level of impact from proposed land use.

Wetland buffers shall be measured horizontally in all directions from the outer edge of the wetland boundary as established in the field per KCC 17A.07.030.2.

Except as otherwise specified, wetland buffer zones shall be retained in their natural conditions (see KCC 17A.07.030.13 and 17A.07.050 for exemptions and allowed buffer uses and KCC17A.01.060.2.c. reasonable use criteria). Filling or otherwise disturbing wetlands is generally prohibited by Kittitas County. If a proposed development is located within or adjacent to a known or suspected wetland, the Director shall require the applicant to submit a wetland critical areas report prepared by a qualified professional pursuant to 17A.07.060. Where impacts to the wetland buffer are unavoidable, mitigation is required pursuant to KCC 17A.07.070.

Non-isolated wetlands are also regulated by the USACE under Section 404 of the Clean Water Act. If the USACE were to exert jurisdiction, a Section 404 permit from the USACE would only be required if filling, grading, vegetation removal or other development activities are proposed within the limits of the wetland. The Corps project manager for the Kittitas County area should be contacted prior to any proposed activity occurring within the wetland to determine if a USACE permit is necessary.

In addition, if any proposed wetland alteration requires a federal permit, an Ecology Individual 401 Water Quality Certification may also be required. Ecology regulates all wetlands under the State Clean Water Act (RCW 90.48).

6.4 REASONABLE USE REVIEW CRITERIA

An application has been submitted by the applicant's representative for a reasonable use exception pursuant to KCC 17A.01.060 to allow a 175 sq ft shed and 160 sq ft storage container within the wetland buffer. The majority of the north side of the entire wetland is either bounded by Pasco Road or pre-existing development which effectively interrupts a significant portion of the buffer per KCC 17A.07.030.7. Given the substantial existing impacts to the buffer that reduce its potential to perform normal functions, the 335 total sq ft of non-habitable structure on the subject property will be immeasurable and therefore will not result in a loss of critical area function compared to existing conditions. If any new vegetation removal is required, it should be replaced with native species planted adjacent to the wetland to ensure there is no reduction in woody vegetation on the property.

Exhibit A

7 QUALIFICATIONS

Eron Drew is a professional biologist who meets the qualifications for Wetlands, Habitat Conservation Areas and Vegetation Management qualified professional. Eron holds Bachelor of Science degrees in Geology, Conservation Biology, and Zoology from the University of Wisconsin, Madison with a focus on geomorphology, conservation ecology, and limnology. Professional experience includes over 11 years of natural resource management experience in limnology, fisheries, freshwater ecology, wetland ecology, ESA and PHS species protection, and wildlife habitat assessment, management, and mitigation. She is an Army Corps of Engineers certified wetland delineator and has completed the Department of Ecology training for Using the Revised Washington State Wetland Rating System (2014) in Eastern Washington. She has completed the Department of Ecology training for Determining the Ordinary High Water Mark and the WADNR Ecological Integrity Assessment training. She is also a Cornell Lab of Ornithology eBird data contributor and a member of the Washington Native Plant Society. Eron has over 13 years of professional experience in agriculture and landscape management within Central Washington, and 6 years of experience as a WSU Chelan-Douglas Master Gardener and Master Gardener instructor; with over 75 hours of continuing education through the WSU Research Extension in vegetation management including soils, tree and shrub identification, pruning, site and variety selection, trellising and support, fire-wise landscaping, forest health, xeric and native vegetation, plant health diagnosis, and disease and pest management. Eron can be reached at erond@gretteassociates.com or by phone at (509) 663-6300.

Ryan Walker is a Senior Biologist who meets the qualifications for Wetlands, Habitat Conservation Areas and Vegetation Management with experience in shoreline permitting, forestry, wetland biology, riparian restoration, fish and wildlife habitat and code administration. He is an Army Corps of Engineers certified wetland delineator and is on Ecology's qualified list for wetland ratings in eastern and western Washington and use of the credit/debit mitigation system. His background includes natural resource management, land-use planning, ESA compliance, storm water management planning and Shoreline Management Act permitting. Ryan manages a team of employees whose work includes designing projects to meet the requirements of the Clean Water Act (Section 404 and 401), Rivers and Harbors Act, construction stormwater regulations, Washington State Hydraulic Code Rules and local jurisdiction Shoreline Master Programs and critical area regulations. His work also includes bid administration, contracting and construction management of restoration and salmon recovery projects. He holds a B.S. degree in Natural Resource Management from Washington State University and has completed the Department of Ecology's course on determining the ordinary high water mark. He has worked with federal, state, and local agencies in north-central Washington on environmental permitting issues for over 21 years.

Exhibit A

8 BIBLIOGRAPHY

Cowardin, L. M., Carter, V., Golet, F. C., & LaRoe, E. T. 1979. Classification of wetlands and deepwater habitats of the United States. Office of Biological Services, FWS, US Dept. of the Interior.

Fortner. 2012. National Hydric Soils List Excel 2012. U.S. Department of Agriculture, Natural Resources Conservation Service, Washington, DC.

Hruby, T. 2014. Washington State wetland rating system for Eastern Washington - Revised. Washington Dept of Ecology.

Kittitas County Code. Kittitas County Board of County Commissioners | County Code. Retrieved 9/30/22.

Munsell(R) Color. 2000. *Munsell soil color charts.* New Windsor, NY.

National Climatic Data Center (NCDC). 2022. National Satellite and Information Service. URL: http://www.ncdc.noaa.gov/oa/climate/onlineprod/drought/xmgr.html#ds.

National Oceanic and Atmospheric Administration (NOAA). Physical Sciences Laboratory NOAA/ACEI Climate Division Precipitation Anomalies Map. US Climate Division Maps: NOAA Physical Sciences Laboratory. Queried 9/30/22.

