Bigfoot Cabins, LLC Single-Family Residence

Shoreline Variance and No Net Loss Mitigation Plan

Prepared for

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Ruston, WA
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Executive Summary

Site Name: Bigfoot LLC Single-Family Residence

Site Location, Acreage: 110 Mountain View Dr N., Ashford, WA, .17 acres

Parcel Number: Parcel # 011030034000

Legal Description: Section 36 Township 15N Range 06E LOT 35 PARADISE ESTATES ADD 5/81 670812

Project Staff: Alex Callender, MS, PWS

Field Survey Conducted: November 6, 2023

Comprehensive Plan : LAMIRD

Zoning Classification: RRC R-2

Project Description: The project proposes to remove an existing cabin to build and develop a 865 sq ft single-family residence with an onsite septic, driveway for ingress and egress and use existing utilities at the road.

Findings: Big Creek is located mostly offsite to the north of the subject property and is a shoreline of the state. The shoreline environmental designation for the property is Shoreline Residential.

Homes in shoreline jurisdiction are typically setback 150-feet. A shoreline variance will be required in order to allow for a reduction of the shoreline buffer to 36 feet for the residence and to 81 feet for the septic drainfield. The septic drainfield will also need avariance to 70-feet for the drainfield to the outlet of the nearby pond which is within the OHWM of Big Creek as well.

There is a pond and stream offsite to the east. This stream is part of the Shoreline Master Program as it receives its hydrology contiguous with the Ordinary High-Water Mark of Big Creek. Therefore, the small pond and its associate stream both carry a 150-foot shoreline residential buffer as well.

The buffer for Big Creek and the pond and drainage channel will cover the entire parcel, so a Shoreline Variance will be required to obtain relief from the dimensional standards of the SMP. A mitigation plan has been developed to maintain no-net-loss of environmental functions and values.

Mitigation: A mitigation plan to enhance 2,082 sq ft of shoreline buffer at a 1:1 enhancement to impact ration to maintain no-net-loss of shoreline ecological functions as shown by an analysis of typical shoreline functions.

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1.0 INTRODUCTION

This report is the result of a critical areas study of the 0.170 - acre parcel #011030034000 at 110 Mountain View Dr N, Eatonville, WA with the legal description of Section 36 Township 15N Range 06E LOT 191 PARADISE ESTATES ADD 2 in Lewis County, Washington (**Figure 1**). The purpose of this report is to 1) identify and describe the wetlands or other critical areas on-site and within 315 ft off-site of the property 2) identify impacts to wetlands or critical areas and their buffers, and 3) apply mitigation and conservation measures to off-set any critical areas or buffer impacts.

This report was prepared to satisfy the critical areas review process required by the Lewis County Critical Area Regulations Title 17.38 Critical Areas

Lewis County and possibly other agencies that may evaluate impacts to critical areas from the proposed project will be able to utilize information in this report.

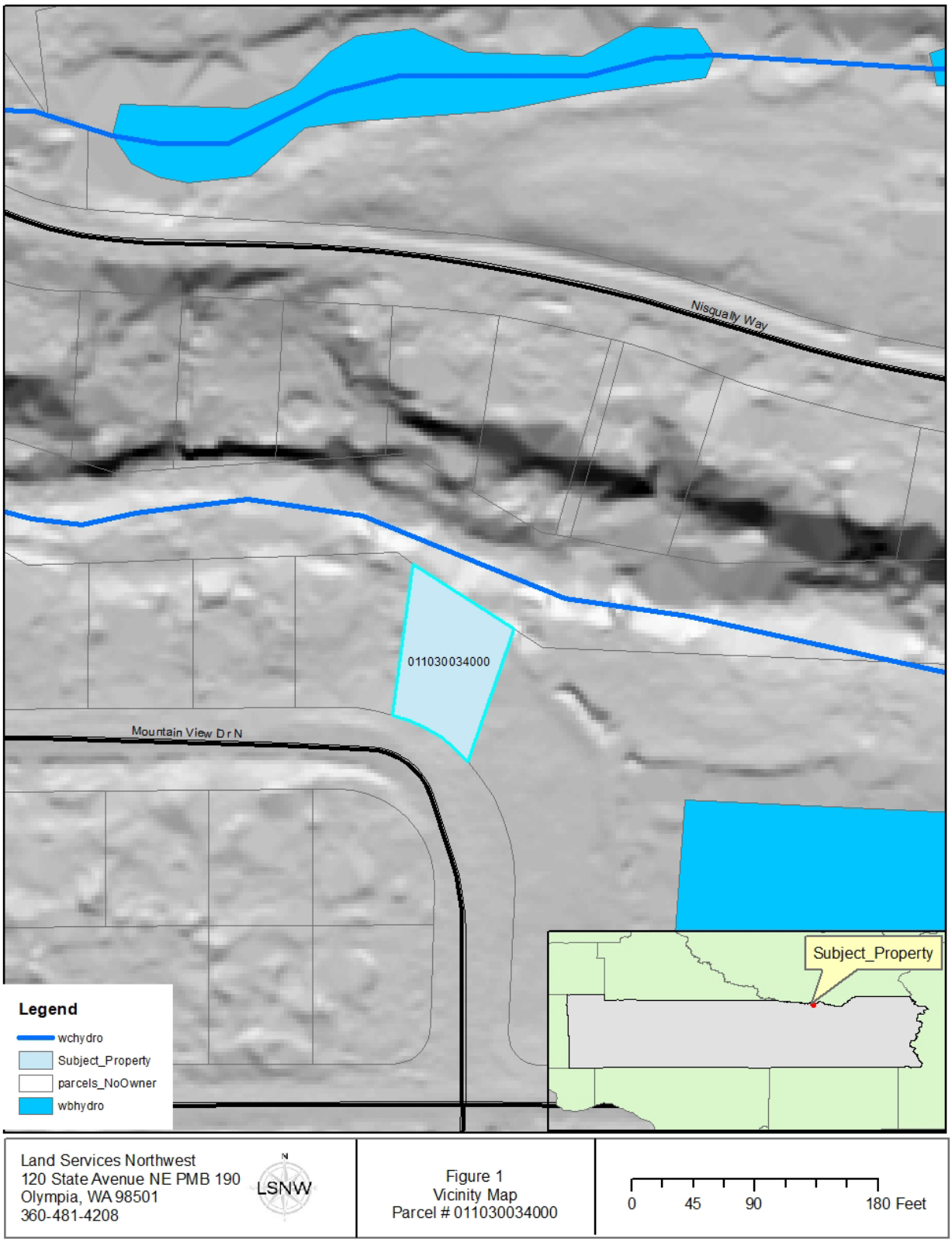


Figure 1-Vicinity Map

2.0 GENERAL DESCRIPTION AND LAND USE

2.1 Historical and Current Land Use

Historically, the property has been a recreational property with a small cabin that will be removed. It does not have any other developments on it. There is Big Creek to the North and a drainage that comes off of the pond to the east, a single-family residence to the west and Mountain View Drive N to the south. **(Figure 2**).

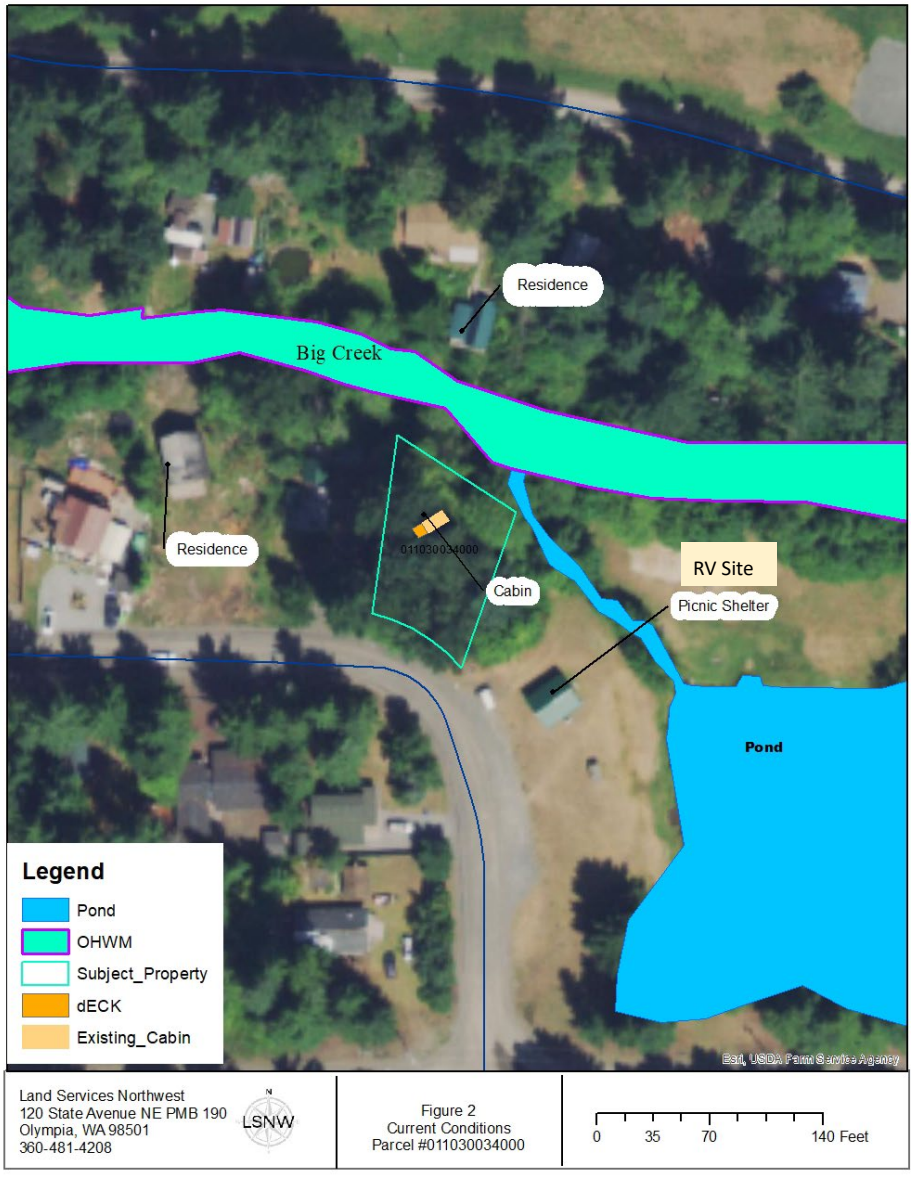


Figure 2 - Current Conditions

3.0 METHODOLOGY

3.1 Existing Information Review

Background information on possible wetlands and other critical areas was reviewed prior to field investigations and included the following:

- National Wetlands Inventory (NWI) Map, USFWS Shapefile Data (**Appendix B**)
- Lewis County Area Soil Survey, Soil Conservation Service (U.S. Department of Agriculture, 1973) National Resource Conservation Service Shapefiles (NRCS Soils Data Mart, 2006) (**Appendix C**)
- Washington Department of Natural Resources Forest Practices Mapping Tool (**Appendix D**)
- USGS 7.5 Minute Quadrangle Topographic Maps (**Appendix E**)
- Lewis County Wetland and Stream Information obtained from the Lewis County Parcel Viewer (**Appendix F**)
- Washington Department of Fish and Wildlife Priority Habitats and Species Database and Washington Department of Fish and Wildlife Salmonscape (**Appendix G)**
- NOAA NOW Precipitation Data (**Appendix J**)
- Washington Department of Natural Resources Natural Heritage Database
- United States Hydric Soils List (U.S. Department of Agriculture 1991)
- Lewis County Code Chapter 17.38
- Lewis County Shoreline Master Program

3.2 Analysis of Existing Information

An analysis of the above information follows.

National Wetland Inventory (NWI) Map

The National Wetland Inventory (NWI) map (**Appendix B**), developed by the U.S. Fish and Wildlife Service (USFWS), shows an (R5UBH) which is riverine persistent unconsolidated bed perennial flow and a Plustrine Unconsolidated Bottom Permanently Flooded manmade (PUBHx) wetlands located in the vicinity of the the subject property.

NRCS Soils Map

The Natural Resources Conservation Service (NRCS) has mapped the site (Appendix C) as containing:

- Bellicum very cindery loamy sand, 30 to 65 percent slops

Lewis County Area, Washington

12—Bellicum very cindery loamy sand, 30 to 65 percent slopes

Map Unit Setting

- *National map unit symbol:* 2h8n
- *Elevation:* 1,640 to 3,440 feet
- *Mean annual precipitation:* 70 to 95 inches
- *Mean annual air temperature:* 43 degrees F
- *Frost-free period:* 150 to 170 days
- *Farmland classification:* Not prime farmland

Map Unit Composition

- *Bellicum and similar soils:* 100 percent
- *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Bellicum

Setting

- *Landform:* Hillslopes
- *Parent material:* Pumice and volcanic ash over colluvium from andesite and glacial till

Typical profile

- *H1 - 0 to 7 inches:* very gravelly loamy sand
- *H2 - 7 to 18 inches:* very gravelly loamy sand
- *H3 - 18 to 33 inches:* very gravelly fine sandy loam
- *H4 - 33 to 50 inches:* extremely cobbly sandy loam
- *H5 - 50 to 54 inches:* unweathered bedrock

Properties and qualities

- *Slope:* 30 to 65 percent
- *Depth to restrictive feature:* 40 to 60 inches to lithic bedrock
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water supply, 0 to 60 inches:* Low (about 5.0 inches)

Interpretive groups

- *Land capability classification (irrigated):* None specified
- *Land capability classification (nonirrigated):* 7e
- *Hydrologic Soil Group:* B
- *Ecological site:* F003XC305WA - Low Mountain slopes Moist Forest western hemlock
- *Hydric soil rating:* No

WADNR Forest Practices and Stream Type Map

The WADNR has a map of stream types for forest practices. This map shows an F type Lake and S Type Big Creek (**Appendix D**).

USGS 7.5 Minute Topo Map

The USGS has topographical maps that depict natural and artificial features on the landscape including wetlands. This map shows a stream to the south on the neighboring property. This area was explored, and Big Creek was found in the area (**Appendix E**).

Lewis County Maps

The Lewis County Parcel Viewer shows different maps, and this map shows a floodway of Big Creek occurring on and offsite and it shows the property in the Residential Shoreline Jurisdisction (**Appendix F**)

WDFW Priority Habitats and Species Inventory and Salmonscape Map

The Department of Fish and Wildlife maintains an inventory of priority habitats and species information (**Appendix G**). This data shows this as a sensitive area for the federally threatened Northern spotted owl. It also shows occurrences of Residential coastal cutthroat, Rainbow trout, Mule and black tailed deer, Rocky Mountain elk, and the federally threatened Golden eagle.

The area may be frequented by the mule and blacktailed Columbia deer. These species are highly adaptable, and should not be impacted by the development as long as corridors are provided and fences do not obstruct their movement. Likewise the Rocky mountain elk should have corridors that will not prevent their movement and fences should be less than four feet tall. The resident cutthroat trout and sea run cutthroat trout habitat is within the stream and vegetation should be maintained and buffers are helpful for this species. Stormwater bmps should be used to maintain water quality,

The golden eagle has nesting requirements and no perch trees are found on site. The bird was not viewed during the reconnaissance and visits conducted afterwards. Timing restrictions during the nesting season are required if the bird is found nesting.

The WDFW Salmonscape (**Appendix F**) data was viewed to determine the status of fish use in the area. The Salmonscape map shows Rainbow trout and Resident coastal cutthroat on Big Creek. Both are PHS listed species and relatively common in the area.

NOAA NOW Precipitation Data

NOAA maintains a database that graphs the current precipitation against the wettest, driest, and normal accumulations of record. This data shows that the precipitation was lower than normal between January 1, 2023 and November 5, 2023. This is measured at the Mayfield Power Plant **(Appendix I)**.

3.3 Field Investigation

Determination Guidelines

Land Services Northwest based its wetland identification and delineation upon the 1987 Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the regional specificity found in Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE, 2010). Generally, as outlined in the

manuals, wetlands are distinguished from other landforms by three criteria: 1) hydrophytic vegetation, 2) hydric soils, and 3) wetland hydrology.

General Field Guidelines

Plant species were identified according to the taxonomy in *Flora of the Pacific Northwest* (Hitchcock and Cronquist, 1973), and the wetland status of plant species was assigned according to*: The National Wetland Plant List: 2016* (Lichvar, 2016). Wetland classes were determined by the U.S. Fish and Wildlife Service's system of wetland classification (FGDC, 2013). The wetland determination was based mainly on soils, vegetation, and hydrology characteristics indicative of wetland conditions.

The Corps Manual and Supplement describes soil, vegetation, and hydrological indicators of wetlands. A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper par (National Technical Committee for Hydric Soils, 1994). Anaerobic conditions cause redoximorphic features to develop, which can be evidenced through the observation of mottling or gleying in the soil. Soils are hydric if they match the indicators in the supplement or meet the technical definition.

A soils evaluation was performed to determine if the area contained hydric soils. Additional test plots were sampled to gage possible wetland indicators and characteristics. Soils are normally excavated to 18 inches or more below the surface within a test pit to evaluate soil characteristics and hydrological conditions in both wetland and upland areas. Soil chroma (color) is evaluated using the *Munsell Color Chart* (Munsell Color, 1988).

The COE describes a wetland rating system for plants. Each plant species is assigned a probability of occurrence within wetlands, which is referred to as its wetland status. The wetland plant indicator system is as follows:

Table 1 Indicator Status Ratings

Indicator Status	Abrv.	Definitions - Short Version (ERDC/CRREL TN-12-1)
Obligate	OBL	Almost always occur in wetlands.
Facultative Wetland	FACW	Usually occur in wetlands but may occur in non-wetlands.
Facultative	FAC	Occur in wetlands and nonwetlands.
Facultative Upland	FACU	Usually occur in non-wetlands but may occur in wetlands.
Upland	UPL	Almost never occur in wetlands.
		(USACE, 2016)

In general, under the Federal methodology, more than 50 percent of the predominant plant species within a test plot must be rated FAC or wetter (i.e., FACW, OBL) to satisfy the wetland criteria for hydrophytic vegetation. Dominant species are those when ranked comprise 50% of the total or those that have a percent cover greater or equal to 20 percent within the test plot. Only dominant plant species were considered in the data analysis.

