MASON COUNTY HEARING EXAMINER AGENDA

January 22, 2025
Mason County Building 1
411 N. 5th Street, Shelton
3:00 PM ~~1:00PM~~ via ZOOM

1.

Proposal: Request to reduce the minimum 25-foot front-yard setback from the Mason County right-of-way to a zero-foot setback to allow for the construction of a new garage on an undeveloped lot.

Staff: Julie Cheney

2. **Shoreline Variance – SHR2024-00013**

Proposal: The applicant is proposing to develop a single-family residence with a detached garage within the 115' residential shoreline setback required by the Shoreline Master Program (SMP) contained in Title 17 of Mason County Code (MCC). The size of the parcel precludes placing development outside of the shoreline setback. There is also a Category III Slope Wetland and a Non-Fish Perennial Stream which further restrict where development may be placed on this parcel.

Staff: Gavin Scouten

To Join Meeting via Zoom:

Time: January 22, 2025 at 03:00 PM Pacific Time (US and Canada)

Contact mfrazier@masoncountywa.gov or call
(360)427-9670 x365 for link and passcode

NUNAMAKER
CASE INDEX

EXHIBIT #	DATE	DESCRIPTION
1	January 10, 2025	Staff Report
2	November 1, 2024	Completed Application and Variance Questions
3	December 16, 2024	Site Plan
4	August 8 2024	Survey and Boundary Line Agreement
5	January 10, 2025	Google Earth Aerial Imagery of Vicinity
6	August 2024	Google Street View of Site
7	January 10, 2025	Neighborhood Development Staff Assessment
8	January 10, 2024	New Garage Permits 2024
9	January 9, 2024	Public Notice

MASON COUNTY DEPARTMENT OF PLANNING

Building VIII - 615 W. Alder Street; Shelton, WA 98584 – 360.427.9670

DATE: January 10, 2025

TO: Mason County Hearing Examiner

FROM: Planning Staff – Julie Cheney; 360-427-9670 ext. 357; JCheney@MasonCountyWA.gov.

RE: Mason County Development Regulations Variance Request by Kevin Nunamaker (DRV2024-00005).

STAFF REPORT FINDINGS

I. **Introduction.** This report evaluates a request for a variance from the Mason County Development Regulations section 17.04.223(c). The request is to reduce the minimum 25-foot front-yard building setback from the Mason County right-of-way to a zero-foot setback to allow for the construction of a new garage on an undeveloped lot.

II. **Applicant:** Kevin Nunamaker

III. **Agent:** N/A

IV. **Date of Complete Application:** December 17, 2024

V. **Project Location and Legal Description:** 620 NE Landon Rd, Belfair 98528. Parcel # 22210-50-00011. NW ¼ of the SW ¼ of Section 10 Township 22 North Range 2 West. BROADVIEW BEACH TRACTS UNREC W 1/2 TR 5 NLY OF LANDON RD & SLY OF NORTH SHORE RD PENDING BL AGREE AF #2214299 S 28/6 S 51/124, S 55/49-50. 47.410831, -122.927969.

VI. Evaluation

A. Characteristics of the area. The general area is characterized by single-family residential development. Residential use appears to be a mix of permanent and vacation homes

B. Characteristic of the site. The property is currently undeveloped. The property has an impervious parking area in the front adjacent to NE Landon Rd. Upslope is cleared with the top of the slope forested with native vegetation.

C. Comprehensive Plan Designation. The Mason County Comprehensive Plan designation for the site is Rural.

D. Zoning. The parcel is zoned Rural Residential 5 (RR5).

VII. SEPA Compliance and other public notice requirements.

A. The proposal is exempt from SEPA per WAC 197-11-800(1)(b).

B. Public Notice procedures were followed in accordance with Sections 15.07.010 and 15.07.030 of Mason County Title 15.

C. Notice of Application and Hearing for Development Regulations Variance Permit, DRV2024-00005 was posted in the Mason-Shelton Journal on 1/9/2025, posted on site and in Building 1 of Mason County on 1/2/2025, and in the mail to neighbors within 300 feet on 1/9/2025 (Exhibit 9).

D. No comments were received.

VIII. Other Permits. Permits required for the project include but may not be limited to a Building Permit from Mason County.

IX. Analysis.

Development Regulations Variance

Front-yard setbacks are established per Mason County Code 17.04.223(c). Mason County Code 17.05 addresses variances from standards. Review Standards are followed Per Chapter 15 Development Code, section 15.09.057. Variances from the bulk and dimensional requirements of the Development Regulations may be allowed as follows. The County must document with written findings compliance or noncompliance with the variance criteria.

Review Criteria for Variance Permits

Mason County Code 15.09.057

The purpose of a Variance Permit is to allow the county to consider requests to vary or adopt certain numerical standards of this chapter where the strict application of said standards would deprive property owners of reasonable use of their property.

(1) That the strict application of the bulk, dimensional or performance standards precludes or significantly interferes with a reasonable use of the property not otherwise prohibited by county regulations.

The lot is constrained due to the steep slope in the rear of the property. The flat portion of the property is 28' deep from the front property line. After this point, the property slopes up. Developing further away from the road would require excavating into the hillside which could cause slope stability issues. Through administrative processes, the front setback can be reduced down to 10'. Doing so would leave a maximum building area of 18' by 40' which is only 720 square feet and irregularly shaped. As such, reasonable use cannot be achieved on this lot without a variance. The property is zoned as rural residential so would otherwise be authorized for residential development

(2) That the hardship which serves as a basis for the granting of the variance is specifically related to the property of the applicant and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the county regulations, and not, for example from deed restrictions or the applicant's own actions.

The hardship is directly related to the lot size, location, and the slope. The only flat portion of the property is the 28' adjacent to NE Landon Rd. Applying the minimum 10' setback would only leave 18' remaining before the slope. Digging out the slope to allow for development puts the slope stability at risk for this property and surrounding properties. The adjacent properties already utilize retaining walls to stabilize the slope.

(3) That the design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the environment.

The zoning for the area is residential and comprehensive plan designation is rural. A garage would be compatible with the zoning designation. No adverse effects to adjacent properties are anticipated as the project will be similar to surrounding development. Based on visual inspection and County GIS lines, it appears there are at least 2 garages on the north side of Landon Rd that do not meet the minimum 10' front property line setback.

(4) That the variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief.

There are 36 properties abutting Landon Rd. All but 3 properties are split by Landon Rd resulting in an upland side of the property north of Landon Rd and a waterfront side of the property south of Landon Rd. Of the other 33 properties, 22 are developed on the waterfront side only. These 22 properties were excluded from further comparisons as their relevance was more limited.

Not including the subject property, 13 properties remain for comparison. Of these 13, all save 1 have development on the north side of Landon Rd. The average total development square footage (for only the portions north of Landon Rd), is 1,656 square feet (excluding the undeveloped property). The average development square footage for properties with only development on the Poland side of Landon Rd is 2,109 square feet (Exhibit 7).

The average garage size is 787 square feet (excludes properties without garages). The subject property is one of the 3 properties not split by Landon Rd. The other two are developed with structures. Parcel 22210-50-00902 is developed with a residence, garage, and other structures but gains access of NE North Shore Rd. Parcel 22210-50-00013 is developed with a residence with a narrow bottom floor with a second story cantilevered over the slope (Exhibit 7).

The proposed garage is 1,120 square feet. Though the proposed garage is larger than the average garage north of Landon Rd, the total development footprint is not. Additionally, the average size of garage in Mason County in 2024 was 1,276 (Exhibit 8). The proposed structure size is considered reasonable, does not grant special privilege, and is the minimum necessary.

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

The proposed project is consistent with zoning. The road itself would be maintained but the setback would be eliminated. Detrimental effects to public interest is not anticipated.

(6) No variance shall be granted unless the owner otherwise lacks a reasonable use of the land. Such variance shall be consistent with the Mason County Comprehensive Plan, development regulations, resource ordinance and other county ordinances, and with the Growth Management Act. Mere loss in value only shall not justify a variance.

As discussed above, a garage is considered reasonable use and the size of the proposed garage is considered reasonable as well. Therefore, as the setbacks would prevent the construction of this size of structure, reasonable use is prevented.

X. Conclusion.

The Hearing Examiner shall review proposed development according to the following criteria:

(1) The development does not conflict with the Comprehensive Plan and meets the requirements and intent of the Mason County Code, especially Title 6, 8 and 16.
(2) Development does not impact the public health, safety and welfare and is in the public interest.
(3) Development does not lower the level of service of transportation and /or neighborhood park facilities below the minimum standards established within the Comprehensive Plan.

Staff has verified that the proposed development does in fact comply with the Mason County Code, including Title 6 (Sanitary Code, enforcement only), 8 (Environmental Policy) and 16 (Subdivisions). The project is not subject to Title 6 or 16. The project meets the requirements of the MC Environmental Policy and the SEPA was exempt per WAC 197-11-800(1)(b). The project will not lower the level of service of transportation and/or neighborhood park facilities below the minimum standards established within the Comprehensive Plan. The project will have no adverse impact upon health, safety, and welfare.

Because the proposal is not consistent with all applicable policies and use regulations**, staff recommends approval of the permit.**

XI. Choice of Action:

1. Approval of Development Regulations Variance permit #DRV2024-00003.
2. Approve with conditions.
3. Deny permit (reapplication or resubmittal is permitted).
4. Remand for further proceedings and/or evidentiary hearing in accordance with section 15.09.090 of Title 15.

MASON COUNTY COMMUNITY SERVICES

Building, Planning, Environmental Health, Community Health
615 W. Alder St. – Bldg. 8, Shelton, Wa 98584
Phone: (360) 427-9670 ext. 352 ♦ Fax: (360) 427-7798

Mason County Permit Center Use:
DRV 2024-00003
Date Revd 11/1/2024

☒ Development Regulations Variance: $1,320
☒ Public Hearing: $2,330

Applicant will also be billed for advertising costs.

APPLICATION FOR VARIANCE

Mason County Code Title 15, Section 15.09.057 VARIANCE CRITERIA states that variances from the bulk and dimension requirements of the Resource Ordinance or the Development Regulations (zoning regulations) may be allowed if written findings show compliance with the variance criteria. The burden is on the applicant to prove that each of the criteria is met. A public hearing accompanies Variances and application for a Variance does not guarantee approval. A variance is an application for a special "exception to the rule".

Type of Variance Requested:

☒ Development Regulations ☐ Subdivisions and Plats

Applicant Name KEVIN NEWMANIER Email alphaseagle@juno.com

Mailing Address 611 N.E. LANDON RD BELFAIR, WA 98528

Phone Number 1 (425) 315-5099 Phone Number 2 ( )

Site Address 620 N.E. LANDON RD

Tax Parcel # 22210-50-00011

Legal Description PLEASE SEE ATTACHED

Property Owner Names JERRYRIG L.L.C

Project Description GARAGE (DETACHED)

On a separate piece of paper, please address the following:

1. Describe the specific modification from the terms of the Chapter required.
2. Describe the reasons for the variance.
3. No variance shall be granted unless the County makes findings of fact showing that certain circumstances exist. Please address each of the following standards and how the proposal pertains to these circumstances.
   a. That the strict application of the bulk, dimensional or performance standards precludes or significantly interferes with a reasonable use of the property not otherwise prohibited by County regulations;

b. That the hardship which serves as a basis for the granting of the variance is specifically related to the property of the applicant, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the County regulations, and not, for example, from deed restrictions or the applicant's own actions;

c. That the design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the environment;

d. That the variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief;

e. That the public interest will suffer no substantial detrimental effect;

f. No variance shall be granted unless the owner otherwise lacks a reasonable use of the land. Such variance shall be consistent with the Mason County Comprehensive Plan, Development Regulations, Resource Ordinance and other county ordinances, and with the Growth Management Act. Mere loss in value only shall not justify a variance.

# of Pages Attached: 2

Applicant(s) Signature Kevin Shumpstaker **Date** 10/30/2024

1.) TO BE PERMITTED TO CONSTRUCT A GARAGE AT "0" SETBACK FROM THE RIGHT-OF-WAY WHICH IS 10' FROM THE EDGE OF THE ROAD. THIS SITUATION IS CONSISTANT AND COMMON WITH OTHER PROPERTIES ALL ALONG THIS PARTICULAR ROAD.

2.) IN ORDER TO ACCOMODATE A GARAGE TO BE CONSTRUCTED BETWEEN THE ROAD (TO THE FRONT) AND THE HILLSIDE (TO THE REAR/BACKSIDE).

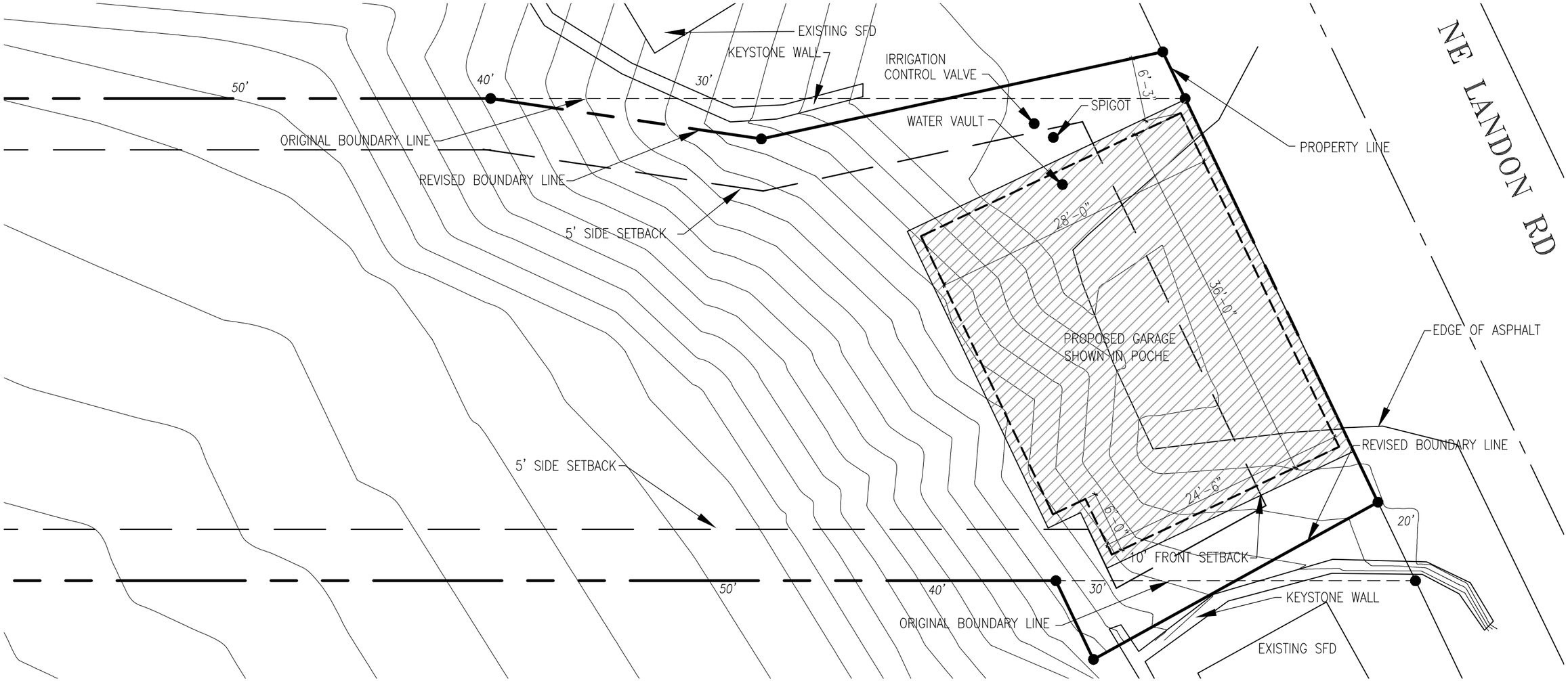
3a) THE DEPTH OF THE GARAGE IN RELATIONSHIP TO THE HILLSIDE WOULD NOT BE USABLE WITHOUT THIS VARIANCE.

3b.) THE CURRENT DEPTH OF THIS LOWER PORTION OF THIS LOT DOES NOT ALLOW ENOUGH SPACE FOR VEHICLES (+ BOAT) WITHOUT SUCH VARIANCE.

3c) THE DESIGN AND ROOF LINE ARE COMPATABLE AND CONSISTANT WITH NEIGHBORING PROPERTIES. ALL SURROUNDING PROPERTY OWNERS APPROVE THIS PROJECT.

3e) DOES NOT DIFFER IN COMPATABILITY OF OTHER STRUCTURES THAT HAVE BEEN GRANTED SUCH VARIANCE.

3f) THERE IS A GEOLOGICAL HAZARD THAT PRECLUDES DEVELOPMENT OF THE NORTHERN PORTION OF THE PROPOSED SITE.



SITE PLAN

611 N.E. LANDON ROAD
12-16-24

1" = 10'-0"

AF# 2214298 vol. 55 Pg. 49

RECORD OF SURVEY

MASON COUNTY, WASHINGTON

FOR BOUNDARY LINE RESOLUTION PURSUANT TO RCW 58.04.007

SEE BOUNDARY LINE AGREEMENT DEED AFN 2214299

20 0 20 60

Scale 1" = 20 ft

LEGEND

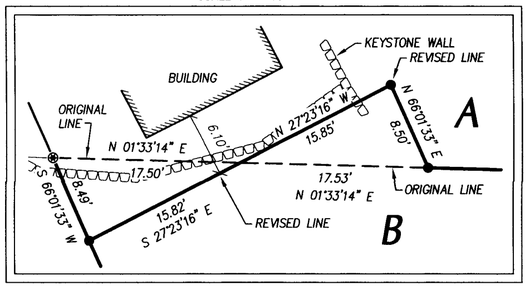
FOUND DNR BRASS MONUMENT, 10/17	SET HUB & TACK
FOUND RE-BAR & CAP AS DESCRIBED	KEYSTONE WALL
FOUND IRON PIPE AS DESCRIBED	ASPHALT PAVEMENT
SET 5/8" RE-BAR & CAP	BUILDINGS
SET MAG NAIL & WASHER	GRAVEL

SURVEYOR'S NOTE

A STRICT ADHERENCE TO DEED CALLS POSITIONS THE PROPERTY BOUNDARY APPROXIMATELY 3 FEET EAST OF THE IRON PIPES AND HOLMAN REBAR AND CAPS FOUND. THE HISTORICAL BOUNDARY BEING WELL ESTABLISHED BY THOSE MARKERS, THEY WERE ACCEPTED AND THE BOUNDARIES POSITIONED ACCORDINGLY.

