APPENDIX G - WETLAND REPORTS

Wetland Reports
2023 Verification of Wetland Boundaries Memo

2024 Wetland Delineation and Stream Typing Report for Mission Ridge

ECOSYSTEMS NORTH WEST

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October 18, 2023

MEMO: Verification of wetland boundaries

On October 17, 2023, Professional Wetland Scientists (PWS) Dennis Beich of Ecosystems North West and Suzanne Tomassi of Avia Environmental visited specific sites within the property owned by Mission Ridge in Section 9 of Township 21N, Range 20E in Chelan County. Both ecologists had visited the same area previously to document and delineate two small wetlands. The wetlands were described and rated in the Mission Ridge Wetland Delineation Report submitted to Mission Ridge and dated September 2017. Findings of the October 17th visit are described in this document.

Both of the previously delineated wetlands, referred to as Wetlands 1 and 2 in the 2017 report, were located and plants, soils, and hydrology were observed. In both wetlands, vegetative communities were consistent with those observed and reported in 2017. Soil chroma varied between the inner areas of the wetlands and in the wetland margins, but were again found to show wetland characteristics, including those of low chroma and value (mainly black (10YR 2/1)). Wetland hydrologic indicators were present in both wetlands; these include ponding marks and the presence of oxidized rhizospheres along living roots.

Flags from the 2017 delineation were no longer present, and GPS or survey points of the boundaries were not available, as they had not been collected at the time of the 2017 study. As a result, existing wetland boundaries could not be directly compared to the previously delineation. However, no indicators that the wetland boundaries have shifted measurably were noted. As well, wetland edges most often show a gradient as the features transition to upland, particularly in soil characteristics. Such transitional zones were observed in both Wetland 1 and Wetland 2 in both 2017 and during the recent site visit.

The conclusion of the October 17, 2023 site investigation is that Wetlands 1 and 2 are not substantially different presently in location, size, configuration, structure, or quality from the conditions and characteristics noted and reported in September 2017.

Dennis Beich PWS emeritus

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2024 Wetland Delineation and Stream Typing Report for Mission Ridge

ECOSYSTEMS NORTH WEST

Wetland Delineation and Stream Typing Report for Mission Ridge

September 2024

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Josh Jorgensen, Mission Ridge

Prepared by:

Dennis Beich, PWS, Ecosystems Northwest

Project location:

Address: 7500 Mission Ridge Rd, Wenatchee, WA 98801

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1 INTRODUCTION

Ecosystems North West was contracted by Mission Ridge Ski and Board Resort to conduct a critical areas assessment within 100 feet of centerline of Chelan PUD's existing powerline (corridor) from the Forest Ridge neighborhood to the Mission Ridge parking lot. The survey area also included three locations identified for booster pump station placement. The assessment included determining the locations and ratings/types of streams and wetlands within this area, and identifying the approximate edge of the Squilchuck Creek and or the Ordinary High Water Mark (OHWM) of Squilchuck Creek in areas where it enters the 150-foot boundary. The primary purpose of the work was to identify and quantify regulatory requirements that would apply to development within the corridor, specifically installation of a buried water line and fiberoptic line to serve the proposed Mission Ridge Expansion Master Planned Resort.

The project is located on forested parcels owned by the U.S. Forest Service, Sawyer Industries LLC, Noyd, and Friends of Scout-A-Vista. All easement areas were investigated on the ground during site visits with the exception of the northernmost extent of the Noyd easement, which enters a residential area. Aerial photographs were used to assess the residential area.

Work was conducted in compliance with Chelan County Code (CCC) Chapter 11.78.

2 METHODS

2.1 Documentation

A documentation search was conducted and included local (County) inventories, the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) database, the National Wetland Inventory (NWI), WDFW's SalmonScape database, the Washington Department of Natural Resources (DNR) Forest Practices Application Mapping Tool (FPAMT), and Natural Resources Conservation Service (NRCS) maps.

2.2 Field Investigation

Work was performed by Professional Wetland Scientists (PWS) trained in conducting OHWM determinations by the Department of Ecology (DOE) through the WA Coastal Training Program. A reconnaissance visit was performed on June 22, 2024 and the majority of the field work was completed on June 28, 2024.

Methodology used for wetland determination was that of the U.S. Army Corps of Engineers *Wetland Identification and Delineation Manual* (Manual) and *Arid West Supplement*. Soil, hydrology, and vegetation were examined throughout the property to determine whether they fit criteria set forth in the Manual. Soils baseline information was obtained through the NRCS Web Soil Survey, and on-site investigation employed the ESDA/NRCS guidance *Field Indictors of Hydric Soils in the US: A Guide for*

Identifying and Delineating Hydric Soils, Version 8.2, 2018). Plant communities were classified in accordance with the U.S. Fish and Wildlife Service (USFWS) Cowardin classification system.

Wetland data plots were evaluated at numerous points throughout the property; data forms were completed at two of these points. The determination of the on-site portions of the OHWM of Squilchuck Creek was conducted following guidance outlined in the 2016 DOE publication: *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State: Publication No*. 16-06-029 for Points 2-5 and 8 and 15 (Appendix A). All other points were estimated using GPS and a range finder. Those points are the estimated edge of Squilchuck Creek. Since all the other points are 100 feet or over and the topography of the site is such that the OHWM would be within 2 to 3 feet of the actual OHWM. In addition, the topography of the site made it very difficult to actually reach Squilchuck Creek.

According to the DNR FPARS mapping tool, there are numerous stream segments located throughout the easement area. As this project involved a linear easement, we modified the stream typing protocol to only assess those drainages that crossed the easement or were within 150' of the easement corridor. If a drainage did cross the easement corridor or was within 150' of the easement corridor, the drainage was walked 300' upstream and 100' downstream from the centerline of the utility easement. The stream type was based on that assessment. Using this methodology and incorporating the DNR stream typing protocol there was one type "F" (Squilchuck Creek) and one type Np stream (unnamed stream labeled as stream "A" in this report). There were four "dry drainages" encountered during the survey. These drainages did not exhibit any characteristics of a stream and would not qualify as streams in the DNR typing system.

The small stream at the north end of the project site averaged 3 feet in width and due to the narrow width, it did not seem practical nor necessary to locate the left and right OHWM. This stream will need additional survey work to precisely locate its relationship to the easement and proposed work as a large portion of this stream and its buffers will be impacted by any excavation to install utilities. Chelan County uses DNR stream type maps (CCC 11.78.010.2.E), amended where needed by field investigation, conducted per the Washington Administrative Code (WAC). Stream type depends largely on fish use and flow (Table 1). Fish presence in the streams within the project area was determined per the criteria set forth in WAC 222-16-031, which consist of bankfull width, gradient, and seasonal or perennial flow. In addition, public databases of fish records and known fish barriers were considered.

Wetland boundaries and stream OHWMs were recorded using OnX GPS navigation app. The GPS unit is accurate to within 4 feet to 8 feet depending on signal strength at the time and overhead cover (forest). Wetlands were rated using the Washington State Department of Ecology (Ecology) 2014 update of the Washington State Wetland Rating System for Eastern Washington and the Chelan County Critical Area Ordinance (CCC 11.80).

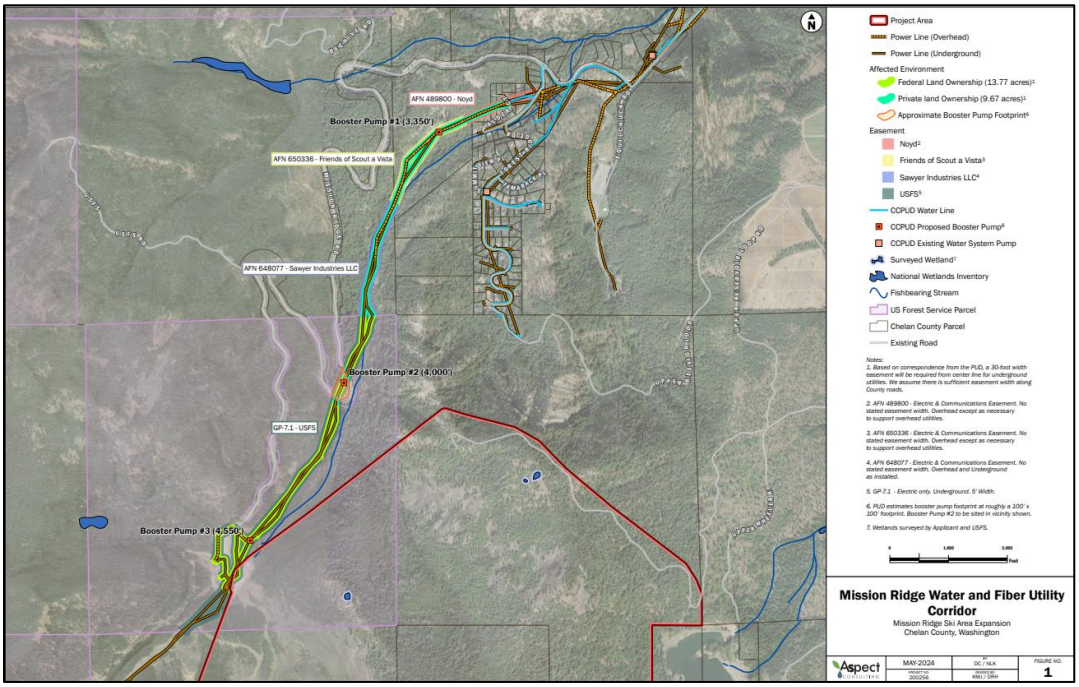
Table 1. DNR water type classifications.

Water Type	Description
Type S - Shoreline	Streams and waterbodies that are designated “shorelines of the state” as defined in chapter 90.58.030 RCW.
Type F - Fish	Streams and waterbodies that are known to be used by fish, or meet the physical criteria to be potentially used by fish. Fish streams may or may not have flowing water all year; they may be perennial or seasonal.
Type Np – Non-fish perennial	Streams that have flow year-round and may have spatially intermittent dry reaches downstream of perennial flow. Type Np streams do not meet the physical criteria of a Type F stream. This also includes streams that have been proven not to contain fish using methods described in the Forest Practices Board Manual.
Type Ns – Non-fish seasonal	Streams that do not have surface flow during at least some portion of the year, and do not meet the physical criteria of a Type F stream.

3 PROPERTY DESCRIPTION

The subject property is zoned for commercial forest and rural residential/resource. Present development with the investigation area includes underline power lines, overhead power lines, poles, and associated booster pumps, which are accessed by an informal trail. Approximately 75% of the lines are underground, with the remaining overhead lines located at the north end of the corridor. The Scout-A-Vista boy scout camp is located partially within the corridor near the north end. The north and south ends of the corridor are bordered by Mission Ridge Road and a gravel parking lot associated with the Mission Ridge Ski report to the north and south, respectively. Figure 1 depicts the corridor and its features.

Figure 1. Study area (Source: Chelan County).



The south end of the corridor is at approximately 4,600 feet elevation and declines to 3,300 feet at the north end. Topography of the surrounding area is steep, rising to 6,853 feet at Mission Peak, located approximately 2.1 miles southwest of the south end of the corridor. The area of investigation runs generally downslope, west of and parallel to Squilchuck Creek. Squilchuck Creek is within a very steep ravine; it is not designated as a Shoreline of Statewide Significance by the Chelan County Shoreline Management Program. The creek and other critical features of the site are presented in detail in the following sections of this report.

The greater vicinity is primarily zoned for commercial forestland, rural residential/resource, and rural public; the Forest Ridge Subdivision is about 0.2 miles east of the corridor and is zoned rural recreational/residential. The property is accessed via Mission Ridge Road.

4 FINDINGS

The entire study area except for the boy scout camp, wetland, and small booster pump and trail footprint is densely vegetated. Conifer dominated forest and the riparian zone of Squilchuck Creek make up the habitat adjacent to both sides of the central corridor. Dominant species are ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), and western larch (*Larix occidentalis*). The riparian zone of Squilchuck Creek supports a dense community of native shrubs, including vine maple (*Acer circinatum*), mountain ash (*Sorbus* sp.), Scouler's willow (*Salix scouleriana*), and serviceberry (*Amelanchier alnifolia*). The corridor was previously cleared to install the below-ground powerlines and is presently maintained in a dense shrub and herbaceous community dominated by thimbleberry (*Rubus*

parviflorus), oceanspray (*Holodiscus discolor*), mountain-lover (*Paxistima* sp.), giant red Indian paintbrush (*Castilleja miniata*), and angelica (*Angelica* sp.) below the above-ground lines. All plant species observed in the study area are listed in Table 2.

Table 2. Plant species observed on the study property.