If wetland hydrology, including pooling, ponding, and soil saturation, is not clearly evident, hydrological conditions may be observed through surface or soil indicators. Indicators of hydrological conditions include drainage patterns, drift lines, sediment deposition, watermarks, historic records, visual observation of saturated soils, and visual observation of inundation.

3.4 Wetland Study

Field Survey

A wetland reconnaissance was performed on November 5 2023, to identify wetlands present on the subject property. Observations were made of the general plant communities, wildlife habitats, and the locations of potential streams and wetland areas. Present and past land-use practices were also noted, as were significant geological and hydrological features.

Once likely wetland areas were located, the Routine Onsite Determination Method was used to identify the presence of wetland parameters and to delineate the outer edge of the wetlands using the procedures outlined in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987). The Routine Onsite Determination Method was used in areas that maintained normal circumstances, were not significantly disturbed, and were not potential problem areas.

Test pits were dug on November 5, 2023 (**Figure 3**) to develop a better understanding of soil profiles onsite. Soils were excavated to 18 inches or more below the surface within a test pit to evaluate soil characteristics and hydrological conditions throughout the site. Soil chroma (color) is evaluated using the *Munsell Color Chart* (Munsell Color, 1988). These results were entered in wetland data sheets **(Appendix H).**

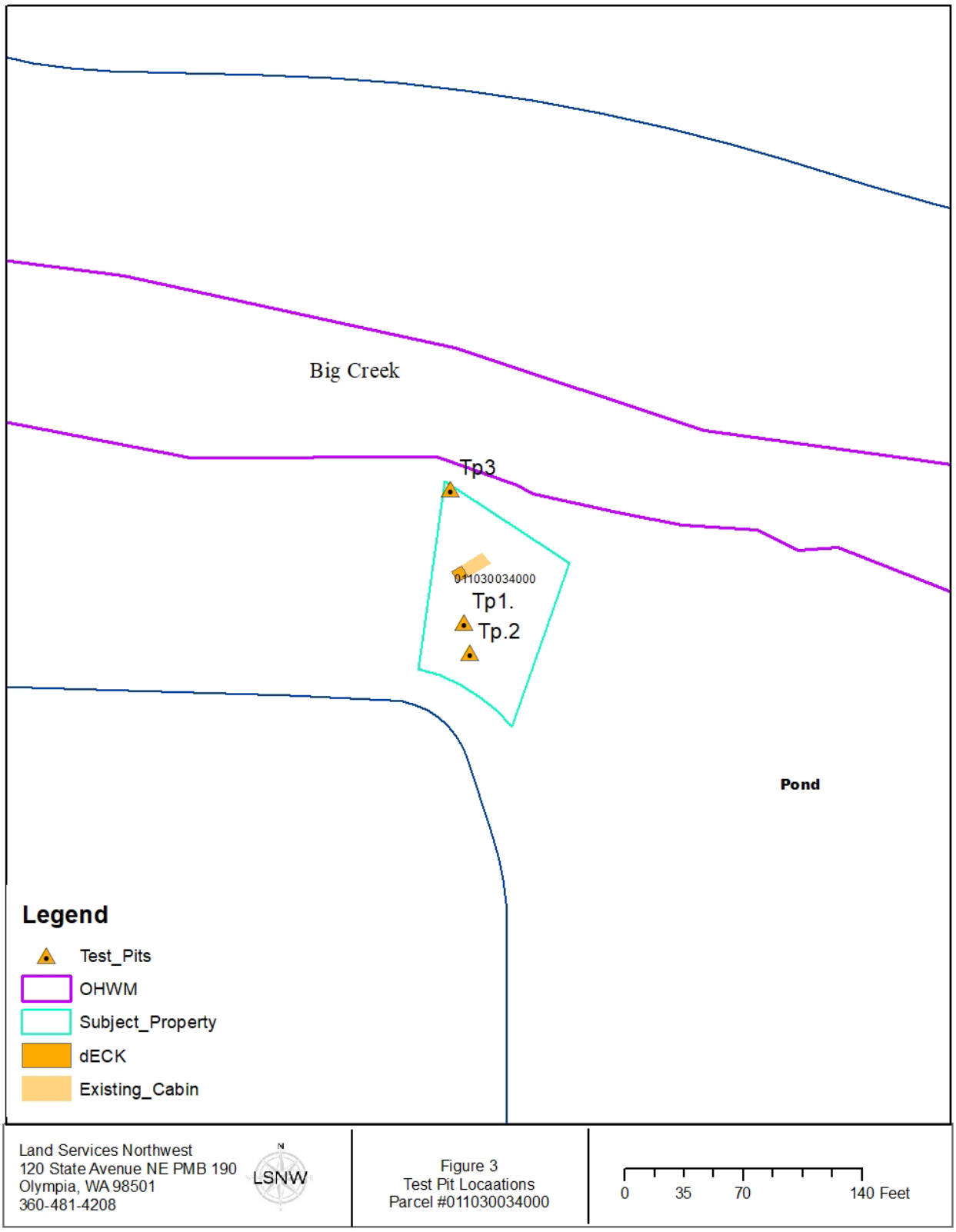


Figure 3 – Test Pit Locations

4.0 RESULTS / Findings

4.1 Existing Conditions

The subject property is currently developed with an old cabin which will be removed. Water and power are from the road. There is Big Creek to the north and a drainage ditch to the east. The property drains to the north.

Wetlands

Although the area has a dominance of hydrophytic vegetation, this is a condition due to the riparian influence as there was no standing water or water found within 12 inches of the surface. No wetlands were found on site or within 315 feet from the proposed project. No hydric soils were found.

Streams

Big Creek is found on and offsite within 315 feet of the project location. There is a portion of the creek that is used to fill a pond where it then rejoins the creek via a channel. The result is a shared ordinary high-water mark that brings the area into shoreline jurisdiction which covers the entire property/

> 7.38.420 Designation.

The following locations are designated as fish and wildlife habitat conservation areas:

Table 17.38-6

	Regulated Area
Aquatic Priority Habitat	Areas extending outward from the ordinary high-water mark on each side of a stream to the following distances[1,2]: (a) DNR Type F waters, 150 feet[3]; (b) DNR Type Np and Ns waters, 75 feet.
WDFW Priority Habitats and Species	Areas identified by and consistent with WDFW priority habitats and species criteria for federal or state endangered, threatened or sensitive species. The county shall defer to WDFW in regards to classification, mapping and interpretation of priority habitats and species.
Locally Important Habitat and Species	The following species of local importance and locally important habitat areas: (a) Elk wintering habitat; (b) Western brook lamprey; (c) Pacific lamprey; and (d) Fresh water mussels.
Designated Wildlife Areas	State natural area preserves, conservation areas, and state wildlife areas. No buffers shall be required adjacent to the areas, since the preserves and conservation areas are assumed to encompass the land required for species preservation.

[1] Numbers shown within the table represent required "buffers." Aquatic habitat buffers may be modified per the standards in LCC 17.38.430.

[2] Type S streams, and lakes and ponds over 20 acres in size in Lewis County are regulated under the shoreline master program.`

Big Creek is a stream which is a Fish and Wildlife Habitat Conservation area under the Critical Areas code, however it is listed as a Shoreline of the state. The creek flows more than 20 cfs and is greater than 20 feet wide on average. There is a drainage that fills the nearby pond. It was determined that the pond and the drainage ditch to the east are part of the OHWM of the creek and they both have a 150-ft buffer and a two-hundred-foot shoreline jurisdictional reach from the OHWM or the Regulatory Floodway. Both the pond and creek are noted for fish presence, primarily cutthroat trout and rainbow trout. It is likely that sculpin and other fish are present as well. The riparian area is dominated with black cottonwood, western red cedar, red alder with an understory of red twig dogwood and salmonberry. Swordfern and Douglas fir are found in the drier portions of the site. The pond is more of a lotic environment while the streams are lentic and have a gravelly bottom for spawning while the pond is muckier and more artificial; dug from uplands and fed by a channel that draws water from Big Creek and exits back into Big Creek. The stream itself has a floodzone, however due to the topography, there is typically not flooding on a majority of the southern upland portion of the property. The stream is approximately 30-50-ft wide during typical winter flows and maybe less in the summer.

5.0 REGULATORY CONSIDERATIONS

5.1 Lewis County Regulations

Lewis County Shoreline Master Program

Shoreline Environmental Designation

The project is within the jurisdiction of the Lewis County Shoreline Master Program. Any development meeting the dollar threshold of substantial development requires either a substantial development permit or a shoreline exemption (**Appendix F**). `

The following SMP code applies:

5.2 Shoreline Use Regulations

3.01.05 SHORELINE RESIDENTIAL

A. Purpose The purpose of the Shoreline Residential shoreline environment designation is to accommodate residential development and accessory structures and uses that are consistent with the SMP. An additional purpose is to provide appropriate public access and recreational development.

B. Designation Criteria. The Shoreline Residential shoreline environment designation is assigned to the shoreline areas that are predominantly residential or are planned and platted for residential development. These areas contain the following characteristics:

1. They contain existing residential development or are proposed primarily for residential development in Comprehensive Plans and zoning codes; and

There is existing residential development in the area zoned for this purpose.

B. They do not contain significant environmental hazards or sensitive areas.

There is a flood zone, however, development will be outside of the floodway and above the floodway.

C. Management Policies Development within the Shoreline Residential shoreline environment designation shall be consistent with the following policies:

1. Preserve ecological functions by establishing development standards for shoreline height, shoreline buffers, building setbacks, density, impervious surface coverage, shoreline stabilization, critical area protection, and water quality protection to assure no net loss of ecological functions in shoreline jurisdiction.

Ecological functions will be maintained to assure no-net-loss of ecological functions in Shoreline Jurisdiction.

2. Provide public access and joint use for community recreational facilities, where feasible and applicable for multifamily developments, residential developments containing more than four lots, and recreational developments.

N/A

3. Ensure access, utilities, and public services are available and adequate to serve existing needs and or planned future development.

Utilities will be provided at the road and will service the property.

4. Limit commercial development to water-oriented uses.

N/A

Critical areas are found onsite and will be governed under the SMP as follows:

4.03 ENVIRONMENTAL IMPACTS AND MITIGATION

4.03.02 REGULATIONS

A. The environmental impacts of development proposals shall be analyzed and include measures to mitigate environmental impacts not otherwise avoided or mitigated by compliance with the SMP and other applicable regulations.

We have provided a mitigation plan for unavoidable impacts that would not be mitigated by compliance with the SMP and other regulations and how it will maintain shoreline ecological functions.

B. Mitigation measures shall be considered and applied in the following sequence of steps, listed in order of priority:

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

The SMP 150-foot buffer for the Residential SED makes avoiding impacts to the buffer impossible.

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;

We have minimized the impacts of the development by proposing a smaller home, using offsite water and locating the septic away from impacts as much as possible with consideration of the other impacts that are proposed due to the development.

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

We will be offering a buffer enhancement and invasive species removal plan to maintain the functions of the shoreline.

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

A maintenance and contingency plan will be provided to monitor the planting plan for five years or until it is self-sustaining.

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

We will be planting native plants to enhance the nearshore at a 1:1 impact to enhancement ratio.

6. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

An adaptive maintenance and contingency plan will be provided with the enhancement and invasive removal plan.

C. In determining appropriate mitigation measures applicable to development in shoreline jurisdiction, lower priority measures should be applied only where higher priority measures are determined to be infeasible or inapplicable.

The entire property is encumbered and even with the buffer reduction plan there is no available area for development. We have moved as much of the development as far as possible from the stream and lake outlet, and we are mitigating for most of the remaining area so this has been determined to be the most feasible manner of development which would also meet the variance criteria.

D. Mitigation shall not be required that exceeds what is necessary to assure the development will result in no net loss of ecological functions in shoreline jurisdiction.

We are not doing more than what is necessary to offset the impacts of the development at a 1:1 impacts to enhancement ratio.

E. When compensatory measures are appropriate pursuant to the mitigation priority sequence above, preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, alternative compensatory mitigation measures that have been identified within a watershed plan, and address limiting factors or other critical resource conservation needs in the shoreline jurisdiction may be authorized. Authorization of compensatory mitigation measures may require appropriate safeguards, terms, or conditions as necessary to ensure no net loss of ecological functions.

Since the impact would primarily be due to the placement of the home and the septic, a planting plan that would protect the shoreline and screening and the inputs such as detritus, large woody debris and macroinvertebrates would be important to maintain the functions and prevent the loss of ecological functions.

4.04.02 REGULATIONS

A. Critical Areas Ordinance Adopted and Modified

1. Whether or not a shoreline permit or written statement of exemption is required, the provisions of this section shall apply to all uses, alterations, or developments within shoreline jurisdiction or shoreline buffers. All shoreline uses and activities shall be located, designed, constructed, and managed to protect the ecological functions and ecosystem wide processes provided by critical areas and shoreline vegetation.

Noted.

2. The Critical Areas Regulations adopted June 25, 2018, through Ordinance 1284, and amended on September 14, 2021 through Ordinance 1327, which are contained in the Lewis County Critical Areas Ordinance (CAO), LCC Chapter 17.38, and include LCC 17.10 (Definitions), are integral and applicable to the SMP, and are hereby adopted by reference. All uses and development occurring within critical areas or their buffers within shoreline jurisdiction shall comply with these regulations except as modified in SMP Section 4.04.02(A)(5) below. 3. LCC 15.35 Flood Damage Regulations applies within shoreline jurisdiction but is not incorporated as specific regulations of this SMP.

Noted.

4. If there are any conflicts or unclear distinctions between the provisions in LCC Chapter 17.38, and this section, the requirements most consistent with the SMA shall apply, as determined by the Shoreline Administrator.

Noted.

5. To ensure consistency with the SMA, exceptions to the applicability of the regulations in LCC Chapter 17.38 in shoreline jurisdiction are listed below: a. Where there is a difference in a definition between the CAO and the SMP, the SMP definition shall apply.

Within shoreline jurisdiction, the reasonable use and variance procedures in LCC 17.38.1010 are not available for relief from critical area standards. Instead, applicants seeking relief from critical area standards shall apply for a shoreline variance under SMP Section 7.04.03.

d. LCC 17.38.130 relating to activities allowed without a permit in critical areas and buffers does not apply in shoreline jurisdiction. In shoreline jurisdiction, exempt activities are limited to those listed in 7.04.04(B) and require review. Exemptions are from the permit process only and not from the standards of the SMP, including the critical area regulations and the requirements for no net loss.

e. LCC 17.38.280(1) – Reduction in Buffer Width by Reducing the Intensity of Land Use Impacts. In shoreline jurisdiction, buffer width reduction is addressed in SMP Section 4.04.02(C)(2).

An analysis is provided of the requirements of this section.

f. LCC 17.38.280(2) – Reductions in Buffer Widths Where Existing Roads or Structures Lie within the Buffer. In shoreline jurisdiction, interrupted buffer is addressed in SMP Section 4.04.02(C)(3).

This does not apply to the proposed development.

g. LCC 17.38.280(3) – Common Line Buffers. In shoreline jurisdiction, common line buffer is addressed in SMP Section 4.04.02(C)(4).

This does not apply to the proposed development.

h. LCC 17.38.290 – Buffer width averaging. In shoreline jurisdiction, buffer averaging is addressed in SMP Section 4.04.02(C)(1).

This is available but would not provide enough relief.

i. LCC 17.38.430 – Buffer width reduction or averaging. In shoreline jurisdiction, buffer averaging, interrupted buffer, and common line are addressed in SMP Section 4.04.02(C)(1), Section 4.04.02(C)(3), and Section 4.04.02(C)(4).

Noted.

j. LCC 17.38.080 – General mitigation requirements. In shoreline jurisdiction, on-site mitigation activities (LCC 17.38.080(4)(a) may include, but are not limited to, planting native vegetation, installing low impact development (LID) facilities such as rain gardens to mitigate stormwater impacts, installing large woody debris, and removing bulkheads or other hard shoreline stabilization structures. Mitigation projects involving instream work such as the installation of large woody debris shall be designed to ensure there are no adverse effects to upstream or downstream properties. Off-site mitigation (LCC 17.38.080(4)(b) shall occur in a similar habitat type as the project impact and in a location that will provide the greatest ecological benefit to affected species or habitats and have the greatest likelihood of success.

A mitigation plan has been developed that will provide native vegetation enhancement. Stormwater will be infiltrated onsite so a rain garden will not be necessary.

k. LCC 17.38.630 – Standards. In shoreline jurisdiction, uses and activities that may be authorized in CMZs are listed in SMP Section 4.05.02(F).

No CMZ is located on site.

l. LCC 15.35.310 – Floodways. Within shoreline jurisdiction, uses and activities that may be authorized within floodways or the SMP flood course are listed in SMP Section 4.05.02(F).
6. The provisions of the County's critical areas regulations do not extend shoreline jurisdiction beyond the limits specified in SMP Section 1.06.01.

Development will be outside of the floodway.

B. Shoreline Buffers
1. The required critical area buffers for Type S streams, as established in SMP Table 4-1: Shoreline Buffers, shall be considered shoreline buffers.

Noted. The stream will have a 150-foot shoreline buffer for residential use as the primary use according to table 4-1.

2. The minimum required aquatic habitat critical area buffers for lakes, as established in SMP Table 4-1: Shoreline Buffers, shall be considered shoreline buffers.

3. The buffers for all other critical areas shall be established in accordance with the standards of LCC Chapters 17.38, except as modified by SMP Section 4.04.02(A).

4. New uses and development that are not water-dependent, water-related, or water-enjoyment, accessory to water-dependent, water-related, or water-enjoyment uses or development, or that do not facilitate public access to waters of the State generally will not be authorized in shoreline buffers. Some uses or developments not meeting the criteria above may be authorized through

buffer averaging or through issuance of a shoreline variance.

The applicant is applying for a shoreline Variance.

5. SMP Table 4-1: Shoreline Buffers establishes shoreline buffers by shoreline environment designation.

Noted.

6. Shoreline buffers shall be measured horizontally in a landward direction from the OHWM.

Noted.

7. "N/A" in SMP Table 4-1: Shoreline Buffers means the requirement is not applicable.

8. The minimum shoreline buffer from the OHWM for a particular use is determined by finding the use and the most appropriate subcategory row and then finding the intersection with the appropriate shoreline environment designation column.

Noted.