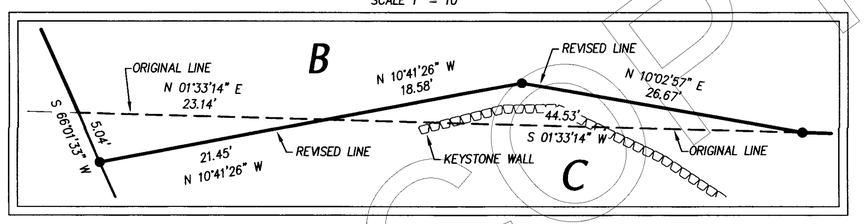
DETAIL 1

SCALE 1" = 10'



DETAIL 2

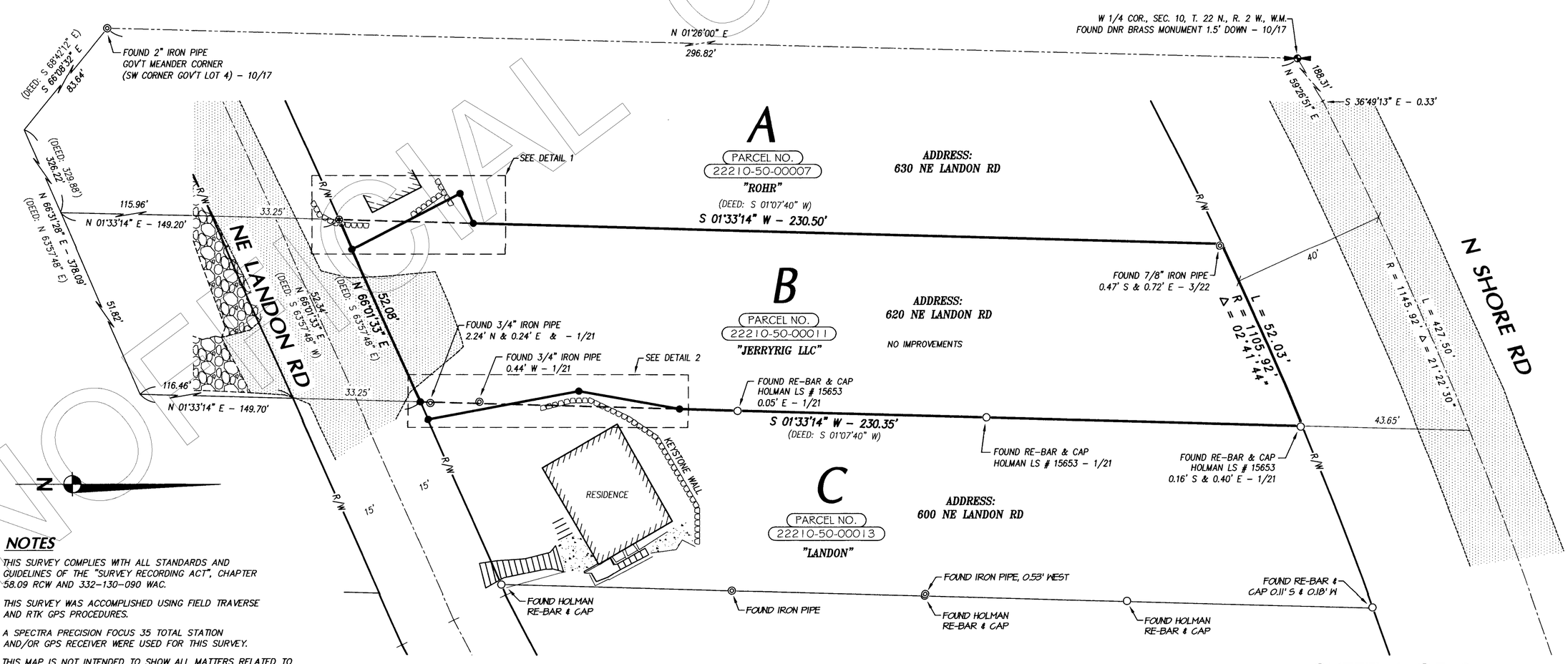
SCALE 1" = 10'



REFERENCES:

1) ROS IN VOL. 43, PG. 176, AFN 2071176
2) ROS IN VOL. 48, PG. 33, AFN 2136672
3) ROS IN VOL. 49, PG. 7, AFN 2148688
4) ROS IN VOL. 50, PG. 144, AFN 2169729
5) ROS IN VOL. 51, PG. 124, AFN 2180952

BASIS OF BEARING: STATE PLANE COORDINATE SYSTEM, WASHINGTON SOUTH ZONE USING SMARTNETNA AND LEICA GS-14 OR SPECTRA-PRECISION SP80 GPS RECEIVER.



NOTES

1. THIS SURVEY COMPLIES WITH ALL STANDARDS AND GUIDELINES OF THE "SURVEY RECORDING ACT", CHAPTER 58.09 RCW AND 332-130-090 WAC.
2. THIS SURVEY WAS ACCOMPLISHED USING FIELD TRAVERSE AND RTK GPS PROCEDURES.
3. A SPECTRA PRECISION FOCUS 35 TOTAL STATION AND/OR GPS RECEIVER WERE USED FOR THIS SURVEY.
4. THIS MAP IS NOT INTENDED TO SHOW ALL MATTERS RELATED TO THE PROPERTY, INCLUDING, BUT NOT LIMITED TO EASEMENTS.

SHEET 1 OF 2

DRAWING NO. 7460B DRAWN BY: MHM DATE: 7-18-2024

FIELD WORK PERFORMED BY: RJ / JM

A Portion of Gov't Lot 4 in the NW ¼ of the SW ¼ & the SW ¼ of the NW ¼ all in SEC. 10, T. 22 N., R. 2 W., W.M. Mason County, Washington

Aspen Land Surveying LLC
at *The Landing* in Key Center
P.O. Box 124, Vaughn, WA 98394-0124
15510 - 92nd Street NW, Gig Harbor, WA 98329
(253) 303-0270 FAX (253) 303-0273

SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF

KEVIN M. NUNAMAKER

IN MARCH, 20222

DANIEL B. JOHNSON STATE OF WASHINGTON 28408 REGISTERED PROFESSIONAL LAND SURVEYOR

8/1/24

DANIEL B. JOHNSON
CERTIFICATE NO. 28408

AUDITOR'S CERTIFICATE

FILED FOR RECORD THIS 8th DAY OF August, 2024 AT 3:45P M,
UNDER AUDITOR'S FILE No. 2214298
IN VOLUME 55 OF SURVEYS, PAGE 49
AT THE REQUEST OF Aspen Land Surveying LLC. RECORDING FEE $428.50

COUNTY AUDITOR

2214298 MASON CO WA
08/08/2024 03:45 PM SURVY B 55 P 49
FILED #200344 Rec Fee: $428 50 Pages: 2

Vol. 55 Pg. 50

RECORD OF SURVEY

MASON COUNTY, WASHINGTON

LEGAL DESCRIPTIONS

PARCEL "A" (TPN: 22210-50-00007)

ALL THAT PORTION OF THE FOLLOWING DESCRIBED PROPERTY LYING SOUTHERLY OF THE SOUTHERLY LINE OF NORTH SHORE ROAD:

A TRACT OF LAND IN GOVERNMENT LOT 4, SECTION 10, TOWNSHIP 22 NORTH, RANGE 2 WEST, W.M., IN MASON COUNTY, WASHINGTON, PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING SOUTH 68°42'12" EAST, 83.64 FEET AND NORTH 63°57'48" EAST, 226.08 FEET FROM THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4;
THENCE NORTH 01°07'40" WEST, 1552.14;
THENCE NORTH 89°12'06" EAST 94.016 FEET;
THENCE SOUTH 01°07'40" EAST, 1507.61;
THENCE SOUTH 63°57'48" WEST 103.797 FEET, MORE OR LESS TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM 130 FEET STRIP CONVEYED TO MASON COUNTY, WASHINGTON, FOR NORTH SHORE ROAD, BY DEED RECORDED ON REEL 9, FRAME 920, UNDER AUDITOR'S FILE NO. 200330;

EXCEPTING THEREFROM ALL THAT PORTION OF THE EAST 10 FEET WHICH LIES SOUTHERLY OF THE SOUTHERLY RIGHT-OF-WAY LINE OF LANDON ROAD.

(SAID LAND ALSO BEING KNOWN AND DESCRIBED AS TRACT 4 OF THE UNRECORDED PLAT OF HETRICK AND MEYER'S BROAD VIEW BEACH TRACTS.)

TOGETHER WITH ALL THAT PORTION OF A TRACT OF TIDELANDS SUITABLE FOR THE CULTIVATION OF OYSTERS, CONTAINING 34.59 ACRES, FORMERLY OWNED BY THE STATE OF WASHINGTON CONVEYED TO W.B. LAMBUTH BY DEED DATED AUGUST 23, 1910, UNDER APPLICATION NO. 2883, LYING ABOVE THE LINE OF MEAN LOW TIDE, AND WHICH LIES IN FRONT OF THE ABOVE DESCRIBED UPLAND.

TOGETHER WITH AN EASEMENT FOR ACCESS TO THE BEACH OVER, ALONG AND ACROSS THE EAST 10 FEET EXCEPTED ABOVE FOR THE PURPOSE OF BOAT LAUNCHING.

EXCEPT THE FOLLOWING DESCRIBED PORTION THEREOF:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST, 326.22 FEET;
THENCE NORTH 01°33'14" EAST, 166.71 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 27°23'16" WEST, 15.85 FEET;
THENCE NORTH 66°01'33" EAST, 8.50 FEET;
THENCE SOUTH 01°33'14" WEST, 17.53 FEET TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST, 326.22 FEET;
THENCE NORTH 01°33'14" EAST, 149.20 FEET TO NORTHERLY MARGIN OF NE LANDON ROAD AND THE TRUE POINT OF BEGINNING;
THENCE CONTINUING NORTH 01°33'14" EAST, 17.50 FEET;
THENCE SOUTH 27°23'16" EAST, 15.82 FEET TO SAID NORTHERLY MARGIN;
THENCE SOUTH 66°01'33" WEST ALONG SAID MARGIN, 8.49 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL "B" (TPN: 22210-50-00011)

THAT PORTION OF GOVERNMENT LOT 4, SECTION 10, TOWNSHIP 22 NORTH, RANGE 2 WEST, W.M., IN MASON COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 68°42'12" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET; THENCE NORTH 63°57'48" EAST, ALONG SAID MEANDER LINE 329.88 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 01°07'40" WEST 1507.61 FEET; THENCE NORTH 89°12'06" EAST 47 FEET; THENCE SOUTH 01°07'40" EAST 1485.35 FEET TO AN INTERSECTION WITH THE SAID MEANDER LINE; THENCE SOUTH 63°57'48" WEST 51.90 FEET, MORE OR LESS TO THE TRUE POINT OF BEGINNING.

EXCEPT THEREFROM THAT PORTION LYING SOUTHERLY OF THE NORTHERLY RIGHT OF WAY LINE OF LANDON COUNTY ROAD.

ALSO EXCEPTING THEREFROM THAT PORTION LYING NORTHERLY OF THE SOUTHERLY RIGHT OF WAY LINE OF NORTH SHORE COUNTY ROAD, AS CONVEYED TO MASON COUNTY BY INSTRUMENT RECORDED UNDER AUDITOR'S FILE NO. 198315.

(SAID LAND ALSO BEING KNOWN AND DESCRIBED AS A PORTION OF THE WEST HALF OF TRACT 5 OF THE UNRECORDED PLAT OF HETRICK AND MEYER'S BROAD VIEW BEACH TRACTS.)

EXCEPT THE FOLLOWING DESCRIBED PORTION THEREOF:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST, 326.22 FEET;
THENCE NORTH 01°33'14" EAST, 149.20 FEET TO NORTHERLY MARGIN OF NE LANDON ROAD AND THE TRUE POINT OF BEGINNING;
THENCE CONTINUING NORTH 01°33'14" EAST, 17.50 FEET;
THENCE SOUTH 27°23'16" EAST, 15.82 FEET TO SAID NORTHERLY MARGIN;
THENCE SOUTH 66°01'33" WEST ALONG SAID MARGIN, 8.49 FEET TO THE TRUE POINT OF BEGINNING.

ALSO EXCEPT THE FOLLOWING DESCRIBED PORTION THEREOF:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST, 378.09 FEET;
THENCE NORTH 01°33'14" EAST, 172.84 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 10°41'26" WEST, 18.58 FEET;
THENCE NORTH 10°02'57" EAST, 26.67 FEET;
THENCE SOUTH 01°33'14" WEST, 44.53 FEET TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST, 326.22 FEET;
THENCE NORTH 01°33'14" EAST, 166.71 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 27°23'16" WEST, 15.85 FEET;
THENCE NORTH 66°01'33" EAST, 8.50 FEET;
THENCE SOUTH 01°33'14" WEST, 17.53 FEET TO THE TRUE POINT OF BEGINNING.

ALSO TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST ALONG SAID MEANDER LINE, 378.09 FEET;
THENCE NORTH 01°33'14" EAST, 149.70 FEET TO NORTHERLY MARGIN OF NE LANDON ROAD AND THE TRUE POINT OF BEGINNING;
THENCE CONTINUING NORTH 01°33'14" EAST, 23.14 FEET;
THENCE SOUTH 10°41'26" EAST, 21.45 FEET TO SAID NORTHERLY MARGIN;
THENCE SOUTH 66°01'33" WEST ALONG SAID MARGIN, 5.04 FEET TO THE TRUE POINT OF BEGINNING.

DANIEL B. JOHNSON
STATE OF WASHINGTON
22408
REGISTERED
PROFESSIONAL LAND SURVEYOR

8/1/24

DANIEL B. JOHNSON
CERTIFICATE NO. 22408

PARCEL "C" (TPN: 22210-50-00013)

THAT PORTION OF GOVERNMENT LOT 4, SECTION 10, TOWNSHIP 22 NORTH, RANGE 2 WEST, W.M., IN MASON COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4; THENCE SOUTH 68°42'12" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, A DISTANCE OF 83.64 FEET; THENCE NORTH 63°57'48" EAST, ALONG SAID MEANDER LINE, A DISTANCE OF 381.78 FEET TO THE TRUE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE NORTH 01°07'40" WEST, A DISTANCE OF 1485.35 FEET; THENCE NORTH 89°12'06" EAST, A DISTANCE OF 47.01 FEET; THENCE SOUTH 01°07'40" EAST, A DISTANCE OF 1463.08 FEET TO AN INTERSECTION WITH THE SAID MEANDER LINE; THENCE SOUTH 63°57'48" WEST, A DISTANCE OF 51.90 FEET, MORE OR LESS TO THE TRUE POINT OF BEGINNING.

EXCEPT THAT PORTION LYING SOUTH OF THE NORTH MARGIN OF LANDON ROAD; AND

EXCEPT THAT PORTION LYING NORTH OF THE SOUTH MARGIN OF NORTH SHORE ROAD AS CONVEYED TO MASON COUNTY BY DEED RECORDED UNDER AUDITOR'S FILE NO. 198308, RECORDS OF MASON COUNTY, WASHINGTON.

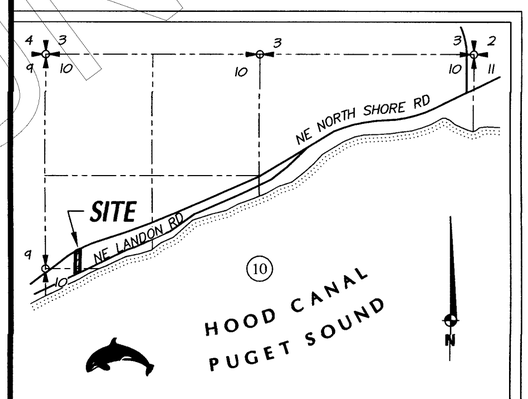
(BEING ALSO KNOWN AND DESCRIBED AS A PORTION OF THE EAST ONE-HALF OF TRACT 5 OF THE UNRECORDED PLAT OF HETRICK AND MEYER'S BROAD VIEW BEACH TRACTS.)

EXCEPT THE FOLLOWING DESCRIBED PORTION THEREOF:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4;
THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST ALONG SAID MEANDER LINE, 378.09 FEET;
THENCE NORTH 01°33'14" EAST, 149.70 FEET TO THE NORTHERLY MARGIN OF NE LANDON ROAD AND THE TRUE POINT OF BEGINNING;
THENCE CONTINUING NORTH 01°33'14" EAST, 23.14 FEET;
THENCE SOUTH 10°41'26" EAST, 21.45 FEET TO SAID NORTHERLY MARGIN;
THENCE SOUTH 66°01'33" WEST ALONG SAID MARGIN, 5.04 FEET TO THE TRUE POINT OF BEGINNING

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 4;
THENCE SOUTH 66°08'32" EAST, ALONG THE GOVERNMENT MEANDER LINE OF HOOD CANAL, 83.64 FEET;
THENCE NORTH 66°31'28" EAST, 378.09 FEET;
THENCE NORTH 01°33'14" EAST, 172.84 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 10°41'26" WEST, 18.58 FEET;
THENCE NORTH 10°02'57" EAST, 26.67 FEET;
THENCE SOUTH 01°33'14" WEST, 44.53 FEET TO THE TRUE POINT OF BEGINNING.



VICINITY MAP
SCALE: 1" = 1/4 MILE
SEC. 10, T. 22 N., R. 2 W., W.M.

DRAWING NO. 7460B DRAWN BY: PWT DATE: 7-18-2024
FIELD WORK PERFORMED BY: RJ / JM

A Portion of Gov't Lot 4 in the NW ¼ of the SW ¼ & the SW ¼ of the NW ¼ all in SEC. 10, T. 22 N., R. 2 W., W.M. Mason County, Washington

SHEET 2 OF 2

Aspen Land Surveying LLC
at *The Landing* in Key Center
P.O. Box 124, Vaughn, WA 98394-0124
15510 - 92nd Street NW, Gig Harbor, WA 98329
(253) 303-0270 FAX (253) 303-0273


Nunamaker Vicinity
Aerial image of immediate vicinity
Approximate property boundaries
NE North Shore Rd
NE Landon Rd
Exhibit 5
DRV2024-00003
Google Earth
Image Date 8/6/2022
400 ft
N


620 NE Landon Rd
620 NE Landon Rd
Belfair, Washington
Google Street View
Aug 2024
Exhibit 6
DRV2024-00003
NE North St
NE Lando
Google
Image capture: Aug 2024
© 2025 Google

Development on upland side of Landon Rd							
Parcels[3]	Garage sf[2]	Residence sf	Other sf	Total[1]	Waterfront Y/N	Location of development	Notes
22210-50-00001	575			**575**	Y	Both	Residence on waterfront side of road
22210-50-00006	440			**440**	Y	Both	Residence on waterfront side of road
22210-50-00007		1216		**1216**	Y	Upland	Bottom floor narrow, 2nd story cantilevered over slope
22210-50-00013		1252		**1252**	N	Upland	
22210-50-00015	2545			**2545**	Y	Both	Combination of 2 buildings. Additional development on waterside
22210-50-00016	260	2069	183	**2512**	Y	Upland	
22210-50-00017	462	1201	252	**1915**	Y	Both	Additional residence on waterfront side
22210-50-00018	288	1232	602	**2122**	Y	Upland	
22210-50-00019		1500	355	**1855**	Y	Upland	
22210-50-00020	N/A	N/A	N/A	N/A	Y	N/A	Undeveloped property
22210-50-00021	900			**900**	Y	Both	Residence on waterfront side of road
22210-50-00902	772	2040	886	**3698**	N	Upland	Property accesses off NE North Shore rd.
22210-51-00021	840			**840**	Y	Both	Residence on waterfront side of road. Garage accessed off North Shore Rd
Average	**787**		**Average**	**1656**			
		Upland only avaerge		***2109***			

[1]Many properties have a portion upland (north) of Landon Rd and a portion waterward (south) of the road. Only development north of the road is coun

[2]sf = square feet

[3]Excluded any property not abutting Landon Rd or only had development on waterfront side

Parcel	Reason for exclusion
22210-51-00904	Waterfront side of road development only
22210-51-00019	Waterfront side of road development only
22210-51-00018	Waterfront side of road development only
22210-51-00901	Waterfront side of road development only
22210-51-00012	Waterfront side of road development only
22210-51-00910	Waterfront side of road development only
22210-51-00909	Waterfront side of road development only
22210-51-00900	Waterfront side of road development only
22210-51-00005	Waterfront side of road development only
22210-51-00003	Waterfront side of road development only
22210-51-00001	Waterfront side of road development only
22210-12-00120	Waterfront side of road development only
22210-12-00110	Waterfront side of road development only
22210-12-00101	Waterfront side of road development only
22209-52-00052	Waterfront side of road development only
22209-52-00051	Waterfront side of road development only
22209-52-00050	Waterfront side of road development only
22209-52-00048	Waterfront side of road development only
22210-51-00025	Waterfront side of road development only
22210-51-00024	Waterfront side of road development only
22210-51-00022	Waterfront side of road development only
22210-50-00024	Waterfront side of road development only