Common name	**Scientific name**
Ponderosa pine	*Pinus ponderosa*
Douglas fir	*Pseudotsuga menziesii*
Western larch	*Larix occidentalis*
Vine maple	*Acer circinatum*
Mountain ash	*Sorbus* sp.
Bitter cherry	*Prunus emarginata*
Scouler's willow	*Salix scoulriana*
Coyote willow	*Salix exigua*
Serviceberry	*Amelanchier alnifolia*
Nootka rose	*Rosa nutkana*
Oceanspray	*Holodiscus discolor*
Nootka rose	*Rosa nutkana*
Mountain-lover	*Paxistima* sp.
Thimbleberry	*Rubus parviflorus*
Bitter cherry	*Prunus emarginata*
Meadowsweet	*Spiraea* sp.
Currant	*Ribes* sp.
Giant red Indian paintbrush	*Castilleja miniata*
Lupine	*Lupinus* sp.
Showy aster	*Euybia conspicua*
Angelica	*Angelica* sp.
Field horsetail	*Equisetum arvense*
Columbian monkshood	*Aconitum columbianum*
Panicled bulrush	*Scirpus microcarpus*
Bigleaf sedge	*Carex amplifolia*
Large-leaved avens	*Geum macrophyllum*
Common spikerush	*Eleocharis palustris*
Cinquefoil	*Potentilla* sp.
Cattail	*Typha latifolia*
Duckweed	*Lemna minor*
Grasses	*Poa* spp.

4.1 Streams

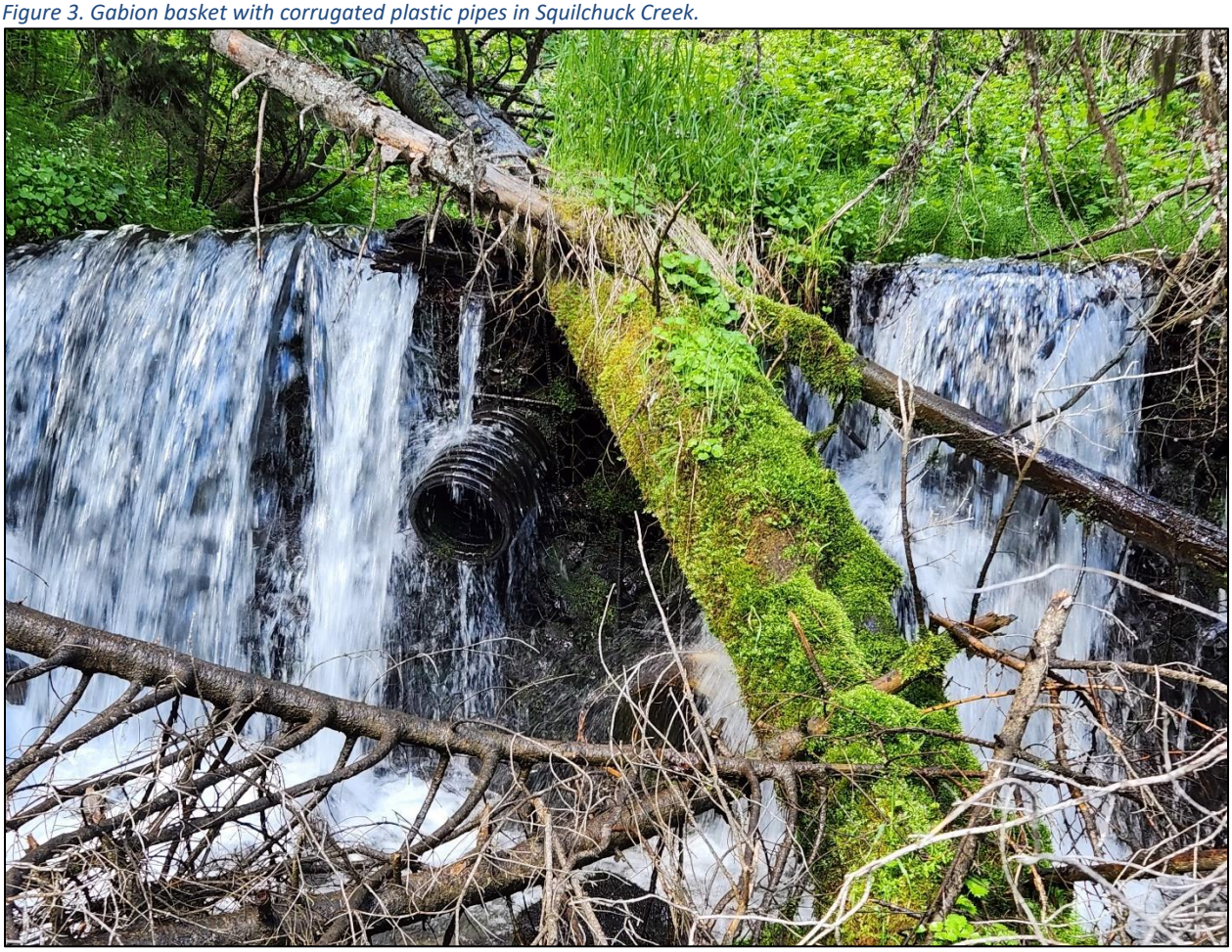
4.1.1 Squilchuck Creek

The field form used to establish and describe the OHWM of Squilchuck Creek is included as Appendix B of this report. The creek runs in a very steep ravine with dense riparian vegetation and abundant downed trees and woody debris (Figure 2). Two gabion baskets are present in the creek near the south end of the study area, approximately 25 feet from one another (See Appendix A, Map 1, Point 3). The upstream basket has two corrugated plastic pipes, but water was flowing over the structure and not through the pipes (Figure 3). The WDFW SalmonScape database depicts these as "total fish passages barriers." Two additional total fish barriers occur downstream of the study area before the creek drains to Miners Run Creek. No other instream structures were observed. The OHWM of Squilchuck Creek is clearly delineated throughout the study area by channel scour, clean boulders and cobble, bank erosion, exposed roots, and debris.

Figure 2. Squilchuck Creek.

Squilchuck Creek is not a designated shoreline by Chelan County. It is a Type F stream where it flows within the study area. The State DNR hydrography database designates the on-site creek reaches as fish-bearing. The WDFW PHS database reports the occurrence/migration of rainbow trout (*Oncorhynchus mykiss*) in Squilchuck Creek. Salmonscape reports only an unspecified "all Salmonscape species" occurrence but does not indicate the presence of any individual salmon runs or species. The entire area is within the Evolutionarily Significant Unit (ESU) for Chinook and the Distinct Population Segment (DPS) for steelhead, although neither of these species actually occur in Squilchuck Creek.

Figure 3. Gabion basket with corrugated plastic pipes in Squilchuck Creek.



Notably, most sources, including SalmonScape, PHS, NWI, the DNR Forest Practices Application Mapping Tool, and Chelan County GIS mapping depict Squilchuck Creek incorrectly throughout the study area. These sources show Squilchuck Creek draining directly into the wetland described in Section 4.2 (see, for example, Figures 6 and 8). This is in contrast to what was observed in the field as, depicted in Map 4, Appendix A. Squilchuck Creek is east of the wetland and no above-ground hydrologic connection was observed, despite high flows.

4.1.2 Stream A

A second, unnamed stream is present in the study area and is referred to in this report as Stream A. It originates in a seep west of the corridor near Point 15 (see Appendix A, Map 2) approximately 1 mile north of the south corridor end and runs adjacent to or within the corridor for approximately 2,400 feet. The Stream A data points are labeled A through Q on Map 3 in Appendix A. The stream was flowing at the time of the June 28, 2004 site visit (Figure 4). The complete OHWM field form is included as Appendix C of this report. The OHWM is easily discernable by the lack of accumulation of sediment within the channel, the distinct bank along the channel, and the change in vegetation at OHWM. While the DNR and NWI databases depict tributary streams in topographic drainages along the Squilchuck, it is

unclear whether this Stream A is included. These sources are not accurate at the scale of the corridor and most tributary lines are simply located in topographic drainages.

In addition to Stream A, four dry drainages were observed, none of which showed any evidence of flow this year or in recent history.

Figure 4. Stream A.

Stream A splits just before entering a ponded wetland at the Scout-A-Vista camp near the north end of the corridor (see Section 4.2). A portion of the stream flows directly into the wetland and another portion runs north along a dirt road and then enters the wetland via a small culvert beneath a dirt road and what appears to be a manmade ditch lined by small boulders direct the water toward the pond (Figure 5). Aerial photographs spanning from 1998 to 2024 and taken from spring through autumn months show a largely consistent water level in the wetland pond. This, along with the NWI classification of Permanently Flooded (Section 4.2), implies that Stream A is permanently flowing and would be categorized as a type Np stream.

Figure 5. Stream A channeled to wetland.

4.2 Wetlands

The NWI database depicts one ponded wetland and several riverine wetlands within the study area (Figure 2). However, wetland characteristics were not present outside of the OHWM of the streams. Thus, one wetland was identified, rated, and located by GPS (Appendix A, Map 5). The Cowardin classification assigned by NWI for the wetland is Palustrine Unconsolidated Bottom, Permanently Flooded, Diked/Impounded (PUB Hh) (Figure 6). The designation given to the wetland is consistent with what was observed in the field. NWI depicts Squilchuck Creek (inaccurately, as described in Section 4.1.1) and a tributary that appears to be Stream A (Section 4.1.2) as riverine wetlands.

The on-site wetland is approximately 0.5 ac, the majority of which was ponded during the June 28 site visit (Figure 7); soils in the remainder of the area were saturated to the surface and the water table visible at 4-12 inches. Other Cowardin *et al.* (1979) classes in the wetland are shrub-scrub, emergent plants, and aquatic vegetation. The dominant woody species is coyote willow (Salix exigua), and herbaceous species include panicled bulrush (*Scipus microcarpus*), cattail (*Typha latifolia*), and common spikerush (*Eleocharis palustris*). Duckweed (*Lemna minor*) is the predominant aquatic species.

Figure 6. National Wetlands Inventory map of onsite wetland.

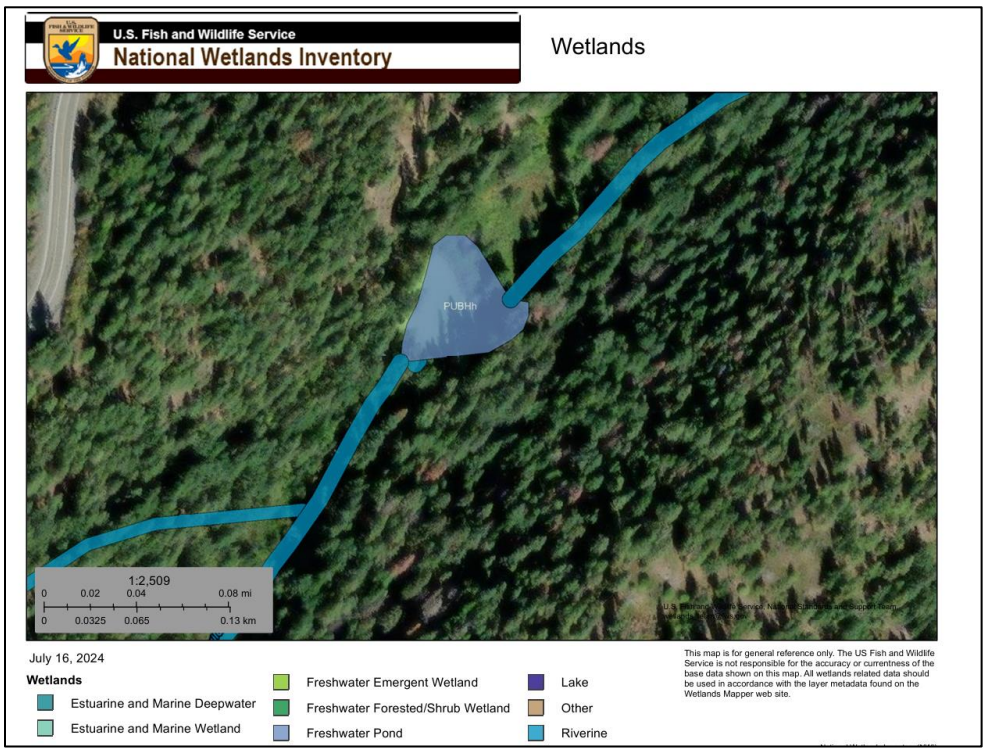
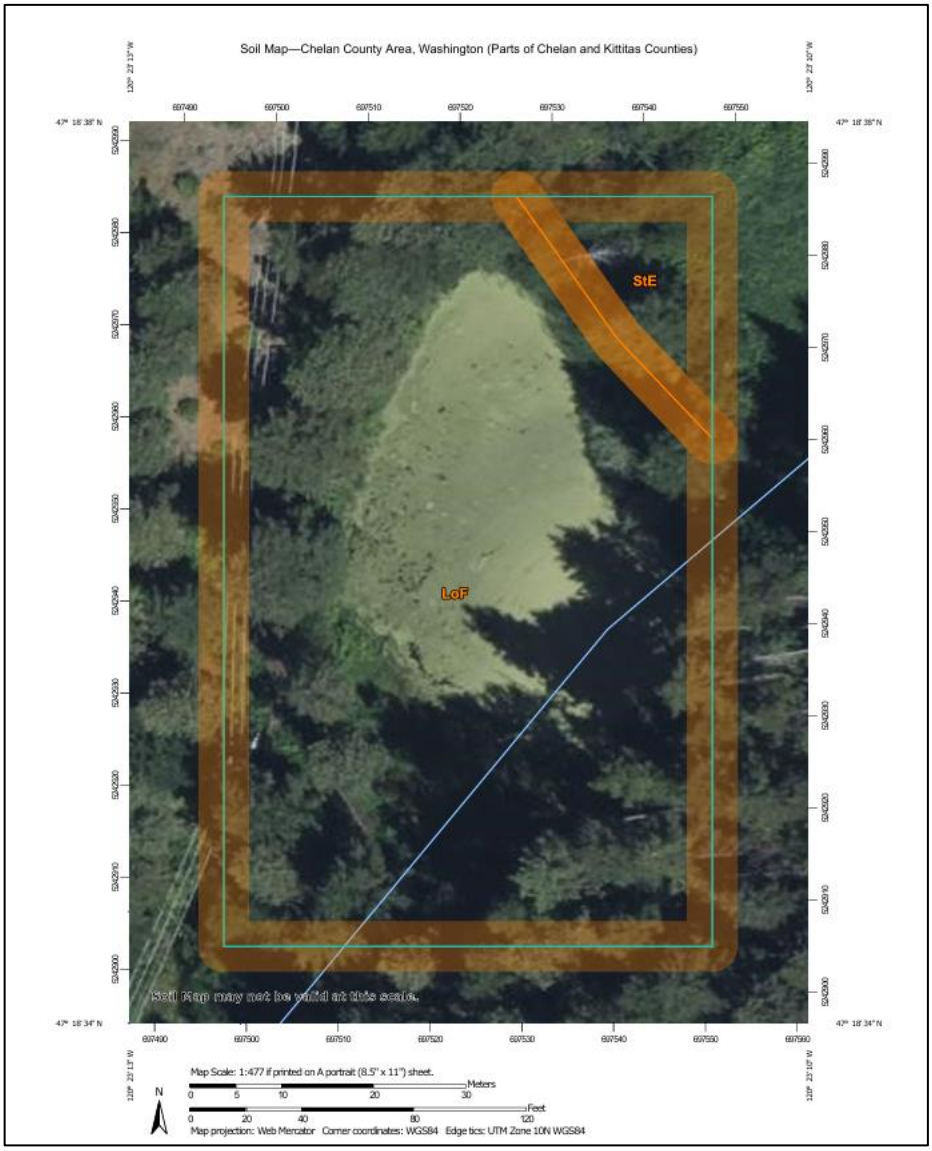


Figure 7. On-site wetland.