National Oceanic and Atmospheric Administration (NOAA). 2022. AgACIS Climate Data. NOAA Regional Climate Centers. URL: http://agacis.rcc-acis.org/. Queried 9/30/22.

Natural Resources Conservation Service (NRCS). 2022a. USDA Field Office Climate Data: WETS Station: EASTON WA Monthly totals/averages, precipitation (inches). NRCS Climate data. URL: http://agacis.rcc-acis.org/?fips=53007. Queried 9/30/22.

Natural Resources Conservation Service (NRCS). 2022. *Washington Soil Survey Reports*. Retrieved 9/30/22, from Web Soil Survey: http://www.or.nrcs.usda.gov/pnw_soil/wa_reports.html.

U.S. Army Corps of Engineers (USACE). 1987. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual. Technical Report.

U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers (USACE). 2020. National Wetland Plant List, version 3.5. http://wetland-plants.usace.army.mil/ U.S. Army Corps of Engineers, Engineer Research and Development Center; Cold Regions Research and Engineering Laboratory, Hanover, NH. Queried 9/30/22.

U.S. Fish and Wildife Service (USFWS). 2022. National Wetland Inventory. Online Mapper. Available at http://www.fws.gov/wetlands/Wetlands-Mapper.html. Queried 9/30/22.

U.S. Fish and Wildlife Service (USFWS). 2022. IPaC Online Mapper. Available at https://ecos.fws.gov/ipac/ Queried 9/30/22.

Exhibit A

Washington Department of Fish and Wildlife (WDFW). 2022. PHS Online Mapper. http://apps.wdfw.wa.gov/phsontheweb/ . Queried 9/30/22.

Exhibit A

MARLATT WETLAND

WETLAND DELINEATION REPORT

PHOTOGRAPHS

Exhibit A

Photograph 1. Subject property; looking southeast from Pasco Road.

Photograph 2. SP1; wetland soils.

Exhibit A

Photograph 3. SP1; wetland pit. Saturation present at 5 inches and water table present at 11 inches.

Exhibit A

Photograph 4. SP1; wetland pit looking east.

Exhibit A

Photograph 5. SP2; non-wetland soils.

Photograph 6. SP2; non-wetland pit.

Exhibit A

Photograph 7. Wetland boundary; looking east.

Photograph 8. Drainage channel; looking south.

Exhibit A

Photograph 9. Offsite portion of subject wetland; looking south from Pasco Road.

Exhibit A

MARLATT WETLAND

WETLAND DELINEATION REPORT

ATTACHMENT 1: WETLAND DATA SHEETS

Exhibit A

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

Project/Site: Marlatt 11032 Pasco Road | City/County: Cle Elum, Kittitas | Sampling Date: 6/2/22
Applicant/Owner: Shala and Kyle Marlatt | State: WA | Sampling Point: SP1 WL
Investigator(s): ED, Grette Associates, LLC | Section: 2 Township: 19 Range: 14
Landform (hillslope, terrace, etc.): depression | Local relief (concave☒, convex☐, none☐: | Slope (%): 0-1
Subregion (LRR): A | Lat: 47.165 Long: -121.051 | Datum: _____
Soil Map Name: Haplosaprists 0-2% Slope (214) | 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 ☐ significantly problematic? (If needed, explain 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 soils present?	Yes ☒ No ☐	
Wetland hydrology present?	Yes ☒ No ☐	

Remarks: Sample at toe of topo break that defines wetland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size:r-15)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Aluns incana*	25	Y	FACW
2. _____			
3. _____			
4. _____			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
	_____	= Total Cover	
Herb Stratum (Plot size:r-5)			
1. *Phalaris arundinacea*	100	Y	FACW
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1. _____			
2. _____			
	_____	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

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 _____	**x 2 =** _____
FAC species _____	**x 3 =** _____
FACU species _____	**x 4 =** _____
UPL species _____	**x 5 =** _____
Column Totals _____ (A)	_____(B)

Prevalence index = B/A = _____

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 is dominated by reed canary grass at this locatino. Other species include nettle @ margin, sprirea in core. WL is very large. CWD and alder along margin.

Exhibit A

SOIL

Sampling Point: SP1 WL

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					mucky sand	
5-16	10YR 2/1	100					mucky sand	

[1]Type: C=Concentration; D=Depletion; RM=Reduced matrix; CS=Covered or Coated Sand Grains. [2] Location: PL=Pore linings; M=Matrix

Hydric Soils 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 Material (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Material (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 Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soils Present? Yes ☒ No ☐

Remarks: very high organic content below 4". Soils very black and mucky.

HYDROLOGY

Wetland Hydrology Indicators

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

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

Secondary Indicators (2 or more required)

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

Field Observations

Surface Water Present? Yes ☐ No ☒ Depth (in.) _____

Water Table Present? Yes ☒ No ☐ Depth (in.) 11

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (in.) 5

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: Water pooled at surface in places just in from wetland margin. Very boggy texture underfoot.

Exhibit A

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

Project/Site: Marlatt 11032 Pasco Road | City/County: Cle Elum, Kittitas | Sampling Date: 6/2/22
Applicant/Owner: Shala and Kyle Marlatt | State: WA | Sampling Point: SP2 NWL
Investigator(s): ED, Grette Associates, LLC | Section: 2 Township: 19 Range: 14
Landform (hillslope, terrace, etc.): slope | Local relief (concave☒, convex☐, none☐: | Slope (%): 5-7
Subregion (LRR): A | Lat: 47.165 Long: -121.051 | Datum: _____
Soil Map Name: Haplosaprists 0-2% Slope (214) | 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 ☐ significantly problematic? (If needed, explain 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 soils present?	Yes ☐ No ☒	
Wetland hydrology present?	Yes ☐ No ☒	