Garage Square Ft				
Permit Type	Date Submitted	Permit Number	GARAGE SQ.FT.	STORAGE SQ.FT.
GARAGE/ STORAGE	01/04/2024	BLD2024-00011	864	
GARAGE/ STORAGE	01/04/2024	BLD2024-00014	1200	
GARAGE/ STORAGE	01/10/2024	BLD2024-00035	952	220
GARAGE/ STORAGE	01/12/2024	BLD2024-00053	1080	
GARAGE/ STORAGE	01/16/2024	BLD2024-00059	4800	
GARAGE/ STORAGE	01/22/2024	BLD2024-00086	1800	
GARAGE/ STORAGE	01/23/2024	BLD2024-00095	1280	
GARAGE/ STORAGE	01/24/2024	BLD2024-00102	676	
GARAGE/ STORAGE	01/25/2024	BLD2024-00111	541	
GARAGE/ STORAGE	01/31/2024	BLD2024-00130	780	
GARAGE/ STORAGE	02/01/2024	BLD2024-00141	600	
GARAGE/ STORAGE	02/05/2024	BLD2024-00149	577	
GARAGE/ STORAGE	02/07/2024	BLD2024-00170	1040	1040
GARAGE/ STORAGE	02/12/2024	BLD2024-00184	1104	
GARAGE/ STORAGE	02/14/2024	BLD2024-00200	800	
GARAGE/ STORAGE	02/16/2024	BLD2024-00209	3520	
GARAGE/ STORAGE	02/29/2024	BLD2024-00254		260
GARAGE/ STORAGE	02/29/2024	BLD2024-00263	624	
GARAGE/ STORAGE	02/29/2024	BLD2024-00271	2178	
GARAGE/ STORAGE	03/04/2024	BLD2024-00276	1728	
GARAGE/ STORAGE	03/07/2024	BLD2024-00305	900	
GARAGE/ STORAGE	03/11/2024	BLD2024-00326	720	
GARAGE/ STORAGE	03/11/2024	BLD2024-00331	2400	
GARAGE/ STORAGE	03/12/2024	BLD2024-00334		
GARAGE/ STORAGE	03/13/2024	BLD2024-00350	2400	
GARAGE/ STORAGE	03/18/2024	BLD2024-00365	864	
GARAGE/ STORAGE	03/19/2024	BLD2024-00374	1080	
GARAGE/ STORAGE	03/19/2024	BLD2024-00376	1800	
GARAGE/ STORAGE	03/25/2024	BLD2024-00392	540	
GARAGE/ STORAGE	03/26/2024	BLD2024-00398	864	
GARAGE/ STORAGE	04/02/2024	BLD2024-00426		276
GARAGE/ STORAGE	04/02/2024	BLD2024-00430	864	
GARAGE/ STORAGE	04/02/2024	BLD2024-00432	576	
GARAGE/ STORAGE	04/03/2024	BLD2024-00439	900	
GARAGE/ STORAGE	04/04/2024	BLD2024-00444	900	
GARAGE/ STORAGE	04/05/2024	BLD2024-00448	2160	
GARAGE/ STORAGE	04/08/2024	BLD2024-00453	2496	
GARAGE/ STORAGE	04/22/2024	BLD2024-00518	1512	
GARAGE/ STORAGE	04/29/2024	BLD2024-00544	1800	
GARAGE/ STORAGE	05/01/2024	BLD2024-00549	1728	
GARAGE/ STORAGE	05/01/2024	BLD2024-00553	1080	
GARAGE/ STORAGE	05/07/2024	BLD2024-00568	2800	
GARAGE/ STORAGE	05/08/2024	BLD2024-00577	2160	
GARAGE/ STORAGE	05/09/2024	BLD2024-00587	900	
GARAGE/ STORAGE	05/09/2024	BLD2024-00589	560	
GARAGE/ STORAGE	05/13/2024	BLD2024-00599	1050	
GARAGE/ STORAGE	05/16/2024	BLD2024-00615	980	
GARAGE/ STORAGE	05/17/2024	BLD2024-00551	1440	
GARAGE/ STORAGE	05/20/2024	BLD2024-00629		
GARAGE/ STORAGE	05/21/2024	BLD2024-00630	560	
GARAGE/ STORAGE	05/21/2024	BLD2024-00638		170
GARAGE/ STORAGE	05/23/2024	BLD2024-00647	1152	
GARAGE/ STORAGE	05/23/2024	BLD2024-00652	1600	
GARAGE/ STORAGE	05/28/2024	BLD2024-00660	672	448

Permit Type	Date Submitted	Permit Number	GARAGE SQ.FT.	STORAGE SQ.FT.
GARAGE/ STORAGE	06/04/2024	BLD2024-00693		
GARAGE/ STORAGE	06/05/2024	BLD2024-00694	1200	
GARAGE/ STORAGE	06/08/2024	BLD2024-00710		360
GARAGE/ STORAGE	06/10/2024	BLD2024-00717	1008	
GARAGE/ STORAGE	06/12/2024	BLD2024-00724	600	
GARAGE/ STORAGE	06/17/2024	BLD2024-00741	672	339
GARAGE/ STORAGE	06/17/2024	BLD2024-00742	720	
GARAGE/ STORAGE	06/21/2024	BLD2024-00756	2400	
GARAGE/ STORAGE	06/25/2024	BLD2024-00764	1080	
GARAGE/ STORAGE	07/02/2024	BLD2024-00790		
GARAGE/ STORAGE	07/02/2024	BLD2024-00791	1784	
GARAGE/ STORAGE	07/03/2024	BLD2024-00797	864	
GARAGE/ STORAGE	07/08/2024	BLD2024-00808	1300	
GARAGE/ STORAGE	07/12/2024	BLD2024-00839	720	
GARAGE/ STORAGE	07/16/2024	BLD2024-00854	864	
GARAGE/ STORAGE	07/18/2024	BLD2024-00864	1152	
GARAGE/ STORAGE	07/23/2024	BLD2024-00887	1280	
GARAGE/ STORAGE	07/24/2024	BLD2024-00898		
GARAGE/ STORAGE	07/24/2024	BLD2024-00900	864	
GARAGE/ STORAGE	07/24/2024	BLD2024-00905	2400	
GARAGE/ STORAGE	07/25/2024	BLD2024-00911		
GARAGE/ STORAGE	07/28/2024	BLD2024-00915	1200	
GARAGE/ STORAGE	07/30/2024	BLD2024-00924	960	390
GARAGE/ STORAGE	07/30/2024	BLD2024-00931	2400	
GARAGE/ STORAGE	07/31/2024	BLD2024-00939	1512	
GARAGE/ STORAGE	08/01/2024	BLD2024-00948	864	
GARAGE/ STORAGE	08/06/2024	BLD2024-00959	1440	
GARAGE/ STORAGE	08/08/2024	BLD2024-00970	400	
GARAGE/ STORAGE	08/12/2024	BLD2024-00983	1500	
GARAGE/ STORAGE	08/20/2024	BLD2024-01016	864	
GARAGE/ STORAGE	09/02/2024	BLD2024-01060		1500
GARAGE/ STORAGE	09/03/2024	BLD2024-01065	2240	
GARAGE/ STORAGE	09/09/2024	BLD2024-01090	1520	
GARAGE/ STORAGE	09/13/2024	BLD2024-01109		
GARAGE/ STORAGE	09/14/2024	BLD2024-01113		
GARAGE/ STORAGE	09/15/2024	BLD2024-01114	864	
GARAGE/ STORAGE	09/16/2024	BLD2024-01116	288	
GARAGE/ STORAGE	09/16/2024	BLD2024-01117	1500	
GARAGE/ STORAGE	09/19/2024	BLD2024-01135		2016
GARAGE/ STORAGE	09/23/2024	BLD2024-01147	836	
GARAGE/ STORAGE	09/24/2024	BLD2024-01154	600	
GARAGE/ STORAGE	10/08/2024	BLD2024-01207	1305	
GARAGE/ STORAGE	10/14/2024	BLD2024-01216	282	
GARAGE/ STORAGE	10/15/2024	BLD2024-01222	720	
GARAGE/ STORAGE	10/15/2024	BLD2024-01223		
GARAGE/ STORAGE	10/17/2024	BLD2024-01235	2304	
GARAGE/ STORAGE	10/17/2024	BLD2024-01237		
GARAGE/ STORAGE	10/22/2024	BLD2024-01253	768	
GARAGE/ STORAGE	10/23/2024	BLD2024-01264	3000	
GARAGE/ STORAGE	10/28/2024	BLD2024-01286	2400	
GARAGE/ STORAGE	10/29/2024	BLD2024-01293	864	
GARAGE/ STORAGE	10/30/2024	BLD2024-01299	1320	
GARAGE/ STORAGE	11/01/2024	BLD2024-01309		
GARAGE/ STORAGE	11/01/2024	BLD2024-01312	960	
GARAGE/ STORAGE	11/04/2024	BLD2024-01318	3360	

Permit Type	Date Submitted	Permit Number	GARAGE SQ.FT.	STORAGE SQ.FT.
GARAGE/ STORAGE	11/05/2024	BLD2024-01330		
GARAGE/ STORAGE	11/08/2024	BLD2024-01346	900	
GARAGE/ STORAGE	11/11/2024	BLD2024-01348	600	
GARAGE/ STORAGE	11/13/2024	BLD2024-01353	1200	
GARAGE/ STORAGE	11/13/2024	BLD2024-01357	320	
GARAGE/ STORAGE	11/20/2024	BLD2024-01383	806	
GARAGE/ STORAGE	11/26/2024	BLD2024-01402	600	
GARAGE/ STORAGE	12/02/2024	BLD2024-01417	1230	
GARAGE/ STORAGE	12/05/2024	BLD2024-01431		
GARAGE/ STORAGE	12/11/2024	BLD2024-01457		
GARAGE/ STORAGE	12/11/2024	BLD2024-01459		
GARAGE/ STORAGE	12/12/2024	BLD2024-01465	900	
GARAGE/ STORAGE	12/18/2024	BLD2024-01489	1500	
GARAGE/ STORAGE	12/20/2024	BLD2024-01495	1296	
GARAGE/ STORAGE	12/30/2024	BLD2024-01512		
		Averages	**1276**	**638**

MASON COUNTY
COMMUNITY DEVELOPMENT
Permit Assistance Center, Building, Planning

Community Development
(Permit Assistance Center/ Building/ Planning)
615 W. Alder Street – Shelton, WA 98584
360-427-9670, Ext. 352
masoncountywa.gov

Notice of Application and Public Hearing

Notice is hereby given that **Kevin Nunamaker**, who is the applicant for the following proposal, has filed an application for Development Regulation Variance Permit (**DRV2024-00003**) to construct a new garage zero (0) feet from the road right of way of NE Landon Rd. Other permit requirements include but are not limited to Mason County building permit.

Location: **620 NE Landon Rd, Belfair, WA 98528**
Parcel Numbers: **22210-50-00011**
Date of Application: **November 1, 2024**
Date of Complete Application: **December 17, 2024**
Notice of Application/Complete Application: **January 9, 2024**

The proposed development is reviewed under the applicable chapters of the Mason County Development Regulations; specifically, Title 17.05.034 and Title 15 Section 15.09.057, which establishes Variance procedures and criteria. The proposal requires Hearing Examiner approval.

Project is SEPA exempt per WAC 197-11-800(1)(b).

Any person desiring to express their view or to be notified of any additional hearings on the application should join the virtual **Public Hearing** via Zoom or attend the hearing at 411 N 5th St, Shelton, WA on **Wednesday, January 22, 2025, at 3:00 pm** or ahead of the hearing, to view application materials or submit questions or written comments contact:

Mail and Office Location
Julie Cheney, Senior Planner
Mason County Community Development
615 W. Alder St., Shelton, WA 98584

Email and Phone
JCheney@MasonCountyWA.gov
360-427-9670 ext. 357

A Public Hearing will be held on **Wednesday, January 22, 2025, at 3:00 pm** by the Mason County Hearing Examiner on the proposed project via Zoom and at 411 N 5th St, Shelton, WA. Directions on how to access the hearing will be located on the Mason County website at https://www.masoncountywa.gov/hearings-examiner/index.php under the appropriately dated agenda, or you can call the Hearing Examiner Clerk at (360) 427-9670 Ext. 365 for assistance. Written or oral testimony will be accepted up to the close of the hearing.

A decision on these applications will be made within 120 days of the date of the complete application and copies of the decision may be obtained by contacting the Planner listed above or by visiting the Planning Department at the above address during normal business hours. Decisions are final and subject to Superior Court or the appropriate administrative agency as regulations apply.

Posted: 01/09/2025

Mailing Label	
KATHLEEN & MIKE HILL 711 NE LANDON RD BELFAIR, WA 98528	JOHN SCOTT & TAMMY ANN PICKETT P O BOX 2605 VASHON, WA 98070
MASON COUNTY MASON COUNTY COURTHOUSE 411 N 5TH ST SHELTON, WA 985843400	PICKETT LIVING TRUST JOHN WARD PCIKETT & JUDITH KAY PICKETT TRUSTEES 16909 WESTSIDE HWY SW VASHON, WA 98070
EUGENE O KIRILUK 560 NE LANDON RD BELFAIR, WA 98528	LARRY M & KATHLEEN ETAL ROHR J & K ROHR/K & A KAI 5121 PLEASANT GLADE RD NE LACEY, WA 985163040
HEIDY JOANN KRAUER 6001 NE NORTH SHORE RD BELFAIR, WA 98528	BRIAN SEABURG 6040 NE NORTH SHORE RD BELFAIR, WA 985289780
STEVE T & CANDY S ZEVNICK 671 NE LANDON RD BELFAIR, WA 985289766	CRAIG R & CATHERINE E LANDON 581 NE LANDON RD BELFAIR, WA 98528-9765
JERRYRIG LLC 10922 GENTRY LN SW OLYMPIA, WA 98512	BROOKS D & NICHOLE K WOLFE 190 ISLAND BLVD FOX ISLAND, WA 98333
RICHARD & LENDA SUNDENE 601 NE LANDON RD BELFAIR, WA 98528	

Julie Cheney

From: Mariah Frazier
Sent: Friday, January 3, 2025 2:44 PM
To: Julie Cheney
Subject: FW: Journal Notice 01/09
Attachments: NOAH Nunamaker.docx; PUBLICATION COST AGREEMENT DRV2024-00003.pdf

Mariah Frazier
Mason County Community Development
Clerical/Addressing/Public Records
(360)427-9670 x365

From: Journal Legals <legals@masoncounty.com>
Sent: Friday, January 3, 2025 2:40 PM
To: allphasegd@juno.com
Cc: Mariah Frazier <MFrazier@masoncountywa.gov>
Subject: Re: Journal Notice 01/09

The legal number is 4966 and the total is $314.50.

It reads:

PUBLIC NOTICE
Notice of Application and Public Hearing Notice is hereby given that Kevin Nunamaker, who is the applicant for the following proposal, has filed an application for Development Regulation Variance Permit (DRV2024-00003) to construct a new garage zero (0) feet from the road right of way of NE Landon Rd. Other permit requirements include but are not limited to Mason County building permit. Location: 620 NE Landon Rd, Belfair, WA 98528 Parcel Numbers: 22210-50-00011 Date of Application: November 1, 2024 Date of Complete Application: December 17, 2024 Notice of Application/Complete Application: January 9, 2024 The proposed development is reviewed under the applicable chapters of the Mason County Development Regulations; specifically, Title 17.05.034 and Title 15 Section 15.09.057, which establishes Variance procedures and criteria. The proposal requires Hearing Examiner approval. Project is SEPA exempt per WAC 197-11-800(1)(b). Any person desiring to express their view or to be notified of any additional hearings on the application should join the virtual Public Hearing via Zoom or attend the hearing at 411 N 5th St, Shelton, WA on Wednesday, January 22, 2025, at 3:00 pm or ahead of the hearing, to view application materials or submit questions or written comments contact: Mail and Office Location Julie Cheney, Senior Planner Mason County Community Development 615 W. Alder St., Shelton, WA 98584 Email and Phone

JCheney@MasonCountyWA.gov 360-427-9670 ext. 357 A Public Hearing will be held on Wednesday, January 22, 2025, at 3:00 pm by the Mason County Hearing Examiner on the proposed project via Zoom and at 411 N 5th St, Shelton, WA. Directions on how to access the hearing will be located on the Mason County website at https://www.masoncountywa.gov/hearings-examiner/index.php under the appropriately dated agenda, or you can call the Hearing Examiner Clerk at (360) 427-9670 Ext. 365 for assistance. Written or oral testimony will be accepted up to the close of the hearing. A decision on these applications will be made within 120 days of the date of the complete application and copies of the decision may be obtained by contacting the Planner listed above or by visiting the Planning Department at the above address during normal business hours. Decisions are final and subject to Superior Court or the appropriate administrative agency as regulations apply.
4966 January 9 1t

Your legal number is your confirmation that we have received your public notice information. The total due for the run date(s) scheduled is also noted.

Above may appear a proof of your notice. If we do not hear from you by the deadline, we will assume it is correct. Deadline for public notices is each Monday by 4 p.m. (or previous Friday when there is a holiday the following week). Publication is each Thursday. Payment prior to the final week of publication may be required per RCW 65.16.110. Credit card transactions in excess of $250 may be subject to a 3% convenience/processing fee.

Please indicate preferred run date(s) and your mailing address. If emailing more than one attachment, please provide clear instructions. Notices must be sent in plain text (such as a Word file) for formatting, quotes and proofs; PDF and .jpg files are not accepted.

One (1) signed, notarized affidavit will be mailed to the purchaser within 5 business days of the final day of publication; additional or replacement copies are charged $30 each. Please note: each public notice ("legal") is processed in the order received. Identical public notices that are re-sent are subject to being run and billed an additional time; please do not re-attach your original public notice in any future correspondence relating to it except upon our request.

Confidentiality Notice: This email message may contain confidential and privileged information. If you have received this message by mistake, please destroy it and any attachments, and notify us immediately by replying to this message or by telephone at (360) 426-4412, and do not review, disclose, copy or distribute it.

Note: the jlegals@masoncounty.com email address has phased out.
Please use legals@masoncounty.com .

Thank you,

Legals Department

Shelton-Mason County Journal

PO Box 430, Shelton, WA 98584 360-426-4412

legals@masoncounty.com

Est. 1886 • The adjudicated newspaper of record for Mason County.

Office Hours: Monday - Thursday 8 A.M. - 5 P.M.

On Jan 3, 2025, at 8:12 AM, Mariah Frazier <MFrazier@masoncountywa.gov> wrote:

Please publish the attached notice one (1) time:
Thursday, January 9, 2025

Per the attached PCA, please bill:
Kevin Nunamaker
611 NE Landon Rd, Belfair, WA 98528
Allphasegd@juno.com
425-315-5099

Mariah Frazier
Mason County Community Development
Clerical/Addressing/Public Records
(360)427-9670 x365

From: Julie Cheney <JCheney@masoncountywa.gov>
Sent: Friday, January 3, 2025 7:17 AM
To: Mariah Frazier <MFrazier@masoncountywa.gov>
Subject: Journal Notice 01/09

Hi Mariah,

Can you please have the attached notice posted in the paper next Thursday, January 9th?