Soils in the wetland ranged from very dark gray (10YR 3/1) in the upper 4-inch stratum to black (10YR 2/1) silt loam with distinct yellowish brown (10YR 5/6) redoximorphic features. The USDA Soil Survey for the area indicates the possible presence of two soil units in and immediately adjacent to the wetland. The unit attributed to the wetland is Loneridge very stony loam, 25 to 65 percent slopes (LoF); along the northeast edge of the wetland may include Stemilt silt loam, 25 to 45 percent slopes (StE) (Figure 8).

Figure 8. NRCS map of onsite wetland.



Wetland hydrology is supported mainly by input from Stream A and groundwater. As described in previous sections, an above-ground hydrologic connection to Squilchuck Creek was not observed. There appears to be a man-made berm at the north end of the wetland and water drains to the north through a highly constricted outlet. Wetland Determination Data Forms are included as Appendix D.

The wetland rates as Category III with a high (8 points) habitat score on the wetland rating form for Eastern Washington (Appendix E). The undeveloped nature of the buffer and landscape limit the

wetland's potential to improve water quality; hydrologic function is limited by the same features, although significant ponding provides both water quality and storage value. Habitat function is enhanced by the condition of the buffer and surrounding area, which is largely intact forest. While the wetland itself is small and only moderately diverse in plant communities and species, it supports native species including emergent vegetation, is adjacent to a permanently flowing stream, has permanent ponding, and has at least one large snag and downed wood.

4.3 Upland

Habitat outside of the described wetland and streams is, as previously stated, mostly intact mid-age coniferous forest. Evidence of deer, bear, coyote, and woodpeckers and many other birds were noted during site visits. Snags and downed logs are numerous. Disturbance is limited to the previously cleared corridor and informal access trail, adjacent stretches of Mission Ridge Road, Mission Ridge Ski Resort off-site to the south, and the seasonally occupied Scout-A-Visit Camp.

Approximately one mile at the north end of the right-of-way (where power poles carry the electric utility line) is maintained in low woody and herbaceous vegetation (Figure 9). The remainder of the easement where the power utility line is buried is not maintained. See Table 2 for a full list of species observed during site visits.

Figure 9. Maintained right-of-way beneath power poles.

4.4 Priority Habitats and Species

The WDFW PHS database depicts shrub-steppe occurrences in the area around Mission Ridge Ski Resort, and one on the Scout-A-Vista property. The PHS database does not indicate the presence of wetlands along the streams, nor does it include the onsite wetland. Rainbow trout occurrence/migration is documented in Squilchuck Creek, as noted in Section 4.1.1.

Other PHS occurrences are "masked," meaning that precise locations are not made available publicly. These occurrences are northern spotted owl and gray wolf. One or more spotted owl records are noted for the greater area, including the study site, and one or more gray wolf records are depicted in the township/range/sections from the study area westwards. Cornell University's "eBird.org" database of public contributions also masks data, collected from both professionals and casual bird enthusiasts; these data indicate sightings of spotted owls beginning approximately 5 miles west of the study area. None of the four Chelan County wolf packs formally documented by WDFW have been observed in or proximate to the study area. Table 3 summarizes all PHS occurrences.

Table 3. PHS occurrences in the project vicinity.

Common name (stock)	Scientific name	Stock status	Federal status	State status
Rainbow Trout	*O. mykiss*	Resident	N/A	N/A
Northern Spotted Owl (masked)	*Strix occidentalis*	N/A	Threatened	Endangered
Gray wolf (masked)	*Canis lupus*	N/A	Endangered	Endangered
Shrub-steppe (general locations)		N/A	N/A	N/A

None of the sensitive species listed or those typically associated with forested and riparian habitat were observed during the site visits. In addition, there was no shrub steppe associated with any portion of the easement.

5 REGULATORY IMPLICATIONS

5.1 Local Regulations

5.1.1 Wetlands

Chelan County regulates wetlands through CCC 11.80, Wetland Areas Overlay District. Wetland buffers are determined based on the wetland category associated with the wetland. Buffer widths also vary depending on the intensity of planned land use. Some exemptions apply to standards regulations, including some passive, educational, maintenance, and noxious species control uses (CCC 11.80.020).

The wetland's rating of Category III with 8 habitat points requires a standard buffer of 100, 150, 200 feet, depending on whether the proposed adjacent action is low, moderate, or high impact, respectively

(CCC 11.80.060(4)Table 1). Utility facilities would likely be considered a low impact use (CCC 14.98.1920).

Regulatory buffers are required to be maintained in their natural condition. Buffer widths may be modified only when approved by the County and pursuant to the conditions in CCC 80.11.070. Under this code provision, the applicant must demonstrate:

"(1) That width averaging will not degrade the wetland structure, function and values; and

(2) The total area contained within the wetland buffer after averaging is no less than that contained within the wetland buffer, outlined by the requirements of this chapter, prior to averaging. The revised wetland buffer width shall not be less than seventy-five percent of the wetland buffer widths outlined within this chapter, or be less than twenty-five feet, whichever is greater; and

(3) Failure to adjust the buffer would result in a hardship to the property owner; and

(4) The need for buffer averaging is not due to the landowner's own actions; and

(5) That low-intensity land uses would be located adjacent to areas where buffer width is reduced, and that such low-intensity land uses are guaranteed in perpetuity by covenant, deed restriction, easement, or other legally binding mechanism; and

(6) A wetland report pursuant to CCC 11.80.100, if required by the administrative authority, supporting the newly delineated wetland buffer, has been prepared and submitted."

The County administrator may increase the required buffer if it is determined that a wider buffer is needed to protect a wetland (CCC 80.11.090). Buffer widths may be varied by the County on lots, tracts, and parcels legally created prior to January 5, 1999, provided the applicant can demonstrate that standard requirements significantly interferes with reasonable use of the property, the need for variance is not the result of the applicants own actions, the shoreline environment (if applicable) will not be impacted, the project is compatible with the Chelan County Comprehensive Plan and Shoreline Master Program, and the public will not be negatively impacted (CCC 11.80.090).

Buffer reduction may be no greater than 50% of the standard, and may not be less than 25 feet for Category III wetlands. The County administrator may require a mitigation plan to be implemented to avoid or compensate for any buffer impacts.

Wetlands are also regulated by the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act. Any filling of Waters of the State, including wetlands (except isolated wetlands), would likely require notification and permits from the Corps. The on-site wetland would likely not be considered isolated by the Corps. Federally permitted actions that could affect endangered species may also require consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service.

5.1.2 Streams

Squilchuck Creek

Squilchuck Creek does not fall within the Chelan County Shoreline jurisdiction and therefore does not have a shoreline designation. It's categorization as a Type F water requires a regulatory buffer of 150 or 200 feet, depending on whether planned use is low intensity or high intensity (Table 4). High intensity land uses include, but are not limited to, medium and high density residential, multifamily residential, active recreation, and commercial and industrial uses; low intensity uses include single-family residential and related accessory structures and home occupational uses, agriculture uses, and forest management uses.

Table 4. Chelan County required standard riparian buffer widths.

Stream Type	High Intensity Land Use (feet)	Low Intensity Land Use (feet)
Type S Waters	*Depends on shoreline designation	*Depends on shoreline designation
Type F Waters	200	150
Type Np Waters	150	100
Type Ns Waters	50	50

*See Chelan County Shoreline Master Program

Stream A

Type Np waters require 100- or 150-foot buffers for low intensity and high intensity land uses, respectively.

Per CCC 11.78.040, all structures and activities must be located outside of riparian buffers unless specifically permitted. Permitted activities include access and view corridors with specific conditions applied, and some modifications to existing structures. Other activities and structures require a habitat management and mitigation plan (CCC 11.78.060).

Buffer modifications in the form of a reduction by no more than 25% of the standard width may be permitted in legally created lots, tracts, and parcels, subject to the provisions in CCC 11.78.040(3)C. Provisions require that adherence to the standard buffer would create a hardship to reasonable use of the lot; no detrimental impacts to habitat functions or the public interest would result; and no feasible alternatives exist. Buffer widths may be increased on a case-by-case basis as determined by the administrator when a larger buffer is necessary to protect habitat functions and values.

Please note that the findings of this report are subject to the verification and agreement of local, State and/or federal regulatory authorities.

6 REFERENCES

Chelan County Shoreline Master Program. Revised 2021.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service Publication FWS/OBS 79/31. Washington, DC.

Hruby, T. (2014). Washington State Wetland Rating System for Eastern Washington: 2014 Update. (Publication #14-06-030). Olympia, WA: Washington Department of Ecology.

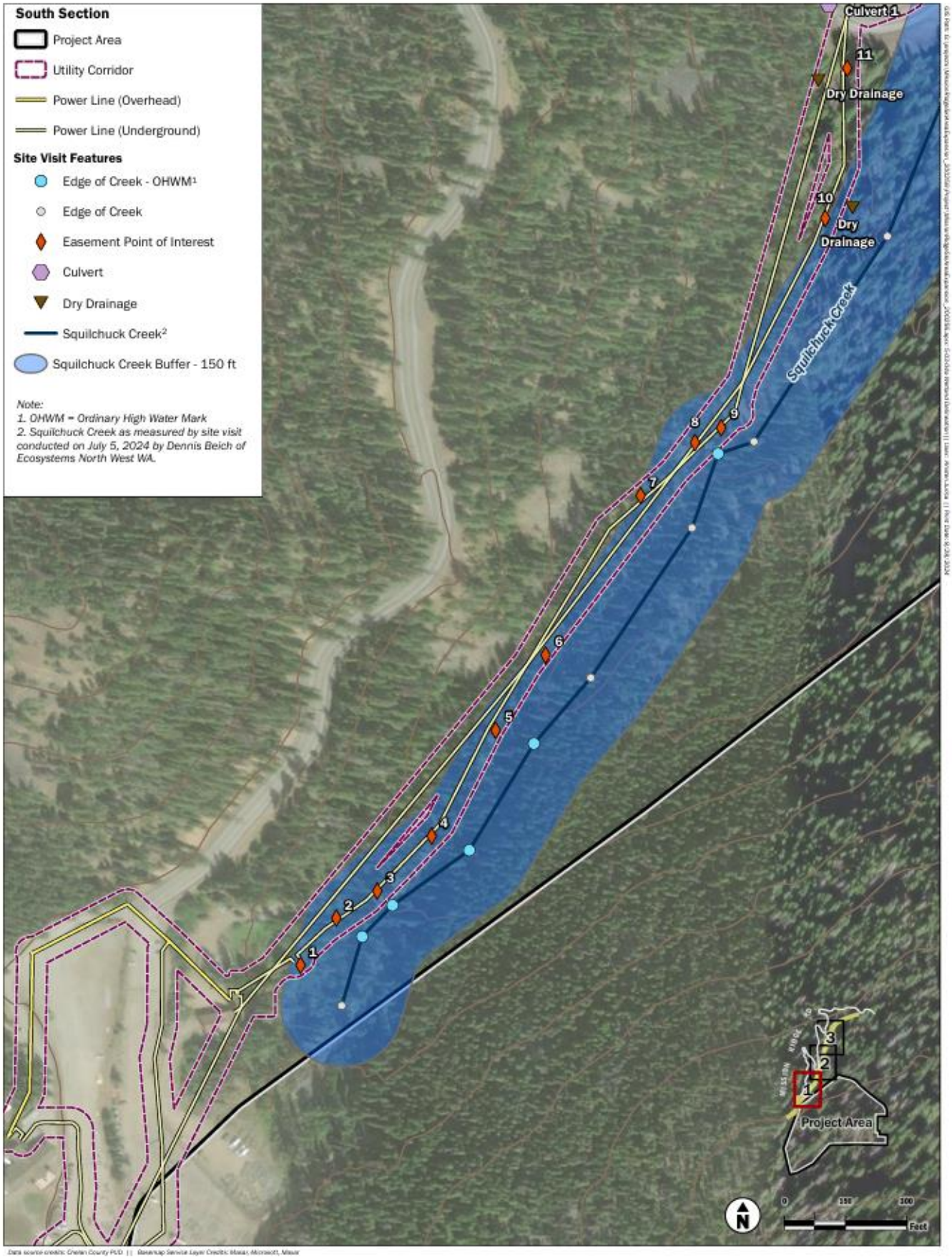
ERDC/EL TR-08-28 September 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) U.S. Army Corps of Engineers U.S. Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199