Remarks: Sample on hillslope above wetland margin. SIte may be comprised of old fill. Encountered some spall while digging.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size:r-15)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Aluns incana*	80	Y	FACW
2. _____			
3. _____			
4. _____			
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
	_____	= Total Cover	
Herb Stratum (Plot size:r-5)			
1. *Phalaris arundinacea*	45	Y	FACW
2. *Poa pratensis*	50	Y	FAC
3. *Urtica dioica*	5	_____	FAC
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1. _____			
2. _____			
	_____	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (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 _____	**x 2 =** _____
FAC species _____	**x 3 =** _____
FACU species _____	**x 4 =** _____
UPL species _____	**x 5 =** _____
Column Totals _____ (A)	_____(B)

Prevalence index = B/A = _____

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:

Exhibit A

SOIL

Sampling Point: SP2 NWL

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-13	10YR 3/4	100					loamy sand	

[1]Type: C=Concentration; D=Depletion; RM=Reduced matrix; CS=Covered or Coated Sand Grains. [2] Location: PL=Pore linings; M=Matrix

Hydric Soils 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 Material (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Material (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 Soils[3]:

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

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

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soils Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

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

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

Secondary Indicators (2 or more required)

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

Field Observations

Surface Water Present? Yes ☐ No ☒ Depth (in.) _____

Water Table Present? Yes ☐ No ☒ Depth (in.) _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (in.) _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: No hydrology.

Exhibit A

MARLATT WETLAND

WETLAND DELINEATION REPORT

ATTACHMENT 2: WETLAND RATING FORM

Exhibit A

Wetland name or number 11032

RATING SUMMARY – Eastern Washington

Name of wetland (or ID #): Marlatt 11032 Date of site visit: 6/2/22

Rated by ED; Grette Associates, LLC Trained by Ecology? ✓ Yes ___ No Date of training 11/19

HGM Class used for rating Depressional Wetland has multiple HGM classes? ____Y ✓ N

NOTE: **Form is not complete without the figures requested** (*figures can be combined*).
Source of base aerial photo/map Google Earth; Kittitas Co. GIS

OVERALL WETLAND CATEGORY II (based on functions [x] or special characteristics [ ])

1. Category of wetland based on FUNCTIONS

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

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H☐ M☑ L☐	H☐ M☐ L☑	H☐ M☑ L☐	
Landscape Potential	H☑ M☐ L☐	H☐ M☑ L☐	H☑ M☐ L☐	
Value	H☑ M☐ L☐	H☐ M☑ L☐	H☐ M☑ L☐	**TOTAL**
Score Based on Ratings	8	5	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 *Circle the appropriate category*
Vernal Pools	II ☐ III ☐
Alkali	I ☐
Wetland of High Conservation Value	I ☐
Bog and Calcareous Fens	I ☐
Old Growth or Mature Forest – slow growing	I ☐
Aspen Forest	I ☐
Old Growth or Mature Forest – fast growing	II ☐
Floodplain forest	II ☐
None of the above	☑

Exhibit A

Wetland name or number 11032

Maps and figures required to answer questions correctly for Eastern Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	D 1.3, H 1.1, H 1.5	1
Hydroperiods (including area of open water for H 1.3)	D 1.4, H 1.2, H 1.3	1
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	1
Map of the contributing basin	D 5.3	5
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	3
Screen capture of list of TMDLs for WRIA in which wetland is found (website)	D 3.3	4

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	H 1.1, H 1.5	
Hydroperiods	H 1.2, H 1.3	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of wetland vs. width of stream *(can be added to another figure)*	R 4.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which wetland is found (website)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	L 1.1, L 4.1, H 1.1, H 1.5	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which wetland is found (website)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes and classes of emergents	H 1.1, H 1.5	
Hydroperiods	H 1.2, H 1.3	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to figure above)*	S 4.1	
Boundary of area within 150 ft of the wetland (*can be added to another figure*)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which wetland is found (website)	S 3.3	

Exhibit A

Wetland name or number 11032

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.

Exhibit A

Wetland name or number 11032

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the wetland unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM Class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine (the riverine portion is within the boundary of depression)	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Exhibit A

Wetland name or number 11032

DEPRESSIONAL WETLANDS **Water Quality Functions** - Indicators that the site functions to improve water quality	Points (only 1 score per box)
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland has no surface water outlet ☐ points = 5 Wetland has an intermittently flowing outlet ☑ points = 3 Wetland has a highly constricted permanently flowing outlet ☐ points = 3 Wetland has a permanently flowing, unconstricted, surface outlet ☐ points = 1	3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions of soils)* ☐ YES = 3 ☑ NO = 0	0
D 1.3. Characteristics of persistent vegetation (Emergent, Scrub-shrub, and/or Forested Cowardin classes) Wetland has persistent, ungrazed, vegetation for > $^2/_3$ of area ☐ points = 5 Wetland has persistent, ungrazed, vegetation from $^1/_3$ to $^2/_3$ of area ☑ points = 3 Wetland has persistent, ungrazed vegetation from $^1/_{10}$ to < $^1/_3$ of area ☐ points = 1 Wetland has persistent, ungrazed vegetation < $^1/_{10}$ of area ☐ points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area of ponding that fluctuates every year. Do not count the area that is permanently ponded.* Area seasonally ponded is > ½ total area of wetland ☐ points = 3 Area seasonally ponded is ¼ - ½ total area of wetland ☑ points = 1 Area seasonally ponded is < ¼ total area of wetland ☐ points = 0	1
Total for D 1 — Add the points in the boxes above	7

Rating of Site Potential If score is: ☐ **12- 16 = H** ☑ **6- 11 = M** ☐ **0- 5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	1
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1- D 2.3? Source Old Equipment Yes = 1 No = 0	0
Total for D 2 — Add the points in the boxes above	3