Billing party information below:

Kevin Nunamaker
611 NE Landon Rd, Belfair, WA 98528
Allphasegd@juno.com
425-315-5099

Thanks!
Julie

Julie Cheney (she/her) | Senior Planner
Mason County Community Development
Office # 360-427-9670 ext. 357
Cell # 360-490-2891

PUBLIC NOTICE

Notice of Application and Public Hearing Notice is hereby given that Kevin Nunamaker, who is the applicant for the following proposal, has filed an application for

PUBLIC NOTICES

Development Regulation Variance Permit (DRV2024-00003) to construct a new garage zero (0) feet from the road right of way of NE Landon Rd. Other permit requirements include but are not limited to Mason County building permit. Location: 620 NE Landon Rd, Belfair, WA 98528 Parcel Numbers: 22210-50-00011 Date of Application: November 1, 2024 Date of Complete Application: December 17, 2024 Notice of Application/Complete Application: January 9, 2024 The proposed development is reviewed under the applicable chapters of the Mason County Development Regulations; specifically, Title 17.05.034 and Title 15 Section 15.09.057, which establishes Variance procedures and criteria. The proposal requires Hearing Examiner approval. Project is SEPA exempt per WAC 197-11-800(1)(b). Any person desiring to express their view or to be notified of any additional hearings on the application should join the virtual Public Hearing via Zoom or attend the hearing at 411 N 5th St, Shelton, WA on Wednesday, January 22, 2025, at 3:00 pm or ahead of the hearing, to view application materials or submit questions or written comments contact: Mail and Office Location Julie Cheney, Senior Planner Mason County Community Development 615 W. Alder St., Shelton, WA 98584 Email and Phone JCheney@MasonCountyWA.gov 360-427-9670 ext. 357 A Public Hearing will be held on Wednesday, January 22, 2025, at 3:00 pm by the Mason County Hearing Examiner on the proposed project via Zoom and at 411 N 5th St, Shelton, WA. Directions on how to access the hearing will be located on the Mason County website at https://www.masoncountywa.gov/hearings-examiner/index.php under the appropriately dated agenda, or you can call the Hearing Examiner Clerk at (360) 427-9670 Ext. 365 for assistance. Written or oral testimony will be accepted up to the close of the hearing. A decision on these applications will be made within 120 days of the date of the complete application and copies of the decision may be obtained by contacting the Planner listed above or by visiting the Planning Department at the above address during normal business hours. Decisions are final and subject to Superior Court or the appropriate administrative agency as regulations apply.

4966 January 9 1t

MASON COUNTY
COMMUNITY DEVELOPMENT
Permit Assistance Center, Building, Planning

PLANNING DEPARTMENT
615 W Alder St.
Shelton, WA 98584
(360) 427-9670 ext. 236

TO: Mason County Hearings Examiner
FROM: Gavin Scouten, Associate Planner
RE: Shoreline Variance Permit Application
Dias Residence
Case No. SHR2024-00013

STAFF REPORT

INTRODUCTION

PURPOSE

This report will compile, evaluate, and analyze information provided by **Bryan Dias and their consultant Rob Nagel** as a part of the Mason County Shoreline Variance permitting process. The report will finish with a recommendation of action for the Mason County Hearings Examiner.

APPLICANT

The applicant for this permit is Bryan Dias. Advising the applicant through the permitting process is Rob Nagel of Arctos Environmental.

PROPERTY LOCATION

Project is to be located on the North shore of Little Skookum Inlet.

LEGAL DESCRIPTION

Parcel #31911-22-00070 owned by the applicant. Tract 7 of government lot 2 (see survey in book 6, page 17).

EXHIBITS

1. Staff Report
2. Site Plan
3. Wetland Report
4. Habitat Management Plan (HMP)
5. Shoreline Variance Permit Application
6. Original Survey
7. Geotechnical Report

PROPOSAL

The applicant is proposing to develop a single family residence with a detached garage within the 115' residential shoreline setback required by the Shoreline Master Program (SMP) contained in Title 17 of Mason County Code (MCC). The size of the parcel precludes placing development outside of the shoreline setback. There is also a Category III Slope Wetland and a Non-Fish Perennial Stream which further restrict where development may be placed on this parcel.

SITE CHARACTERISTICS

Privately owned parcel on the North shore of Little Skookum Inlet within the South Puget Sound. Located in the Kennedy/Goldsborough Water Resource Inventory Area (WRIA 14). Site contains steep slopes, a Category III Slope Wetland on the Northern portion and a Non-Fish Bearing Perennial Stream running North to South along the Eastern edge of the property. There is residential development surrounding the proposed development on all sides but the East.

Environmental conditions described in HMP (exhibit 4):

The parcel is 1.84 acres in size and located in section 11 of Township 19 North, Range 3 West. The property slopes from the north to the south where Little Skookum Inlet is located at the bottom of the lot. A forested, slope wetland originates on the slope above the subject property and flows south where it meets the access road and is then diverted east down the ditch. The wetland and ditch contained flowing water during a site visit on 8/30/2024. The ditch runs east towards an Np stream, but went dry prior to reaching the stream, with no clear channel making it to the stream.

Typical vegetation growing within the wetland portion of the property includes western red cedar (*Thuja plicata*), skunk cabbage (*Lysichiton americanus*), horsetail (*Equisetum spp.*), and western lady fern (*Athyrium filix-femina*). The upland vegetation on the property immediately adjacent to the wetland, and just south of the road is characterized mostly by Douglas fir (*Pseudotsuga menziesii*), big-leaf maple (*Acer macrophyllum*), and beaked hazelnut (*Corylus cornuta*).

SHORELINE ENVIRONMENTAL DESIGNATION

Shoreline Environmental Designation is Residential with a 115' setback from the Ordinary High Water Mark (OWHM).

ZONING DESIGNATION

Zoning designation is Rural Residential 5-acres.

SEPA COMPLIANCE

This project is exempt from the State Environmental Policy Act under WAC 197-11-800(1)(b)(i).

OTHER PERMITS REQUIRED

1. Building Permit from Mason County
2. Septic Permit from Mason County
3. May need a Well Construction Permit from Mason County (will be determined by Environmental Health department)

ANALYSIS

Type III Review for permit applications require that the Hearings Examiner evaluate the proposal for consistency with the County's Development Code, adopted plans and regulations. The Hearing Examiner shall review the proposal according to the criteria laid out in section 15.09.050(c):

1. The development does not conflict with the Comprehensive Plan and meets the requirements and intent of the Mason County Code, especially Title 6, 8 and 16.
2. The development does not impact public health, safety or welfare and is in the public interest.
3. The development does not lower the level of service of transportation and/or neighborhood park facilities below the minimum standards established within the Comprehensive Plan.

Policies and regulations are shown in orange text.
Responses are shown in black text.

REVIEW CRITERIA FOR VARIANCE PERMITS (17.50.400(C)(3)(C))

The purpose of a Variance Permit is strictly limited to granting relief to specific bulk, dimensional or performance standards set forth in the Master Program, where there are extraordinary or unique circumstances relating to the property such that the strict implementation of the Master Program would impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020.

(i) 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 threshold for "reasonable use" in Mason County is the development of up to a 3,000 square foot residence (8.52.220(e), 17.50.110(b)(2)(A)(i)). The Dias proposal is under this threshold and proposes mitigation to ensure there will be no net loss of shoreline ecological function as a result of the project.

(ii) Variance permits for development and/or uses that will be located landward of the OHWM, and/or landward of any wetlands, 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 master program precludes or significantly interferes with a reasonable use of the property not otherwise prohibited by the master program;

Development of a 3,000 square foot residence would not be possible on this property without a Shoreline Variance permit due to the size, shape, and property line setbacks required of this parcel. Residential development is an allowed use in the Shoreline Master Program.

(b) That the hardship which serves as a basis for the granting of the variance is specifically related to the property of the applicant, 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;

This parcel has been the same size and shape since at least 1970, prior to the adoption of zoning and lot requirements in 1996. The size of the parcel is the reason this Variance is required.

(c) That the design of the project will be compatible with other authorized uses in the area and with uses planned for the area under the comprehensive plan and this program and will not cause adverse effects to adjacent properties or the shoreline environment;

This property and those surrounding it are zoned for residential development and most have been developed with a residence. No detrimental effects to adjacent properties related to the proposed development have been identified .

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

This Variance is on the basis of lot size and setback requirements of the SMP. Any property in the same situation would be eligible for a Shoreline Variance Permit.

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

The applicants have proposed development totaling 2,300 square feet, which is smaller than the threshold for reasonable use as established in the Resource Ordinance (8.52.220(e)) and adopted into the Shoreline Master Program (17.50.110(b)(2)(A)(i)). The applicant, consultant, County, and Ecology are currently working on scheduling a meeting to discuss, in part, a smaller development proposal.

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

All detrimental effects to shoreline ecological function are identified and mitigated for in the Habitat Management Plan. No other detrimental effects resulting from the proposed project have been identified.

(iii) Variance permits for developments and/or uses that will be located either waterward of the OHWM, or within wetlands, may be authorized provided the applicant can demonstrate, in addition to items (ii)b—f. above, that:

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

As established above the reasonable use threshold for a residence in a residentially zoned area is 3,000 square feet. Due to lot size, shape, and property line setbacks, it would not be possible to construct a 3,000 square foot residence outside of the shoreline. Therefore a Shoreline Variance Permit is required to achieve reasonable use of the property.

(b) The public rights of navigation and use of the shorelines will not be adversely affected by the granting of the variance.

Effects to navigation and the use of shorelines are not anticipated from this project as it will be constructed landward of the Ordinary High Water Mark.

(iv) 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 in the area where similar circumstances exist the total of the variances should also remain consistent with the policies of RCW 90.58.020 and should not produce substantial adverse effects to the shoreline environment.

Detrimental effects on shoreline environment, or otherwise, have been identified and mitigated for as a part of this project. Therefore it is the County's conclusion that the potential cumulative impacts of additional requests for similar development would remain consistent with the policies of RCW 90.58.020 and would not produce substantial adverse effect to the shoreline environment.

(v) Variances from the use regulations of this master program are prohibited. Requests for varying the use to which a shoreline area is to be put are not requests for variances, but rather requests for conditional uses

The proposed use of the shoreline in this case is residential, which matches the shoreline environmental designation of the site. No variance from the use regulations of the Master Program are requested.

USE PREFERENCES AND SHORELINES OF STATEWIDE SIGNIFICANCE (17.50.070)

(a) Use Preferences.

(1) 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 shorelines.

Public access to the shoreline will not be affected/changed by this project.

(2) 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 development 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 people to enjoy the shorelines of the state.

The proposed development is a single family residence with one appurtenant structure.

(3) 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 (RCW 90.58.020).

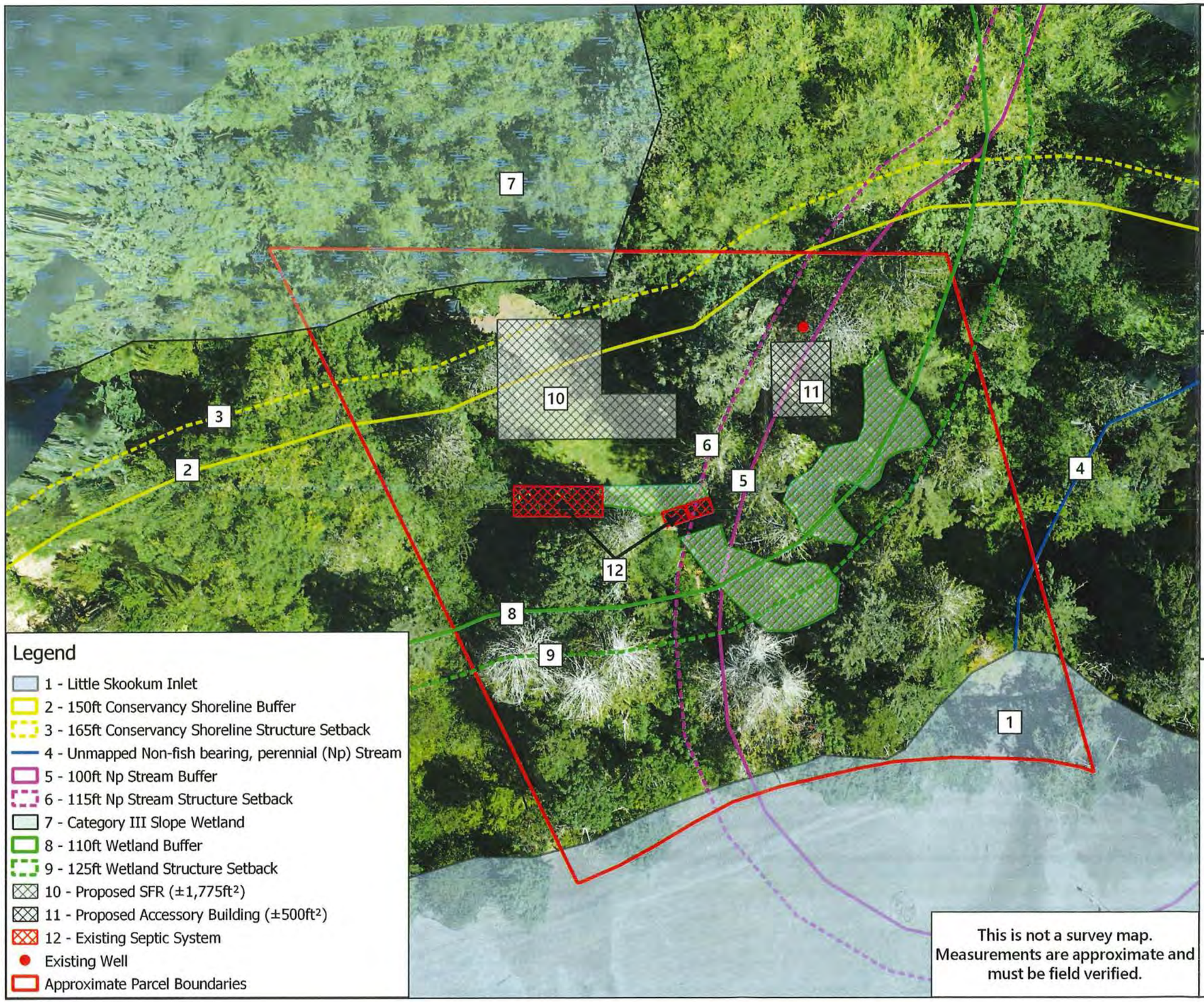
Wetland report and habitat management plan have both been prepared to assess and plan mitigation for the environmental impacts of this project. The public's right to use surface water is unimpeded by this project.

CONCLUSION

It is the opinion of the Mason County Planning Department that this Shoreline Variance Permit application complies with all relevant policies and regulations laid out in the Shoreline Master Program of the Mason County Code. No conditions are proposed to bring the application into further compliance.

RECCOMENDATION

It is the recommendation of Mason County Planning that the proposed development be permitted by the Hearings Examiner of Mason County without conditions in addition to those laid out in the HMP and by other permitting agencies.



Legend

- 1 - Little Skookum Inlet
- 2 - 150ft Conservancy Shoreline Buffer
- 3 - 165ft Conservancy Shoreline Structure Setback
- 4 - Unmapped Non-fish bearing, perennial (Np) Stream
- 5 - 100ft Np Stream Buffer
- 6 - 115ft Np Stream Structure Setback
- 7 - Category III Slope Wetland
- 8 - 110ft Wetland Buffer
- 9 - 125ft Wetland Structure Setback
- 10 - Proposed SFR (±1,775ft²)
- 11 - Proposed Accessory Building (±500ft²)
- 12 - Existing Septic System
- Existing Well
- Approximate Parcel Boundaries

This is not a survey map. Measurements are approximate and must be field verified.

Arctos
Environmental LLC

Environmental Consulting | Drone Imagery

PO Box 2466
Shelton, WA 98584
(360) 229-3118
www.arctos-environmental.com

Site Environmental Map

Parcel# 31911-22-00070
407 SE Allen Rd
Shelton, WA 98584

Map created by: Rob Nagel
October 9, 2024
Revison:_____

N

0 20 40 60 80 ft

Scale: 1'' = 30'

Wetland Report

Parcel: 31911-22-00070
407 SE Allen Rd
Shelton, WA 98584
Mason County

Report prepared for:

Bryan Dias
411 SE Allen Rd
Shelton, WA 98584

Prepared by:

Rob Nagel
PO Box 2466
Shelton, WA 98584
rob@arctos-environmental.com
(360) 229-3118

Arctos Environmental LLC

Project: 2024-WR-005

September 2024

Table of Contents

List of Figures

Wetland Report

31911-22-00070
407 SE Allen Rd
Shelton, WA 98584

Overview

This report details the wetland delineation and rating of a small **Slope** wetland located within and adjacent to the subject lot in Mason County, Washington. The wetland is formed primarily from ground water inundating the area at a frequency and duration during the growing season sufficient to support the development of hydric soils and the growth of hydrophytic vegetation. The wetland was rated a **Category III** wetland based on its score for **Functions,** with a **Habitat** score of **6** and a total score of **16**. The buffer for this wetland is 110ft with a 125ft Structure Setback for moderate-intensity land uses based on the Mason County Resource Ordinance (Table 8.52.110(D)). The south side of the wetland was delineated in the field and flagged with bright neon-green flagging. The buffer should be measured on-site, horizontally from the flagged edge in the field.

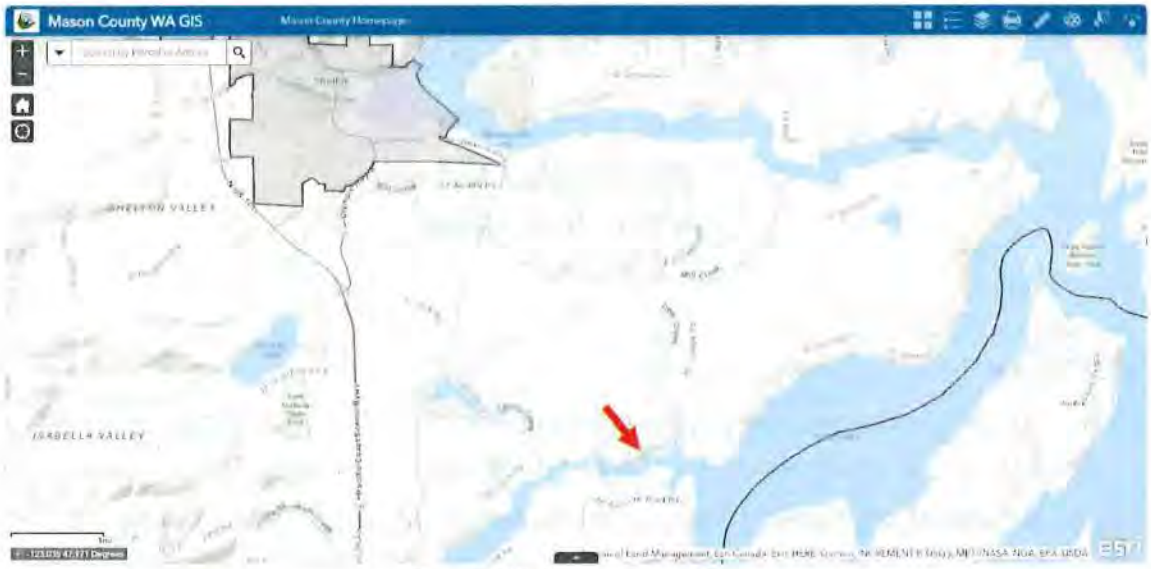


Figure 1: Vicinity map of the project.