Vasilas, L.M., G.W. Hurt, and J.F. Berkowitz (eds.). Revised 2021. United States Department of Agriculture, Natural Resources Conservation Service. 2016. Field Indicators of Hydric Soils in the United States, Version 8.0. USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

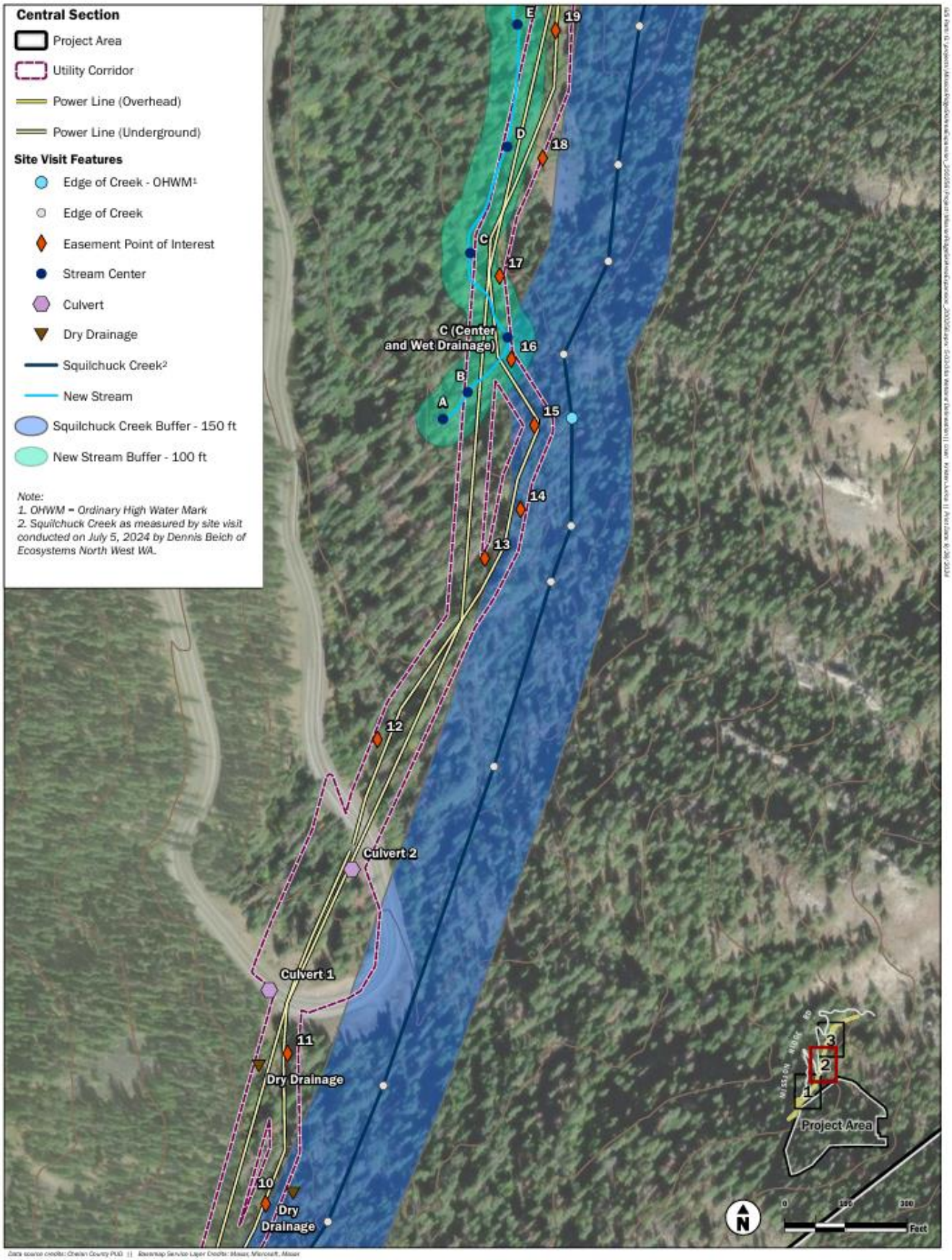
APPENDIX A

Wetland and Streams Maps

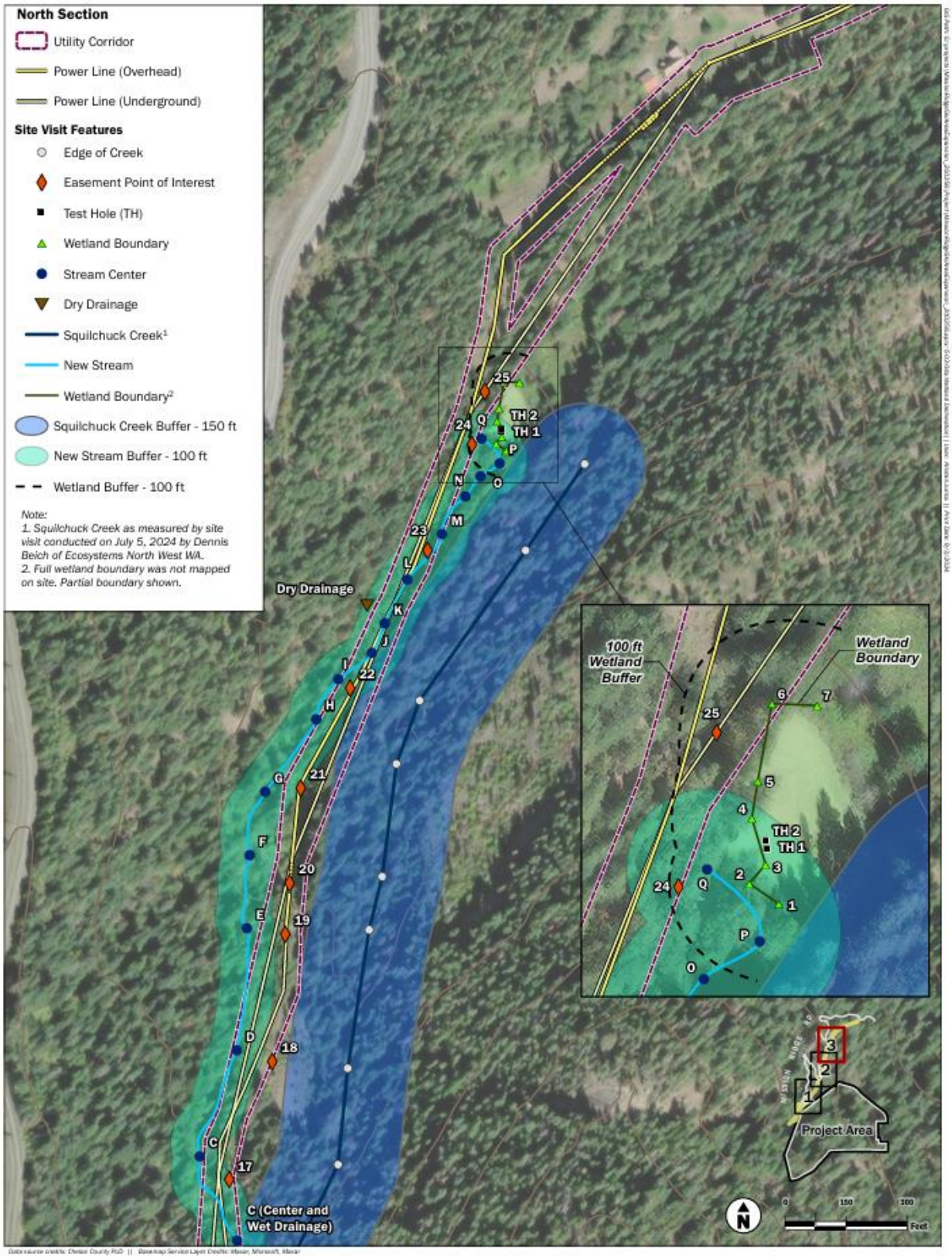
Map 1


South Section
Project Area
Utility Corridor
Power Line (Overhead)
Power Line (Underground)
Site Visit Features
Edge of Creek - OHWM[1]
Edge of Creek
Easement Point of Interest
Culvert
Dry Drainage
Squilchuck Creek[2]
Squilchuck Creek Buffer - 150 ft
Note:
1. OHWM = Ordinary High Water Mark
2. Squilchuck Creek as measured by site visit conducted on July 5, 2024 by Dennis Beich of Ecosystems North West WA.
Culvert 1
11
Dry Drainage
10
Dry Drainage
Squilchuck Creek
1
2
3
4
5
6
7
8
9
Project Area
N
0
150
300
Feet

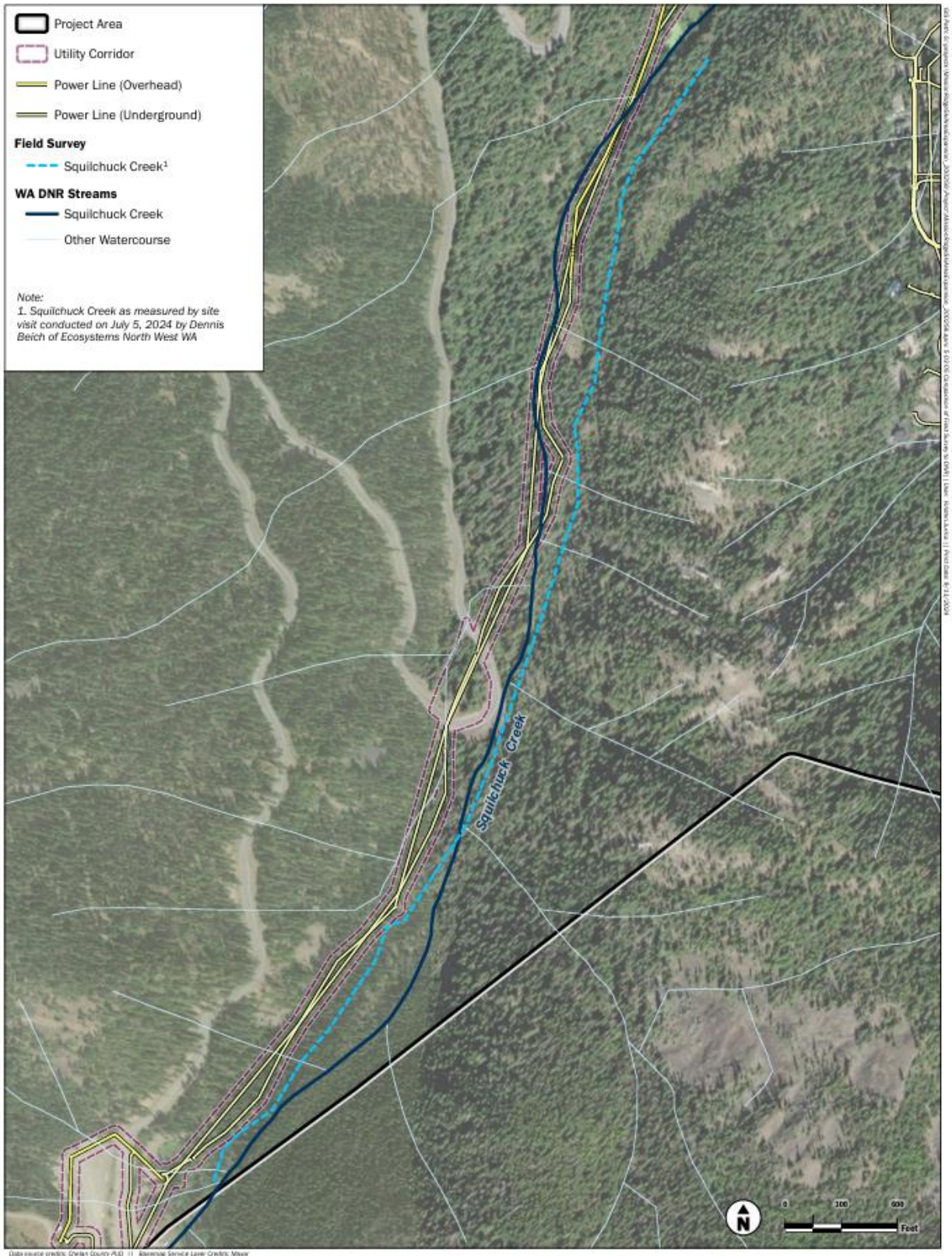
Map 2


Central Section
Project Area
Utility Corridor
Power Line (Overhead)
Power Line (Underground)
Site Visit Features
Edge of Creek - OHWM[1]
Edge of Creek
Easement Point of Interest
Stream Center
Culvert
Dry Drainage
Squilchuck Creek[2]
New Stream
Squilchuck Creek Buffer - 150 ft
New Stream Buffer - 100 ft
Note:
1. OHWM = Ordinary High Water Mark
2. Squilchuck Creek as measured by site visit conducted on July 5, 2024 by Dennis Beich of Ecosystems North West WA.
E
19
D
18
C
17
C (Center and Wet Drainage)
16
B
A
15
14
13
12
Culvert 2
Culvert 1
11
Dry Drainage
10
Dry Drainage
Project Area
N
Feet