Rating of Landscape Potential If score is: ☑ **3 or 4 = H** ☐ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, or lake that is on the 303(d) list? Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where water quality is an issue in some aquatic resource [303(d) list, eutrophic lakes, problems with nuisance and toxic algae]? Yes = 1 No = 0	1
D 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 or basin in which the wetland is found*)? Yes = 2 No = 0	2
Total for D 3 — Add the points in the boxes above	3

Rating of Value If score is: ☑ **2-4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Exhibit A

Wetland name or number 11032

DEPRESSIONAL WETLANDS **Hydrologic Functions** - Indicators that the site functions to reduce flooding and erosion.	Points (only 1 score per box)
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland has no surface water outlet ☐ points = 8 Wetland has an intermittently flowing outlet ☑ points = 4 Wetland has a highly constricted permanently flowing outlet ☐ points = 4 Wetland has a permanently flowing unconstricted surface outlet ☐ points = 0 *(If outlet is a ditch and not permanently flowing treat wetland as "intermittently flowing")*	4
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or deepest part (if dry).* Seasonal ponding: > 3 ft above the lowest point in wetland or the surface of permanent ponding ☐ points = 8 Seasonal ponding: 2 ft - < 3 ft above the lowest point in wetland or the surface of permanent pond ☐ points = 6 The wetland is a headwater wetland ☐ points = 4 Seasonal ponding: 1 ft - < 2 ft ☐ points = 4 Seasonal ponding: 6 in - < 1 ft ☐ points = 2 Seasonal ponding: < 6 in or wetland has only saturated soils ☑ points = 0	0
Total for D 4 — Add the points in the boxes above	4

Rating of Site Potential If score is: ☐ **12-16 = H** ☐ **6-11 = M** ☑ **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in a land use that generates runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses? Yes = 1 No = 0	0
Total for D 5 — Add the points in the boxes above	2

Rating of Landscape Potential If score is: ☐ **3 = H** ☑ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The wetland is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland being rated. *Do not add points. Choose the highest score if more than one condition is met.* The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds), AND Flooding occurs in sub-basin that is immediately down-gradient of wetland ☐ points = 2 Surface flooding problems are in a sub-basin farther down-gradient ☑ points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____ ☐ points = 0 There are no problems with flooding downstream of the wetland ☐ points = 0	1
D 6.2. Has the site has been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for D 6 — Add the points in the boxes above	1

Rating of Value If score is: ☐ **2-4 = H** ☑ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Exhibit A

Wetland name or number 11032

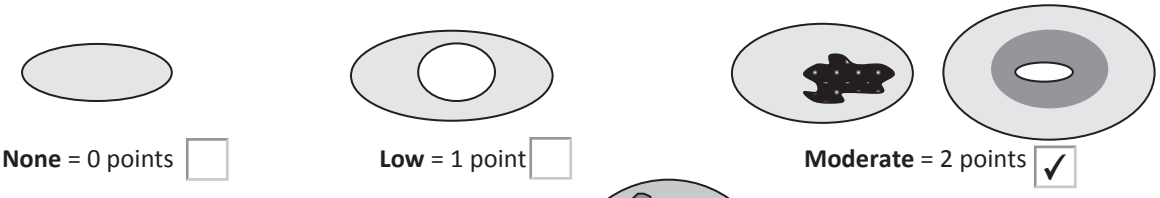
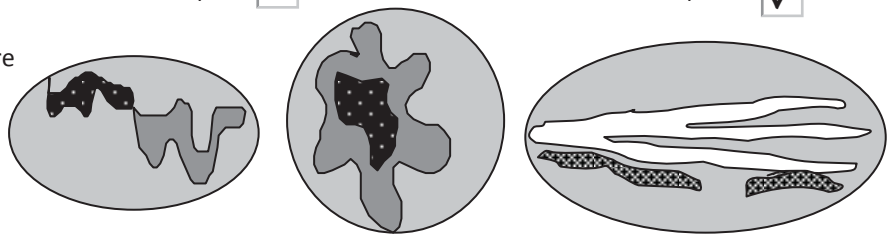
These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat	(only 1 score per box)
H 1.0. Does the wetland have the potential to provide habitat for many species?	
H 1.1. Structure of the plant community: *Check the Cowardin 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? ***A**nswer 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	0
H 1.4. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. D*ifferent 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 ____ Scoring: > 9 species: points = 2 4-9 species: points = 1 < 4 species: points = 0	2
H 1.5. 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	Figure 1 2

Exhibit A

Wetland name or number 11032

H 1.6. Special habitat features *Check the habitat features that are present in the wetland. The number of checks is the number of points.* ____Loose rocks larger than 4 in OR large, downed, woody debris (> 4 in diameter) within the area of surface ponding or in stream. __✓__Cattails or bulrushes are present within the wetland. __✓__Standing snags (diameter at the bottom > 4 in) in the wetland or within 30 m (100 ft) of the edge. __✓__Emergent or shrub vegetation in areas that are permanently inundated/ponded. ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 45 degree slope) OR signs of recent beaver activity ____ Invasive species cover less than 20% in each stratum of vegetation *(canopy, sub-canopy, shrubs, herbaceous, moss/ground cover)*	3
Total for H 1 — Add the points in the boxes above	8

Rating of Site Potential If score is: ☐ **15-18 = H** ☑ **7-14 = M** ☐ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support habitat functions of the site?	
H 2.1. Accessible habitat (only area of habitat abutting wetland). If total accessible habitat is: *Calculate:* % undisturbed habitat 43 **+** [(% moderate and low intensity land uses)/2] 17 = 60 % > 1/3 (33.3%) of 1 km Polygon — points = 3 20-33% of 1km Polygon — points = 2 10-19% of 1km Polygon — points = 1 <10% of 1km Polygon — points = 0	3
H 2.2. Undisturbed habitat in 1 km Polygon around wetland. *Calculate:* % undisturbed habitat 58 **+** [(% moderate and low intensity land uses)/2] 21 = 79 % Undisturbed habitat > 50% of Polygon — points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches — points = 2 Undisturbed habitat 10 - 50% and > 3 patches — points = 1 Undisturbed habitat < 10% of Polygon — points = 0	3
H 2.3. Land use intensity in 1 km Polygon: > 50% of Polygon is high intensity land use — points = (- 2) Does not meet criterion above — points = 0	0
H 2.4. The wetland is in an area where annual rainfall is less than 12 in, and its water regime is not influenced by irrigation practices, dams, or water control structures. *Generally, this means outside boundaries of reclamation areas, irrigation districts, or reservoirs* — Yes = 3 No = 0	0
Total for H 2 — Add the points in the boxes above	6