Property Description & Project Background

The parcel is 1.84 acres in size and located in section 11, Township 19 North, Range 3 West. The property slopes from the north to the south where Little Skookum Inlet is located at the bottom of the lot. A slope wetland originates on the slopes above the subject property and flows south where it meets the access road and is diverted east. The wetland and ditch contained flowing water during a site visit on 8/30/2024. The ditch runs east towards an Np stream, but went dry prior to reaching the stream, with no clear channel making it to the stream.

Typical wetland adapted vegetation growing within the wetland portion of the property includes western red cedar (*Thuja plicata*), skunk cabbage (*Lysichiton americanus*), horsetail (*Equisetum spp.*), and western lady fern (*Athyrium filix-femina*). The upland vegetation on the property immediately adjacent to the wetland is characterized mostly by Douglas fir (*Pseudotsuga menziesii*), big-leaf maple (*Acer macrophyllum*), and beaked hazelnut (*Corylus cornuta*).

Wetland Delineation & Rating

The wetland was delineated using the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and the Western Mountains, Valleys, and Coast Region Regional Supplement Version 2.0 (using updated plant and soil designations from USDA and NRCS). The wetland meets all three required indicators of hydrophytic vegetation, hydric soils, and hydrology. One pair of wetland determination sample plots were used to confirm the wetland boundary findings in the field. The boundary between the wetland and surrounding uplands is well defined on the south side, where the proposed project is located, by the transition of the slope meeting a ditch that directs flow from the wetland to the east. Wetland Determination field data forms are included in the Appendix for reference.

The wetland being rated is formed from groundwater saturating the wetland area at a frequency and duration sufficient to support the development of hydric soils and the growth of hydrophytic vegetation. The entire wetland was rated using the **Slope** forms for Water Quality and Hydrologic functions and the **Habitat** form used for all Hydrogeomorphic classifications based on the Washington State Department of Ecology Wetland Rating System (2014 Update, Version 2.0). The wetland was rated a **Category III** wetland based on its score for **Functions** with a habitat score of **6** and a total score of **16** (see Appendix for rating forms and figures).

Function	Improving Water Quality	Hydrologic	Habitat	
Site potential	H M **L**	H M **L**	H M **L**	
Landscape Potential	H **M** L	H **M** L	H **M** L	
Value	**H** M L	H M **L**	**H** M L	Total
Score Based on Ratings	6	4	6	16

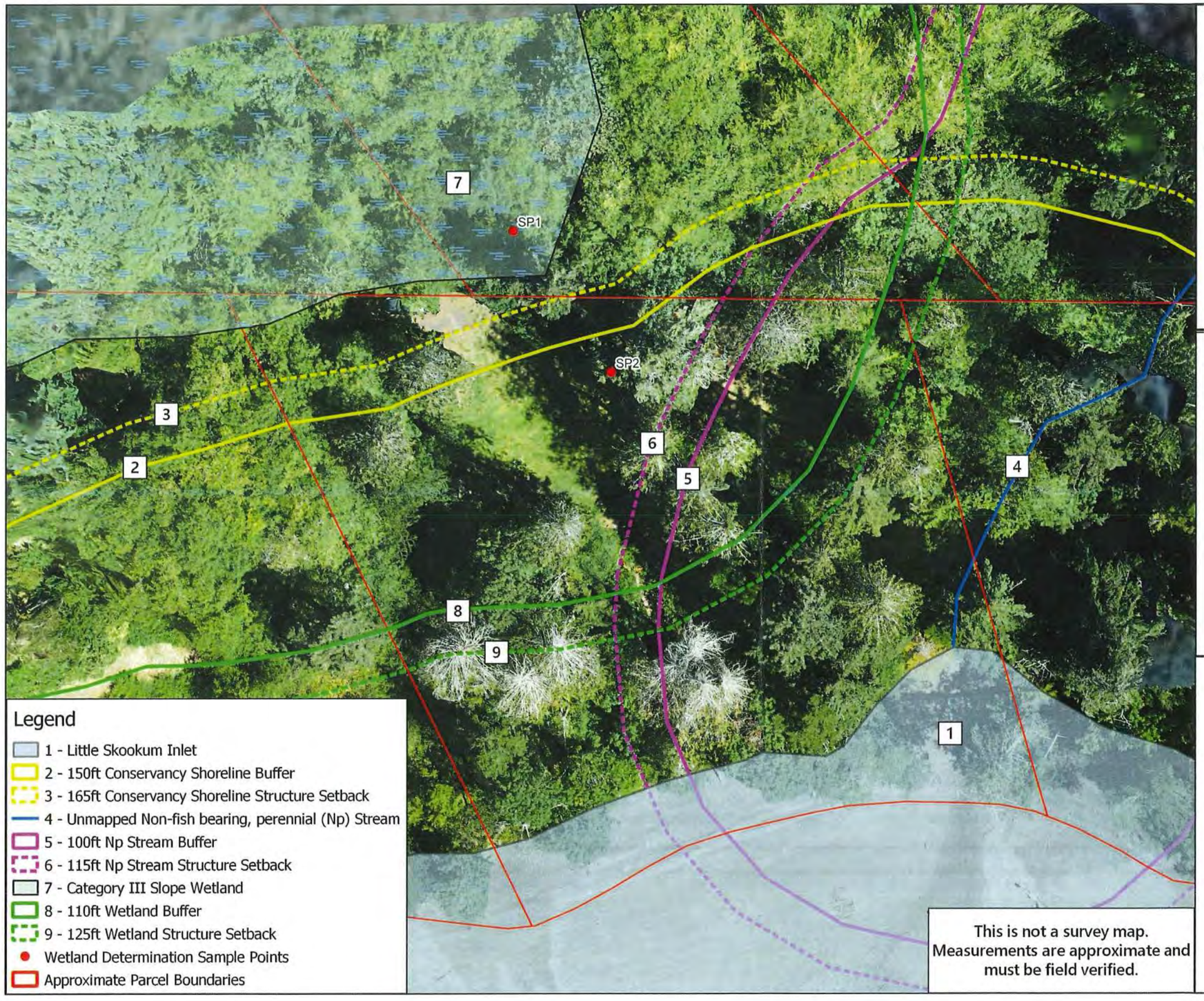
Table 1: Summary of the wetland's scores based on functions.

Table 8.52.110(D): Width of Buffers Required to Protect Category III Wetlands. Wetlands Scoring Between 16 and 19 Points on the Wetlands Rating System.

Wetland Characteristics	Buffer Widths by Impacts of Proposed Land Use
Moderate level of function for habitat (score for habitat 6 - 7 points)	Low - 75 ft Moderate – 110 ft High – 150 ft
Score for habitat 3-5 points	Low - 40 ft Moderate – 60 ft High – 80 ft

Figure 2: Screen capture of the Mason County Resource Ordinance Table 8.52.110(D) showing wetland buffers for category III wetlands.

Project: 2024-WR-005 September 2024 Arctos Environmental LLC



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Site Environmental Map

Parcel# 31911-22-00070
407 SE Allen Rd
Shelton, WA 98584

Map created by: Rob Nagel
September 6, 2024
Revison:_____

N

0 20 40 60 80 ft

Scale: 1'' = 30'

Summary

This report details the wetland delineation and rating of a slope wetland located within and adjacent to a 1.84-acre residential lot and formed from ground water inundating the wetland area at a frequency and duration sufficient to support the development of hydric soils and the growth of hydrophytic vegetation. The wetland meets **Category III** criteria based on its score for wetland Functions. The buffer for this wetland is 110ft with a 125ft Structure Setback for moderate-intensity land uses based on the Mason County Resource Ordinance (Table 8.52.110(D)). The south side of the wetland was delineated and marked in the field with bright neon-green flagging where it affects the proposed future development of the subject lot. The wetland buffer should be measured horizontally from the flagged edge in the field.

References

Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Guard, J. (1995). Wetland Plants of Oregon & Washington. Lone Pine Publishing. 240 pp. Edmonton, Alberta, Canada.

Hruby, T. (2014). Washington State Wetland Rating System for Western Washington: 2014 Update (Version 2.0). (Publication #23-06-009). Olympia, WA: Washington Department of Ecology.

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Pojar, J. and A. MacKinnon. 1994. Plants of the Pacific Northwest Coast (Revised Edition 2014). Lone Pine Publishing. 528 pp. Vancouver, British Columbia, Canada.

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

Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 292pp.

Appendix: Data Forms, Rating Figures, & Site Photos

Wetland name or number _____

RATING SUMMARY – Western Washington

Name of wetland (or ID #): 407 SE ALDEN RD Date of site visit: 8/30/24

Rated by ROB NAGEL Trained by Ecology? Y Yes ___No Date of training 6/3/22

HGM Class used for rating SLOPE Wetland has multiple HGM classes? ___Y _X_N

NOTE: Form is not complete without the required figures (figures can be combined).
Source of base aerial photo/map GOOGLE EARTH & SPOTS IMAGERY

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

_____**Category I** – Total score = 23 - 27
_____**Category II** – Total score = 20 - 22
__X__**Category III** – Total score = 16 - 19
_____**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
	Circle the appropriate ratings									
Site Potential	H	M	(L)	H	M	(L)	H	M	(L)	
Landscape Potential	H	(M)	L	H	(M)	L	H	(M)	L	
Value	(H)	M	L	H	M	(L)	(H)	M	L	TOTAL
Score Based on Ratings	6			4			6			16

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

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	N/A

Wetland Rating System for Western WA: 2014 Update 1
Rating Form – Version 2, July 2023

Wetland name or number _____

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet *(can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	10
Hydroperiods	H 1.2	10
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	10
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	10
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	10
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	9
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

Wetland name or number _____

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe, it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat, and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**
If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

3. Does the entire wetland unit **meet all** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,
___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

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

NO – go to 5 **YES** – The wetland class is **Slope**

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

Wetland name or number _____

5. Does the entire wetland unit **meet all** of the following criteria?
   ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ____The overbank flooding occurs at least once every 2 years.

   NO – go to 6 **YES** – The wetland class is **Riverine**
   NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

   NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched but has no obvious natural outlet.

   NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

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

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

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

Wetland name or number _____

SLOPE WETLANDS **Water Quality Functions** - Indicators that the site functions to improve water quality	
S 1.0. Does the site have the potential to improve water quality?	
S 1.1. Characteristics of the average slope of the wetland: (A 1% slope has a 1 ft vertical change in elevation for every 100 ft of horizontal distance.) Slope is 1% or less points = 3 Slope is > 1%-2% points = 2 Slope is > 2%-5% points = 1 Slope is greater than 5% points = 0	0
S 1.2. The soil 2 in. below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*: Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed, and plants are higher than 6 in. Dense, uncut, herbaceous plants > 90% of the wetland area points = 6 Dense, uncut, herbaceous plants > ½ of area points = 3 Dense, woody, plants > ½ of area points = 2 Dense, uncut, herbaceous plants > ¼ of area points = 1 Does not meet any of the criteria above for plants points = 0	1
Total for S 1 Add the points in the boxes above	1

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

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources _____ Yes = 1 No = 0	0
Total for S 2 Add the points in the boxes above	1

Rating of Landscape Potential If score is: X **1-2 = M** ___ **0 = L** *Record the rating on the first page*

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? (At least one aquatic resource in the basin is on the 303(d) list.) Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (Answer YES if there is a TMDL in development or in effect for the basin in which unit is found.) Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	3

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

Wetland name or number _____

SLOPE WETLANDS **Hydrologic Functions** - Indicators that the site functions to reduce flooding and stream erosion	
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > 1/4 in), or dense enough, to remain erect during surface flows. Dense, uncut, **rigid** plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0	0

Rating of Site Potential If score is: __1 = M __X__0 = L *Record the rating on the first page*

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = 1 No = 0	1

Rating of Landscape Potential If score is: __X__1 = M __0 = L *Record the rating on the first page*

S 6.0. Are the hydrologic functions provided by the site valuable to society?	
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately downgradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2 Surface flooding problems are in a sub-basin farther downgradient points = 1 No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for S 6 Add the points in the boxes above	0

Rating of Value If score is: __2-4 = H __1 = M __X__0 = L *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

Wetland name or number _____

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac. ___Aquatic bed — 4 structures or more: points = 4 ___Emergent — 3 structures: points = 2 ___Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points = 1 _X_Forested (areas where trees have > 30% cover) — 1 structure: points = 0 *If the unit has a Forested class, check if:* _X_The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon	1
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods). _X_Permanently flooded or inundated — 4 or more types present: points = 3 ___Seasonally flooded or inundated — 3 types present: points = 2 ___Occasionally flooded or inundated — 2 types present: points = 1 ___Saturated only — 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland ___Intermittently or seasonally flowing stream in, or adjacent to, the wetland ___**Lake Fringe wetland** — **2 points** ___**Freshwater tidal wetland** — **2 points**	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle** If you counted: > 19 species — points = 2 5 - 19 species — points = 1 < 5 species — points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.  **None** = 0 points **Low** = 1 point **Moderate** = 2 points All three diagrams in this row are **High** = 3 points 	0

Wetland name or number _____

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of checks is the number of points. X Large, downed, woody debris within the wetland (> 4 in. diameter and 6 ft long). X Standing snags (dbh > 4 in.) within the wetland ___Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ___Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) ___At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)	3
Total for H 1 Add the points in the boxes above	5

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

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland. *Calculate:* % relatively undisturbed habitat___ + [(% moderate and low intensity land uses)/2]___ = _____% Total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	1
H 2.2. Total habitat in 1 km Polygon around the wetland. *Calculate:* % relatively undisturbed habitat___ + [(% moderate and low intensity land uses)/2]___ = _____% Total habitat > 50% of Polygon points = 3 Total habitat 10-50% and in 1-3 patches points = 2 Total habitat 10-50% and > 3 patches points = 1 Total habitat < 10% of 1 km Polygon points = 0	2
H 2.3. Land use intensity in 1 km Polygon: > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	0
Total for H 2 Add the points in the boxes above	3

Rating of Landscape Potential If score is: ___**4-6 = H** X **1-3 = M** ___**< 1 = L** *Record the rating on the first page*

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

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

Wetland name or number _____

WDFW Priority Habitats

See complete descriptions of Priority Habitats listed by WDFW, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008 (current year, as revised). Priority Habitat and Species List.[133] This list was updated for consistency with guidance from WDFW.

This question is independent of the land use between the wetland unit and the Priority Habitat. All vegetated wetlands are by definition a Priority Habitat but are not included in this list because they are addressed by this rating system.

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.

X **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

[133] http://wdfw.wa.gov/publications/00165/wdfw00165.pdf

Wetland name or number _____

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, WDFW's Management Recommendations for Oregon White Oak[134] provides more detail for determining if they are Priority Habitats

— **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

[134] https://wdfw.wa.gov/publications/00030/wdfw00030.pdf

Wetland name or number _____

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes – Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No – Go to **SC 1.2**	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are *Spartina*, see chapter 4.8 in the manual. — At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	Cat. I Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?[135] Yes = **Category I** No – Go to **SC 2.2** SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements. Yes – Submit data to WA Natural Heritage Program for determination,[136] Go to **SC 2.3** (No = **Not a WHCV**) SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria? Yes = **Category I** No = **Not a WHCV**	Cat. I
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES, you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile? Yes – Go to **SC 3.3** (No – Go to **SC 3.2**) SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No = **Not a bog**) SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Category I bog** No = **Not a bog**	Cat. I

[135] https://www.dnr.wa.gov/NHPdata
[136] https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf

Wetland name or number _____

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as Priority Habitats? ***If you answer YES, you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	Cat. I
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* — The lagoon retains some of its surface water at low tide during spring tides Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual). — At least ⅓ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^1/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	Cat. I Cat. II
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer YES, you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW. Yes – Go to **SC 6.1** No = **Not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	Cat I Cat. II Cat. III Cat. IV
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

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

Project/Site: 407 SE ALLEN RD City/County: SHELTON / MASON Sampling Date: 3/30/24
Applicant/Owner: DIAS State: WA Sampling Point: SP1
Investigator(s): RYAN HAKEL Section, Township, Range: S11, T19N, R03W
Landform (hillslope, terrace, etc.): SLOPE Local relief (concave, convex, none): _____ Slope (%): 8%
Subregion (LRR): A Lat: N 47.155909 Long: W 123.028919 Datum: NAD 83
Soil Map Unit Name: 5E - SHELTON GRAVELLY SANDY LOAM, 5 TO 15% SLOPES NWI classification: —
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 ____	Is the Sampled Area within a Wetland? Yes X No ____
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30FT)	Absolute % Cover	Dominant Species?	Indicator Status
1. THUJA PLICATA	50%	Y	FAC
2. ALNUS RUBRA	40%	Y	FAC
3.			
4.			
	90% = Total Cover		
Sapling/Shrub Stratum (Plot size: 5FT)			
1.			
2. NONE			
3.			
4.			
5.			
	0% = Total Cover		
Herb Stratum (Plot size: 5FT)			
1. LYSICHITON AMERICANUS	15%	Y	OBL
2. ATHYRIUM FILIX-FEMINA	10%	Y	FAC
3. EQUISETUM SPP.	10%	Y	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35% = Total Cover		
Woody Vine Stratum (Plot size: 5FT)			
1.			
2. NONE			
	0% = Total Cover		
% Bare Ground in Herb Stratum 65%			

Remarks:

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (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
X 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 ____

SOIL Sampling Point: SP1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/1	100					SL	
5-14	10YR 3/1	95%	5YR 3/4	15%	C	PL	SL	

[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)
- X 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 X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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 X No ___ Depth (inches): 12 in

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): In Pit

Wetland Hydrology Present? Yes X **No** _____

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

Remarks:

US Army Corps of Engineers Western Mountains, Valleys, and Coast – Version 2.0

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

Project/Site: 407 SE ALLEN RD City/County: SHELTON/MASON Sampling Date: 5/30/24
Applicant/Owner: DIAS State: WA Sampling Point: SP2
Investigator(s): ROB NAGEL Section, Township, Range: S11, T19N, R3W
Landform (hillslope, terrace, etc.): SLOPE Local relief (concave, convex, none): _____ Slope (%): 1%
Subregion (LRR): A Lat: N47.155777 Long: W123.036701 Datum: NAD 83
Soil Map Unit Name: SF - SHELTON GRAVELLY SANDY LOAM - 5>15% SLOPES 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: 30FT)	Absolute % Cover	Dominant Species?	Indicator Status
1. ACER MACROPHYLLUM	40%	Y	FACU
2. PSEUDOTSUGA MENZIESII	40%	Y	FACU
3.			
4.			
	80% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15FT)			
1. CORYLUS CORNUTA	20%	Y	FAC
2.			
3.			
4.			
5.			
	20% = Total Cover		
Herb Stratum (Plot size: 5FT)			
1. RUBUS URSINUS	20%	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20% = Total Cover		
Woody Vine Stratum (Plot size: 5FT)			
1.			
2.			
	= Total Cover		
% Bare Ground in Herb Stratum 80%			

Remarks:

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	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

US Army Corps of Engineers Western Mountains, Valleys, and Coast – Version 2.0

22134-11-21010 MARIO@HENDRICKSEPA.COM

SOIL

Sampling Point: SP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16+	10YR 3/3	100					GSL	

[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:

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:

US Army Corps of Engineers — Western Mountains, Valleys, and Coast – Version 2.0

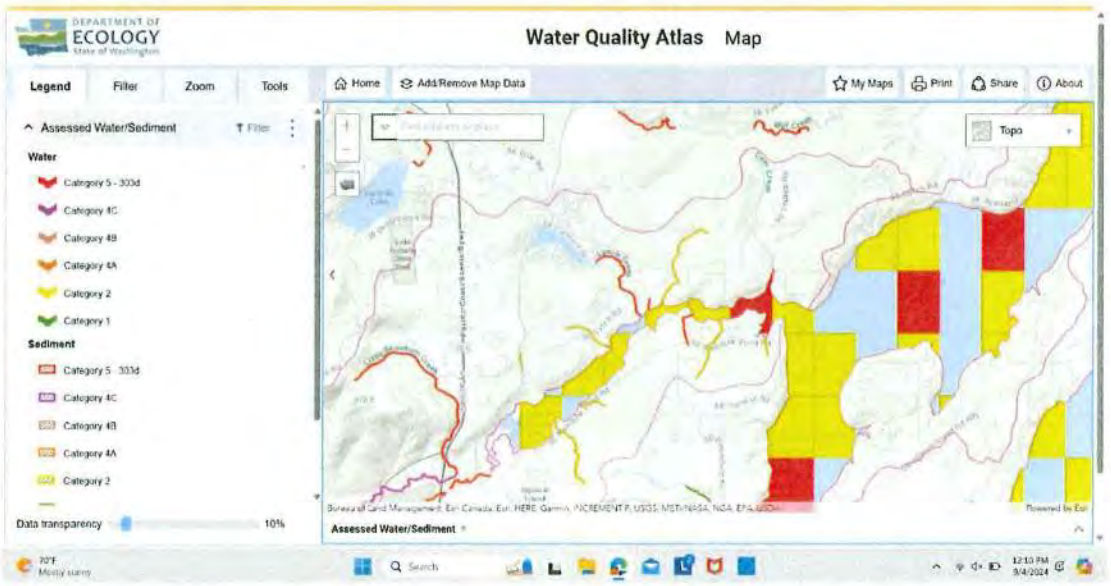


Figure 3: Screen Capture of Washington State Department of Ecology's Water Quality Atlas with 303d water designations visible.