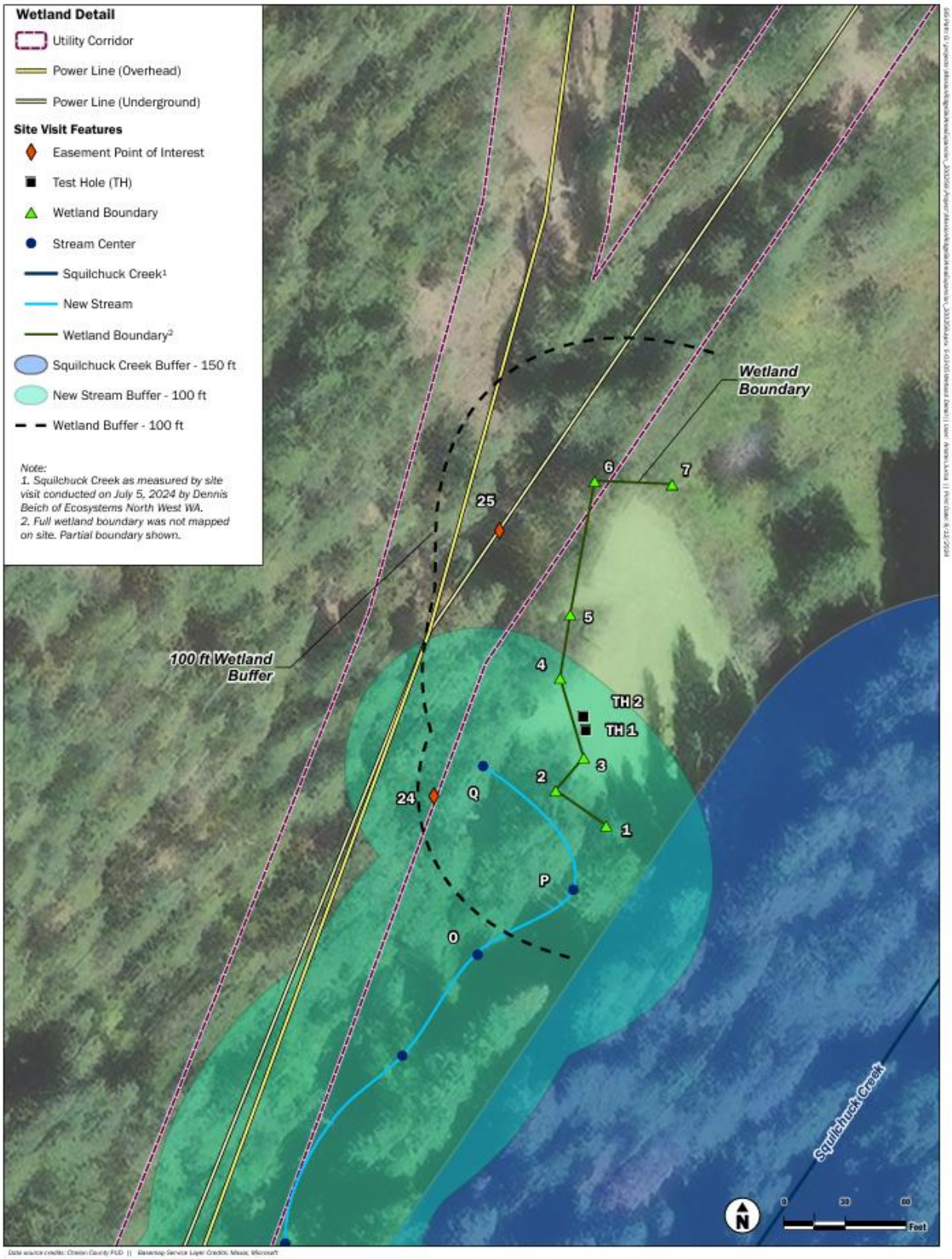
Map 3


North Section
Utility Corridor
Power Line (Overhead)
Power Line (Underground)
Site Visit Features
Edge of Creek
Easement Point of Interest
Test Hole (TH)
Wetland Boundary
Stream Center
Dry Drainage
Squilchuck Creek[1]
New Stream
Wetland Boundary[2]
Squilchuck Creek Buffer - 150 ft
New Stream Buffer - 100 ft
Wetland Buffer - 100 ft
Note:
1. Squilchuck Creek as measured by site visit conducted on July 5, 2024 by Dennis Beich of Ecosystems North West WA.
2. Full wetland boundary was not mapped on site. Partial boundary shown.
Dry Drainage
C (Center and Wet Drainage)
100 ft Wetland Buffer
Wetland Boundary
TH 1
TH 2
Project Area
Feet

Map 4


Project Area
Utility Corridor
Power Line (Overhead)
Power Line (Underground)
Field Survey
Squilchuck Creek[1]
WA DNR Streams
Squilchuck Creek
Other Watercourse
Note:
1. Squilchuck Creek as measured by site visit conducted on July 5, 2024 by Dennis Beich of Ecosystems North West WA
Squilchuck Creek
N
0
300
600
Feet

Map 5


Wetland Detail
Utility Corridor
Power Line (Overhead)
Power Line (Underground)
Site Visit Features
Easement Point of Interest
Test Hole (TH)
Wetland Boundary
Stream Center
Squilchuck Creek[1]
New Stream
Wetland Boundary[2]
Squilchuck Creek Buffer - 150 ft
New Stream Buffer - 100 ft
Wetland Buffer - 100 ft
Note:
1. Squilchuck Creek as measured by site visit conducted on July 5, 2024 by Dennis Beich of Ecosystems North West WA.
2. Full wetland boundary was not mapped on site. Partial boundary shown.
Wetland Boundary
100 ft Wetland Buffer
25
24
6
7
5
4
TH 2
TH 1
3
2
1
Q
P
O
Squilchuck Creek
N
0
30
60
Feet

APPENDIX B

Squilchuck Creek OHWM Data Form

Field Data Form

General Information

Site/Project Name/Owner:
Mission Ridge Ski Resort

Location: Parcel 211924000000

Description: OWHM of Sqilchuck Creek

The following field form is for use in the field to help in making ordinary high water mark delineations on streams. The form should be used as a guide. A team consisting of a hydrologist/ geomorphologist and a biologist may be needed to accurately determine the ordinary high water mark.

General Observations: Day of Site Visit

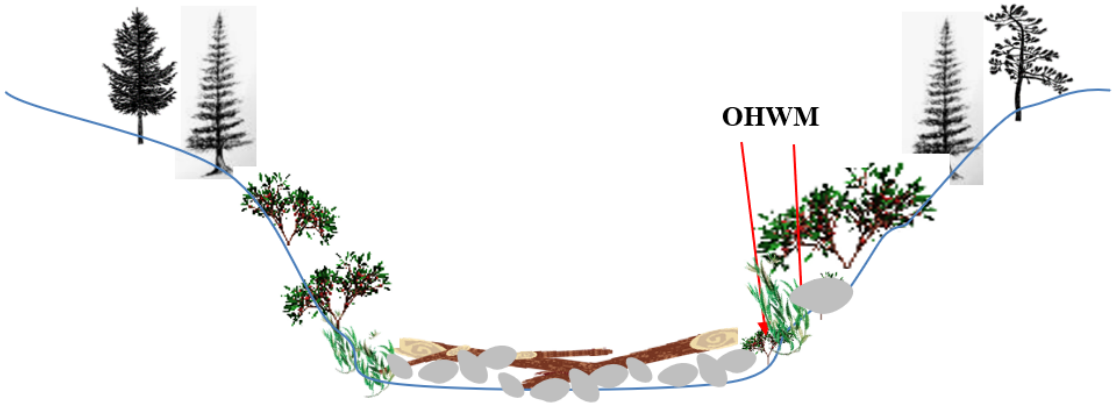
Date of site visit:	June 26, 2024			
Time of site visit:	9:00			
Weather conditions:	Hot (90F), sunny			
Watershed development:	Highly developed ❍		Mod. Developed ❍	Undeveloped ●
Reach development:	Highly developed ❍		Mod. Developed ❍	Undeveloped ●
Recent site disturbance?	No ●	Yes ❍	Describe:	
Upstream flow control devices?	No ●	Yes ❍	Describe:	
Bank armoring at the site?	No ●	Yes ❍	Describe:	
Bank armoring up or downstream?	No ●	Yes ❍	Describe:	
Observable tidal backwater?	No ●	Yes ❍		
In-water structures? (i.e. bridge pilings, railroad embankments)	No ❍	Yes ●	Describe: 2 gabion baskets	
Animals grazing in riparian zone?	No ●	Yes ❍	Describe:	
Observable beaver activity?	No ●	Yes ❍	Describe:	

Complete Vegetation Transects

- Use guidelines in Chapter 4 to complete vegetation transects.
- Determine upper and lower bounds of the OHWM from vegetation transects.
- After completing vegetation transects, look for more field indicators near the upper and lower bounds of the OHWM. Use the checklist as guidance.

Sketch

If a simple site, sketch a cross-sectional diagram of the site below. Include location of the waterway and upper and lower bounds of the OHWM defined by the vegetation communities or other OHWM indicators. Page 3 of the data form can be used for more complex sketches.



Additional Indicators

Check the indicators that are observable at the site that provide rationale for establishing the OHWM at this location. The rationale should be described in detail in the report and should be supported with photographs taken during the site visit.

	Soil and geomorphic indicators [1]	Vegetative indicators [2]	Other indicators
Below OHWM	○ Sediment bars ○ Scour line ○ Clean cobbles/boulders ○ Bank erosion/scour ○ Lack of soil horizons	Vegetation tolerant of inundation or high flow disturbances such as: ○ Willows ○ Black cottonwood ○ Japanese knotweed ○ Skunk cabbage ○ Aquatic plants	○ Exposed roots/root scour ○ Drainage patterns, as shown by flattened vegetation ○ Aquatic animals ○ Algal mats ○ Iron staining

[1] Refer to Chapter 4 for a more complete description of indicators.

[2] Species are provided as examples. Refer to Appendix B for a more complete listing of plant species and their distribution across the OHWM gradient. Some species occur in more than one category depending on site conditions. For example Indian plum and red alder may straddle the OHWM where soil drainage is high. They may occur above OHWM were soil drainage is low to moderate.

	Soil and geomorphic indicators [1]	Vegetative indicators [2]	Other indicators
At or straddling OHWM	☒ Top of bank ○ Toe of lowest terrace (if terrace has developed horizons which may include a duff layer and A and B horizons versus freshly deposited alluvium) ○ Benches	○ Willows ○ Western red cedar ☒ Vine maple (streams) ○ Black cottonwood ☒ Red alder ○ Salmonberry ○ Nootka rose ○ Maidenhair and lady fern ○ Blackberries ○ Dunegrasses	○ Sediment lines on vegetation or other fixed objects ○ Change from channel deposits to older alluvium. ☒ Darker stain lines on fixed objects ☒ Exposed roots/root scour. ○ Drainage patterns, as evidenced by flattened vegetation ○ Weathered and buried driftwood
Above OHWM	☒ Hillslope toe ○ Terraces or alluvium with an organic horizon or other developed soil horizons ○ Relic floodplain surface ☒ Well developed soil A andB horizons/duff layer	☒ Indian plum ☒ Red alder ○ Western red cedar ☒ Douglas fir ○ Western hemlock ☒ Ponderosa pine ○ Oregon white oak ○ Coast pine ○ Quaking aspen ○ Vine maple (lakes) ○ Blackberries	○ Lighter or no staining on fixed objects ○ Overbank deposits

Notes

OHWM defined by scour, topographic break, cobbles/boulders, and root scour.

At or near OHWM: Horsetail (*Equisetum* sp.), angelica (*Angelica* sp.)

Above OHWM: Douglas fir (*Pseudotsuga menziesii*), vine maple (*Acer circinatum*), thimbleberry (*Rubus parviflorus*), Nootka rose (*Rosa nootkana*), oceanspray (*Holodiscus discolor*)

APPENDIX C

Stream A OHWM Data Form

Field Data Form

General Information

Site/Project Name/Owner:
Mission Ridge Ski Resort

Location: Parcel 211924000000

Description: OWHM of Unnamed Stream

The following field form is for use in the field to help in making ordinary high water mark delineations on streams. The form should be used as a guide. A team consisting of a hydrologist/ geomorphologist and a biologist may be needed to accurately determine the ordinary high water mark.