Rating of Landscape Potential If score is: ☑ **4-9 = H** ☐ **1-3 = M** ☐ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose the highest score that applies to the wetland being rated* Site meets ANY of the following criteria: — points = 2 — It has 3 or more priority habitats within 100 m (see Appendix B) — It provides habitat for Threatened or Endangered species (any plant or animal on state or federal lists) — It is mapped as a location for an individual WDFW species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats within 100 m (see Appendix B) — points = 1 Site does not meet any of the criteria above — points = 0	1

Rating of Value If score is: ☐ **2 = H** ☑ **1 = M** ☐ **0 = L** *Record the rating on the first page*

Exhibit A

Wetland name or number 11032

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 *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
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 a 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**	**Cat. II** **Cat. 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 ¾ 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**	**Cat. I**
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 a 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 go to SC 3.4**⊙No = **Not a WHCV** SC 3.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and it is listed on their website? ○Yes = **Category I**⊙No =**Not a WHCV**	**Cat. I**

Exhibit A

Wetland name or number 11032

SC 4.0 Bogs and Calcareous Fens Does the wetland (or any part of the wetland unit) meet both the criteria for soils and vegetation in bogs or calcareous fens? *Use the key below to identify if the wetland is a bog or calcareous fen.* ***If you answer yes you will still need to rate the wetland based on its functions.*** SC 4.1. Does an area within the wetland have organic soil horizons (i.e., layers of organic soil), either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? *See Appendix C for a field key to identify organic soils*. ⊙Yes – Go to **SC 4.3** ○No – Go to **SC 4.2** SC 4.2. Does an area within the wetland have organic soils, either peats or mucks, that are less than 16 in deep over bedrock or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ○Yes – Go to **SC 4.3** ⊙No = **Is not a bog for rating** SC 4.3. Does an area within the wetland have more than 70% cover of mosses at ground level AND at least 30% of the total plant cover consists of species in Table 5? ○Yes = **Category I bog** ⊙No – Go to **SC 4.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 5 are present, the wetland is a bog. SC 4.4. Is an area with peats or mucks forested (> 30% cover) with subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 5 provide more than 30% of the cover under the canopy? ○Yes = **Category I bog** ⊙No – Go to **SC 4.5** SC 4.5. Do the species listed in Table 6 comprise at least 20% of the total plant cover within an area of peats and mucks? ○Yes = **Is a Calcareous Fen for purpose of rating** ⊙No – Go to **SC 4.6** SC 4.6. Do the species listed in Table 6 comprise at least 10% of the total plant cover in an area of peats and mucks, AND one of the two following conditions is met: — Marl deposits [calcium carbonate ($CaCO_3$) precipitate] occur on the soil surface or plant stems — The pH of free water is ≥ 6.8 AND electrical conductivity is ≥ 200 uS/cm at multiple locations within the wetland ○Yes = **Is a Category I calcareous fen** ⊙No = **Is not a calcareous fen**	**Cat. I** **Cat. I**

SC 5.0. Forested Wetlands Does the wetland have an area of forest rooted within its boundary that meets **at least one** of the following three criteria? (*Continue only if you have identified that a forested class is present in question H 1.1*) — The wetland is within the 100 year floodplain of a river or stream — Aspen (*Populus tremuloides*) represents at least 20% of the total cover of woody species — There is at least ¼ ac of trees (even in wetlands smaller than 2.5 ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW *(see definitions in question H3.1)* ○Yes – Go to **SC 5.1** ⊙No = **Not a forested wetland with special characteristics**	
SC 5.1. Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow growing native trees (*see Table 7*)? ○Yes = **Category I** ⊙No – Go to **SC 5.2** SC 5.2. Does the wetland have areas where aspen (*Populus tremuloides*) represents at least 20% of the total cover of woody species? ○Yes = **Category I** ⊙No – Go to **SC 5.3** SC 5.3. Does the wetland have at least ¼ acre with a forest canopy where more than 50% of the tree species (by cover) are fast growing species (*see Table 7*)? ○Yes = **Category II** ⊙No – Go to **SC 5.4** SC 5.4. Is the forested component of the wetland within the 100 year floodplain of a river or stream? ○Yes = **Category II** ⊙No = **Not a forested wetland with special characteristics**	**Cat. I** **Cat. I** **Cat. II** **Cat. II**
Category of wetland based on Special Characteristics *Choose the highest rating if wetland falls into several categories* If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

Exhibit A

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: ***NOTE:*** *This question is independent of the land use between the wetland 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.

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **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 > 12 in (30 cm)in eastern 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.