9. Building setbacks of 15 feet are required from the landward edge of the shoreline buffer in accordance with LCC 17.38.1030. Building setbacks are used to protect the shoreline buffer from disturbance during construction and from the impacts related to use of a structure. Where no shoreline buffer is required in Table 4-1, no building setback shall be required.

A *shoreline setback of 15-feet will be applied.*

Table 4-1: Shoreline Buffers

Standard Shoreline Buffer from the OHWM (1)	**High Intensity**	**Shoreline Residential**	**Rural/Urban Conservancy**	**Natural**
Agriculture (New agricultural activities only)				
High intensity agricultural uses	100 feet	100 feet	100 feet	100 feet
Low intensity agricultural uses	50 feet	50 feet	50 feet	50 feet
Aquaculture				
Water-dependent structures and uses	0 feet	0 feet	0 feet	N/A

Water-related structures and uses	75 feet	75 feet	75 feet	N/A
Non-water-dependent structures and uses	150 feet	150 feet	150 feet	N/A
Boating and Water Access facilities				
Water-dependent structures and uses	0 feet	0 feet	0 feet	N/A
Water-related and water-enjoyment structures and uses	75 feet	75 feet	75 feet	N/A
Non-water-dependent structures and uses	150 feet	150 feet	150 feet	N/A
Commercial Development				
Water-dependent structures and uses	0 feet	0 feet	0 feet	N/A
Water-related and water-enjoyment structures and uses	75 feet	75 feet	75 feet	N/A
Non-water-oriented structures and uses	(2)	(2)	(2)	N/A
Forest Practices (3)	150 feet	150 feet	150 feet	200 feet
Industrial Development				
Water-dependent structures and uses	0 feet	N/A	0 feet (4)	N/A
Water-related structures and uses	75 feet	N/A	75 feet (4)	N/A
Non-water-oriented structures and uses	(5)	N/A	(4)(5)	N/A
Mining	150 feet	N/A	150 feet	N/A
Parking	150 feet	150 feet	150 feet	N/A

Standard Shoreline Buffer from the OHWM (1)	**High Intensity**	**Shoreline Residential**	**Rural/Urban Conservancy**	**Natural**
Recreational Development (6)				
Water-dependent structures and uses	0 feet	0 feet	0 feet	0 feet
Water-related and water-enjoyment structures and uses	75 feet	75 feet	75 feet	100 feet
Non-water-oriented structures and uses	150 feet	150 feet	150 feet	N/A
Residential Development	150 feet	**150 feet**	150 feet	200 feet
Transportation Facilities				
Bridges for motorized and non-motorized uses	0 feet	0 feet	0 feet	0 feet

Expansion of roads within existing right-of-way	(7)	(7)	(7)	(7)
New roads related to permitted shoreline uses	(8)	(8)	(8)	(8)
Expansion of roads outside of a right-of-way or relocation of existing roads	(8)	(8)	(8)	(8)
Utilities				
Water-dependent structures	0 feet	N/A	0 feet	N/A
Water-related structures	75 feet	N/A	75 feet	N/A
Non-water-oriented structures	150 feet (9)	N/A	150 feet (9)	N/A
Transmission facilities	(10)	(10)	(10)	(10)

Notes:

(1) Reductions in the shoreline buffer from the OHWM may be authorized according to the standards in SMP Section 4.04.02(C) below.

(2) Non-water oriented commercial uses are only allowed subject to 5.08.02(B).

(3) Other than conversions to nonforest land use and harvest on Shorelines of Statewide Significance, forest practices regulated under Chapter 76.09 RCW are not subject to:

C. Buffer Width Reduction Options Shoreline and critical area buffers, with the exception of geologically hazardous areas buffers, may be reduced using the following procedures. Only one buffer width reduction option below may be selected per development:

1. Buffer Averaging The width of a buffer may be averaged following the requirements of LCC 17.38.290 and LCC 17.38.430, thereby reducing the width of a portion of the buffer and increasing the width of another portion of the buffer.

It does not appear that any of the relief offered in the buffer averaging would be enough to allow reasonable use of the property.

2. Buffer Width Reduction Reductions of certain buffers may be approved administratively if buffer averaging in SMP Section 4.04.02(C)(1), common line buffer in SMP Section 4.04.02(C)(3), or interrupted buffer provisions in SMP Section 4.04.02(C)(4) are infeasible, following the requirements of LCC 17.38.280(1).

It does not appear that the relief offered through SMP Section 4.04.02C(3) or the interrupted buffer provision in SMP Section 4,04.02©(4) are feasible while following the requirements of LCCC 17.

a. Shall include appropriate measures to reduce potential impacts from LCC 17.38.280(1)(b).

The measures offered in 17.128.280(1)(b) will be employed.

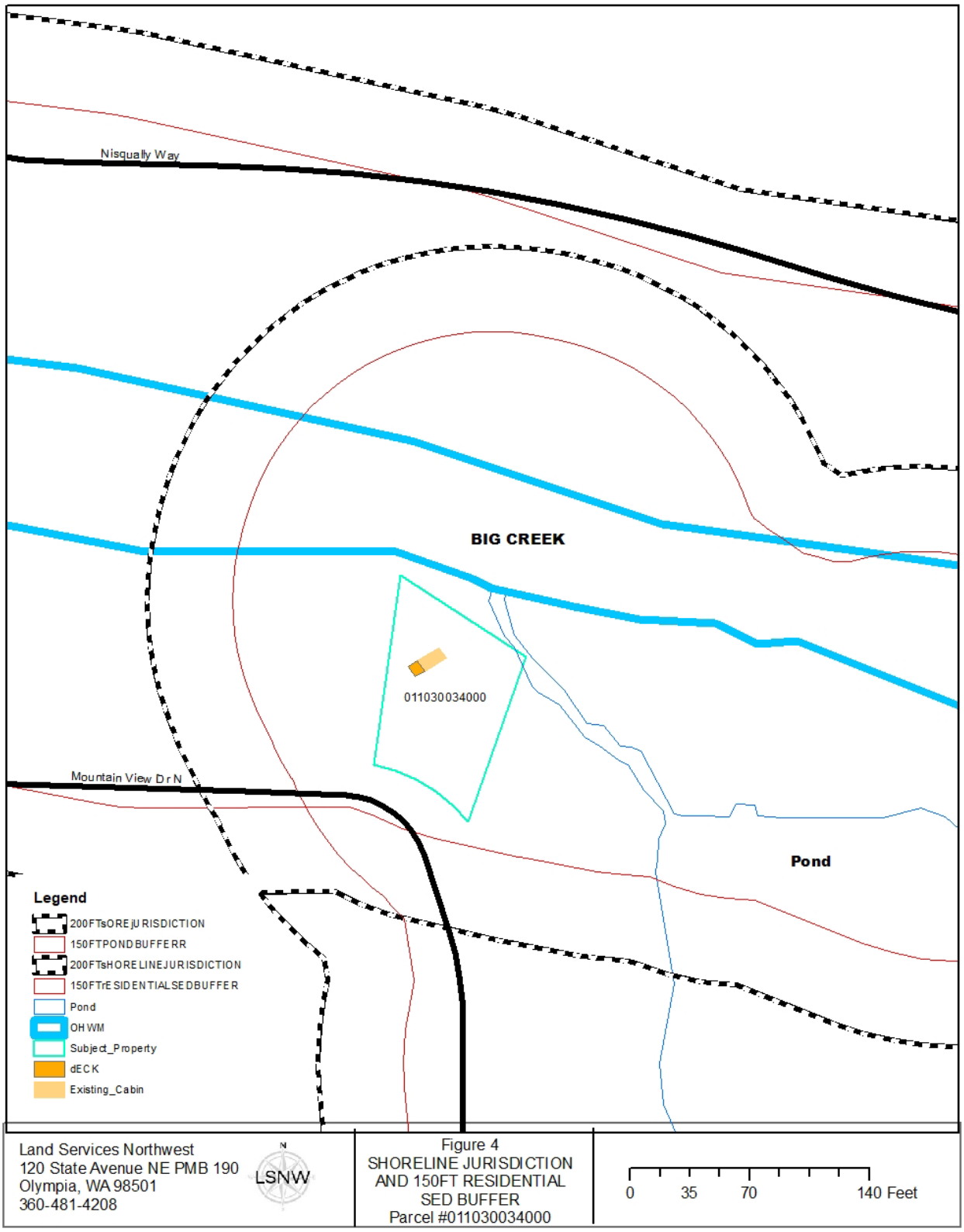


Figure 4 – Shoreline Buffers

b. Shall be designed to ensure no net loss of shoreline ecological functions occurs when the reduction is utilized.

An analysis of how the proposal will meet no net loss of shoreline ecological functions will be provided.

E. Vegetation Conservation Standards

1. Shoreline buffers protect the ecological functions of the shoreline, help to reduce the impacts of land uses on the water body or aquatic resource, and provide a transition between aquatic and upland areas.

2. Authorized uses shall be designed to avoid removing existing native vegetation to the maximum extent feasible within shoreline and critical areas buffers consistent with safe construction practices, and other provisions of this section. Any impacts to existing native vegetation must follow the mitigation sequence in SMP Section 4.03 above and comply with any applicable critical area regulations, as modified in SMP Section 4.04.02(A) above.

3. Removal of vegetation within shoreline and critical areas buffers shall require a critical area report and/or a mitigation plan in coordination with the requirements of the applicable critical areas regulations. The Shoreline Administrator may require a critical area report for CAO-exempt activities if necessary to document compliance with the provisions in the SMP.

4. Removal of native vegetation from shoreline buffers must be compensated at a minimum 1:1 ratio, which the Shoreline Administrator may increase if necessary to assure no net loss of shoreline ecological functions. Increases may be necessary to compensate for temporal losses, uncertainty of performance, and differences in ecological functions and values.

5. Mitigation ratios shall be based on a scientifically valid measure of habitat function, value, and area. Critical area reports shall include a description of how the proposal complies with the mitigation sequence in SMP Section 4.03 and how mitigation areas will be monitored and maintained to ensure no net loss of shoreline ecological functions.

6. Vegetation conservation standards shall not apply retroactively to existing, legally established uses and developments. Existing, lawfully established landscaping and gardens within shoreline buffers may be maintained in their existing condition. In the context of this regulation, maintenance includes, but is not limited to, mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden crops, pruning, and replacement planting of ornamental vegetation or indigenous native species to maintain the condition and appearance of such areas.

7. Clearing of invasive, noxious non-native vegetation in shoreline buffers is allowed by hand labor or with light equipment. Removal of noxious weeds as listed by the State in Chapter 16-750 WAC is allowed in a manner consistent with State Noxious Weed Control Board regulations. Native vegetation shall be promptly reestablished in the disturbed area.

8. In shoreline buffers, pruning shall comply with the National Arborist Association pruning standards, unless the tree is a hazard tree as defined in LCC 17.10.080. Trees that are felled in shoreline buffers should be left in place.

9. In those instances where the management of vegetation required by this Section conflicts with provisions in State, Federal or other flood hazard agency documents that govern licensed or certified flood hazard reduction measures, the requirements of the SMP will not apply. The applicant shall submit documentation of conflicting provisions with a shoreline permit application and shall comply with all other provisions of the SMP that are not strictly prohibited by certifying or licensing agencies.

F. Revegetation

1. Surfaces that are cleared of vegetation in shoreline or critical area buffers, aside from normal maintenance described in SMP Section 4.04.02(E)(6), and are not developed must be replanted within one year. Replanted areas shall be planted and maintained such that within three years the vegetation cover is at least 90% reestablished.

2. Vegetation shall be planted in similar quantities and species to what existed previously on the site to achieve no net loss of ecological function. Disturbed ornamental landscapes, including grass, may be replaced with similar species, unless mitigation is necessary to address project impacts.

3. Native plants are preferred for all revegetation. Non-native species on the County's list of invasive species shall not be allowed.

G. Aquatic Vegetation Control

1. Aquatic vegetation control shall only occur when native plant communities and associated habitats are threatened or where an existing water-dependent use is restricted by the presence of weeds. Aquatic vegetation control shall occur in compliance with all other applicable laws and standards, including WDFW requirements such as the Aquatic Plants and Fish Pamphlet, which serves as the Hydraulic Project Approval (HPA) for some types of aquatic weed or plant control and removal.

2. The application of herbicides or pesticides in lakes, canals, wetlands, or ditches requires a permit from Ecology and may require preparation of a SEPA checklist for review by other agencies. The applicator must have a pesticide applicator license from the Washington State Department of Agriculture.

D. General Buffer Regulations

1. Shoreline Buffers

The following new uses and activities are allowed within shoreline buffers without a shoreline variance, when located, constructed, and maintained in a manner that minimizes adverse impacts on shoreline ecological functions, and when otherwise in compliance with this SMP:

The use will require a variance as they will be in the buffer.

a. Uses and activities authorized to locate in shoreline buffers in SMP Chapter 5: Specific Shoreline Use Policies and Regulations, SMP Chapter 6: Shoreline Modification Policies and Regulations, and LCC 17.38.130.

b. Accessory Uses. Uses and development accessory to water-dependent uses shall be located outside the shoreline buffer unless at least one of the following criteria is met: 1) A location in the

shoreline buffer is necessary for operation of the primary water-dependent use or development, such as a road to a boat launch facility; or

A location of the septic in the shoreline buffer is necessary for the development.

2) The accessory use is on legally established public lands and is primarily related to access, enjoyment, and use of the water; and the use does not conflict with or limit opportunities for other water-oriented uses.

N/A.

c. Essential Public Facilities. Essential public facilities, as defined by RCW 36.70A.200, may be located and expanded in the shoreline buffer if the use cannot be reasonably accommodated or accomplished outside of the standard or reduced shoreline buffer. 1) Essential public facilities must demonstrate that alternative sites are not available.

N/A.

2) These uses must be designed and located to minimize intrusion into the shoreline buffer and shall be consistent with the mitigation sequence in SMP Section 4.03 and applicable critical area regulations.

d. Water-oriented education, scientific research, and passive recreational uses. These uses may include, but are not limited to fishing, bird watching, hiking, hunting, boating, horseback riding, skiing, swimming, canoeing, and bicycling. Such uses are allowed within shoreline buffers provided the use does not include construction. Wildlife viewing structures and permeable trails or raised boardwalks may be allowed on a limited basis within riparian and wetland buffers in accordance with the mitigation sequence in SMP Section 4.03 and applicable critical area regulations.

N/A

e. Site investigative work necessary for land use application submittals such as surveys, soil logs, drainage tests, and other related work, including monitoring of restoration or mitigation sites. In every case, shoreline buffer impacts should be avoided or minimized and disturbed areas shall be immediately restored.

N/A

2. Critical Areas Buffers
The uses and activities allowed within critical areas buffers in LCC Chapter 17.38.130 as modified in 4.04.02(A)(5)(h), and riparian buffers for waters that are not Shorelines of the State per LCC 17.38.470, may be allowed without a shoreline variance, when located, constructed, and maintained in a manner that minimizes adverse impacts on shoreline ecological functions, and in compliance with the SMP.

The applicant will require a variance.

E. Vegetation Conservation Standards

1. Shoreline buffers protect the ecological functions of the shoreline, help to reduce the impacts of land uses on the water body or aquatic resource, and provide a transition between aquatic and upland areas.

The applicant understands this and has provided a habitat management plan to maintain the ecological functions over time.

2. Authorized uses shall be designed to avoid removing existing native vegetation to the maximum extent feasible within shoreline and critical areas buffers consistent with safe construction practices, and other provisions of this section. Any impacts to existing native vegetation must follow the mitigation sequence in SMP Section 4.03 above and comply with any applicable critical area regulations, as modified in SMP Section 4.04.02(A) above.

The applicant will use the best construction practices to maintain the existing native vegetation to the maximum extent possible . The impacts to the shoreline have followed the mitigation sequence in SMP section 4.03 and complies with the applicable critical areas regulations as modified in the SME+P Section 4.04,02.A.

3. Removal of vegetation within shoreline and critical areas buffers shall require a critical area report and/or a mitigation plan in coordination with the requirements of the applicable critical areas regulations. The Shoreline Administrator may require a critical area report for CAO-exempt activities if necessary to document compliance with the provisions in the SMP.

A critical areas report with a mitigation plan is provided with the requirements of the regulations.

4. Removal of native vegetation from shoreline buffers must be compensated at a minimum 1:1 ratio, which the Shoreline Administrator may increase if necessary to assure no net loss of shoreline ecological functions. Increases may be necessary to compensate for temporal losses, uncertainty of performance, and differences in ecological functions and values.

The removal of vegetation will be approximately 528 sq feet for the septic drainfield, 865 for the single-family residence and 689 sq feet for the driveway, for a total of 2,082 sq feet of impact. A mitigation plan to enhance 2,082 sq ft of shoreline with native plants and removal of invasive plants will be provided to maintain fish and wildlife habitat value associated with the creek and the outlet of the nearby pond.

5. Mitigation ratios shall be based on a scientifically valid measure of habitat function, value, and area. Critical area reports shall include a description of how the proposal complies with the mitigation sequence in SMP Section 4.03 and how mitigation areas will be monitored and maintained to ensure no net loss of shoreline ecological functions.

We have an analysis of how the project has followed the mitigation sequence in Section 4.03.

6. Vegetation conservation standards shall not apply retroactively to existing, legally established uses and developments. Existing, lawfully established landscaping and gardens within shoreline buffers may be maintained in their existing condition. In the context of this regulation, maintenance includes, but is not limited to, mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden crops, pruning, and replacement planting of ornamental vegetation or indigenous native species to maintain the condition and appearance of such areas. 7. Clearing of invasive, noxious non-native vegetation in shoreline buffers is allowed by hand labor or with light equipment. Removal of noxious weeds as listed by the State in Chapter 16-750 WAC is allowed in a manner consistent with State Noxious Weed Control Board regulations. Native vegetation shall be promptly reestablished in the disturbed area.

Noted.

8. In shoreline buffers, pruning shall comply with the National Arborist Association pruning standards, unless the tree is a hazard tree as defined in LCC 17.10.080. Trees that are felled in shoreline buffers should be left in place.

No pruning is proposed.