General Observations: Day of Site Visit

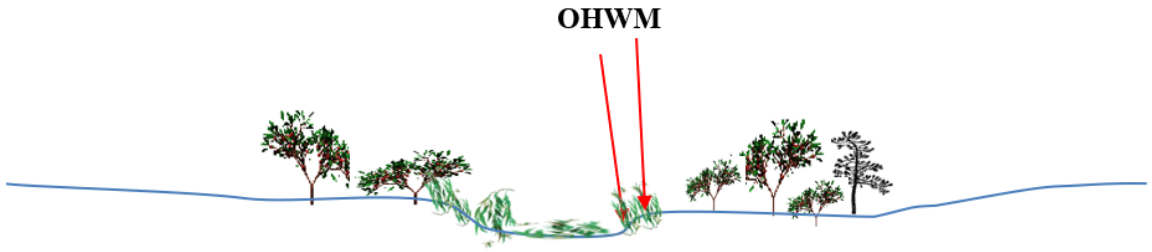
Date of site visit:	June 26, 2024			
Time of site visit:	9:00			
Weather conditions:	Hot (90F), sunny			
Watershed development:	Highly developed ❍		Mod. Developed ❍	Undeveloped ●
Reach development:	Highly developed ❍		Mod. Developed ❍	Undeveloped ●
Recent site disturbance?	No ●	Yes ❍	Describe: past vegetation maintenance	
Upstream flow control devices?	No ●	Yes ❍	Describe:	
Bank armoring at the site?	No ❍	Yes ●	Describe: diversion is lined by rocks	
Bank armoring up or downstream?	No ●	Yes ❍	Describe:	
Observable tidal backwater?	No ●	Yes ❍		
In-water structures? (i.e. bridge pilings, railroad embankments)	No ●	Yes ❍	Describe:	
Animals grazing in riparian zone?	No ●	Yes ❍	Describe:	
Observable beaver activity?	No ●	Yes ❍	Describe:	

Complete Vegetation Transects

- Use guidelines in Chapter 4 to complete vegetation transects.
- Determine upper and lower bounds of the OHWM from vegetation transects.
- After completing vegetation transects, look for more field indicators near the upper and lower bounds of the OHWM. Use the checklist as guidance.

Sketch

Draw a simple site, sketch a cross-sectional diagram of the site below. Include location of the waterway and upper and lower bounds of the OHWM defined by the vegetation communities or other OHWM indicators. Page 3 of the data form can be used for more complex sketches.



Additional Indicators

Check the indicators that are observable at the site that provide rationale for establishing the OHWM at this location. The rationale should be described in detail in the report and should be supported with photographs taken during the site visit.

	Soil and geomorphic indicators [1]	Vegetative indicators [2]	Other indicators
Below OHWM	○ Sediment bars ○ Scour line ○ Clean cobbles/boulders. ○ Bank erosion/scour ○ Lack of soil horizons	Vegetation tolerant of inundation or high flow disturbances such as: ○ Willows ○ Black cottonwood ○ Japanese knotweed ○ Skunk cabbage ○ Aquatic plants	○ Exposed roots/root scour ○ Drainage patterns, as shown by flattened vegetation ○ Aquatic animals ○ Algal mats ○ Iron staining

[1] Refer to Chapter 4 for a more complete description of indicators.

[2] Species are provided as examples. Refer to Appendix [redacted] for a more complete listing of plant species and their distribution across the OHWM gradient. Some species occur in more than one category depending on site conditions. For example Indian plum and red alder may straddle the OHWM where soil drainage is high. They may occur above OHWM were soil drainage is low to moderate.

	Soil and geomorphic indicators [1]	Vegetative indicators [2]	Other indicators
At or straddling OHWM	○ Top of bank ○ Toe of lowest terrace (if terrace has developed horizons which may include a duff layer and A and B horizons versus freshly deposited alluvium) ○ Benches	○ Willows ○ Western red cedar ○ Vine maple (streams) ○ Black cottonwood ○ Red alder ○ Salmonberry ■ Nootka rose ○ Maidenhair and lady fern ○ Blackberries ○ Dunegrasses	○ Sediment lines on vegetation or other fixed objects ○ Change from channel deposits to older alluvium. ○ Darker stain lines on fixed objects ■ Exposed roots/root scour. ■ Drainage patterns, as evidenced by flattened vegetation ○ Weathered and buried driftwood
Above OHWM	■ Hillslope toe ○ Terraces or alluvium with an organic horizon or other developed soil horizons ○ Relic floodplain surface ○ Well developed soil A andB horizons/duff layer	○ Indian plum ■ Red alder ○ Western red cedar ○ Douglas fir ○ Western hemlock ○ Ponderosa pine ○ Oregon white oak ○ Coast pine ○ Quaking aspen ○ Vine maple (lakes) ○ Blackberries	○ Lighter or no staining on fixed objects ○ Overbank deposits

Notes

OHWM defined by scour, erosion, and root scour.

At or near OHWM: Horsetail (*Equisetum* sp.), angelica (*Angelica* sp.), Columbian monkshood (*Aconitum columbianum)*

Above OHWM: thimbleberry (*Rubus parviflorus*), Nootka rose (*Rosa nootkana*), oceanspray (*Holodiscus discolor*)

APPENDIX D

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Mission Ridge | City/County: Chelan | Sampling Date: 6/28/2024
Applicant/Owner: Mission Ridge Ski & Snowboard Resort | State: WA | Sampling Poir: DP1
Investigator(s): D Beich | Section, Township, Rang: T21N R19E Sec 13
Landform (hillslope, terrace, e: toeslope | Local relief (concave, convex, nor: none | ope (%): 0
Subregion (LRR: B | Lat: 47.3088 | Long: -120.3894 | Datum: NAD83HARN
Soil Map Unit Nam: Loneridge very stony loam, 25 to 65 percent slopes | NWI Classificatior: PUB Hh
Are climatic / hydrologic conditions on the site typical for this time of y: (●) Yes ( ) No (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present: (●) Yes ( ) No
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Presen	(●) Yes	( ) No	**Is the Sampled Area within a Wetland?** (●) Yes ( ) No
Hydric Soil Present?	(●) Yes	( ) No	
Wetland Hydrology Present?	(●) Yes	( ) No	

Remarks:
Although vegetation is heavilty grazed, determination was not affected because dominant plant species were identifiable.

VEGETATION – Use scientific names of plants.

		Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
Tree Stratum (Plot size: 15ft x 15ft)					
1.	Lookup				
2.	Lookup				
3.	Lookup				
4.	Lookup				
		= Total Cover			
Sapling/Shrub Stratu (Plot size: 15ft x 15ft)					
1. *Salix scouleriana*	Lookup	5	Y	50.0	
2. *Cornus nuttallii*	Lookup	5	Y	50.0	FACU
3.	Lookup				
4.	Lookup				
5.	Lookup				
		10 = Total Cover			
Herb Stratum (Plot size: 5ft x 5ft)					
1. *Equisetum arvense*	Lookup	90	Y	90.0	FAC
2. *Scirpus microcarpus*	Lookup	10	N	10.0	OBL
3.	Lookup				
4.	Lookup				
5.	Lookup				
6.	Lookup				
7.	Lookup				
8.	Lookup				
		100 = Total Cover			
Woody Vine Stratu (Plot size:)					
1.	Lookup				
2.	Lookup				
		= Total Cover			

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

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals	105	(A)	300 (B)

Prevalence Index = B/A = 2.857

Hydrophytic Vegetation Indicators:
- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0¹
- ☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? (●) Yes ( ) No

Remarks:

SOIL

Sampling Point: DP1

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/1	90	10YR	5/6	10	C	M	Silt Loam	
4-16	10YR	2/1	95	10YR	5/6	5	C	M	Silt Loam	

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (LRR C)
- ☐ 1 cm Muck (A9) (LRR D)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ◉ Yes ○ No

Remarks:
area is extremely compacted

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) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ 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)
- ☐ Thick Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches):

Water Table Present? ◉ Yes ○ No Depth (inches): 4

Saturation Present? ◉ Yes ○ No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? ◉ Yes ○ No

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Mission Ridge | City/County: Chelan | Sampling Date: 6/28/2024

Applicant/Owner: Mission Ridge Ski & Snowboard Resort | State: WA | Sampling Point: DP2

Investigator(s): D Beich | Section, Township, Range: T21N R19E Sec 13

Landform (hillslope, terrace, etc.): toeslope | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR): B | Lat: 47.3088 | Long: -120.3894 | Datum: NAD83HARN

Soil Map Unit Name: Loneridge very stony loam, 25 to 65 percent slopes | NWI Classification: PUB Hh

Are climatic / hydrologic conditions on the site typical for this time of year? (●) Yes ( ) No (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? (●) Yes ( ) No

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	( ) Yes	(●) No	**Is the Sampled Area within a Wetland?** ( ) Yes (●) No
Hydric Soil Present?	( ) Yes	(●) No	
Wetland Hydrology Present?	( ) Yes	(●) No	

Remarks:
Although vegetation is heavilty grazed, determination was not affected because dominant plant species were identifiable.

VEGETATION – Use scientific names of plants.

		Absolute % Cover	Dom. Sp.?	Relative % Cover	Indicator Status
Tree Stratum (Plot size 15ft x 15ft)					
1. *Pseudotsuga menziesii*	Lookup	90	Y	100.0	
2.	Lookup				
3.	Lookup				
4.	Lookup				
		90	= Total Cover		
Sapling/Shrub Stratum (Plot size 15ft x 15ft)					
1. *Acer circinatum*	Lookup	5	Y	50.0	FAC
2. *Holodiscus discolor*	Lookup	5	Y	50.0	FACU
3.	Lookup				
4.	Lookup				
5.	Lookup				
		10	= Total Cover		
Herb Stratum (Plot size 5ft x 5ft)					
1.	Lookup				
2.	Lookup				
3.	Lookup				
4.	Lookup				
5.	Lookup				
6.	Lookup				
7.	Lookup				
8.	Lookup				
			= Total Cover		
Woody Vine Stratum (Plot size:)					
1.	Lookup				
2.	Lookup				
			= Total Cover		

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	10 (A)		35 (B)

Prevalence Index = B/A = 3.500

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0¹
- ☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? ( ) Yes (●) No

Remarks:

SOIL

Sampling Point: DP2

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	10YR	5/4	30					Silt Loam	
1-12	10YR	3/1	20						
1-12	10YR	4/2	50						

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

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (LRR C)
- ☐ 1 cm Muck (A9) (LRR D)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]

- ☐ 1 cm Muck (A9) (LRR C)
- ☐ 2 cm Muck (A10) (LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? ○ Yes ◉ No

Remarks:
area is extremely compacted

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) (Nonriverine)
- ☐ Sediment Deposits (B2) (Nonriverine)
- ☐ Drift Deposits (B3) (Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ 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)
- ☐ Thick Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (Riverine)
- ☐ Sediment Deposits (B2) (Riverine)
- ☐ Drift Deposits (B3) (Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? ○ Yes ◉ No Depth (inches): _____

Water Table Present? ○ Yes ◉ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ○ Yes ◉ No Depth (inches): _____

Wetland Hydrology Present? ○ Yes ◉ No

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

Remarks:

APPENDIX E

Wetland Rating Form

Wetland name or number: Boy Scout Camp

RATING SUMMARY - Eastern Washington

Name of wetland (or ID#): Boy Scout Camp **Date of site visit:** 06/28/2024
Rated By: Suzanne Tomassi **Trained by Ecology? Yes** [X] **No** [ ] **Date of Training:** 06/03/2006
HGM Class used for rating: Depressional
Wetland has multiple HGM classes? Yes [ ] **No** [X]

NOTE: Form is not complete without the figures requested *(figures can be combined).*
Source of base aerial photo/map: BING IMAGERY

OVERALL WETLAND CATEGORY: [**Category III**] (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
[X] **Category III** - Total score = 16 - 18
[ ] **Category IV** - Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
Site Potential	**M**	**M**	**M**	
Landscape Potential	**L**	**L**	**H**	
Value	**H**	**L**	**H**	**Total**
Score Based on Ratings	**6**	**4**	**8**	**18**

Score for each function based on three ratings (order of ratings is not important)
9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Vernal Pool	
Alkali	
Wetland of High Conservation Value	
Bog	
Calcareous Fen	
Forested	
None of the above	**Not Applicable**

Wetland name or number: Boy Scout Camp

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	2
Location of outlet *(can be added to map of hydroperiods)*	D 1.1, D 4.1	2
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	3
Map of the contributing basin	D 5.3	4
1km Polygon: Area that extends 1km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	5
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	6
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	7

Wetland name or number: Boy Scout Camp

DEPRESSIONAL WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0 Does the site have the potential to improve water quality?		
D 1.1 What are the 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	**Score: 3**
D 1.2 Is the soil 2 in. below the surface a true clay or organic soil?		
Mapped as true clay or organic	points = 3	
Soil texture identified as clay or organic in field	points = 3	
Soil texture identified as clay or organic by laboratory test	points = 3	
None of the above	points = 0	**Score: 0**
D 1.3 What are the characteristics and distribution of persistent plants?		
Wetland has persistent, ungrazed, vegetation for >66% of the wetland area	points = 5	
Wetland has persistent, ungrazed, vegetation from 33%-66% of the wetland area	points = 3	
Wetland has persistent, ungrazed vegetation from 10%-33% of the wetland area	points = 1	
Wetland has persistent, ungrazed vegetation <10% of the wetland area	points = 0	**Score: 3**
D 1.4 What are the characteristics of seasonal ponding or inundation in the wetland area?		
Area seasonally ponded is >50% total area of wetland	points = 3	
Area seasonally ponded is 25%-50% total area of wetland	points = 1	
Area seasonally ponded is <25% total area of wetland	points = 0	**Score: 0**
	Total for D 1:	**6**