Exhibit A

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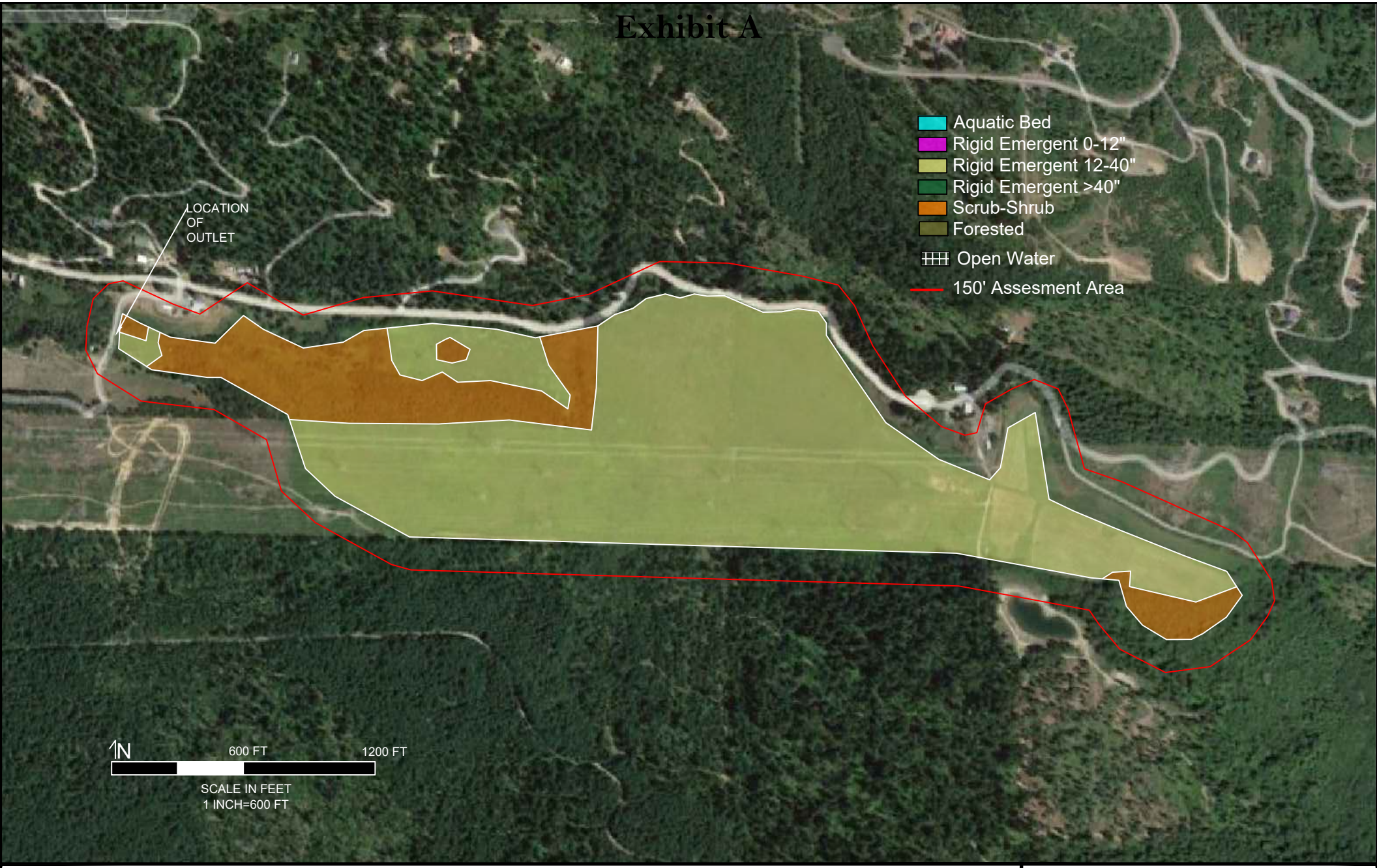
Exhibit A



VEGETATION CLASSES, HYDROPERIODS, AND 150' ASSESSMENT AREA

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Wenatchee, WA 98801
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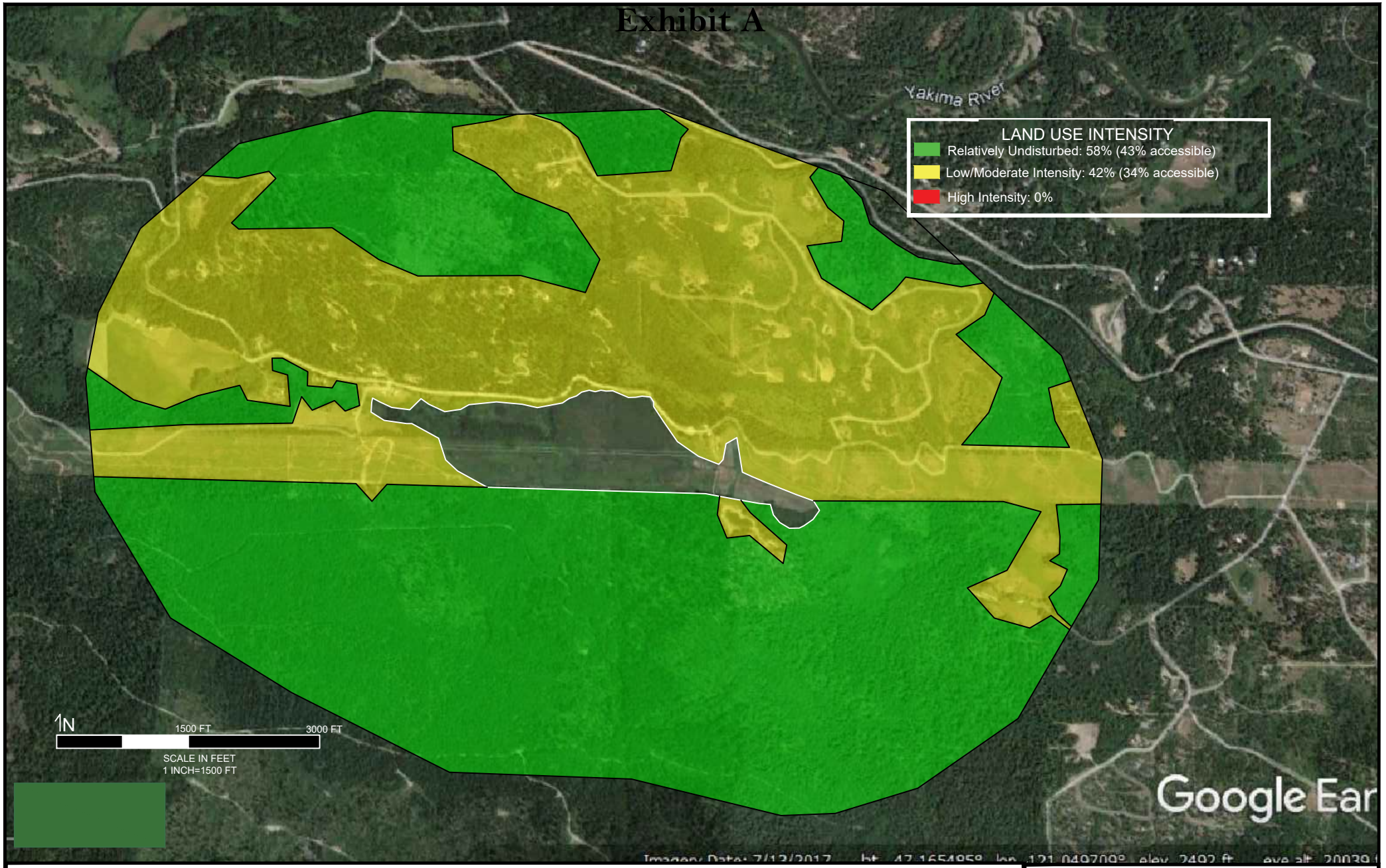
WETLAND RATING FORM FIGURES