9. In those instances where the management of vegetation required by this Section conflicts with provisions in State, Federal or other flood hazard agency documents that govern licensed or certified flood hazard reduction measures, the requirements of the SMP will not apply. The applicant shall submit documentation of conflicting provisions with a shoreline permit application and shall comply with all other provisions of the SMP that are not strictly prohibited by certifying or licensing agencies.

No conflict with the flood hazard reduction measures is expected.

F. Revegetation

1. Surfaces that are cleared of vegetation in shoreline or critical area buffers, aside from normal maintenance described in SMP Section 4.04.02(E)(6) and are not developed must be replanted within one year. Replanted areas shall be planted and maintained such that within three years the vegetation cover is at least 90% reestablished.

The area will be maintained so revegetation should not be necessary. Enhancement will be provided in those areas that are needed to maintain the functions of the shoreline.

2. Vegetation shall be planted in similar quantities and species to what existed previously on the site to achieve no net loss of ecological function. Disturbed ornamental landscapes, including grass,

may be replaced with similar species, unless mitigation is necessary to address project impacts.

Noted.

3. Native plants are preferred for all revegetation. Non-native species on the County's list of invasive species shall not be allowed.

Native species are planned for the mitigation. No non-native species on the invasive species list shall be used.

4.05 FLOOD HAZARD MANAGEMENT

This section applies to actions taken to reduce flood hazards in shoreline jurisdiction as well as uses, development, and shoreline modifications that may increase flood hazards.
Measures to reduce flood hazards may consist of:

• Nonstructural measures, such as shoreline buffers, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures, and stormwater management programs; and

• Structural measures, such as dikes, levees, revetments, floodwalls, dams, channel realignment, and elevation of structures consistent with the National Flood Insurance Program.

The County currently implements flood hazard management through:
• The Lewis County Comprehensive Plan;
• The Lewis County CAO;
• The latest edition of the Stormwater Management Manual as prepared by Ecology;
• The Lewis County Comprehensive Flood Hazard Management Plan;
• The Lewis County Multi-Jurisdictional Hazard Mitigation Plan;
• Chehalis River Basin Comprehensive Flood Hazard Management Plan;
• Watershed Management Plans; and
• CMZ studies including the *Geomorphic Evaluation and Channel Migration Zone Analysis Addendum Cowlitz River, near Packwood and Randle, Lewis County, Washington*.
Standards for shoreline stabilization measures are addressed in SMP Chapter 6: Shoreline Modification Policies and Regulations.

4.05.02 REGULATIONS

A. All proposed flood hazard management measures shall comply with the County's Comprehensive Flood Hazard Management Plan.

The development will comply with the County's Comprehensive Flood Hazard Management Plan.

B. Development in floodplains shall not increase flood hazards.

The development in the floodplain will not increase flood hazards.

C. No development is allowed within the SMP flood course or floodway in shoreline jurisdiction, unless a hydraulics and hydrology study shows that it is: 1. Not in a SMP flood course or floodway; or

No development to occur in the SMP Flood Course or floodway in shoreline jurisdiction.

2. Will not impact the pre-project base flood elevations, floodway elevations, or floodway data widths.

No development will occur that will change the regulatory flood level.

D. Within the CMZ, SMP flood course or floodway, new development or uses, including subdivision of land, shall not be established when it would be reasonably foreseeable that the development or use would require new structural flood hazard reduction measures.

New structural flood hazard reduction measures will not be required to allow the development.

E. New development within floodways, the SMP flood course, and the CMZ shall not interfere with the process of channel migration or cause a net loss of ecological functions. If existing CMZ studies are not available for an area of known channel migration, a site analysis may be required to ensure that development does not interfere with the process of channel migration. Areas of known channel migration are shown in the SMP Map Folio Figure 28 in the Shoreline Inventory and Characterization.

*No development will occur in the floodway. Nothing will interfere with the Channel Migration. It is not in the SMP map folio Figure 28 in the Shoreline Inventory and Characterization (**Appendix J**)*

F. Development in the CMZ, SMP flood course, and floodways, is limited to: 1. Actions that protect or restore ecosystem-wide processes or ecological functions;

N/A

2. Forest practices in compliance with the FPA;

N/A

3. Existing and ongoing agricultural practices, provided no new restrictions to channel movement occur;

N/A

4. Mining uses conducted consistent with the shoreline environment designation and the provisions of WAC 173-26-241(3)(h);

N/A

5. Bridges, utility lines, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in an unreasonable and disproportionate cost;

N/A

6. Repair and maintenance of an existing legal use, provided that the repair and maintenance does not cause significant ecological impacts or increase flood hazards to other uses;

N/A

7. Modifications or additions to an existing nonagricultural legal use, provided that channel migration is not further limited and that the new development includes appropriate protection of ecological functions;

No modifications are proposed.

8. Development in UGAs, as defined in Chapter 36.70A RCW, where existing structures prevent active channel movement and flooding; or

N/A

9. Measures to reduce shoreline erosion, if it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, the measure does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions, and the measure includes appropriate mitigation of impacts to ecological functions associated with the river or stream.

No flood control measures are necessary.

G. New structural flood hazard management measures may be permitted if consistent with applicable provisions in SMP Chapter 6: Shoreline Modification Policies & Regulations.

No modifications are necessary or will be provided.

H. New publicly-funded structural flood hazard management measures, including dikes and levees, shall dedicate and improve public access except in those instances as listed in SMP Section 4.06.02(B).

N/A

Removal of gravel for flood management purposes shall be permitted only after a biological and geomorphological study demonstrates that the extraction:

2. Does not result in a net loss of ecological functions; and

3. It is part of a comprehensive flood management solution.

N/A

4.07 WATER QUALITY

This section articulates policies and regulations to prevent impacts to the quality of ground and surface waters and stormwater impacts that could affect aesthetic qualities, recreational opportunities or result in a net loss of ecological functions.

4.07.01 POLICIES

A. Use existing regulations to protect surface water quality and quantity within Lewis County.

4.07.02 REGULATIONS

A. All development in shoreline jurisdiction shall comply with the appropriate requirements of the SMP and the latest edition of the Stormwater Management Manual as prepared by Ecology.

The applicant will use the appropriate requirements of the SMP and the latest edition of the Stormwater Management Manual as prepared by Ecology.

B. Septic systems should be located as far landward of the OHWM and flood course as feasible. Where the systems cannot be located outside of a shoreline or critical area buffer, the system may be sited in accordance with the requirements in 4.04.02(D).

The septic system will be a Lewis County Environmental Health Approved system that cannot be located outside of the shoreline buffers for this project, but will be sited in accordance with the requirements in 4.04.02(D).

C. Uses in Critical Aquifer Recharge Areas shall meet the applicable requirements in LCC 17.35 or 17.35A.

D. Potentially harmful materials, including but not limited to oil, chemicals, tires, or hazardous materials, shall not be allowed to enter any body of water or wetland, or be discharged onto the land in shoreline jurisdiction. Potentially harmful materials should be stored outside of shoreline jurisdiction if feasible, and shall be maintained in safe and leak-proof containers.

Noted. The applicant will not discharge harmful materials to waters of the state.

E. Herbicides, fungicides, fertilizers, and pesticides shall not be applied within 25 feet of a water body, except by a qualified professional in accordance with State and Federal laws. Further, pesticides subject to the final ruling in *Washington Toxics Coalition, et al., v. EPA* shall not be applied within 60 feet for ground applications or within 300 feet for aerial applications of the subject water bodies and shall be applied by a qualified professional in accordance with State and Federal law.

Noted.

5.02 GENERAL SHORELINE USE

These policies and regulations apply to all developments and uses within shoreline jurisdiction, whether or not shoreline permits, or written letters of exemption are required.

5.02.02 REGULATIONS

These regulations apply to all developments and uses within shoreline jurisdiction, whether or not a shoreline permit or written letter of exemption is required.

A. Use and development standards shall not apply retroactively to existing, legally established structures, or uses and developments in place at the time of the adoption of the SMP update. Existing structures, uses and developments, including residential appurtenances, may be maintained, repaired, and operated within shoreline jurisdiction and the shoreline buffers established in the SMP.

B. Development shall comply with the most restrictive bulk and dimensional requirements in LCC Title 17 or SMP Section 5.04.

The development cannot comply with the bulk and dimensional requirements in LCC Title 17 or SMP 5.04 so a variance is requested.

C. Accessory uses, such as parking, stormwater management facilities, and utilities shall be located outside of shoreline and critical area buffers, and associated building setbacks, unless authorized in SMP Section 4.04.02(D) .

This cannot be done and a shoreline variance will be necessary.

D. Shoreline uses and developments shall be designed to complement the setting of the property and minimize glare. Shoreline applicants shall demonstrate efforts to minimize potential impacts to the extent feasible.

The development will be constructed with natural materials with colors that will not be garish in a natural environment. The applicant has constructed a number of tasteful well-built homes in the area.

5.03 ALLOWED SHORELINE USES

A. Table 5-1: Permitted, Conditional, and Prohibited Uses establishes the uses and development allowed or prohibited in each shoreline environment designation. Uses and developments allowed in the table must, in all cases, be consistent with other applicable provisions of the SMP in order to be authorized. Where there is a conflict between the table and the written provisions in the SMP, the written provisions shall apply.

B. Authorized uses and development are subject to the policies and regulations of the SMP and are only allowed in shoreline jurisdiction where allowed by the underlying zoning.

C. Uses and development identified as "Permitted" require either a shoreline substantial development permit in accordance with SMP Section 7.04.01 or an exemption from the requirement to obtain such a permit in accordance with SMP Section 7.04.04. If any part of a proposed development is not eligible for an exemption, then a shoreline substantial development permit is required for the entire proposed development.

The development will require a Shoreline Substantial Development Permit and a shoreline variance for relief from the bulk and dimensional standards of the SMP.

D. Uses identified as "Conditional" require a shoreline conditional use permit pursuant SMP Section 7.04.02. Any use not listed in SMP Table 5-1: Permitted, Conditional, and Prohibited Uses shall require a shoreline conditional use permit.

There are no conditional uses proposed.

E. Uses identified as "Prohibited" are not allowed in shoreline jurisdiction.

The use is not prohibited.

F. Accessory or appurtenant structures and development shall be subject to the same SMP provisions as the primary use. The structures and development shall not be constructed prior to the establishment of the primary use, except when the accessory or appurtenant development is related to the installation of utilities and septic systems for the primary use.

Noted. No other development will occur before the residence is permitted.

Table 5-1: Permitted, Conditional, and Prohibited Uses Shoreline Uses (1)	**High Intensity**	**Shoreline Residential**	**Rural/Urban Conservancy**	**Natural**	**Aquati**

Key: P = Permitted Use, C = Conditional Use, X = Prohibited					
Agriculture (New agricultural activities only) (3)(4)	P	P	P	C	X
Aquaculture	C	C	C	X	C
Boating and Water Access Facilities					
Boat Ramps and Launches	P	P	P	X	See adja shorelin environ designat
Boat Launching Rails	P	P	P	X	
Boat Lifts and Canopies	P	P	P	X	
Moorage Covers (Open Sides, Structural Roof)	C	C	C	X	
Mooring Buoys	P	P	P	X	
Private Single / Joint-Use Docks and Piers	P	P	P	X	
Public Piers / Docks / Marinas	P	P	P	X	
Recreational Floats	P	P	P	X	
Commercial Development (5)	P	C	C	X	(6)
Forest Practices	P	P	P	C	X
Industrial Development (7)	P	X	C (8)	X	(6)
Mining	P	X	C	X	X
Parking (9)	P	P	P	X	X
Recreational Development (10)					
Water-oriented	P	P	P	C (11)	P (12)
Non-water-oriented	P	P	P	X	X
Trails	P	P	P	C	X
Residential Development (13)	P	P	P	C	X
Signs	P	P	P	X	X
Transportation Facilities					
Bridges for motorized and	P	P	P	C	C

non-motorized uses					
Expansion of roads within existing right-of-way	P	P	P	P	X
New roads for permitted shoreline uses	P	P	P	C	X
Expansion of roads outside of a right-of-way or movement of existing roads		C		C	

13) Home-based businesses, as established by LCC 17.142.110. Home-based businesses are incidental and accessory to residential use. Use the 'Residential' use category to determine whether they are allowed in a particular shoreline environment designation.

5.12 PARKING

Parking is the temporary storage of automobiles or other motorized vehicles. The following provisions apply to parking that is allowed as an accessory to a permitted shoreline use. Stand-alone parking facilities are prohibited in shoreline jurisdiction.

5.12.02 REGULATIONS

A. Parking facilities are allowed only as accessories to authorized shoreline uses. Stand-alone parking facilities not supporting an authorized primary use are prohibited in shoreline jurisdiction.

The parking area is provided by the driveway which is located on the south end of the property, away from development.

B. Parking facilities in shoreline jurisdiction shall be located upland from the principal use or structure being served, except in the following cases:

1. When parking facilities are within or beneath the structure and adequately screened.

N/A

2. Where the existing configuration of a commercial or industrial building has parking situated between the structure and the shoreline. No expansion of the parking area towards the water shall be allowed.

N/A

3. When parking to address specific Americans with Disabilities Act requirements is required and cannot be placed in another location.

N/A

C. Exterior parking facilities shall be designed and landscaped to minimize adverse impacts to adjacent and abutting properties in shoreline jurisdiction.

The parking is the minimum necessary to accomplish the purpose for the applicant's vehicle.

D. Existing parking areas that are of a non-paved surface, such as gravel, may be paved provided such facilities comply with all applicable water quality, stormwater, landscaping, and other applicable requirements and regulations. Paved parking areas shall be designed to incorporate LID practices, such as permeable surfaces and bioswales, to the extent feasible

N/A

5.14 RESIDENTIAL DEVELOPMENT

5.14.01 POLICIES

A. Develop residential uses in a manner that ensures no net loss of shoreline ecological functions and is consistent with provisions relating to shoreline buffer areas, shoreline armoring, vegetation conservation requirements, on-site sewage system standards, and aesthetic enhancement.

The applicant has limited the development to maintain the ecological functions of the shoreline and is offsetting impacts with an enhancement mitigation plan.

B. Control residential uses and development in areas subject to environmental limitations, such as wetlands, stream buffers, and areas of frequent flooding.

Although there are stream buffers and areas of flooding, we have minimized the buffer impacts and will stay out of the floodway.

C. Set back residential development and uses from steep slopes and shorelines vulnerable to erosion so that structural shoreline stabilization or flood hazard reduction measures are not required to protect such structures.

No flood hazard measures should be required. There is a cabin in the same position as the planned residence that has not needed flood protection.

D. Prohibit new overwater residential development.

Overwater development is not proposed.

E. Encourage public access to the shoreline as part of new residential development and require public access in accordance with SMP Section 4.06 for new multifamily residential development and

subdivisions that include more than four parcels.

N/A

F. Consider single-family residences a priority use in planning for uses in the shoreline jurisdiction when developed with no net loss of ecological functions.

This proposal is for a single-family residence and it should be developed with no net loss of ecological functions.

.

G. Consider accessory and appurtenant developments, such as driveways, utilities, and septic systems, as part of the primary residential use and review the developments under the standards of this section.

The driveway, utilities and septic will be reviewed under the same requirements of the SMP for Residential use standards.

5.14.02 REGULATIONS

A. Residential uses and development may be allowed in conformance with the development requirements of the County and the provisions of the SMP.

B. Residential subdivisions shall:

1. Comply with all applicable subdivision, critical areas, and zoning regulations.

The proposal will meet all the regulatory requirements of the subdivision, critical areas and zoning regulations.

2. Include facilities for water supply, wastewater, stormwater, solid waste, access, utilities, and other support facilities in conformance with County standards.

The water, electric, septic and driveway were placed to have them as far from the stream while allowing for functional considerations such as soils and property access while allowing for the residence.

3. Be designed, configured and developed to: a. Assure that no net loss of ecological functions will result from the initial division of the land, at full build-out of all the lots, and throughout all phases of development.

We are proposing a single-family residence, with a driveway, on site septic, and utilities. At full buildout of the lot there should be no net loss of ecological functions.

b. Avoid critical areas and their buffers in accordance with SMP Section 4.03.

The applicant has avoided impacts to critical areas and buffers in accordance with the SMP section 4.03, however some impacts could not be avoided and would require abandonment of the project if we did not seek a variance to the buffer standards.

c. Prevent the need for new hard or soft shoreline stabilization or flood hazard reduction measures in accordance with SMP Sections 4.05, 6.07 and 6.08.

No hard or soft shoreline stabilization of flood hazard reduction measures should be required in accordance with the SMP sections 4.05, 6.07 and 6.08.

d. Minimize physical impacts to vegetation and other natural features within the shoreline.

The applicant will not create any impacts to the natural vegetation beyond that which is required to build the home and septic. The area chosen for development already has a small cabin that is not able to be used as it is not built to code, however, this will limit the alteration of the vegetation since it has already been cleared for this structure.

e. Assure that lots in proposed subdivisions are sufficiently sized and oriented to allow future residential development, without these residential uses requiring a shoreline variance. Lot configurations shall plan for building sites outside of required shoreline and critical area buffers.

N/A

4. Clustering may be permitted, as allowed by the LCC, to achieve these provisions.

N/A

C. Each residential structure, including accessory and appurtenant structures and uses, shall: 1. Comply with all applicable zoning regulations.

The development will comply with all applicable zoning regulations.

2. Meet all applicable critical areas, vegetation conservation, and water quality standards of SMP Chapter 4: General Policies & Regulations.

The development will require a variance which will then be the development standard for this lot.

3. Be designed, sited, and constructed to: a. Assure no net loss of shoreline ecological functions.

It will be designed to ensure no net loss of shoreline ecological functions and values.

b. Prevent the need for new structural flood hazard management measures to the greatest extent feasible.

No structural hazard management measures will be necessary.

c. Be sufficiently set back from steep slopes and shorelines vulnerable to erosion, in accordance with the required critical area and shoreline buffers, to ensure that structural improvements and stabilization structures are not necessary to protect such structures and uses.

The setback will be sufficient to protect from erosion in accordance with the shoreline buffers and will ensre that no structural improvements and stabilization.

D. New multifamily developments and subdivisions over four lots in size shall provide public access under SMP Section 4.06.

N/A

E. The primary residential use on any lot shall be established prior to any accessory or appurtenant structures.

We will construct the home before any appurtenances, except for the driveway which will be used for staging.