Rating of Site Potential [ ] **12-16 = H** [X] **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 unit receive stormwater discharges?		
Yes	points = 1	
No	points = 0	**Score: 0**
D 2.2 Is >10% of the area within 150ft of the wetland in land uses that generate pollutants?		
Yes	points = 1	
No	points = 0	**Score: 0**
D 2.3 Are there septic systems within 250ft of the wetland?		
Yes	points = 1	
No	points = 0	**Score: 0**
D 2.4 Are the other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?		
Yes	points = 1	
No	points = 0	**Score: 0**

Wetland name or number: Boy Scout Camp

D 2.5 What are the other sources of pollutants coming into the wetland?	
Total for D 2:	**0**

Rating of Landscape Potential [ ] **3-4 = H** [ ] **1-2 = M** [X] **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	points = 1	
No	points = 0	**Score:**
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	points = 1	
No	points = 0	**Score: 0**
D 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality?		
Yes	points = 2	
No	points = 0	**Score: 2**
Total for D 3:		**2**

Rating of Value [X] **2-4 = H** [ ] **1 = M** [ ] **0 = L** *Record the rating on the first page*

DEPRESSIONAL WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradtion

D 4.0 Does the site have the potential to reduce flooding and erosion?		
D 4.1 What are the 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	**Score: 4**

Wetland name or number: Boy Scout Camp

D 4.2 What is the depth of storage during the wet periods?		
Seasonal ponding: 3ft or more above the lowest point in the wetland or the surface of permanent ponding	points = 8	
Seasonal ponding: 2ft-<3ft above the lowest point in the wetland or the surface of permanent ponding	points = 6	
The wetland is a headwater wetland	points = 4	
Seasonal ponding: 1ft - <2ft	points = 4	
Seasonal ponding: 0.5ft - <1ft	points = 2	
Seasonal ponding: <0.5ft (6in) or only saturated soils	points = 0	**Score: 6**
	Total for D 4:	**10**

Rating of Site Potential [ ] **12-16 = H** [X] **6-11 = M** [ ] **0-5 = L** *Record the rating on the first page*

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

Rating of Landscape Potential [ ] **3 = H** [ ] **1-2 = M** [X] **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 Is the wetland in a landscape that has flooding problems?		
Flooding occus in a sub-basin that is immediately down-gradient of the 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 that water cannot reach areas that flood	points = 0	
There are no problems with flooding downstream of the wetland	points = 0	**Score: 0**
D 6.2 Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?		
Yes	points = 2	
No	points = 0	**Score: 0**
	Total for D 6:	**0**

Rating of Value [ ] **2-4 = H** [ ] **1 = M** [X] **0 = L** *Record the rating on the first page*

Wetland name or number: Boy Scout Camp

HABITAT FUNCTIONS

These questions apply to wetlands of all HGM classes - Indicators that the site functions to provide important habitat

H 1.0 Does the wetland have the potential to provide habitat for many species?

H 1.1 What is the structure of the plant community?

- [x] Aquatic Bed
- [ ] Emergent plants 0-12in (0-30cm) high are the highest layer and have >30% cover
- [x] Emergent plants >12-40in (>30-100cm) high are the highest layer with >30% cover
- [ ] Emergent plants >40in (>100cm) high are the highest layer with >30% cover
- [x] Scrub-shrub (areas where shrubs have >30% cover)
- [ ] Forested (areas where trees have >30% cover)

4 structures or more	points = 3	
3 structures	points = 2	
2 structures	points = 1	
1 structure	points = 0	
No structures	points = 0	**Score: 2**

H 1.2 Is one of the vegetation types Aquatic Bed?

Yes	points = 1	
No	points = 0	**Score: 1**

H 1.3 What is the surface water potential?

- [ ] The wetland has areas of open water (without emergent or shrub plants) that meet the scoring threshold during March to early June OR in August to the end of September
- [x] The wetland has an intermittent or permanent, and unvegetated stream within its boundaries, or along one side
- [ ] The wetland is along the side of a stream or river with an unvegetated area that is at least 16ft (5m) wide
- [ ] The wetland is a Lake Fringe wetland

The wetland meets at least one of these criteria	points = 3	
No surface water that meets criteria	points = 0	**Score: 3**

H 1.4 What is the richness of plant species in the wetland?

>9 species	points = 2	
4-9 species	points = 1	
<4 species	points = 0	**Score: 1**

Wetland name or number: Boy Scout Camp

H 1.5 What is the interspersion of habitats within the wetland?

High	points = 3	
Moderate	points = 2	
Low	points = 1	
None	points = 0	**Score: 2**

H 1.6 What are the special habitat features within the wetland?

- [ ] Loose rocks larger than 4in OR large, downed, woody debris (>4in in diameter) within the area of surface ponding or in a stream.
- [✓] Cattails or bulrushes are present within the wetland.
- [✓] Standing snags (diameter at the bottom >4in) in the wetland or within 30m (100ft) 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)

6 habitat features selected	points = 6	
5 habitat features selected	points = 5	
4 habitat features selected	points = 4	
3 habitat features selected	points = 3	
2 habitat features selected	points = 2	
1 habitat feature selected	points = 1	
No habitat features selected	points = 0	**Score: 4**

Total for H 1: 13

Rating of Site Potential [ ] **15-18 = H** [X] **7-14 = M** [ ] **0-6 = L** *Record the rating on the first page*

H 2.0 Does the landscape have the potential to support the habitat functions of the site?

H 2.1 What is the percentage of accessible habitat within 1km of the wetland?

>33% of 1km Polygon is accessible habitat	points = 3	
20-30% of 1km Polygon is accessible habitat	points = 2	
10-19% of 1km Polygon is accessible habitat	points = 1	
<10% of 1km Polygon is accessible habitat	points = 0	**Score: 3**

H 2.2 What is the total habitat in a 1km polygon around the wetland?

Total habitat is >50% of the 1km polygon	points = 3	
Total habitat is 10-50% of the 1km polygon and in 1-3 patches	points = 2	
Total habitat is 10-50% of the 1km polygon and in >3 patches	points = 1	
Total habitat is <10% of the 1km polygon	points = 0	**Score: 3**

Wetland name or number: Boy Scout Camp

H 2.3 What is the land use intensity in a 1km polygon within the wetland?

>50% of the polygon is high intensity land use	points = -2	
<50% of the polygon is high intensity land use	points = 0	**Score: 0**

H 2.4 Is the wetland is in an area where annual rainfall is less than 12in, and its water regime is not influenced by irrigation practices, dams, or water control structures?

Yes	points = 3	
No	points = 0	**Score: 0**

Total for H 2: **6**

Rating of Landscape Potential [X] **4-9 = H** [ ] **1-3 = M** [ ] **0 = 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?

- [ ] Aspen Stands
- [ ] Biodiversity Areas and Corridors
- [ ] Eastside Steppe
- [ ] Inland Dunes
- [ ] Juniper Savannah
- [ ] Old-growth/Mature Forests
- [ ] Oregon White Oak
- [x] Riparian
- [ ] Shrubsteppe
- [ ] Fresh Deepwater
- [x] Instream
- [ ] Caves
- [ ] Cliffs
- [x] Snags and Logs
- [ ] Talus

The following criteria automatically score 2 points:

- [ ] The wetland provides habitat for Threatened or Endangered species
- [ ] The wetland is mapped as a location for an individual WDFW priority species
- [ ] The wetland is a Wetland of High Conservation Value (WHCV)
- [ ] The wetland has been categorized as an important habitat site in a local plan

The wetland has 3 or more WDFW priority habitats within 100m, or meets the criteria for societal value	points = 2	
The site has 1 or 2 WDFW priority habitats within 100m	points = 1	
The site does not meet any of the criteria for societal value	points = 0	**Score: 2**

Total for H 3: **2**

Rating of Value [X] **2 = H** [ ] **1 = M** [ ] **0 = L** *Record the rating on the first page*

Wetland name or number: Boy Scout Camp

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

SC 1.0 Vernal Pools

SC 1.1 Is the wetland less than 4000sqft and it meets at least two of the follow criteria?

☐ It's 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 [<1ft (30cm) 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 1.2

No - Not a Special Characteristic Vernal Pool — **Result: Not a Special Characteristic Vernal Pool**

SC 1.2 Is the vernal pool relatively undisturbed in February and March?

Yes - Go to SC 1.3

No - Not a Special Characteristic Vernal Pool — **Result:**

SC 1.3 Is the vernal pool in an area where there are at least 3 separate aquatic resources (other wetlands, rivers, lakes, etc.) within 0.5 mi?

Yes - Category II Vernal Pool

No - Category III Vernal Pool — **Result:**

SC 2.0 Alkali Wetlands

SC 2.1 Does the wetland meet any of the following criteria for Alkali Wetlands?

☐ 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 is the wetland can be classified as "alkali" species

☐ 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.

Yes - Category I Alkali Wetland

No - Go to SC 2.2 — **Result: Go to SC 2.2**

SC 2.2 Does the wetland meet two of the following criteria for Alkali Wetlands?

☐ Salt encrustations around more than 75% of the edge of the wetland

☐ more than 75% of the plant cover consists of alkali (salt tolerant) species

☐ A pH above 9.0

Yes - Category I Alkali Wetland

No - Not a Special Characteristic Alkali Wetland — **Result: Not a Special Characteristic Alkali Wetland**

Wetland name or number: Boy Scout Camp

SC 3.0 Wetlands of High Conservation Value

SC 3.1 Is the wetland listed by Washington Natural Heritage Program (WNHP) as a Wetland of High Conservation Value (WHVC)? Yes - Category I Wetland of High Conservation Value No - Go to SC 3.2	**Result: Go to SC 3.2**
SC 3.2 Does the wetland have a rare plant species, rare plant community, or high-quality plant community that may qualify the site as a WHCV? Yes - Category I Wetland of High Conservation Value No - Not a Special Characteristic Wetland of High Conservation Value	**Result: Not a Special Characteristic Wetland of High Conservation Value**

SC 4.0 Bogs and Calcareous Fens

SC 4.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16in or more of the first 32in of the soil profile? Yes - Go to SC 4.3 No - Go to SC 4.2	**Result: Go to SC 4.2**
SC 4.2 Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16in deep over debrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pong? Yes - Go to SC 4.3 No - Not a Special Characteristic Bog	**Result: Not a Special Characteristic Bog**
SC 4.3 Does an area with peats or mucks have more than 70% cover of mosses at gorund level, AND at least 30% cover of plant species listed? Yes - Category I Bog No - Go to SC 4.4	**Result:**
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 provide more than 30% of the cover under the canopy? Yes - Category I Bog No - Go to SC 4.5	**Result:**
SC 4.5 Do the species listed comprise at least 20% of the total plant cover within an area of peats and mucks? Yes - Category I Calcareous Fen No - Go to SC 4.6	**Result:**

Wetland name or number: Boy Scout Camp

SC 4.6 Do the species listed 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 - Category I Calcareous Fen

No - Not a Special Characteristic Calcareous Fen **Result:**

SC 5.0 Forested Wetlands

SC 5.1 Does the wetland have an area of forest rooted within its boundary that meets at least one of the following criteria?

☐ 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 0.25ac of trees (even in wetlands smaller than 2.5ac) that are "mature" or "old-growth" according to the definitions for these priority habitats developed by WDFW

Yes - Go to SC 5.2

No - Not a Special Characteristic Forested Wetland **Result: Not a Special Characteristic Forested Wetland**

SC 5.2 Does the wetland have a forest canopy where more than 50% of the tree species (by cover) are slow growing native trees?

Yes - Category I Forested Wetland

No - Go to SC 5.3 **Result:**

SC 5.3 Does the wetland have areas where aspen (Populus tremuloides) represents at least 20% of the total cover of woody species?

Yes - Category I Forested Wetland

No - Go to SC 5.4 **Result:**

SC 5.4 Does the wetland have at least 0.25ac with a forest canopy where more than 50% of the tree species (by cover) are fast growing species?

Yes - Category II Forested Wetland

No - Go to SC 5.5 **Result:**

SC 5.5 Is the forested component of the wetland within the 100 year floodplain of a river or stream?