FOR: SHALA AND KYLE MARLATT
AT: 3300 PASCO RD
CLE ELUM, WA 98922

COUNTY OF: KITTITAS
STATE: WA

Exhibit A



LANDUSE INTENSITY

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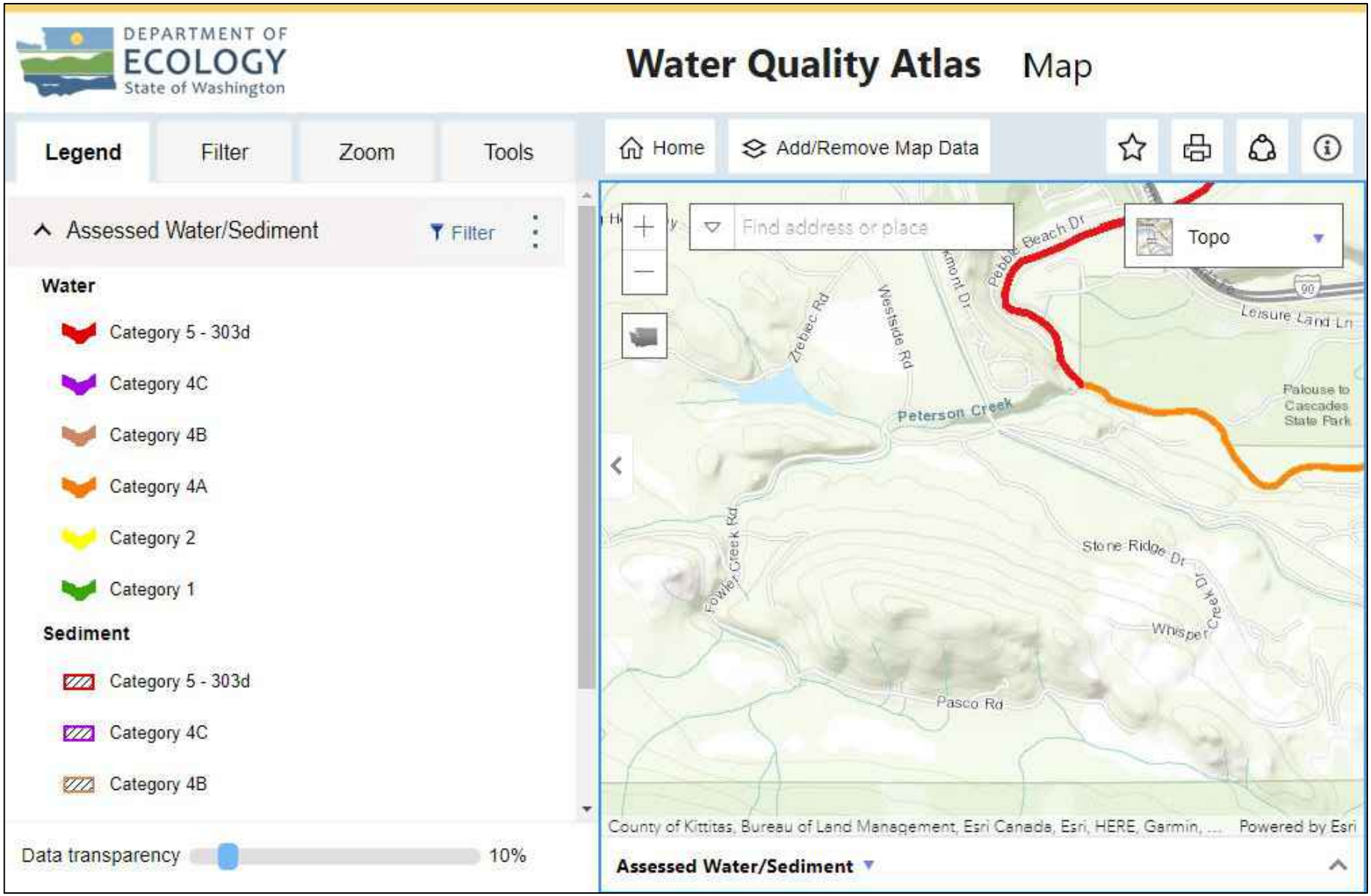
WETLAND RATING FORM FIGURES

FOR: SHALA AND KYLE MARLATT
AT: 3300 PASCO RD
CLE ELUM, WA 98922

COUNTY OF: KITTITAS
STATE: WA

SHEET NO. 2 OF 5 DATE: 09/29/22

Exhibit A



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WETLAND RATING FORM FIGURES

FOR: SHALA AND KYLE MARLATT
AT: 3300 PASCO RD
CLE ELUM, WA 98922

COUNTY OF: KITTITAS
STATE: WA

SHEET NO. 3 OF 5 DATE: 09/29/22

Exhibit A

DEPARTMENT OF ECOLOGY State of Washington

Kittitas County

Ecology homepage > Water & Shorelines > Water Improvement > Total Maximum Daily Load process > Directory of projects > Kittitas County

Water quality improvement projects

Select the waterbody or pollutant name to find more information about the specific project.