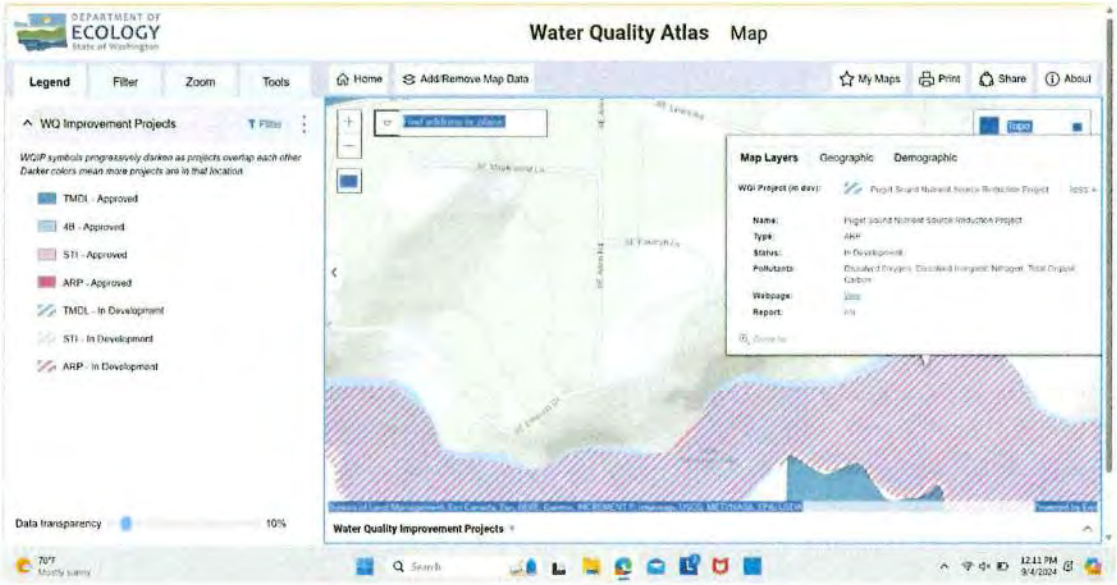


Figure 4: Screen Capture of Washington State Department of Ecology Water Quality Atlas with TMDL water quality improvement projects data visible.

Figure 5: Screen capture of the National Wetland Inventory (NWI) online mapper for this area.

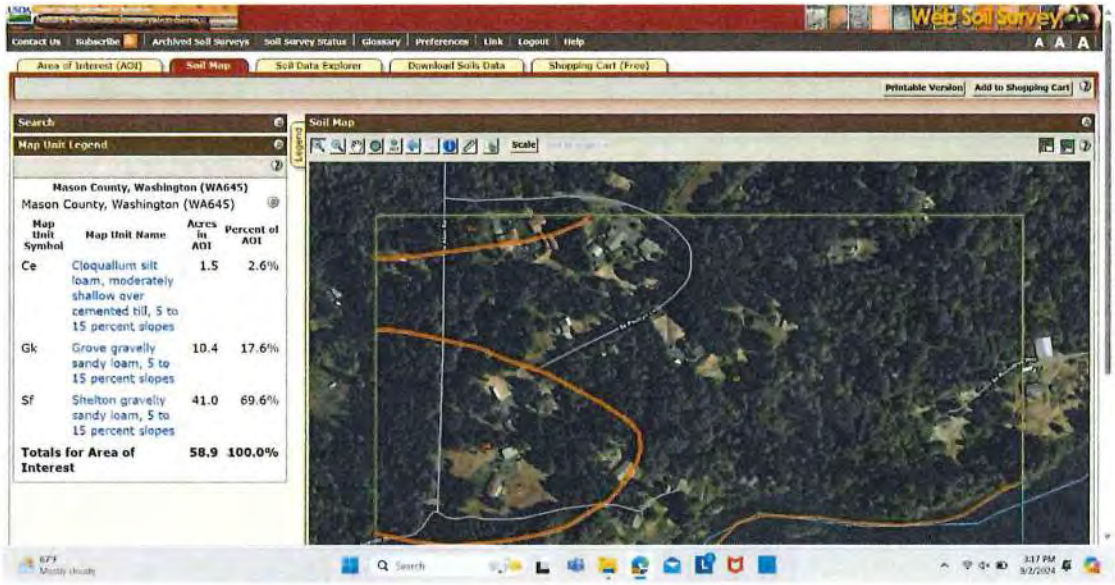


Figure 6: Screen capture of the USDA web soil survey for this area.

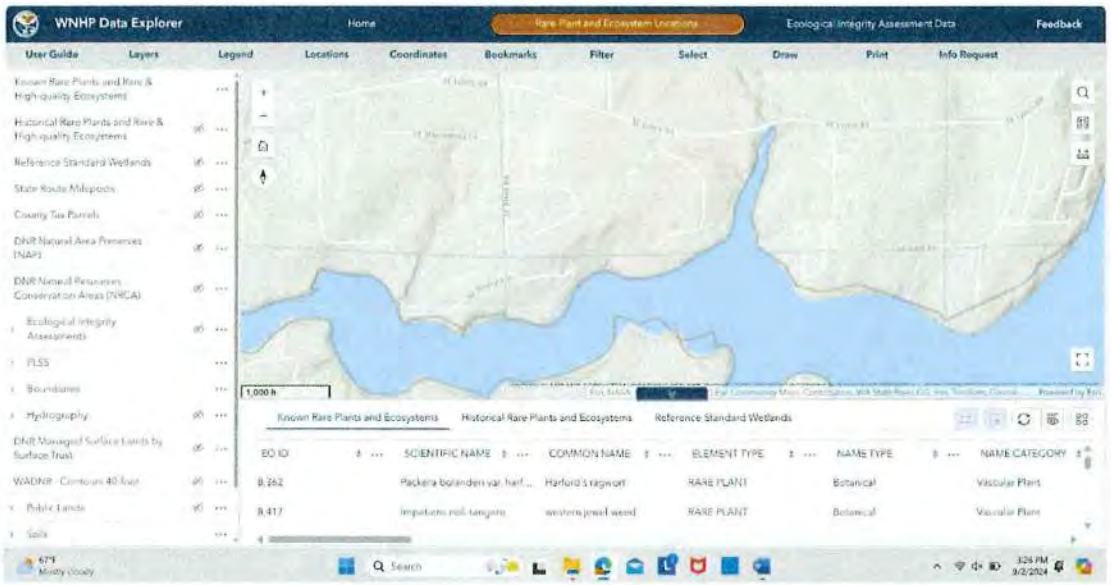


Figure 7: Screen capture of the WA Natural Heritage Program Data Explorer Map for this area (formally the WA DNR Wetlands of High Conservation Value Map.

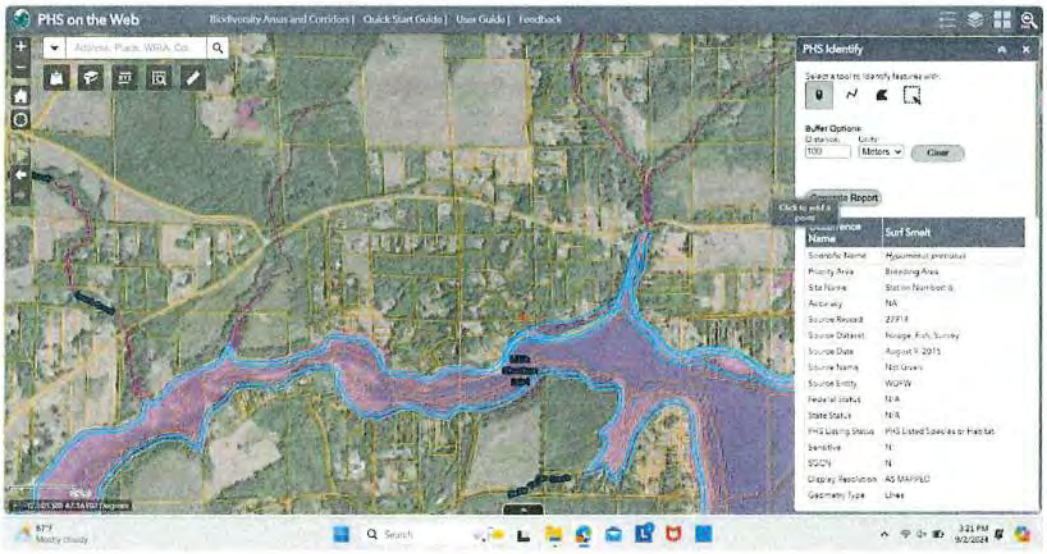


Figure 8: Screen capture of the WDFW Priority Habitats and Species web mapper for this area.

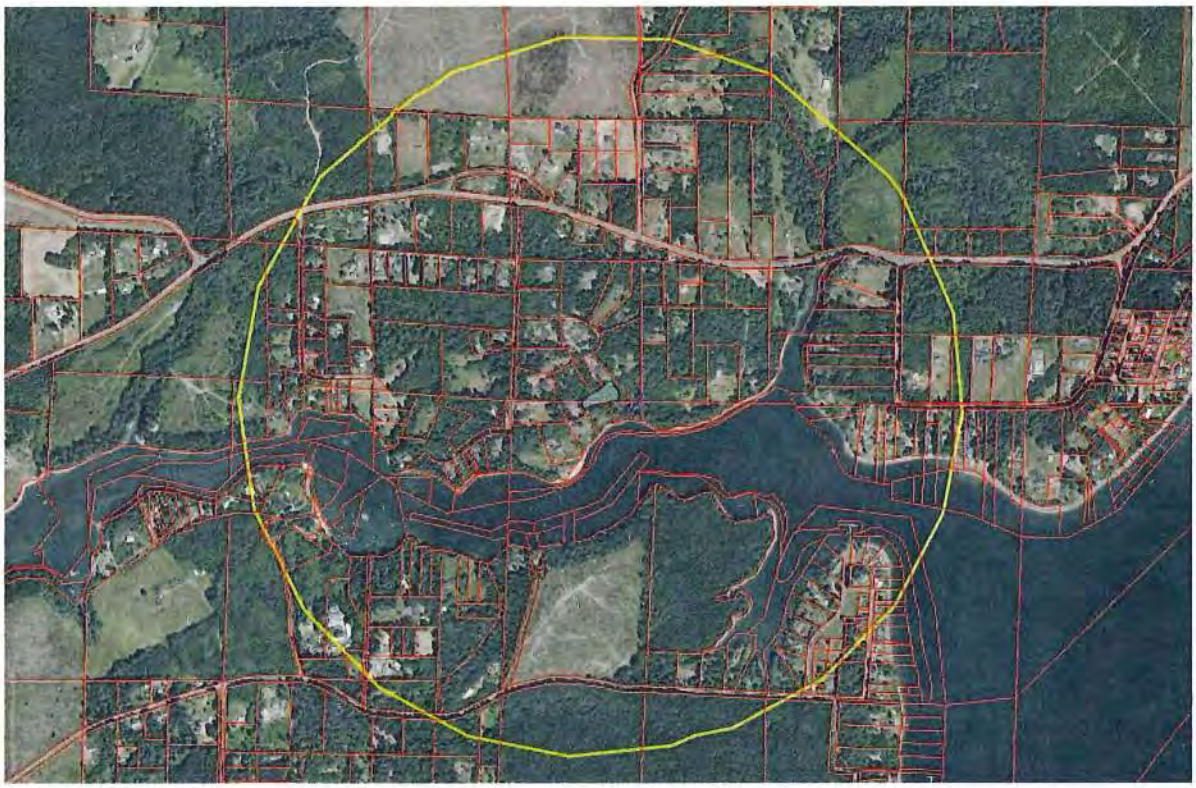


Figure 9: Map of the land use intensity 1km around the wetland.

Figure 10: Map showing the different Cowardin cover classes and hydroperiods within the wetland. The entire wetland is permanently inundated with water seeping from a groundwater source. The yellow line is 150ft from the wetland edge for reference and scoring of the functions of the wetland.

Site Photo 1: Image showing typical vegetation observed in the delineated slope wetland.

Habitat Management Plan

31911-22-00070
407 SE Allen Rd
Shelton, WA 98584

Overview

This report details a Habitat Management Plan (HMP) for the above referenced property in Mason County, Washington. The purpose of this report is to address potential adverse impacts from the construction of a proposed Single-Family Residence (SFR) and accessory building within the regulated buffer of the shoreline of Little Skookum Inlet. The total development area proposed is ±2,275ft², consisting of a ±1,775ft² SFR and a ±500ft² accessory building. The SFR is proposed approximately 115ft from the Ordinary High-Water Mark (OHWM) of the shoreline at its closest point, and the accessory building is proposed approximately 97ft. Mitigation sequencing has been followed to avoid, minimize, and mitigate impacts to the buffer area. Mitigation measures have been designed to offset the potential impacts of constructing the SFR on the ecological functions and fish and wildlife habitat of the shoreline buffer. Measures include best-management practices for construction, noxious weed removal, and planting a mitigation area of ±2,300ft² with native trees, shrubs, and ferns. The objectives of this report are as follows:

- Identify potential impacts of the proposed development on the critical area buffer's ecological functions and fish and wildlife habitat.
- Determine mitigation measures that would offset those impacts and result in no-net-loss to ecological functions and fish and wildlife habitat.

Figure 1: Vicinity Map of project

Property Description & Project Background

The parcel is 1.84 acres in size and located in section 11 of Township 19 North, Range 3 West. The property slopes from the north to the south where Little Skookum Inlet is located at the bottom of the lot. A forested, slope wetland originates on the slope above the subject property and flows south where it meets the access road and is then diverted east down the ditch. The wetland and ditch contained flowing water during a site visit on 8/30/2024. The ditch runs east towards an Np stream, but went dry prior to reaching the stream, with no clear channel making it to the stream.

Typical vegetation growing within the wetland portion of the property includes western red cedar (Thuja plicata), skunk cabbage (Lysichiton americanus), horsetail (Equisetum spp.), and western lady fern (Athyrium filix-femina). The upland vegetation on the property immediately adjacent to the wetland, and just south of the road is characterized mostly by Douglas fir (Pseudotsuga menziesii), big-leaf maple (Acer macrophyllum), and beaked hazelnut (Corylus cornuta).

The area proposed for constructing the SFR and accessory building were previously cleared and maintained as open grass areas. Three areas exist on the lot which would benefit from habitat improvements. The first area, just south of

the existing well and proposed accessory building, is mostly open grass and leads to a primitive trail to the shoreline. The second area, located south of the existing septic tanks, has a healthy understory but lacks any mature trees. The third area is located adjacent to the existing septic system and is currently maintained in grass.

Analysis of Potential Impacts

Vegetated buffers serve an important role in protecting critical public resources from adverse impacts associated with development, as well as providing fish and wildlife habitat. Below are the potential adverse impacts to ecological functions associated with the construction of the proposed SFR within the stream, wetland, and shoreline buffers.

- Loss of fish and wildlife habitat
  The development footprint of the proposed project within the buffers is an estimated ±2,275ft² and located in areas on the property currently dominated by grasses. Three mature cedar trees are required to be removed in order to complete this project.

- Impervious surfaces
  Increasing impervious surfaces on a lot can increase the amount of storm water run-off and increase erosion potential. Three mature cedar trees will be removed for this project, but mitigation plantings will improve the remaining buffer's ability to filter sediment and nutrients from runoff from the property. No increased risk of erosion is anticipated as long as construction BMPs prescribed in this report are followed.

- Increased disturbance from noise pollution
  A temporary increase in noise from construction activities is likely to occur. but activities will be limited to daylight hours, and the project is located in a rural residential area where human noises are a daily occurrence. Also, no known nesting sites or individual occurrences of priority habitats and species have been identified near the project site.

- Solar input
  Three mature cedar trees will be removed in order to implement this plan, however 20 trees planted within the mitigation area, closer to the shoreline, will contribute to shading the edge of the shoreline from excessive solar input as they mature, which will have a net benefit on the shoreline's micro-climate.

Mitigation Measures

To avoid, minimize, and mitigate for the potential adverse impacts identified above, the following have been identified as appropriate measures for this project:

- Minimizing/avoiding impact
  Given that the lot is entirely encumbered by critical area buffers, it is not possible to avoid impact by constructing the project outside of the buffer areas. This plan proposes minimizing the impact to the critical area buffers by keeping the development area modest and constructing the SFR and accessory building, in areas that were already previously cleared and maintained as open grass areas. The three trees required to be removed will be bucked into as long of logs as feasible and retained within the shoreline buffer.

- Best Management Practices for construction
  Construction activities related to this project will be restricted to favorable weather conditions and best management practices for reducing disturbance will be followed, including erecting silt fencing below the project area, and placing straw over any exposed areas until they are re-vegetated. Any equipment used will be checked daily for leaks and all fuel, lubricant, and chemicals will be stored off-site.

- Clustering of development
  All activities related to this project will be clustered to the extent possible without impacting more of the buffer areas than necessary. Equipment and materials will be stored outside the buffer area when not immediately necessary for construction activities.

- Noxious weed removal
  All occurrences of English holly on the lot will be removed by hand. As much root material as possible will be removed with the plant. Weed debris will be bagged and brought to the landfill. Any holly too large to be pulled up will be cut at the base and treated with an herbicide using a paint brush to reduce potential for drift.

- Mitigation area
  A mitigation area of approximately 2,300ft^2 will be planted with native vegetation in three distinct areas of the property according to the planting guidelines below. Mitigation area A will be planted with trees, shrubs, and ground covers. Mitigation area B will be planted with trees only. Mitigation area C will be planted with shrubs and ground covers only. The minimum number of native plants required to be installed in order to satisfy this requirement are as follows:

  - Trees: 20
  - Shrubs: 55
  - Ferns/groundcovers: 85

Planting Guidelines for the Mitigation Area

Earthwork

Machinery earthwork will be restricted to the minimum necessary to implement this plan; planting holes for specified vegetation installation will be hand dug.