F. Accessory and appurtenant developments and structures shall be subject to the same regulations as the primary residence. Provided that septic systems, drainfields and other accessory or appurtenant developments may be located within a critical area or shoreline buffer when no other option exists, and the proposal meets the requirements in Section 4.04.02(D).

The accessory and appurtenant developments will be subject to the same regulations as the primary residence. The septic and drainfield have shown that no other options exist so they will necessarily be in the buffer.

G. Primary residential uses are prohibited over the water.

None of the development is to be located waterward of the ordinary high-water mark. The project will be located a minimum of 36 feet. The septic drainfield will be 81-feet from the OHWM/Floodzone.

H. Residential accessory and appurtenant structures and uses shall be prohibited over the water, unless clearly water-dependent.

No accessory or appurtenant structures will be located over water.

This does not apply to the applicant's situation, but the following does apply.

5.17 UTILITIES

The provisions of this section apply to public and private facilities that produce, convey, store, or process power, gas, sewage, water, communications, oil, or waste. Utilities serving an individual use, or on-site utility features serving a primary use, such as an electrical line or water, sewer or gas lines, are considered accessory utilities and shall be considered under the standards for the primary use of the property. Water intake and water or fish conveyances between a waterbody and an aquaculture facility are not considered utilities under this section. Consult Section 5.06.

5.17.02 REGULATIONS

A. All utility system projects and maintenance activities shall be designed, located, installed and conducted in a manner that results in no net loss of ecological function.

The utilities will be buried which is considered a temporary impact. Vegetation removal will be avoided and the area will be reseeded with a non-invasive grass seed mix.

B. If a utility is sited in shoreline jurisdiction, a mitigation plan prepared by a qualified professional must be developed consistent with the provisions of Section 4.04.

No lasting impact to the shoreline is expected. Trees and shrubs will be avoided. The area will be replanted with a grass seed mix.

C. Where utilities are located in shoreline jurisdiction, the utilities must:

1. Be designed and constructed to meet all adopted engineering standards of the County.

They will meet the adopted engineering standards of the county.

2. Provide for compatible, multiple use sites, and rights-of-way whenever feasible. Compatible uses may include shoreline access points, trails, and other forms of recreation and transportation, provided that the uses do not interfere with the operation of the utility, endanger public health or safety, or cause a significant or disproportionate liability for the owner.

This will be maintained. No health safety or liability issues will be created for the public or the owner.

3. Minimize processes affecting the rate of channel migration and/or shoreline erosion. Where increased rates of shoreline erosion may occur, the Shoreline Administrator may require a monitoring and adaptive management plan that is prepared by a qualified professional.

A cabin has existed at this location for a period of time and shoreline erosion has not been an issue.

4. Limit clearing to the minimum necessary for installation or maintenance. Impacts associated with clearing shall be mitigated on site.

All impacts will be mitigated on site. If shrubs or trees need to be removed, shrubs will be replaced at a 1:1 ratio and significant trees(>20 inches will be replaced at a 3:1 ratio.

D. In addition to the standards above, utility lines within the shoreline jurisdiction shall:

1. Be undergrounded in areas developed at a more urban level, such as UGAs, Limited Areas of More Intensive Rural Development (LAMIRDs), and resorts, except where technical, environmental, or geological conditions make undergrounding infeasible.

They will be underground.

2. Be sited within the footprint of an existing rights-of-way or utility easement, wherever feasible, especially in locations where right-of-ways and easements exist.

They will use existing lines that now go to the cabin if possible, and we do not see any reason why this should not be possible.

3. Avoid paralleling the shoreline or following a down-valley course near the channel, except where located in an existing road or easement footprint.

No lines will be installed parallel to the shoreline.

G. After the installation of a utility system or the completion of a maintenance project, the disturbed area shall be regraded to match the natural terrain, replanted to prevent erosion and provide appropriate vegetative cover, and meet any other applicable standards from SMP Section 4.04.

The utilities will be regraded to match the natural terrain and replanted with a native erosion control mix if necessary. The utilities will meet any other applicable standards from SMP Section 4.04.

6.06 RESTORATION

6.06.02 REGULATIONS

A. The Lewis County Shoreline Restoration Plan, and the plans of the Lower Columbia Fish Recovery Board, the Chehalis Basin Lead Entity, and other salmon recovery lead entities, identify potential restoration priorities and projects in shoreline areas throughout the County. These plans may be used as a guide for shoreline restoration and enhancement projects.

Noted.

B. All shoreline restoration and enhancement projects shall be designed and implemented by qualified professionals using best available science (BAS) and BMPs.

Alex Callender has been involved with shoreline restoration projects for over twenty years and will use the BAS and BMP's for enhancement of the shoreline.

C. Shoreline restoration and enhancement projects shall protect the integrity of onsite and adjacent natural resources, including aquatic and terrestrial habitats, processes, and properties.

One of the objectives is to enhance the integrity and resilience of the site using native plant that will maintain the roughness, screening and food production in the nearshore.

D. Shoreline restoration and enhancement projects shall demonstrate that no significant adverse change to river current, sediment transport, or water quality will result from the project.

No plantings will occur in the nearshore that would create adverse change to the river current sediment transport or water quality. Native plants have been shown to improve the water quality, erosion resistance and food production in a riparian area.

E. Restoration and enhancement projects shall be designed, maintained, and monitored to ensure long-term success. Measures to ensure the success of the project shall be identified by a qualified professional in any plan or details submitted for the project. Monitoring periods should generally not be less than three years.

The applicant will provide objectives for the enhancement to generally improve the shoreline process and habitats.

F. Shoreline restoration and enhancement efforts shall not significantly interfere with the normal public use of the navigable waters of the State without appropriate mitigation. For projects on State-owned aquatic lands, project proponents must coordinate with the WDNR to ensure the project will be appropriately located, prior to the solicitation of permits from regulatory agencies.

The enhancement effort will not significantly interfere with the public use of navigable waters.

G. Shoreline restoration and ecological enhancement projects are permitted in all shoreline environment designations and may include shoreline modification actions such as clearing, shoreline stabilization, dredging or filling, provided that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.

Noted. We will not need to dredge or fill or clear for shoreline stabilization.

H. Review of restoration projects shall occur as follows:

1. Projects that qualify as streamlined fish enhancement projects per RCW 77.55.181 shall be reviewed by the Department of Fish and Wildlife, and not be considered under this section.

2. Restoration projects that are not subject to RCW 77.55.181 shall be reviewed under this section. Certain projects may be exempt from the requirement for a Shoreline Substantial Development per RCW 90.58.147.

I. In accordance with RCW 90.58.580, a shoreline substantial development permit may not be required for development within an UGA that takes place on land that is brought under shoreline jurisdiction due to a shoreline restoration project. Any relief granted shall be strictly in accordance with the limited provisions of RCW 90.58.580, including the specific approval of Ecology.

N/A

7.04 SHORELINE PERMITS AND APPROVALS

7.04.01 SHORELINE SUBSTANTIAL DEVELOPMENT PERMITS

A. An applicant shall meet all of the review criteria for a shoreline substantial development permit listed in WAC 173-27-150.

B. A shoreline substantial development permit shall be granted by the Shoreline Administrator without a public hearing unless the Shoreline Administrator determines that the proposed development is one of broad public significance and requires a public hearing before the Hearing Examiner.

C. If a public hearing is required, the Hearing Examiner shall grant a shoreline substantial development permit with conditions after the Shoreline Administrator completes a recommendation to the examiner that may contain conditions for the approval of permits as necessary to assure consistency of the proposal with the above criteria.

Noted.

7.04.03 SHORELINE VARIANCES

A. The criteria in WAC 173-27-140 and WAC 173-027-170 shall constitute the minimum criteria for review and approval of a shoreline variance. Additional criteria may be considered when deemed necessary by the Shoreline Administrator in accordance with WAC 173-27-210.

The criteria found in WAC 173-140 and 173-27-170 is below and will be applied to the proposed project.

B. Uses that are specifically prohibited may not be authorized.

Residential homes in the shoreline are not specifically prohibited and may be authorized.

C. The Hearing Examiner may attach conditions to the approval of the variance as necessary to assure consistency of the proposal with the above criteria.

Noted.

D. The decision of the Hearing Examiner shall be the final decision of the County. Ecology shall be the final authority authorizing a shoreline variance consistent with WAC 173-27-200.

We expect that the Department of Ecology will be the final authority authorizing a shoreline variance consistent with 173-27-200.

Review criteria for variance permits.

The purpose of a variance permit is strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in the applicable master program where there are extraordinary circumstances relating to the physical character or configuration of property such that the strict implementation of the master program will impose unnecessary hardships on the applicant or thwart the policies set forth in RCW **90.58.020**.

(1) Variance permits should be granted in circumstances where denial of the permit would result in a thwarting of the policy enumerated in RCW **90.58.020**. In all instances the applicant must demonstrate that extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.

The policies enumerated in RCW 90.58.020 state:

It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses.

The owner-occupied single-family residence is considered a reasonable and appropriate use and is also a preferred use if done in conformance with the Shoreline Management Act and the local Shoreline Master Program.

This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest.

It is in the public interest to provide market rate housing that does not endanger or threaten the safety or welfare of the citizens of Washington State or lead to loss of ecological functions. This project will not threaten the safety or public's interest.

This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.

The project as planned will not create any adverse effects and will maintain the public health, its vegetation through the mitigation plan and the waters of the state and the aquatic life therein. The public incidental corollary rights of navigation will also be maintained.

The legislature declares that the interest of all of the people shall be paramount in the management of shorelines of statewide significance. The department, in adopting guidelines for shorelines of statewide significance, and local government, in developing master programs for shorelines of statewide significance, shall give preference to uses in the following order of preference which:

(1) Recognize and protect the statewide interest over local interest;

The statewide interests will be maintained.

(2) Preserve the natural character of the shoreline;

The applicant will maintain the natural character of the shoreline.

(3) Result in long term over short term benefit;

The mitigation will result in long term benefits and should be self-sustaining.

(4) Protect the resources and ecology of the shoreline;

The resources and ecology of the shoreline is shown to be maintained.

(5) Increase public access to publicly owned areas of the shorelines;

The owner-occupied property will have better and more access than it currently has now.

(6) Increase recreational opportunities for the public in the shoreline;

The owner-occupied residence will have ongoing recreational opportunities that do not exist now for aesthetic as well as physical access.

(7) Provide for any other element as defined in RCW **90.58.100** deemed appropriate or necessary.

The elements deveined in 90.58 pertain to the program elements of the SMP which has been analyzed and determined to be in conformance with the local shoreline master program. The analysis has taken into consideration the input via the best available science and developed a project that will lead to no net loss of Shoreline functions.

In the implementation of this policy the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the state's shoreline. Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single-family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access

to shorelines of the state, industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the state and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.

The applicant proposes a single-family residence which is preferred use.

Alterations of the natural condition of the shorelines and shorelands of the state shall be recognized by the department. Shorelines and shorelands of the state shall be appropriately classified and these classifications shall be revised when circumstances warrant regardless of whether the change in circumstances occurs through man-made causes or natural causes. Any areas resulting from alterations of the natural condition of the shorelines and shorelands of the state no longer meeting the definition of "shorelines of the state" shall not be subject to the provisions of chapter **90.58** RCW.
Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

The applicant has minimized the resultant damage to the ecology and shoreline environment with a mitigation plan to maintain vegetation and its functions and will not interfere with the public's use of the water. No interference will occur to the public's use or enjoyment of waters of the state.

(2) Variance permits for development and/or uses that will be located landward of the ordinary high water mark (OHWM), as defined in RCW **90.58.030** (2)(c), and/or landward of any wetland as defined in RCW **90.58.030** (2)(h), may be authorized provided the applicant can demonstrate all of the following:

(a) That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes, or significantly interferes with, reasonable use of the property;

When the lot was platted, the buffers on the shoreline were much less and the 150-foot buffer which completely covers and encumbers the property would significantly interfere with the reasonable use of the property.

(b) That the hardship described in (a) of this subsection is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the master program, and not, for example, from deed restrictions or the applicant's own actions;

The applicant is a recent owner of the property and the condition which is a result of the platting done long ago has resulted in the small lot that is encumbered and not from deed restrictions on the lot or the applicant's own actions.

(c) That the design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and shoreline master program and will not cause adverse impacts to the shoreline environment;

There are many similar lots in this subdivision that have been authorized and the uses planned in this area under the comprehensive plan and the current shoreline master program and will not cause any adverse impacts to the shoreline environment.

(d) That the variance will not constitute a grant of special privilege not enjoyed by the other properties in the area;

If the applicant is allowed to do the development, he will be enjoying a property right that was exercised by others in similar situations. There would be no grant of special privilege as the others in the area have enjoyed the same property right due to the size and orientation of the lots to the creek which was designed to increase the use and enjoyment of the creek.

(e) That the variance requested is the minimum necessary to afford relief; and

The applicant has reduced the development and resultant impacts so that they will have the minimal effects and is now the minimum necessary to afford relief.

(f) That the public interest will suffer no substantial detrimental effect.

There should be no downstream or offsite effects and the public will suffer no substantial detrimental effect due to the development and this will be maintained using self-sustaining native plant enhancement.

(3) Variance permits for development and/or uses that will be located waterward of the ordinary high water mark (OHWM), as defined in RCW **90.58.030** (2)(c), or within any wetland as defined in RCW **90.58.030** (2)(h), may be authorized provided the applicant can demonstrate all of the following:

This section does not apply.

(a) That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes all reasonable use of the property;

(b) That the proposal is consistent with the criteria established under subsection (2)(b) through (f) of this section; and

(c) That the public rights of navigation and use of the shorelines will not be adversely affected.

(4) In the granting of all variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example if variances were granted to other developments and/or uses in the area where similar circumstances exist the total of the variances shall also remain consistent with the policies of RCW **90.58.020** and shall not cause substantial adverse effects to the shoreline environment.

This project is a small home on a small lot. There are not many homes or lots that are left in this subdivision so the area is almost at full buildout and the cumulative impacts of similar developments like this would be small and with the mitigation planned there would likely be some positive public and environmental benefits; i.e. less erosion, better shoreline protection and stormwater quality.

(5) Variances from the use regulations of the master program are prohibited.

This is not a variance to the use regulations. It is specifically allowed in the Residential Shoreline Environment,

Table 2 - Summary of Wetlands and Streams on or in the Vicinity of the Subject Property

Wetland	Size		Category	Building Setback	Base Buffer Width (feet)	Impact/ Enhancement		Comments
	On-site	Off-site (estimated)	Lewis County			Reduction method	Enhance	
Big Creek	88	3 miles	Type S >10 ft	15-ft Red to 4 ft	150	Reduction of home to 32-feet Septic drainfield to 70 feet.	2,082 sq ft	*Enhancement to nearshore using native vegetation.*

1. Riverine Shrub Scrub Seasonally Flooded

5.2 Corps Regulations

Big Creek flows to the Nisqually River and to the Puget Sound. It would be maintained as a Water of the US. There are no direct impacts to Big Creek and only buffer impacts.

5.3 Department of Ecology Regulations

Under RCW 90.48, the Washington Department of Ecology (DOE) reserves regulatory authority to regulate "waters of the state" under Section 401 of the Clean Water Act. No direct stream impacts are proposed.

5.4 WILDLIFE

Wildlife observed during the field investigations are typical of urban/suburban adapted species (Table 2). The European starling, American crow, opossum, and other species adapted to urbanization may inhabit or visit the site for food and shelter.

No other Federally listed, or priority species was observed on the subject property or near the site based on the WDFW Priority Habitats and Species (PHS) and field observations during the reconnaissance and delineation. During the limited duration of the site reconnaissance and delineation, no evidence of the Federally listed Bald Eagle, Marbled Murrelet, or Spotted Owl was observed on-site.

No Federally listed salmonid species are known to occur on-site, based on the WDFW SalmonScape database, the WDFW PHS database, and site reconnaissance (**Appendix G**).
No wildlife was observed on site during the site visit.

6.0 PROPOSED PROJECT

6.1 Description

The project consists of an 865 sq ft single-family residence with an onsite septic with a 528 sq feet onsite septic drainfield. In addition, the applicant proposes a 689 sq feet driveway for ingress and egress for a total of 2,082 sq feet of impact. The existing cabin will be removed.

6.2 Development Impacts

The development will occur within the standard 150-foot shoreline buffer abut we intend to attain a shoreline variance to allow for the home to be placed 32-feet from Big Creek and the Septic to be placed approximately 70-feet for the drainage channel to the East of the project.