Yes - Category II Forested Wetland

No - Not a Special Characteristic Forested Wetland **Result:**

Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form **Final Category: Not Applicable**

Figure 1: Cowardin plant classes

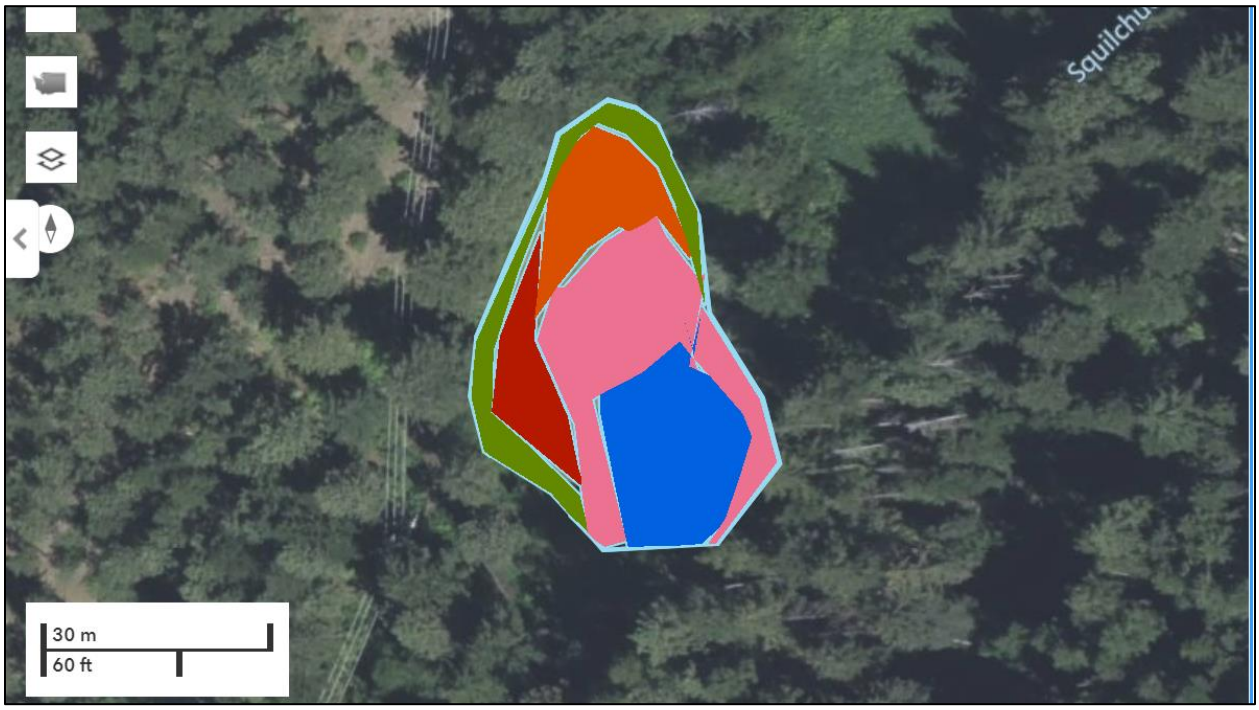


Figure 2: Hydroperiods and outlet

Figure 3: Boundary of area within 150’ of wetland

Figure 4: Contributing basin

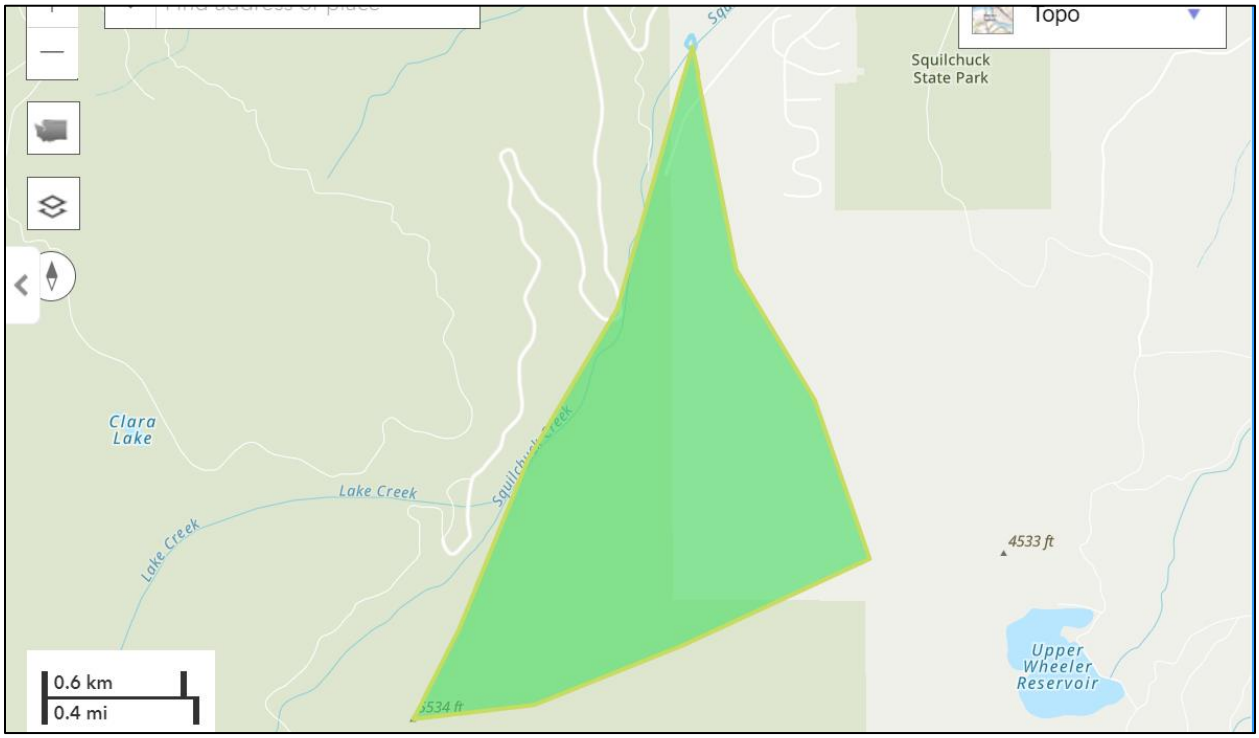


Figure 5: 1-km polygon

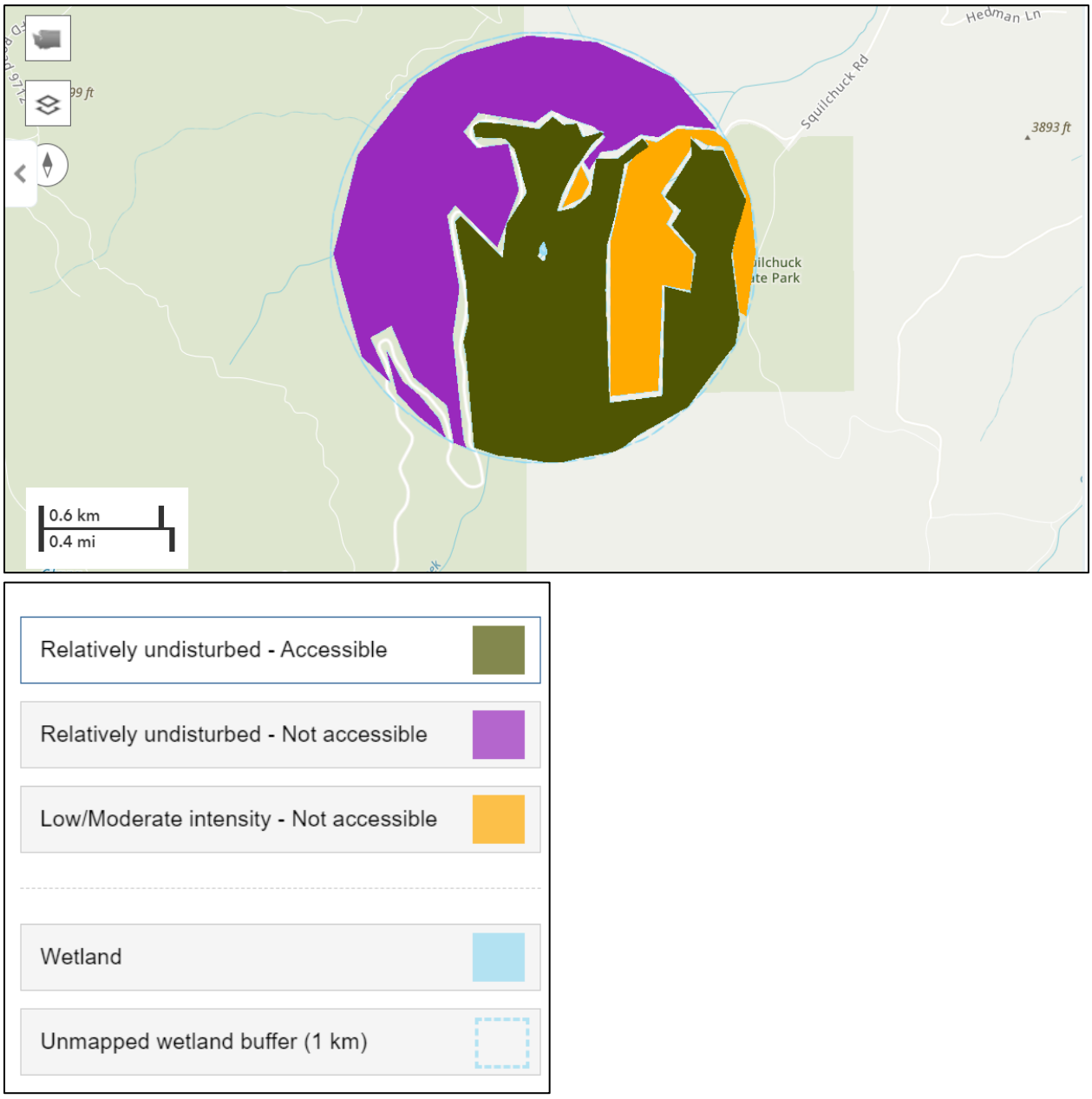


Figure 6: Screen capture of 303(d)-listed waters

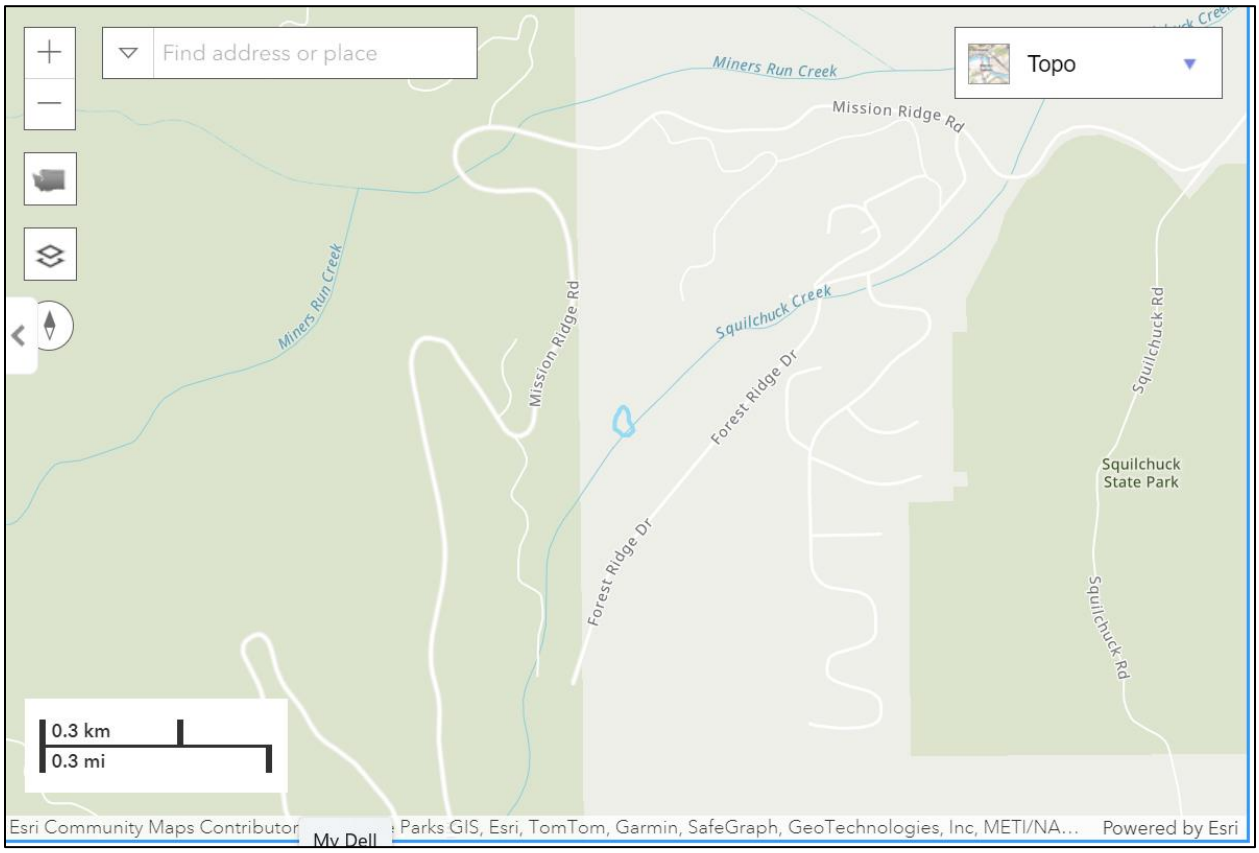


Figure 7: Screen capture of list od TMDLs in WRIA

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)
Lake Chelan	DDT PCB	EPA approved and Has an implementation plan	Mark Peterschmidt 509-454-7843
Lake Chelan	Total Phosphorus	EPA approved.	Mark Peterschmidt 509-454-7843
Mission Creek	DDE DDT	EPA approved.	Mark Peterschmidt 509-454-7843
Wenatchee River Watershed	Dissolved Oxygen and pH	EPA approved.	Mark Peterschmidt 509-454-7843
Wenatchee River Watershed	Fecal Coliform	EPA approved.	Mark Peterschmidt 509-454-7843
Wenatchee River Watershed	Temperature	EPA approved.	Mark Peterschmidt 509-454-7843