Waterbody Name(s)	Pollutant(s)	Status	Project Lead(s)
Crystal Creek	Ammonia-N BOD (g-day) Chlorine Fecal Coliform	EPA approved	Jane Creech 509-454-7860
Naches River	Temperature	EPA approved	Laine Young 509-575-2642
Teanaway River	Temperature	EPA approved and Has implementation plan	Jane Creech 509-454-7860
Wilson Creek Sub-basin	Fecal Coliform	EPA approved Has an implementation plan Post-TMDL monitoring report	Jane Creech 509-454-7860
Yakima River	Toxics	Under development	Jane Creech 509-454-7860
Upper Yakima River	Dieldrin DDT Suspended sediments Turbidity	EPA approved and Has implementation plan	Jane Creech 509-454-7860
Upper Yakima River	Temperature	Under development	Jane Creech 509-454-7860

To request ADA accommodation, call Ecology at 360-407-7668, 711 (relay service), or 877-833-6341 (TTY). More about our accessibility services.

TMDL

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STATE: WA

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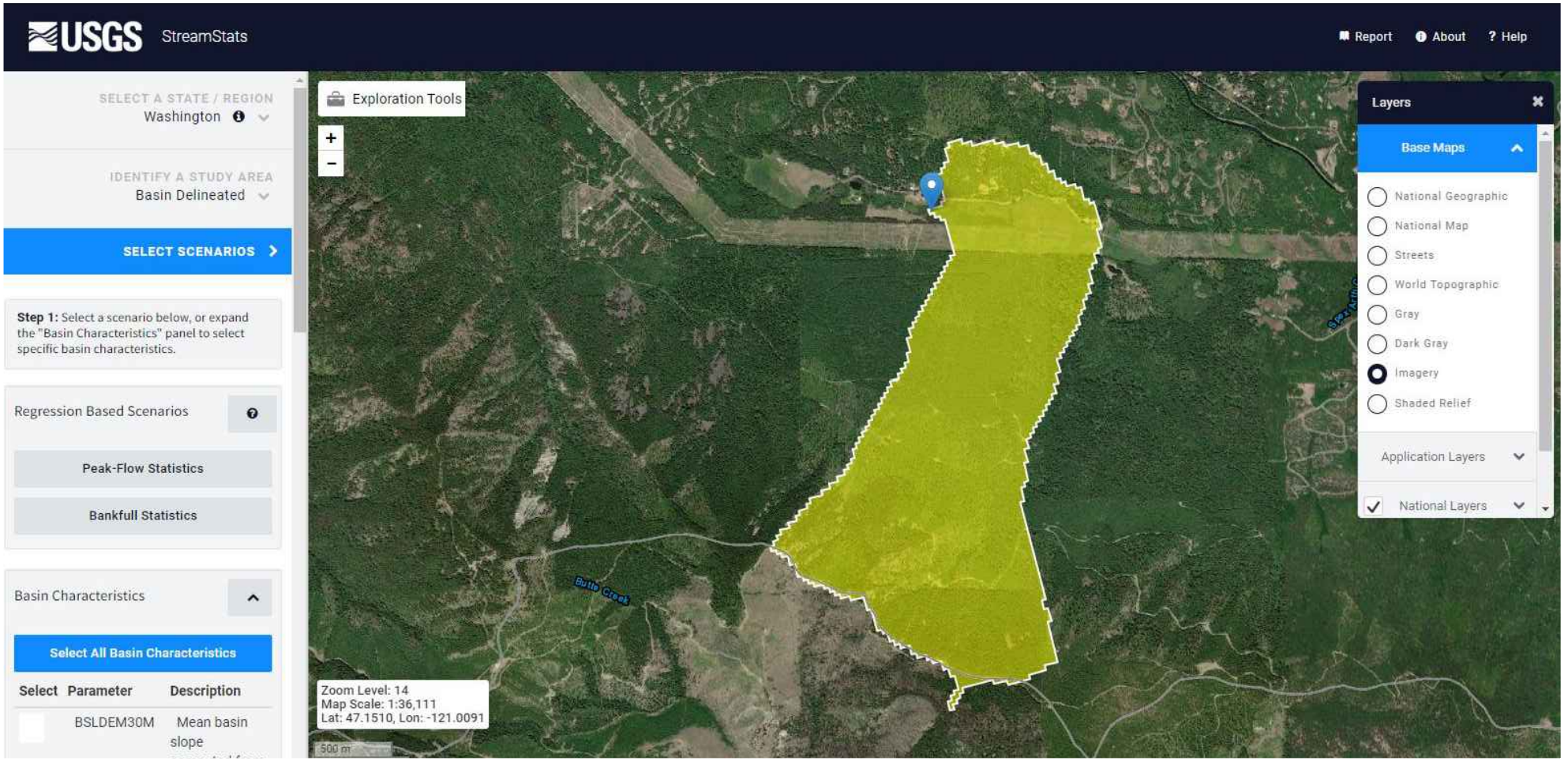

CONTRIBUTING BASIN

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SHEET NO. 5 OF 5 DATE: 09/29/22