Native Plantings

Native plantings will be installed within the mitigation area parallel to the edge of the shoreline to achieve the following minimum densities:

Trees – 10' on center
Shrubs – ±5' on center
Ferns/groundcovers – ±4' on center

The plan calls for installing single trees on 10ft centers, and single shrubs on ±5ft centers. The areas between the trees and shrubs will be filled with ferns or

groundcovers on ±4ft centers. Mitigation area B will be planted with trees only. Mitigation area C will be planted with shrubs and groundcovers only. Exact placement of installed materials will be up to the landscape installer, following the basic spacing pattern described above. Trees may be installed within 10ft of existing mature trees on site. Installed plants must be flagged to aid in monitoring visits. If any portion of the mitigation area is deemed unsuitable for planting either due to concerns of plant survivability or installer safety, then alternate mitigation areas must be determined by a qualified biologist.

Native plants suitable for the mitigation area include, but are not limited to the following:

Trees:
Big-leaf maple (*Acer macrophyllum*)
Western red cedar (*Thuja plicata*)

Shrubs:
Salal (*Gaultheria shallon*)
Oregon grape (*Mahonia aquifolium*)
Vine maple (*Acer circinatum*)
Evergreen huckleberry (*Vaccinium ovatum*)
Beaked hazelnut (*Corylus cornuta*)

Ferns/groundcovers:
Western swordfern (*Polystitchum munitum*)
Wild strawberry (*Fragaria virginiana*)
Kinnikinnick (*Arctostaphylos uva-ursi*)

All planting should occur during winter dormancy. The optimum time for planting is from November to March.

Installation
Installation of the prescribed vegetation will be performed by experienced landscapers familiar with planting native vegetation in natural settings or the property owner. Installation will be performed during the first winter planting season after approval of this plan. Installed plants will be flagged to aid in monitoring requirements.

Fertilizing

Due to the proximity of the mitigation area to the critical areas, NO fertilizer will be used during plant installation or maintenance.

Maintenance

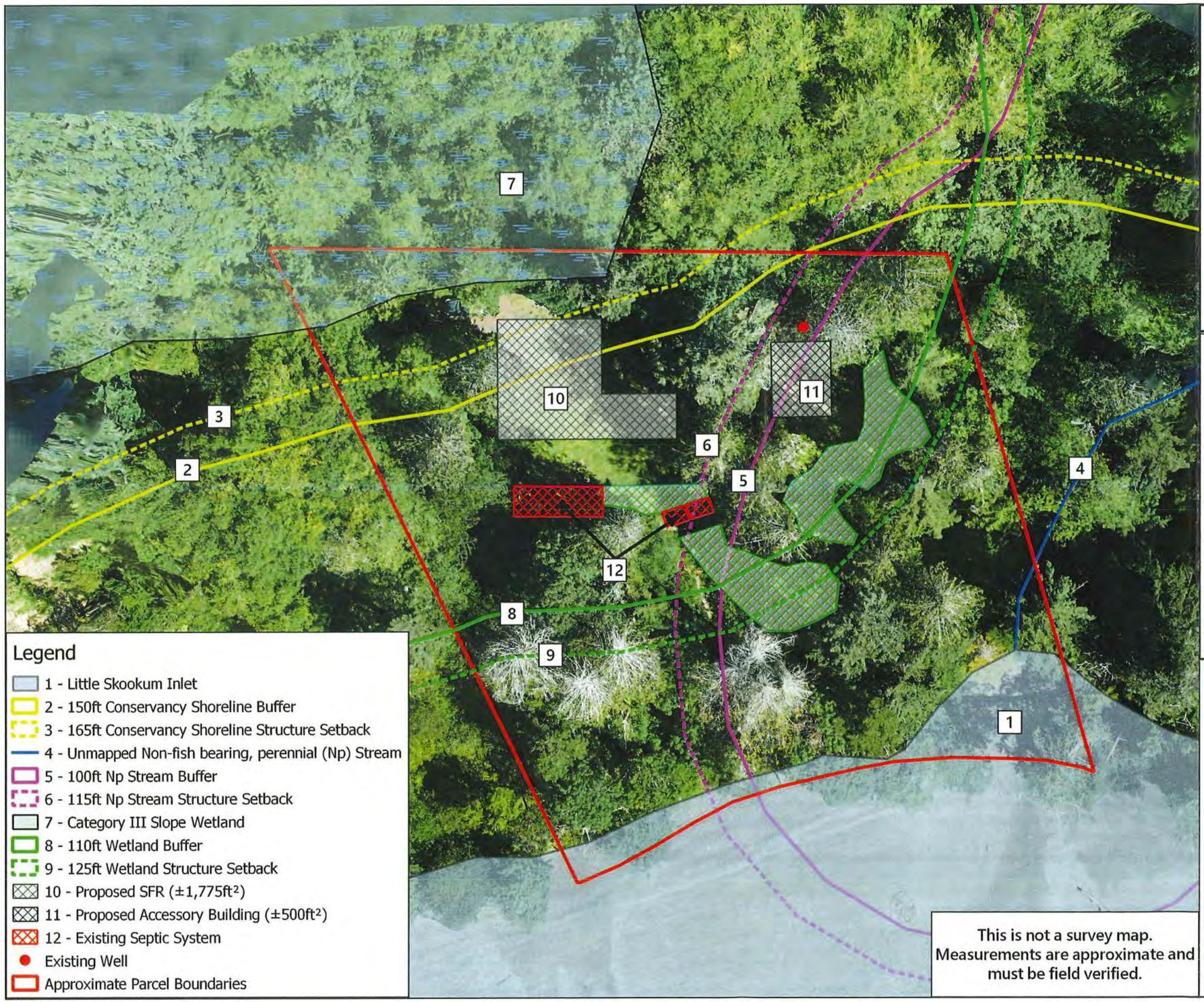
Maintenance of the installations will be the responsibility of the property owner. Maintenance is to include any weeding or watering necessary to ensure plant survival for at least five years after the date of installation.

Monitoring

A baseline monitoring report will be submitted to the Mason County Planning Department when all construction is complete, and mitigation measures have been implemented. This initial report will establish photo points and document the location and general size of installed vegetation. An annual monitoring report will also be submitted to the county for 5 years to document the success of the mitigation area. If the survival rate of installed vegetation falls below 90% in the first two years, the area will be re-planted to meet the original target densities. The 90% threshold will be assessed annually at each monitoring visit and replanted the following planting season if required. After the first two years, a minimum visual plant cover area of 70% must be achieved within the mitigation area, or the area must be replanted to meet the 70% target. The reports will also include photos from the photo points established in the baseline monitoring report and document any occurrence of noxious weeds in the vicinity of the project site or mitigation area. Any noxious weeds observed will be removed.

Summary

This report details a Habitat Management Plan (HMP) for the above referenced Property in Mason County, Washington. The purpose of this report is to address potential adverse impacts from the construction of a proposed SFR and accessory building with a total development footprint of ±2,275ft^2 within the regulated buffers of the shoreline of Little Skookum Inlet, a Type-Np stream, and a category III slope wetland. Mitigation measures have been designed to offset the potential impacts of constructing the project on the ecological functions and fish and wildlife habitat of the buffer areas. Measures include best-management practices for construction, noxious weed removal, and planting a ±2,300ft^2 mitigation area with native vegetation in areas of the buffer currently lacking native vegetation in at least one habitat strata. Proper implementation of this plan will result in no-net-loss of ecological function to the buffers from the development proposed by the applicant.



Legend

- 1 - Little Skookum Inlet
- 2 - 150ft Conservancy Shoreline Buffer
- 3 - 165ft Conservancy Shoreline Structure Setback
- 4 - Unmapped Non-fish bearing, perennial (Np) Stream
- 5 - 100ft Np Stream Buffer
- 6 - 115ft Np Stream Structure Setback
- 7 - Category III Slope Wetland
- 8 - 110ft Wetland Buffer
- 9 - 125ft Wetland Structure Setback
- 10 - Proposed SFR (±1,775ft²)
- 11 - Proposed Accessory Building (±500ft²)
- 12 - Existing Septic System
- Existing Well
- Approximate Parcel Boundaries

This is not a survey map. Measurements are approximate and must be field verified.

Arctos
Environmental LLC

Environmental Consulting | Drone Imagery

PO Box 2466
Shelton, WA 98584
(360) 229-3118
www.arctos-environmental.com

Site Environmental Map

Parcel# 31911-22-00070
407 SE Allen Rd
Shelton, WA 98584

Map created by: Rob Nagel
October 9, 2024
Revison:_____

N

0 20 40 60 80 ft

Scale: 1'' = 30'

References

Guard, J. 1995. Wetland Plants of Oregon & Washington. Lone Pine Publishing. 240 pp. Edmonton, Alberta, Canada.

Penttila, D. 2007. Marine Forage Fishes in Puget Sound. Puget Sound Nearshore Partnership Report No. 2007-03, Seattle, WA.

Pojar, J. and A. MacKinnon. (1994). Plants of the Pacific Northwest Coast (Revised Edition 2014). Lone Pine Publishing. 528 pp. Vancouver, British Columbia, Canada.

WDFW. 2002. Integrated streambank protection guidelines. Washington Department of Fish and Wildlife, Washington Department of Transportation, and Washington Department of Ecology. Posted on Washington Department of Fish and Wildlife web site: https://wdfw.wa.gov/sites/default/files/publications/00046/wdfw00046.pdf

WDFW. 2001. Over-Water Structures: Freshwater Issues. Washington Department of Fish and Wildlife, Washington Department of Transportation, and Washington Department of Ecology. Posted on Washington Department of Fish and Wildlife web site: https://wdfw.wa.gov/sites/default/files/publications/00052/wdfw00052.pdf

Appendix: Site Photos

Site Photo 1: Image showing some of the noxious English holly to be removed from the property

Site Photo 2: Image showing the location of the existing well and proposed building area of the proposed 500ft² accessory building.

Site Photo 3: Image showing the building area of the proposed SFR.

Site Photo 4: Image showing a portion of the proposed mitigation area.

Site Photo 5: Image showing the location of the existing septic system and the location of one of the proposed mitigation areas.

RECEIVED: RECEIVED
OCT 25 2024

MASON COUNTY
COMMUNITY DEVELOPMENT
Permit Assistance Center, Building, Planning

615 W. Alder Street

PERMIT NO.: SHR2024-00013

SHORELINE VARIANCE APPLICATION

○ Substantial Development ◉ Exemption

Shoreline development in Mason County must conform with the Mason County Shoreline Master Program. The program requires that substantial development (any development of which the total cost or fair market value exceeds $8,504.00 or materially interferes with the normal public use of the water or shorelines of the State) be reviewed with the goals, polices, and performance standards established in the Master Program.

The purpose of a Variance Permit is strictly limited to granting relief to a specific bulk, dimensional, or performance standards set forth in the Paster Program, where there are extraordinary or unique circumstances relating to the property such that the strict implementation of the Master Program would impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020.

Date Met with Planner: 5/30/24 Name of Planner Gavin Scouten

Application must be accompanied by a **Habitat Management Plan** prepared by a qualified professional.

APPLICANT: Bryan Dias

ADDRESS: 411 SE Allen Rd
(street)
Shelton (city) WA 98584 (state) (zip)

PHONE: (360) 888-3427 EMAIL: purplemachine71@yahoo.com

AUTHORIZED REPRESENTATIVE: Rob Nagel - Arctos Environmental LLC

ADDRESS: PO Box 2466
(street)
Shelton (city) WA (state) 98584 (zip)

PHONE: (360) 229-3118 EMAIL: rob@arctos-environmental.com

Answer all questions completely. Attach any additional information that may further describe the proposed development. **Incomplete applications will be returned.**

PROPERTY DESCRIPTION:

General location (include property address, water body and associated wetlands—identify the name of the shoreline):

407 SE Allen Rd, Shelton, WA 98584. The property is adjacent to Little Skookum Inlet. An Np tributary and Category III slope wetland also exist within and adjacent to the subject lot.

Include all parcel numbers: Projects located in open water areas, away from land shall provide latitude/longitude.

31911-22-00070

Is the applicant the property owner? (●) YES ( ) NO

Owner: Bryan Dias

411 SE Allen Rd	Shelton	WA	98584
(street)	(city)	(state)	(zip)

Development proposal (identify and describe the proposed project, including the type of materials to be used, construction methods, principle dimensions, and other pertinent information):

Applicant proposes on-site construction of a ±1,775ft² Single-Family Residence and ±500ft² accessory shed.

Existing Use (identify current use of property with exist improvements):

The lot has two existing cleared areas that are maintained in grasses, an existing well, and an existing on-site septic system.

Reason for requesting development:

The applicant is requesting a Shoreline Variance to develop this lot due to the small lot size and its proximity to Little Skookum Inlet. The entire lot is encumbered by critical area buffers and the lot owner lacks a reasonable use of the lot without a Shoreline Variance.

Variance Permits for development that will be located landward of the ordinary high water mark (OHWM), except those areas designated as wetlands, may be authorized provided the applicant can demonstrate all of the following:

1. That the strict application of the bulk, dimensional or performance standards set forth in the Master Program precludes or significantly interferes with a reasonable use of the property not otherwise prohibited by the Master Program;

The entire lot is encumbered by critical area buffers including the shoreline buffer of Little Skookum Inlet. The lot has an existing well and septic system, without the ability to construct a SFR, the property owner lacks a reasonable use of the lot.

2. That the hardship which serves as a basis for the granting of the variance is specifically related to the property of the applicant, 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 hardship which serves as the basis for this Shoreline Variance is due to the lot's small size and close proximity to Little Skookum Inlet. There is no room outside of the shoreline buffer to construct a SFR.

3. That the design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the shoreline environment;

The proposed development is modest in size and scope and in an area of the shoreline where other SFRs are common.

4. That the variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief;

The proposed development is modest in size and scope and in an area of the shoreline where other SFRs are common.

5. That the variance request is the minimum necessary to afford relief;

The proposed development is modest in size and well under the 3,000ft² Reasonable Use limits of the Mason County code.

6. That the public Interest will suffer no substantial detrimental effect;

The proposed development is consistent with surrounding uses in this area of Little Skookum Inlet and no detrimental effects are anticipated.

Variance Permits for development that will be located either waterward of the ordinary high water mark (OHWM), or within wetlands, may be authorized provided the applicant can demonstrate, in addition to items 1-6 above, that:

1. The strict application of the bulk, dimensional or performance standards set forth in this master program precludes all reasonable use of the property;

2. The public rights of navigation and use of the shorelines will not be adversely affected by the granting of the variance;

Estimated Fair Market Value of Project to Closest $1,000: $350,000

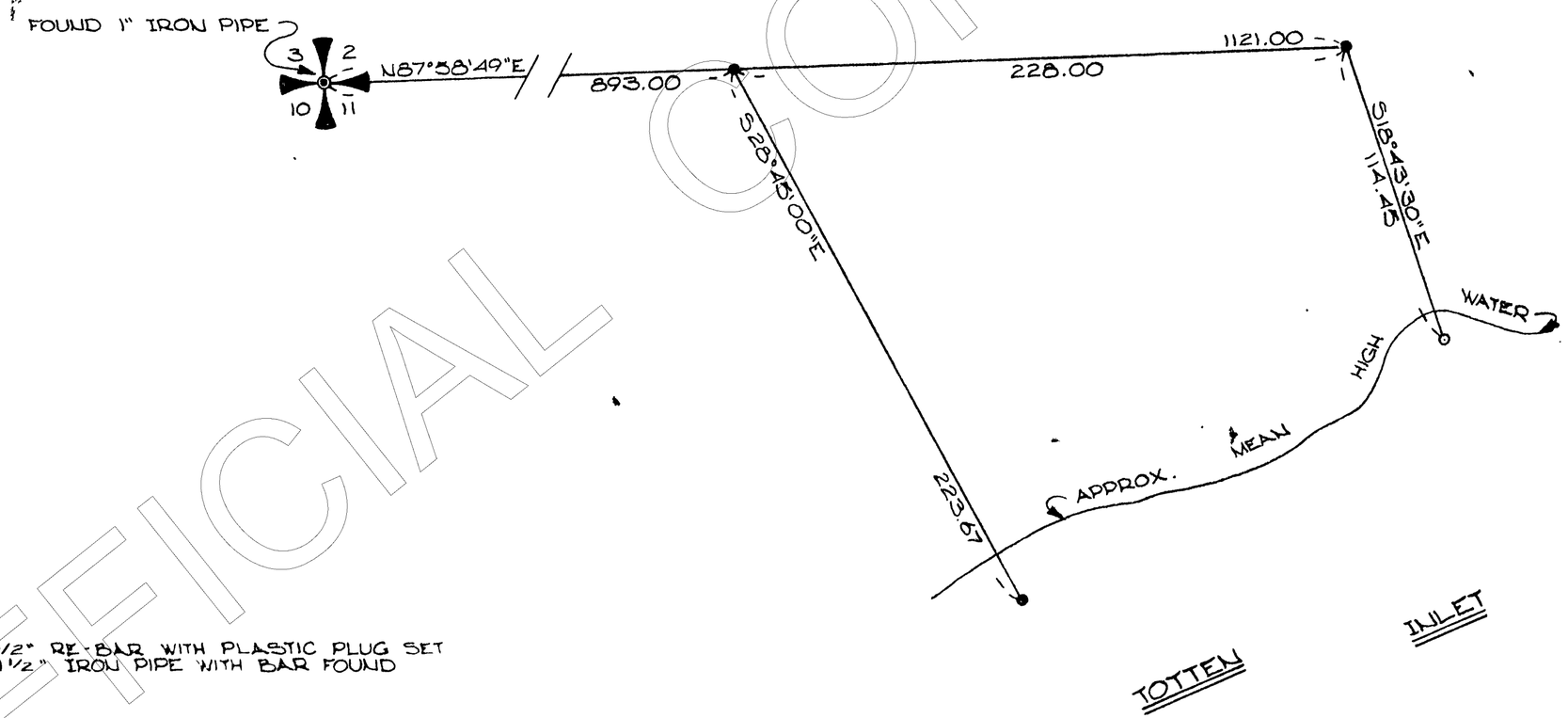
ACKNOWLEDGMENT:
I hereby declare, to the best of my knowledge and belief, the forgoing information and all attached information is true and correct.

(property owner or authorized representative representative)

Sept 23, 2024
(date)

Vol 6 Pg 17

SURVEY OF PORTION
GOVERNMENT LOT 2
SECTION 11, TOWNSHIP 19 NORTH, RANGE 3 WEST, W.M.
MASON COUNTY, WASHINGTON



N

LEGEND:
● = 1/2" RE-BAR WITH PLASTIC PLUG SET
O = 1 1/2" IRON PIPE WITH BAR FOUND

LEGAL DESCRIPTION:
THAT PORTION OF GOVT. LOT 2, SECTION 11 AS DESCRIBED & RECORDED UNDER A.F. # 235753, RECORDS OF MASON COUNTY, WA.

BASIS OF BEARINGS & ADJOINING SURVEYS:
SEE VOL. 3 OF SURVEYS PAGE 119, RECORDS OF MASON COUNTY, WA.