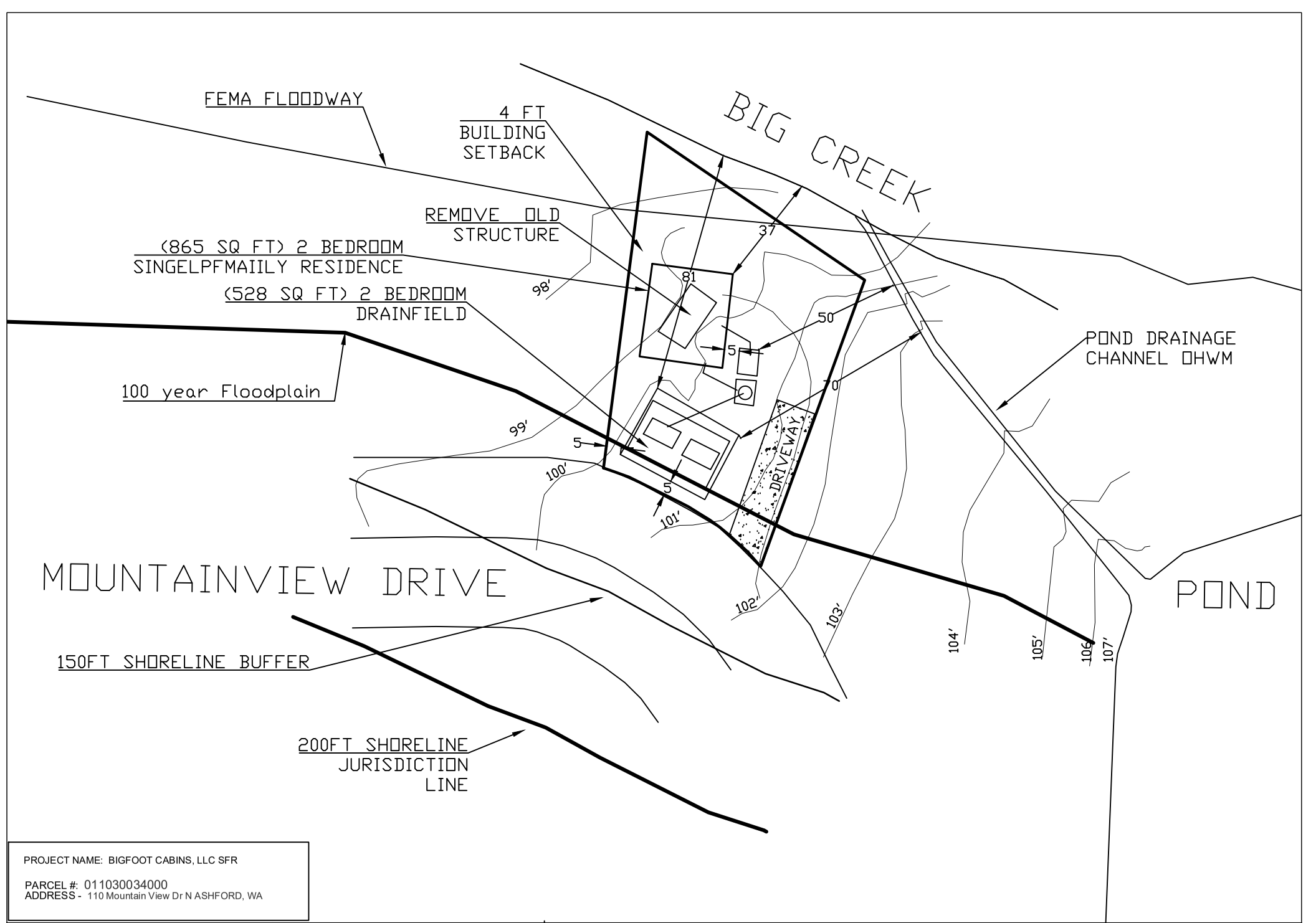
6.3 Impact Avoidance and Minimization

The property is currently partly developed land with a recreational use cabin built without permits by others where the applicant plans to locate the single-family home and related appurtenances. As far from the stream as allowable without abandoning the purpose of providing a single-family residence with appurtenances. The home will necessarily be within the reduced buffer

6.4 Minimization of Water Quality Impacts

Implementing water quality and sedimentation best management practices (BMPs) will act to minimize sedimentation and protect water quality on-site and any bare areas will be planted with a cover crop. Work should be conducted in the dry with Silt fences and straw waddles used where necessary. Splash blocks and infiltration galleries will be used to reduce stormwater impacts from the residence.

Insert Figure 5 – Site Plan



PROJECT NAME: BIGFOOT CABINS, LLC SFR

PARCEL #: 011030034000
ADDRESS - 110 Mountain View Dr N ASHFORD, WA

LAND SERVICES NORTHWEST
120 STATE AVE NE #190
OLYMPIA, WA 98501
360-481-4208

FIGURE 5
SITE PLAN WITH STANDARD AND
REDUCED BUFFERS
(NOT A SURVEY)

Scale: 1" = 40'

200 FT SHORELINE JURISDICTION
4-FT REDUCED CONSTRUCTION SETBACK
PROPERTY BOUNDARY
100 YR FLOODPLAIN
150- FT RED WETLAND BUFFER
OHWM BIG CREEK
FEMA FLOODZONE

7.0 Mitigation

7.1 Expected Impacts

As mentioned earlier in this report, expected impacts after avoidance and minimization to total 2,082 sq ft for the single-family residence, drainfield and appurtenances. The project plans enhancement mitigation with invasive species removal to maintain no-net-loss of stream functions and vales.

7.2 Impact Reduction Measures

Some of the avoidance and minimization measures would be implemented from LCC Table 17.38-4. Underlined features apply to the project.

Table 17.38-4

Impact Type	Activities and Uses that Cause Disturbances	Examples of Measures to Reduce Impacts
Stormwater runoff	• Parking lots • Roads • Manufacturing • Residential areas • Commercial • Landscaping	• Provide stormwater detention and treatment meeting the latest adopted Stormwater Management Manual for all impervious surfaces that drain to the wetland • Provide infiltration, except where soil conditions preclude • Prevent flow from lawns that directly enters the buffer through swales or other interception
Lights	• Residential • Warehouses • Manufacturing • Parking lots	• Direct lights away from wetland
Noise	• Residential • Commercial • Warehouse • Manufacturing	• Locate activity that generates noise away from wetland • Place loading areas, garbage pickup and other pickup/delivery functions on the building side furthest removed from the Stream
Toxic runoff	• Parking lots • Roads • Manufacturing • Residential areas • Application of agricultural pesticides • Landscaping • Pesticides • Herbicides • Fertilizer	• Route all new, untreated runoff away from Stream while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 feet of the stream • Require development and implementation of integrated pest management plan to reduce chemical use (**Appendix J**)
Pets and human disturbance	• Residential areas	• Fence buffer area with privacy fencing • Plant dense native vegetation to delineate buffer edge
Lack of native vegetation in buffer	• Buffer will not provide functions	• Ensure minimum vegetation relative density of 20 or plant to 300 stems per acre

Table 17.38-4

Impact Type	Activities and Uses that Cause Disturbances	Examples of Measures to Reduce Impacts
Change in water regime	• Impermeable surfaces • Lawns • Tilling	• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
Dust	• Tilled fields	• Use best management practices to control dust

In addition, the applicant will use a smaller building setback to reduce the amount of vegetation clearing for the project. He has reduced the driveway and home size and reduced the tree removal to a total of 6 cottonwoods located near the homesite. Construction BMP's will be used to control noise dust and other issues related to building and water quality bmp's will be used although most work will be done in the dry so they will not be necessary. Straw wattles and silt fences will be deployed if necessary.

7.3 Expected Mitigation Performance

If executed correctly, the enhancement planting plan and invasive species removal will provide benefits that extend beyond the parcel. The planting objectives are to provide no-net loss of ecological functions. The following analysis uses takes a look at common buffer functions (Hruby, 2013) that are expected before and after the building and mitigation. The rating uses functional attributes similar to the Wetland Rating System for Western Washington of high medium and low which has the qualitative resolution possible using a Level II functional analysis(Done in less than a day).

TABLE 3 – Buffer Functions Comparison Before and After Development

Buffer Performance criteria	Screening	Invasive species Control	Nutrient uptake	Snags and Logs	Access By Humans	Surface roughness	Temperature attenuation	Pollution Control	Erosion control
Before mitigating measures and building	Medium	Low	Medium	Low	Low	Medium	Medium	Low	Medium
After mitigating measures and building	Medium	High	Medium	Low	Low	Medium	Medium	Medium	High

Score = Low, Medium, High

Because of the size of the impact and area that is affected, it is not expected that there will be a large increase in functions, however as there is a confluence here and the erosion could be higher if left untreated, the potential of the mitigation is to maintain and in some cases like food production, even increase the habitat value of the plantings. The structure and screening are the two most important features which will be improved, and the roughness and food value should also be improved after the mitigation. Plants were chosen for their aesthetic and floristic qualities which will provide nectar and a food source for positive downstream effects as well as onsite as the allochthonous inputs of macroinvertebrates will find their way downstream to some other niche in the food web.

7.4 Planting Plan

The following planting plan will be executed in order to mitigate onsite impacts. The stream impacts are mostly done on site in kind as the flow of the stream in one direction means impacts to that portion of the stream would be lost if not compensated on the same portion of the stream. The Western hemlock was chosen to mitigate for the loss of cottonwoods and alders.

Table 1 – Top of Bluff Mitigation Zone 2,080 sq ft)

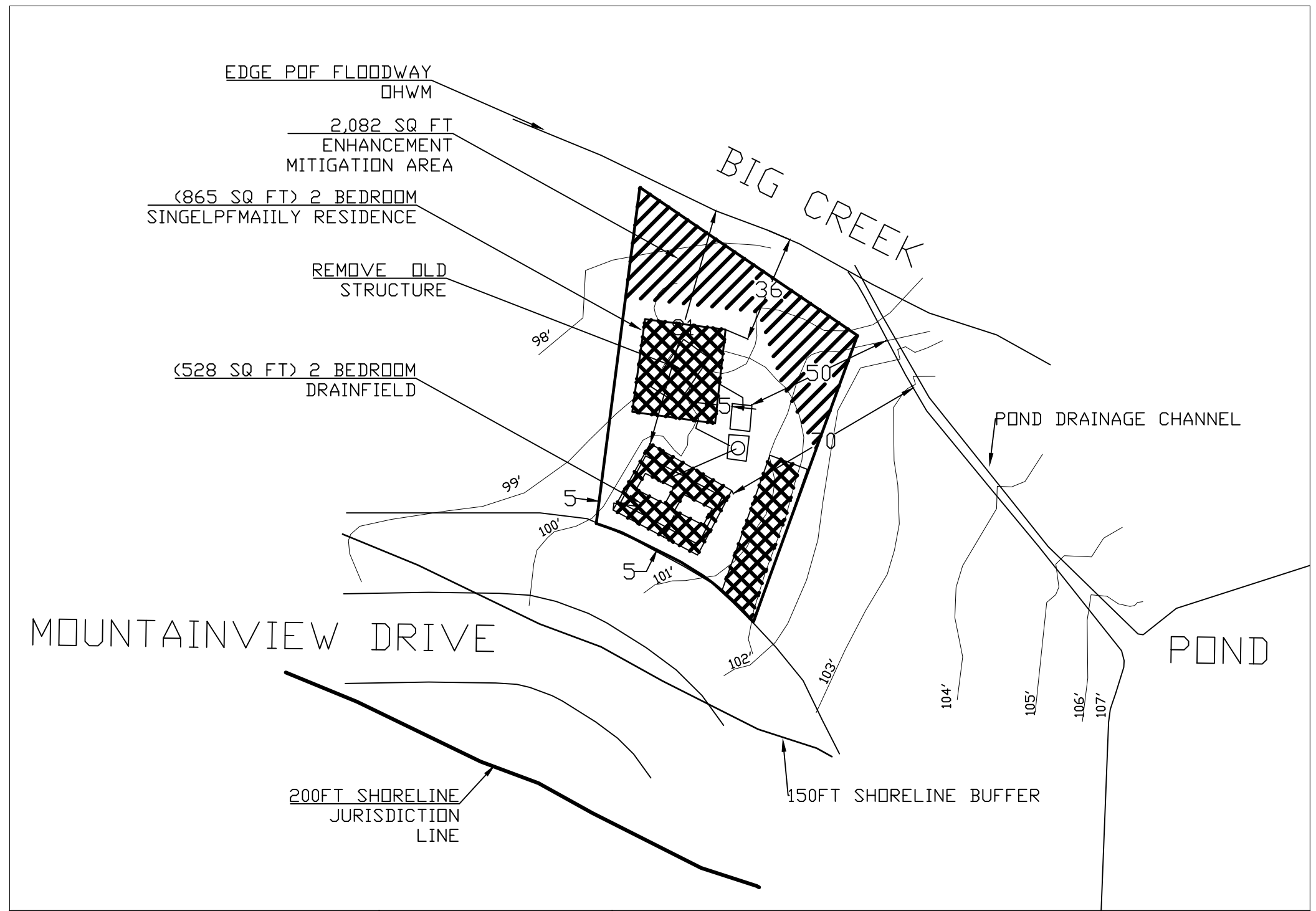
Common Name	**Species**	**Quantity**	**Cost**	**Total**
Western hemlock	*Tsuga heterophylla*	18	$10.00	$180.00
Pacific ninebark	*Phisocarpus capitatus*	10	$10.00	$100.00
Twinberry	*Lonicera involucrata*	10	$10.00	$100.00
Salmonberry	*Rubus spectabilis*	10	$10.00	$100.00
Serviceberry	*Amelanchier latifolia*	10	$10.00	$100.00
Clustered rose	Rosa pisocarpa	20	$10.00	$200.00
Total		**78**		**$780.00**

Table 3- Total Costs

Labor		$1500.00
Mulch	$100/5 yards	$50.00
Monitoring Plan*	200.0 year (5 years	$1,000.00
Plants and Materials		$780.00
Total		**$3,330.00**

*- Not included in costs

Insert Figure 6 – Mitigation Planting Area



LAND SERVICES NORTHWEST
120 STATE AVE NE #190
OLYMPIA, WA 98501
360-481-4208

FIGURE 6
MITIGATION PLANTING AREA
(NOT A SURVEY)

Scale: 1" = 40'

PROPERTY BOUNDARY
225-FT RED WETLAND BUFFER
150-FT RED WETLAND BUFFER
300-FT STANDARD BUFFER
15-FT CONSTRUCTION SETBACK

2,082 SQ FT BUFFER IMPACTS
2,082 SQ FTBUFFER ENHANCEMENT

Invasive species will be removed and native roses will be installed in there place.

7.4 Maintenance and Monitoring

The applicant will produce an as built after the plants are installed. The as built will signify initial conditions and considered year 0. The applicant will monitor the plantings every spring shortly after leaf-out to aid in identification. The plants will be inventoried and meet the following performance standards

Year 1 the plants will have a 100 percent survival rate. Dead trees and shrubs will be replaced with new ones and species composition will be considered for replacement if survival seems to be related to species choice. The aerial coverage should be 20 percent cover. Volunteers may account for up to 10% of the total in any stratum.

Year 2 he plants will have a 100 percent survival rate. Dead trees and shrubs will be replaced with new ones and species composition will be considered for replacement if survival seems to be related to species choice. The aerial coverage should be 20 percent cover. Volunteers may account for up to 10% of the total in any stratum.

Year 3-4, the plants will have an 80% survival rate with volunteers accounting for no more than 10%. Aerial coverage should be 40%. The area should have no more than 10 percent noxious weeds and any knotweed, hog weed, or other Class A noxious weeds will have a zero percent tolerance. Wee removal will be using the Thurston County Integrated pest management guidelines (Appendix K) .

7.5 Maintenance and Contingencies

If the site does not meet performance standards. Contingencies may be developed to adapt to the site-specific conditions. Contingencies may include:

- Increased watering
- Mulching
- Integrated Pest Management
- Microtopography changes
- Species substitution
- Herbivory protection
- Bark wrap

The area is frequented by deer and the choice of plants were chosen to avoid herbivory issues, but exclusion fencing may be necessary until the plants reach maturity. This is not expected to be needed to be a permanent fixture if required. Any contingencies will be developed in conjunction with landscapers, nursery staff, and other experts. The county would be notified in advance of the contingency plans. No contingencies will be applied without county consent.

9.0 SUMMARY AND CONCLUSIONS

One stream, a pond and drainage were identified on and within 315 feet of the subject property. Wetland A is a Category III wetland maintaining a 150 ft buffer could be reduced, but neither the buffer averaging, common line buffer or interrupted buffer allowed in code would provide relief needed to allow a single family residence.

The project proposes a single-family unit, an onsite septic, and a driveway, which will necessarily be located in the shoreline buffer. The applicant has provided planting plan to provide no net loss of shoreline ecological functions as required by the SMP. This project should provide the owner with a new home that will exist with the nearby shorelines and maintain the value to the citizens of Lewis County.

10.0 LIMITATIONS

This report was created with care and best professional judgment using the current best available science, but the report is subject to interpretation by local state and federal regulators who have the final regulatory authority on wetlands and other boundary determinations. No outcomes are warranted by this report.

11.0 REFERENCE

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Appendix A - Photographs


LSNW
Project: Bigfoot
11.06.2023 12:01 PM
46°44'10.54"N 121°59'27.51"W


LSNW
Project: Bigfoot
11.06.2023 12:01 PM
46°44'10.54"N 121°59'27.51"W


LSNW
Project: Bigfoot
11.06.2023 12:01 PM
46°44'10.54"N 121°59'27.53"W


WASHINGTON
706-YSS
LSNW
Project: Bigfoot
11.06.2023 01:01 PM
46°44'10.68"N 121°59'29.88"W


LSNW
Project: Bigfoot
11.06.2023 01:01 PM
46°44'10.83"N 121°59'30.8"W


LSNW
Project: Bigfoot
Confluence
11.06.2023 12:07 PM
46°44'11.68"N 121°59'28.83"W

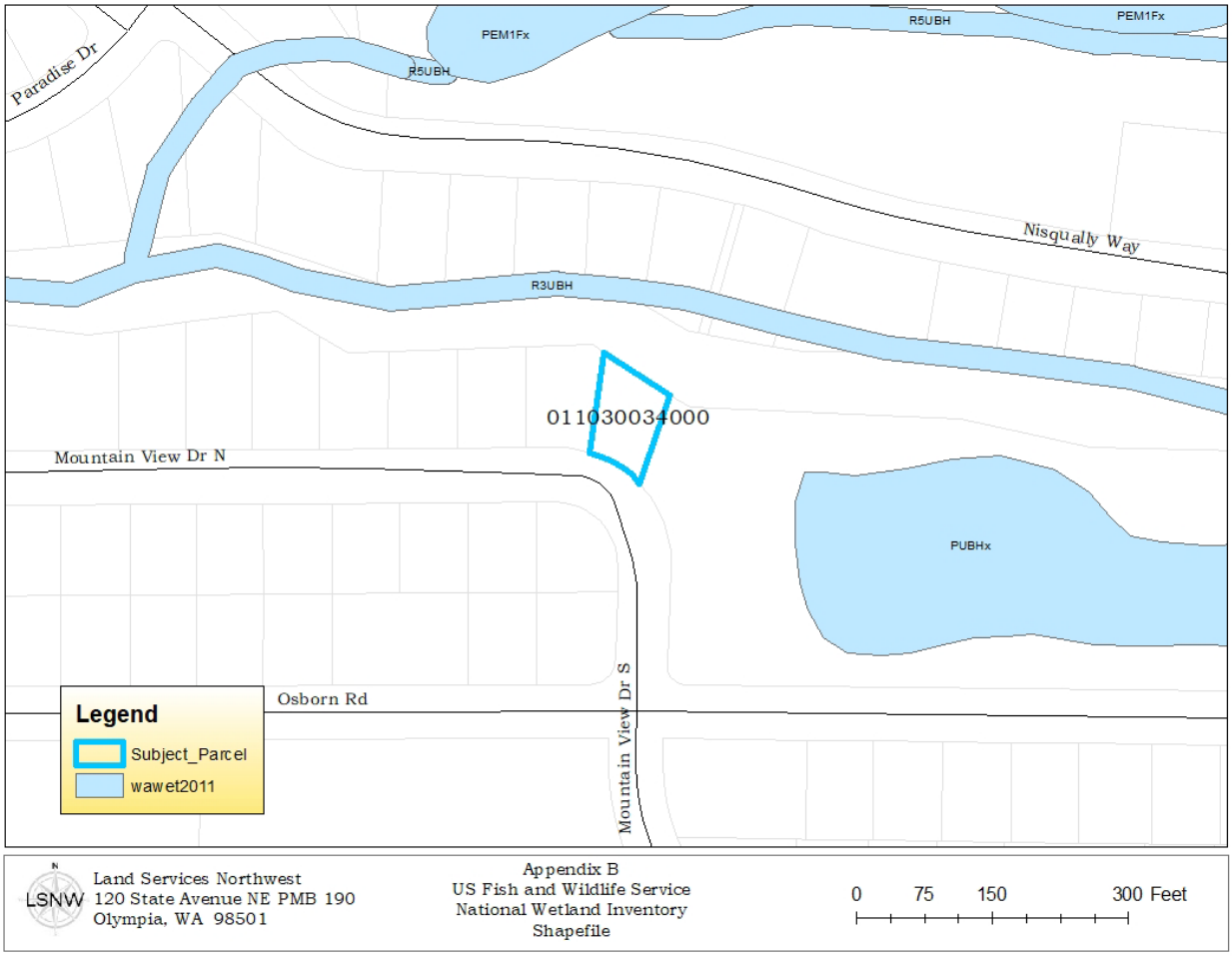

LSNW
Project: Bigfoot
Tp
11.06.2023 12:10 PM
46°44'10.91"N 121°59'29.1"W


LSNW
Project: Bigfoot
Tp1
11.06.2023 12:21 PM
46°44'10.81"N 121°59'29.42"W

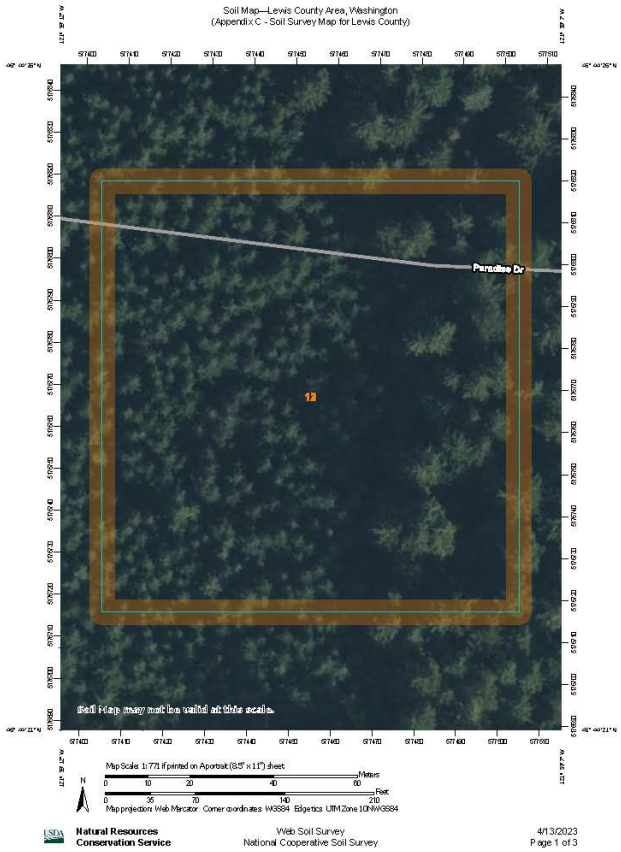

LSNW
Project: Bigfoot
Tp2
11.06.2023 12:36 PM
46°44'11.2"N 121°59'29.34"W


LSNW
Project: Bigfoot
Tp3
11.06.2023 12:46 PM
46°44'11.27"N 121°59'29.49"W

Appendix B - U.S. Fish and Wildlife Service NWI MAP



Appendix C - Lewis County NRCS Soil Survey Map



MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Lewis County Area, Washington
Survey Area Data: Version 22, Sep 8, 2022

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

Date(s) aerial images were photographed: Sep 8, 2022—Oct 11, 2022

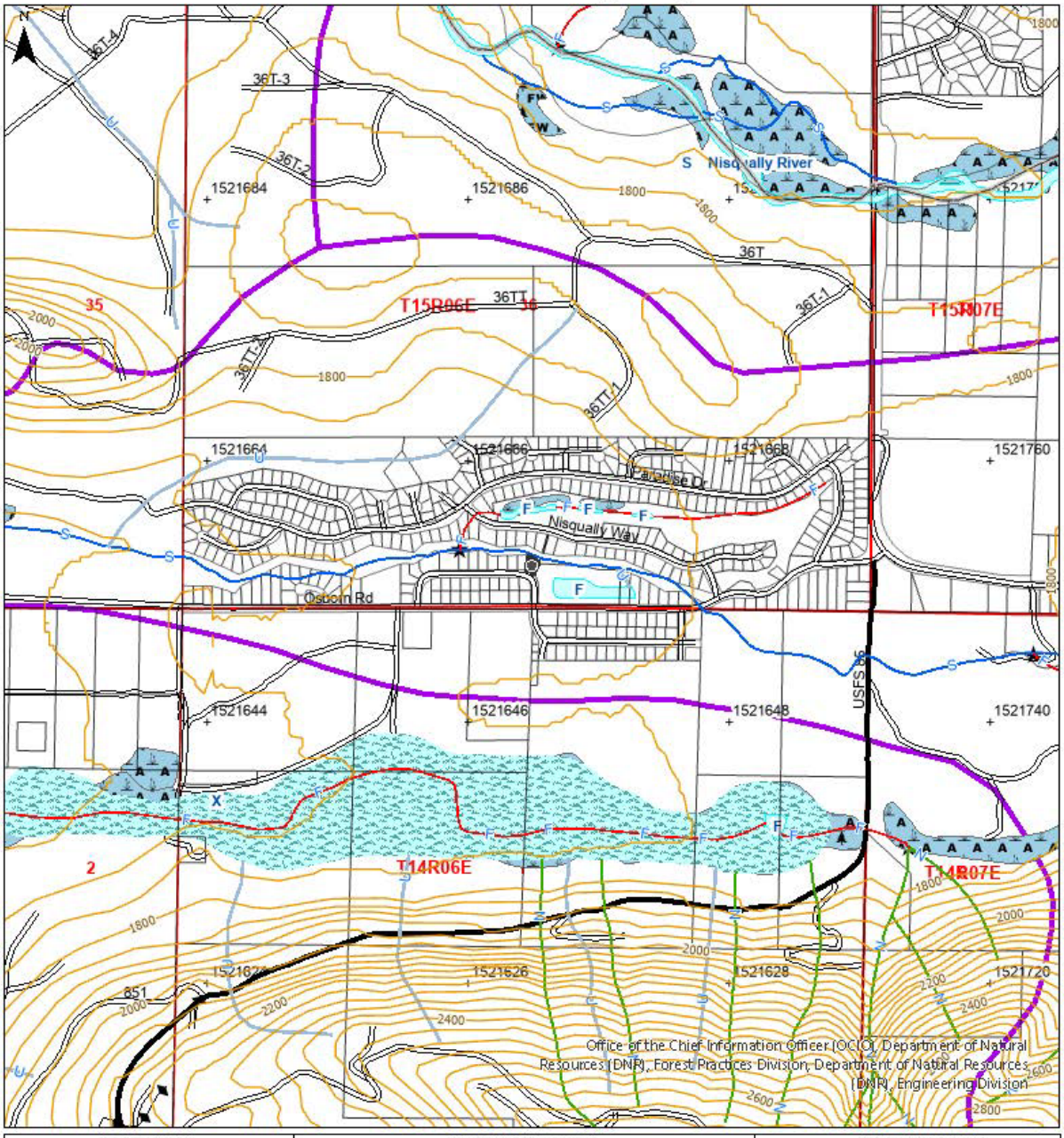
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12	Bellicum very cindery loamy sand, 30 to 65 percent slopes	2.5	100.0%
Totals for Area of Interest		**2.5**	**100.0%**

Appendix D - Forest Practices Stream Type Map

Forest Practices Water Type Map



Map Symbols	Additional Information	Legal Description
New Stream Proposed Water Type Stream Removal Break between water types Start and End Point of Surveyed Reach Natural Fish Barrier Manmade Barrier End of Fish or Last Fish		**S31 T15.0N R07.0E, S35 T15.0N R06.0E, S01 T14.0N R06.0E, S06 T14.0N R07.0E, S36 T15.0N R06.0E, S02 T14.0N R06.0E**
NATURAL RESOURCES	Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.	Approximate Scale: 1:12,000 0 500 1,000 2,000 Feet Date: 11/8/2023 Time: 1:48 PM

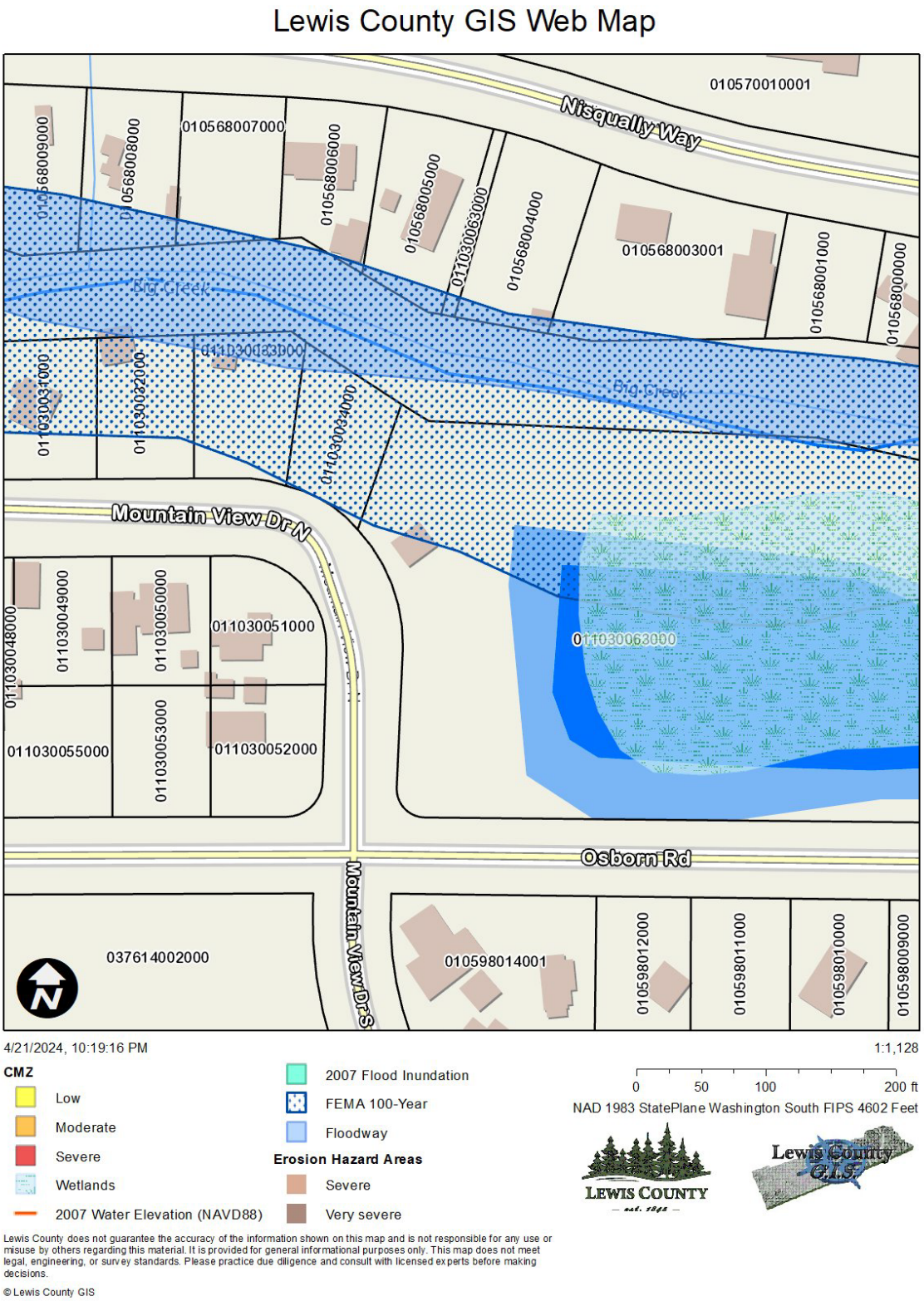
Appendix E - USGS 7.5 Minute Topographic Map

Land Services Northwest
120 State Avenue NE PMB 190
Olympia, WA 98501
360.481.4208

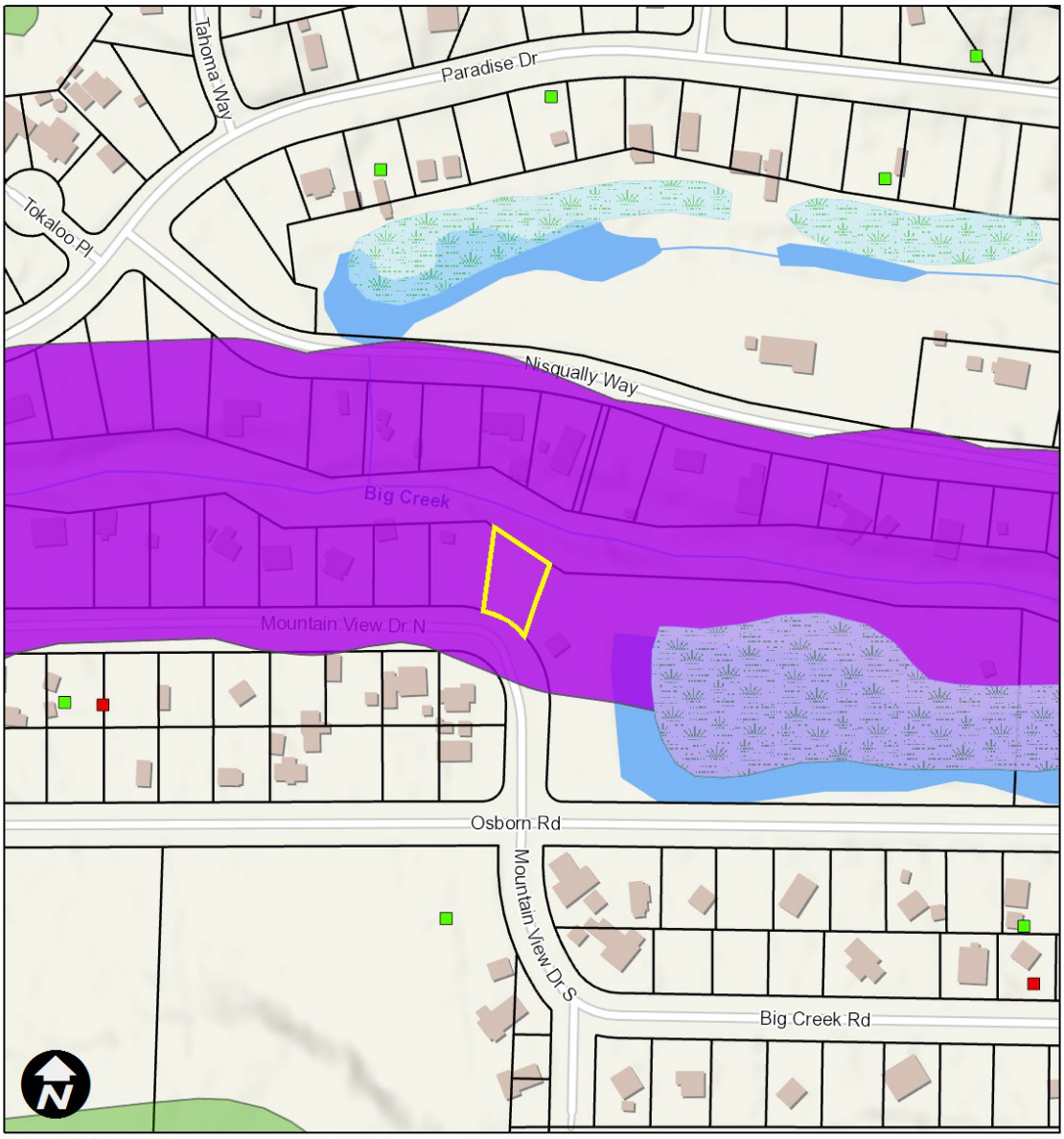
Appendix E
TOPO Map

0 125 250 500 Feet

Appendix F – Lewis County Parcel Viewer Maps



Lewis County Shoreline EnvironmentMap



10/25/2023, 8:54:49 PM

1:2,257

Parcels

Surveys

- Plats
- BLAM
- Surveys
- Large Lot Sub

- Short Plat
- Condominium
- Other
- Wetlands
- Hydric Soils

Shoreline Environments

- Aquatic
- Natural
- Rural or Urban Conservancy
- Shoreline Residential
- High Intensity

0 100 200 400 ft

NAD 1983 StatePlane Washington South FIPS 4602 Feet

LEWIS COUNTY est. 1845

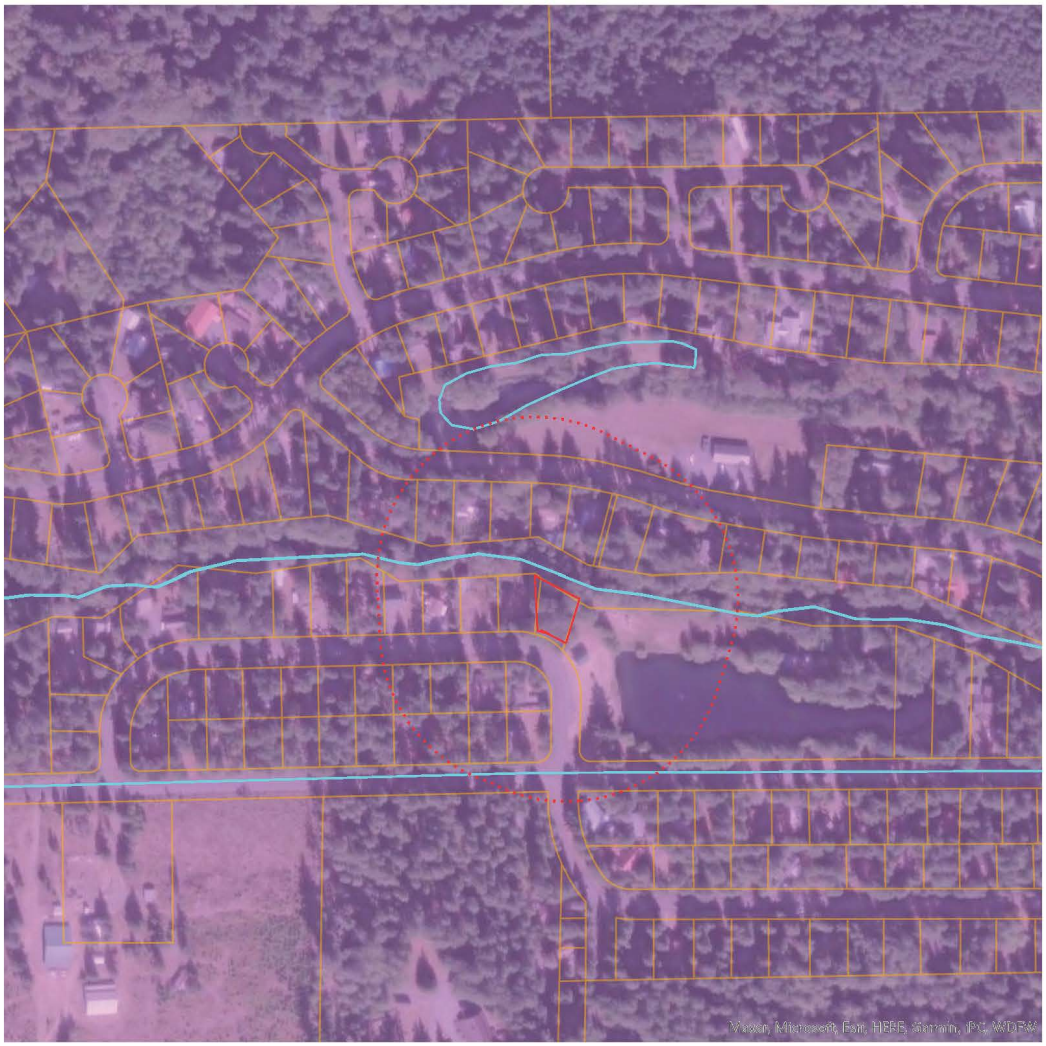
Lewis County GIS

Lewis County does not guarantee the accuracy of the information shown on this map and is not responsible for any use or misuse by others regarding this material. It is provided for general informational purposes only. This map does not meet legal, engineering, or survey standards. Please practice due diligence and consult with licensed experts before making decisions.

© Lewis County GIS

Appendix G - Priority Habitats and Species Map and Salmonscape

Priority Habitats and Species on the Web



Buffer radius: 315 Feet

Report Date: 11/08/2023

PHS Species/Habitats Overview:

Occurence Name	Federal Status	State Status	Sensitive Location
Resident Coastal Cutthroat	N/A	N/A	No
Cutthroat	Not Warranted	N/A	No
Rainbow Trout	N/A	N/A	No
Mule and black-tailed deer	N/A	N/A	No
Rocky Mountain elk	N/A	N/A	No
Freshwater Emergent Wetland	N/A	N/A	No
Northern Spotted Owl	Threatened	Endangered	Yes
Golden eagle	Threatened	Candidate	Yes

PHS Species/Habitats Details:

Resident Coastal Cutthroat	
Scientific Name	*Oncorhynchus clarki*
Priority Area	Occurrence/Migration
Site Name	Big Creek
Accuracy	NA
Notes	LLID: 1220362467418, Fish Name: Cutthroat Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	27294
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Cutthroat	
Scientific Name	*Oncorhynchus clarki*
Priority Area	Occurrence
Site Name	Big Creek
Accuracy	NA
Notes	LLID: 1220362467418, Stock Name: Nisqually Coastal Cutthroat, Run: Unspecified, Status: Unknown
Source Record	7420
Source Dataset	SASI
Source Name	Not Given
Source Entity	WDFW Fish Program
Federal Status	Not Warranted
State Status	N/A
PHS Listing Status	PHS Listed Occurrence

Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Rainbow Trout	
Scientific Name	*Oncorhynchus mykiss*
Priority Area	Occurrence/Migration
Site Name	Big Creek
Accuracy	NA
Notes	LLID: 1220362467418, Fish Name: Rainbow Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	27295
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	http://wdfw.wa.gov/wlm/diversty/soc/soc.htm
Geometry Type	Lines

Mule and black-tailed deer	
Scientific Name	*Odocoileus hemionus*
Priority Area	Regular Concentration
Site Name	NISQUALLY DEER WINTERING AREA
Accuracy	General locality
Notes	DEER WINTERING AREA-MAIN CONCENTRATIONS ALONG TOE SLOPES OF RIDGES & SMALL DRAINAGE & RIVER RIPARIAN BOTTOMS
Source Record	905305
Source Dataset	PHSREGION
Source Name	KELLY, GEORGE WDW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00612
Geometry Type	Polygons

Rocky Mountain elk	
Scientific Name	*Cervus elaphus nelsoni*
Priority Area	Regular Concentration
Site Name	NISQUALLY ELK WINTERING AREA
Accuracy	General locality
Notes	ELK WINTERING AREA 100-300 ELK IN AREA-MAIN CONCENTRATION IN RIVER PLAIN AND TRIBUTARIES
Source Record	905391
Source Dataset	PHSREGION
Source Name	KELLY, GEORGE
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00614
Geometry Type	Polygons

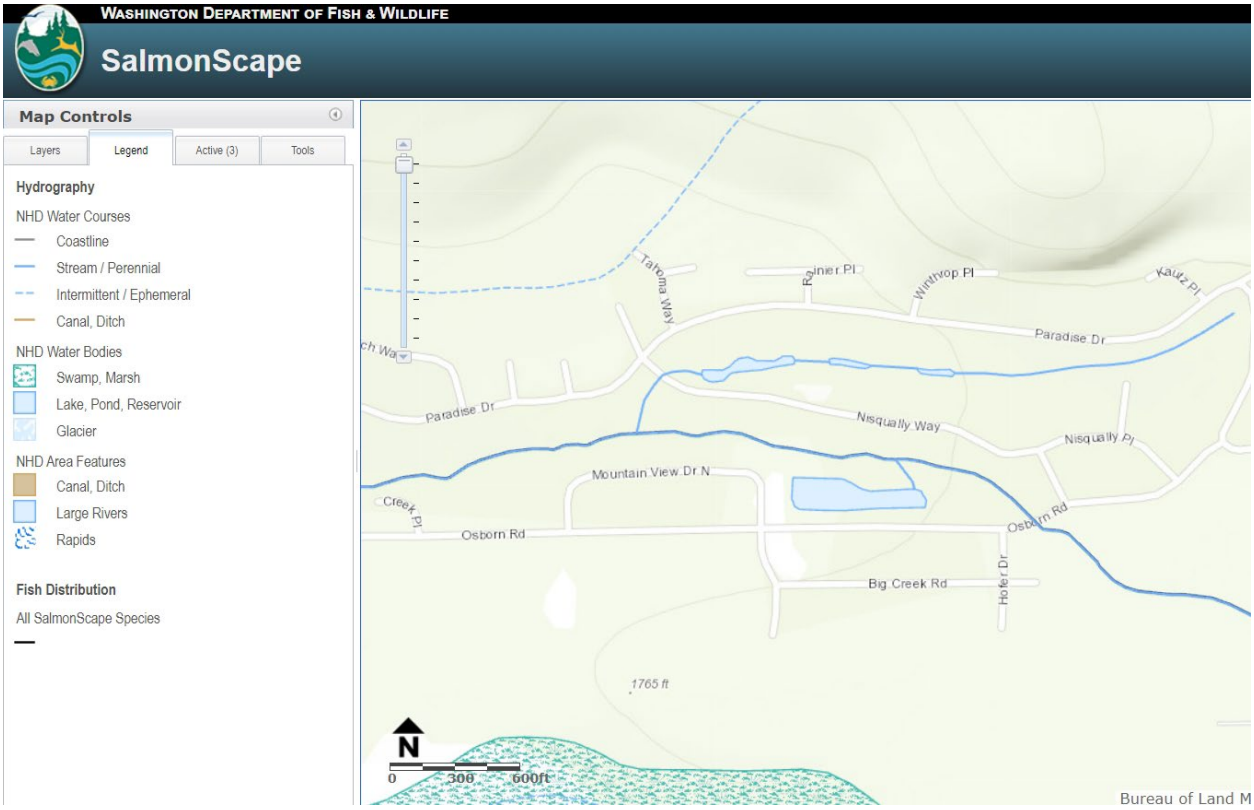
Freshwater Emergent Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Emergent Wetland - NWI Code: PEM1Fx
Source Dataset	NWIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Northern Spotted Owl	
Scientific Name	*Strix occidentalis*
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
Federal Status	Threatened
State Status	Endangered
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00026

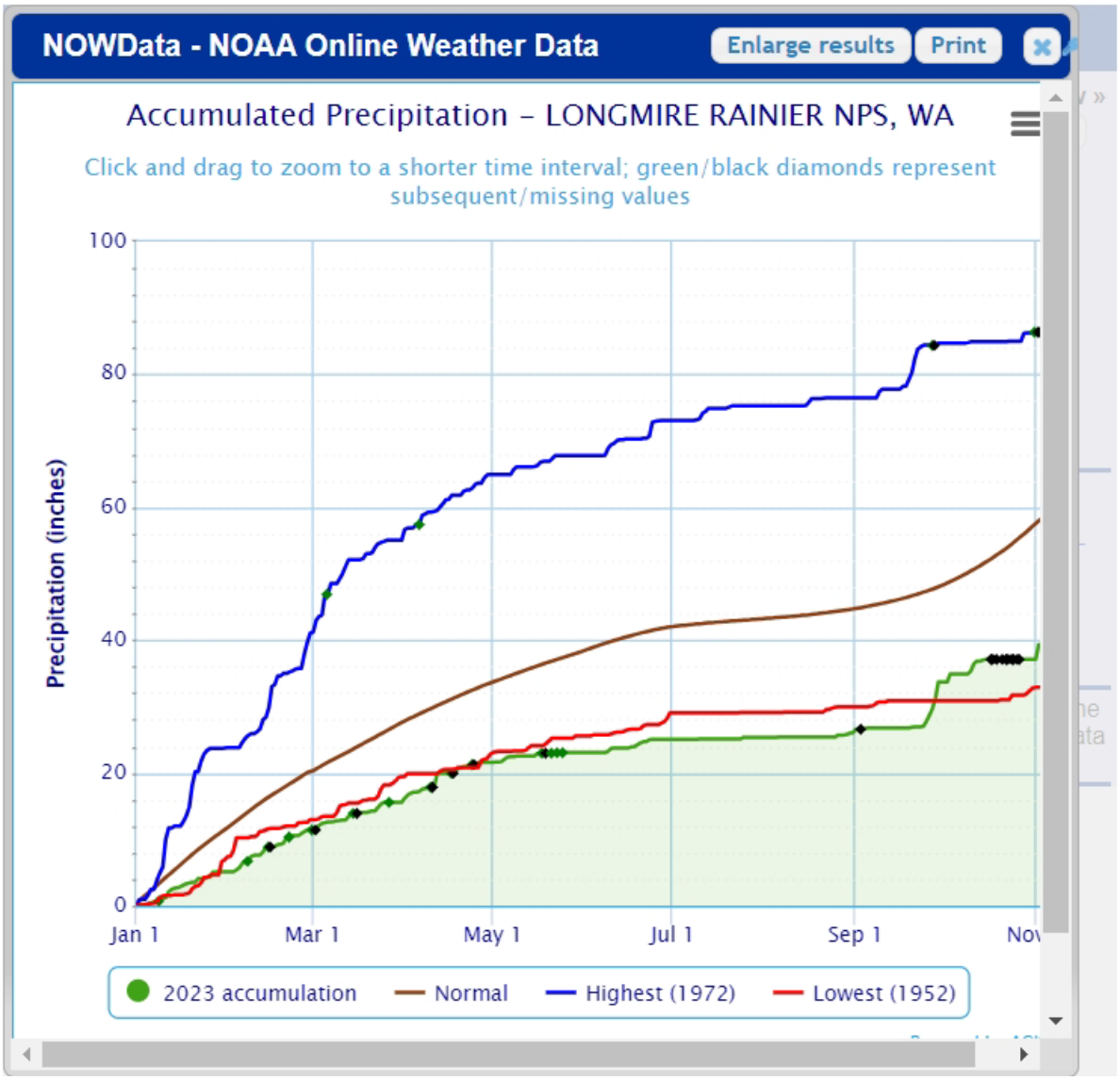
Golden eagle	
Scientific Name	*Aquila chrysaetos*
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
State Status	Candidate
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00026

Northern Spotted Owl	
Scientific Name	*Strix occidentalis*
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
Federal Status	Threatened
State Status	Endangered
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	TOWNSHIP
ManagementRecommendations	http://wdfw.wa.gov/publications/pub.php?id=00026

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


WASHINGTON DEPARTMENT OF FISH & WILDLIFE
SalmonScape
Map Controls
Layers
Legend
Active (3)
Tools
Hydrography
NHD Water Courses
Coastline
Stream / Perennial
Intermittent / Ephemeral
Canal, Ditch
NHD Water Bodies
Swamp, Marsh
Lake, Pond, Reservoir
Glacier
NHD Area Features
Canal, Ditch
Large Rivers
Rapids
Fish Distribution
All SalmonScape Species
Tahoma Way
Rainier Pl
Winthrop Pl
Paradise Dr
Nisqually Way
Mountain View Dr N
Osborn Rd
Big Creek Rd
Hofer Dr
1765 ft
N
0
300
600ft
Bureau of Land M

Appendix H - NOAA Now Precipitation Data



Appendix H - Wetland Data Sheets

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

Project/Site: Welsh/Big Creek City/County: Lewis Sampling Date: 11.5.23
Applicant/Owner: Bigfoot Cabins LLC State: WA Sampling Point: TP1
Investigator(s): Alex Callender Section, Township, Range: 36, 16, 06E
Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 3%
Subregion (LRR): 2 Lat: Long: Datum: Wgs84
Soil Map Unit Name: National Cindery NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x 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	x	No	
Hydric Soil Present?	Yes		No	x
Wetland Hydrology Present?	Yes		No	x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus balsamifera*	25	Y	FAC
2. *Alnus rubra*	20	Y	FAC
3. *Pseudotsuga menziesii*	25	Y	FACU
4.			
	70	= Total Cover	

Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	___	= Total Cover	

Herb Stratum (Plot size: ___)			
1. *Ranunculus repens*	20	Y	FAC
2. *Geranium robertianum*	35	Y	FACU
3. *Carex leptopoda*	20	Y	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75	= Total Cover	

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

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (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** x **No** ___

Remarks: Greater than 50% of vegetation is FAC or wetter.

SOIL

Sampling Point: TP1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR2/1	100					Gravelly loam	
16-18	10YR4/3	100					Gravelly 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric 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: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks: No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**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 x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** x

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

Remarks: No wetland hydrology indicators present.

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

Project/Site: Welsh/Big Creek City/County: Lewis Sampling Date: 11.5.23
Applicant/Owner: Bigfoot Cabins LLC State: WA Sampling Point: TP2
Investigator(s): Alex Callender Section, Township, Range: 36, 16, 06E
Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 3%
Subregion (LRR): 2 Lat: Long: Datum: Wgs84
Soil Map Unit Name: National Cindery NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___ , Soil ___ , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x 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 x	**Is the Sampled Area within a Wetland?**	**Yes ___ No x**
Hydric Soil Present?	Yes ___	No x		
Wetland Hydrology Present?	Yes ___	No x		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer circinatum*	20	Y	FAC
2. *Pseudotsuga menziesii*	20	Y	FACU
3. *Oemleria cerasiformis*	15	N	FACU
4. *Populus balsamifera*	25	Y	FAC
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1. *Symphoricarpos albus*	20	Y	FACU
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: ___)			
1. *Rubus ursinus*	20	Y	FACU
2. *Pteridium aquilinum*	20	Y	FACU
3. *Geranium robertianum*	5	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (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 x

Remarks: Less than 50% of vegetation is FAC or wetter.

SOIL

Sampling Point: TP2

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	10YR2/2	100					Gravelly loam	
4-18	10YR4/3	100					Gravelly 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric 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: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks: No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**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 x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** x

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

Remarks: No wetland hydrology indicators present.

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

Project/Site: Welsh/Big Creek City/County: Lewis Sampling Date: 11.5.23
Applicant/Owner: Bigfoot Cabins LLC State: WA Sampling Point: TP3
Investigator(s): Alex Callender Section, Township, Range: 36, 16, 06E
Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 3%
Subregion (LRR): 2 Lat: Long: Datum: Wgs84
Soil Map Unit Name: National Cindery NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ___ (If no, explain in Remarks.)
Are Vegetation ___ , Soil ___ , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x 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	x	No	
Hydric Soil Present?	Yes		No	x
Wetland Hydrology Present?	Yes		No	x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Oemleria cerasiformis*	10	Y	FACU
2.			
3.			
4.			
	10	= Total Cover	

Sapling/Shrub Stratum (Plot size: ___)			
1. *Physocarpus capitatus*	35	Y	FACW
2. *Cornus alba*	15	Y	FACW
3.			
4.			
5.			
	50	= Total Cover	

Herb Stratum (Plot size: ___)			
1. *Polystichum munitum*	20	Y	FACU
2. *Tolmiea menziesii*	30	Y	FAC
3. *Vancouveria hexandra*	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	55	= Total Cover	

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

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (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** x **No** ___

Remarks: Greater than 50% of vegetation is FAC or wetter.

SOIL

Sampling Point: TP

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR3/2	100					Gravelly loam	
20-24	10YR3/3	100					Gravelly 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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric 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: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks: No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**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 x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** x

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

Remarks: No wetland hydrology indicators present.