This survey meets or exceeds the survey standards as established by Department of Natural Resources, State of Washington under Washington Administrative Code, Chapter 332-130

AUDITOR'S CERTIFICATE

Filed for record this 5 day of Dec., 1979 at 2:31 P.M. in book 6 of Surv at page 17 at the request of ROGER D. LOVITT 370561

Peggy Clarkson
County Auditor

SURVEYOR'S CERTIFICATE

This map correctly represents a survey made by me, or under my direction in conformance with the requirements of the Survey Recording Act at the request of STEVEN GEFFRE in SEPT., 1979

Roger D. Lovitt
Certificate No. 11855

ROGER D. LOVITT & ASSOC.
P.O. BOX 816
SHELTON WA. 98584

GEFFRE'S SURVEY

DWN BY	DATE	JOB NO.
JAS	SEPT., 1979	1459
CHKD BY	SCALE	SHEET
RDL	1" = 40'	1 OF 1

370561 MASON CO WA
12 DEC 1979 2:39 PM SURVY B 6 P 17
Rec Receipt Rec Fee $ Pages 1

Geotechnical Report

Dias Residence

407 SE Allen Road, Shelton
Parcel No. 31911-22-00070
Mason County, Washington

August 20, 2024

Project #24254

Prepared For:

Bryan Dias
411 SE Allen Road
Shelton, Washington 98584

Prepared By:

Envirotech Engineering, PLLC
PO Box 984
Belfair, Washington 98528
Phone: 360-275-9374

8/20/24

MASON COUNTY
COMMUNITY SERVICES
Building Planning Environmental Health Community Health

Submittal Checklist

Geotechnical Report

Instructions:

This checklist must be submitted with a Geotechnical Report and completed, signed, and stamped by the licensed professional(s) who prepared the Geotechnical Report for review by Mason County pursuant to the Mason County Resource Ordinance. If an item is found not applicable, the report should explain the basis for the conclusion.

Note: *Unless specifically documented, this report does not provide compliance to the International Residential Code Sections R403.1.7 for foundations on or adjacent to slopes, Section R403.1.8 for expansive soils or section 1808.7.1 of the International Building Code Section for Foundations on or adjacent to slopes.*

Applicant/Owner Bryan Dias Parcel # 31911-22-00070
Site Address 407 SE Allen Road, Shelton

(1) (a) A discussion of general geologic conditions in the vicinity of the proposed development,

☑ Located on page(s) 5

(b) A discussion of specific soil types,

☑ Located on page(s) 6

(c) A discussion of ground water conditions,

☑ Located on page(s) 7

(d) A discussion of the upslope geomorphology,

☑ Located on page(s) 3

(e) A discussion of the location of upland waterbodies and wetlands,

☑ Located on page(s) 3

(f) A discussion of history of landslide activity in the vicinity, as available in the referenced maps and records.

☑ Located on page(s) 8

(2) A site plan which identifies the important development and geologic features.

☑ Located on Map(s) Geotechnical Site Plan – Appendix A

(3) Locations and logs of exploratory holes or probes.

☑ Located on Map(s) Geotechnical Site Plan and Soil Logs (Appendix B)

(4) The area of the proposed development, the boundaries of the hazard, and associated buffers and setbacks shall be delineated (top, both sides, and toe) on a geologic map of the site.

☑ Located on Map(s) Geotechnical Site Plan

(5) A minimum of one cross section at a scale which adequately depicts the subsurface profile, and which incorporates the details of proposed grade changes.

☑ Located on Map(s) Soil Profile (Appendix B)

(6) A description and results of slope stability analyses performed for both static and seismic loading conditions. Analysis should examine worst case failures. The analysis should include the Simplified Bishop's Method of Circles. The minimum static safety factor is 1.5, the minimum seismic safety factor is 1.1, and the quasi-static analysis coefficients should be a value of 0.15.

☑ Located on page(s) 2

(7) (a) Appropriate restrictions on placement of drainage features,

☑ Located on page(s) 19 11

(b) Appropriate restrictions on placement of septic drain fields,

☑ Located on page(s) 20 12

(c) Appropriate restrictions on placement of compacted fills and footings,

☑ Located on page(s) 14 and 16 10

(d) Recommended buffers from the landslide hazard areas shoreline bluffs and the tops of other slopes.

☑ Located on page(s) 19 11

(e) Recommended setbacks from the landslide hazard areas shoreline bluffs and the tops of other slopes.

Located on page(s) 18 10 - 11

(8) Recommendations for the preparation of a detailed clearing and grading plan which specifically identifies vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal.

☑ Located on page(s) 19 12

(9) Recommendations for the preparation of a detailed temporary erosion control plan which identifies the specific mitigating measures to be implemented during construction to protect the slope from erosion, landslides and harmful construction methods.

☑ Located on page(s) 10 12

(10) An analysis of both on-site and off-site impacts of the proposed development.

☑ Located on page(s) 13 5

(11) Specifications of final development conditions such as, vegetative management, drainage, erosion control, and buffer widths.

☑ Located on page(s) 14 - 20 6-13

(12) Recommendations for the preparation of structural mitigation or details of other proposed mitigation.

☑ Located on page(s) 20 12

(13) A site map drawn to scale showing the property boundaries, scale, north arrow, and the location and nature of existing and proposed development on the site.

☑ Located on Map(s) Geotechnical Site Plan

I, Michael Staten, hereby certify under penalty of perjury that I am a civil engineer licensed in the State of Washington with specialized knowledge of geotechnical/geological engineering or a geologist or engineering geologist licensed in the State of Washington with special knowledge of the local conditions. I also certify that the Geotechnical

8/20/24

Report, dated August 20, 2024, and entitled **Dias Residence** meets all the requirements of the Mason County Resource Ordinance, Geologically Hazardous Areas Section, is complete and true, that the assessment demonstrates conclusively that the risks posed by the landslide hazard can be mitigated through the included geotechnical design recommendations, and that all hazards are mitigated in such a manner as to prevent harm to property and public health and safety.

Disclaimer: *Mason County does not certify the quality of the work done in this Geotechnical Report.*

TABLE OF CONTENTS

1.0 INTRODUCTION

Envirotech Engineering, PLLC. (Envirotech) has completed this geotechnical report for a property located at 407 SE Allen Road, Shelton, identified as parcel number 31911-22-00070 in Mason County, Washington.

As presented herein, this report includes information pertaining to the project in this Introduction Section; observations of the property and surrounding terrain in the Surface Conditions Section; field methods and soil descriptions in the Subsurface Investigation Section; supporting documentation with relation to slope stability, erosion, seismic considerations, and lateral earth pressures in the Engineering Analyses and Conclusions Section; and, recommendations for foundation, settlement, earthwork construction, retaining walls, erosion control, drainage, and vegetation in the Engineering Recommendations Section.

An initial geotechnical evaluation of the project was conducted by Envirotech on July 31, 2024. It was determined that slopes in excess of 40% with a vertical relief of at least 10 feet were present within 300 feet of the planned development. Based on this site characteristic, the proposed development will require a geotechnical report pursuant to Landslide Hazard Areas of Mason County Resource Ordinance (MCRO) 8.52.140. During the site visit by Envirotech, surface and subsurface conditions were assessed. After completion of the field work and applicable project research, Envirotech prepared this geotechnical report which, at a minimum, conforms to the applicable MCRO.

1.1 Project Information

Information pertaining to the project was provided by the proponent of the property, and observations from a field visit by Envirotech. The proposed development is expected to consist of a single family residence, grading, retaining walls, and other ancillary features typical of this type of development . Approximate site development footprint with relation to existing geological site features are illustrated in the Geological Site Plan in Appendix A of this report.

1.2 Purpose of Investigation and Scope of Work

The purpose of this geotechnical investigation is to assess geological hazards, and evaluate the project in order to provide geotechnical recommendations that should be implemented during development. The investigation included characterizing the general project surface and subsurface conditions, and evaluating the suitability of the soils to support the planned site activities.

In order to fulfill the purpose of investigation, the geotechnical program completed for the proposed improvements of the project include:

- Review project information provided by the project owner and/ or owner's representative;
- Conduct a site visit to document the site conditions that may influence the construction and performance of the proposed improvements of the project;
- Define general subsurface conditions of the site by observing subsoils within test pits and/ or cut banks, review geological maps for the general area, research published references concerning slope stability, and review water well reports from existing wells near the project;
- Collect bulk samples, as applicable, at various depths and locations;
- Perform soils testing to determine selected index and/or engineering properties of the site soils;
- Complete an engineering analysis supported by the planned site alterations, and the surface and subsurface conditions that were identified by the field investigation, soil testing, and applicable project research; and,
- Establish conclusions based on findings, and make recommendations for foundations, drainage, slope stability, erosion control, earthwork construction requirements, and other considerations.

Vicinity Map from Mason County Website

2.0 SURFACE CONDITIONS

Information pertaining to the existing surface conditions for the project was gathered on July 31, 2024 by a representative with Envirotech. During the site visit, site features were documented that may reveal potential geological hazards. This Surface Conditions Section provides information on topography, drainage and slope/ erosion conditions for the project and surrounding areas. An aerial photo of the project and immediate vicinity is provided on the following page.

Currently the property is accessed from an existing gravel driveway. Some grading and clearing has been previously completed, as well as construction of a well and septic system. In addition, a curtain drain has been installed along the north property line with rock retaining walls associated with the septic system.

2.1 Topography

The topographic information provided in this section was extrapolated from a public lidar source, and incorporated observations and field measurements. Where necessary, slope verification included measuring slope lengths and inclinations with a cloth tape and inclinometer. See the Geological Site Plan in Appendix A for an illustration of the general slope indicators with respect to the planned development.

Maximum sloping grades within 300 feet of the proposed development area with a vertical relief in excess of at least 10 feet were observed to be 67%.

2.1.1 Upslope Geomorphology

The landform that is upland from property is considered a hillside of glacial origin with centuries of weathering overburden. Additional geomorphology that is pertinent to both upslope and downslope areas are provided in the Subsurface Investigation Section of this report.

2.2 Surface Drainage

The majority of the stormwater runoff originating upslope from the anticipated development is expected to be moderate to excessive . Significant scour, erosion and sediment transport was not apparent near the project. However, hillside seepage and an abundance of water loving plants were observed.

2.2.1 Upland Water Bodies

There are no apparent water bodies or wetlands located upslope from the planned development that would significantly influence the project.

2.3 Slope and Erosion Observations

The existing moderate slopes near the project signal a potential landslide or erosion hazard area. Some indicators that may suggest past slope movements include:

- Outwash of sediments near the bottom of the slope,
- Fissures, tension cracks or naturally stepped land masses on the face or top of the slope, and parallel to the slope,
- Fine, saturated subsurface soils,
- Old landslide debris,
- Significant bowing or leaning trees, or,
- Slope sloughing or calving.

Except for results of ordinary shoreline erosion, these slope instability indicators or other significant mass wasting on the property or within the general vicinity of the project were not observed. Indications of deep-seated slope problems were not observed during the site visit.

Aerial Photo from Mason County Website

3.0 SUBSURFACE INVESTIGATION

Information on subsurface conditions pertaining to the project was gathered during research and a site reconnaissance. The site visit was accomplished on July 31, 2024 by a representative with Envirotech. Specific information on field methods, sampling, field testing, subsurface conditions, and results from soil testing are presented in this section of the report. See Appendix B for a soil profile cross-sections, soil logs, and other appropriate information as necessary.

3.1 Field Methods, Sampling and Field Testing

Information on subsurface conditions for the project was accomplished by probing anticipated foundation areas with hand tools, and observing soils within test pit excavations and/ or earth cuts. Information on subsurface conditions also included reviewing geological maps within the project vicinity, and water well reports originating from nearby properties. No soil samples were collected for this project. Envirotech measured the relative density of the in-situ soils by gauging the resistance of hand tools.

3.2 Geologic Conditions

In general, soils at the project are composed of materials from glacial advances. The geologic conditions as presented in the "Geologic Map of Washington," compiled by J. Eric Schuster, 2002 indicates Quaternary sediments, Q_g. Quaternary sediments are generally unconsolidated deposits, and dominantly deposited from glacial drift, including alluvium deposits. This project is located within the Puget Lowland. Typically, "lower tertiary sedimentary rocks unconformably overlie the Crescent Formation." as revealed in the Geologic Map. Initial sedimentary rocks were formed from shales, sandstones and coal deposits from rivers. During the Quaternary period, the Puget Lowland was covered by numerous ice sheets, with the most recent being the Fraser glacier with a peak of approximately 14,000 years ago. Upon the glacial retreat, the landscape was formed by glacial erosion glacial drift deposits. More specifically for the project location, a caption from the Washington State Department of Natural Resources is as follows:

Map Unit: Qgt
Age: Quaternary
GeoMaterial: Glacial till
Description: Unsorted, unstratified, highly compacted mixture of clay, silt, sand, gravel, and boulders deposited by glacial ice; may contain interbedded stratified sand, silt, and gravel.

3.3 Specific Subsurface Conditions

The following subsurface conditions are estimated descriptions of the project subgrade utilizing information from the depth of penetration at all testing, sampling, observed and

investigated locations.

Soils for this project were described utilizing the Unified Soil Classification System (USCS). Using the USCS in conjunction with estimated relative densities and other anticipated engineering properties of the soil, susceptibility for potential landslides, erosion and seismic hazards may be assessed.

The project is primarily composed of undisturbed, native soils, with some indications of old fill. Within native, undisturbed areas, competent bearing soils were encountered at 18 inches below the existing ground surface in locations where the ground was probed. For engineering purposes, these native soils consist of distinguishable layers, as presented below.

Soils within the upper 3 feet of natural ground were partially observed by Envirotech and recorded by other soil specialists to be primarily moist, brown silty sand with gravel (SM) . Soils below this upper soil strata were recorded to be clay. Strongly cemented glacial till, locally known as hardpan is about 20 to 25 feet below natural ground according to the well report on the property.

Not withstanding the potential for any old fill incompetencies, the relative densities are suitable for foundations as provided above. Expanded and specific subsurface descriptions, other than what is provided in this section, are provided within additional soil information located in Appendix B of this report.

According to the "Soil Survey of Mason County," by the United States Department of Agriculture, Soil Conservation Service (SCS), the site soils are described as Shelton gravelly sandy loam with 5% - 15% slopes. See the soil map below.

Soil Survey From USDA Natural Resources Conservation Service

3.3.1 Groundwater

From the water well report(s) and knowledge of the general area, permanent groundwater is at least 50 feet below the current ground surface. Surface seepage was observed on or near the property, and perched potential groundwater (mottling) at shallow depths were recorded per the septic logs.

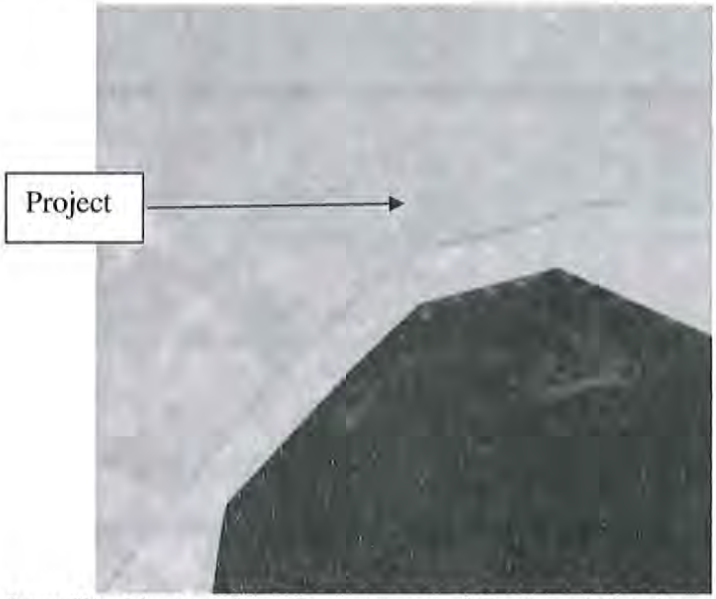
4.0 ENGINEERING ANALYSES AND CONCLUSIONS

The following section includes slope stability, erosion, seismic considerations, and impacts to both on-site and off-site properties.

4.1 Slope Stability

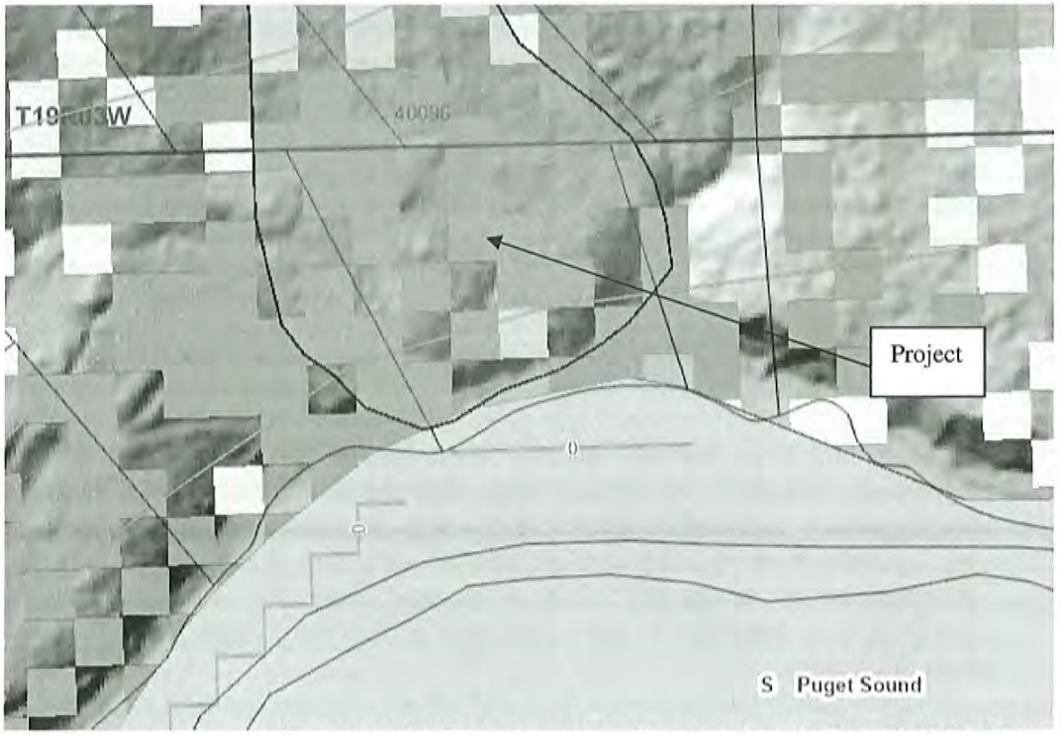
Landslides are natural geologic processes, and structures near slopes possess an inherent risk of adverse settlement, sliding or structural damage due to these processes. Geotechnical engineering cannot eliminate these risks for any site with sloping grades because gravity is constantly inducing strain on the sloping soil mass. Excessive wet weather and/ or earthquakes will exacerbate these strains. Geotechnical engineering considers excessive wet weather and 'design' earthquakes in order to provide an acceptable factor of safety for developing on or near sloping terrain with relation to current engineering protocol. These factors of safeties are based on engineering standards such as defining engineering properties of the soil, topography, water conditions, seismic acceleration and surcharges. Surface sloughing or other types of surficial slope movements usually do not affect the deep-seated structural capability of the slope. However, repeated surficial slope movements, if not repaired, may present a threat to the structural integrity of the slope. If any slope movement arises, the slope should be inspected by an engineer. Subsequently, maintenance may be required in order to prevent the possibility of further surficial or deep seated slope movements that may be damaging to life and property.

According to the Coastal Zone Atlas of Mason County, Washington, the project is within and near terrain labeled 'Stable' and 'Unstable' regarding potential landslide activity. Descriptions of these mapping units may be found in the aforesaid Atlas. A Stability Map from the Coastal Zone Atlas for the general area of this project is provided below:



Map from Washington State Department of Ecology Website

According to the Resource Map from the Washington State Department of Natural Resources (DNR), the project is not within terrain labeled 'highly unstable' relating to soils. DNR labeled portions of this project as medium and high slope instability with relation to slopes. A Resource Map from the DNR Forest Practices Application Review System is provided below:



Resource Map from Washington State Department of Natural Resources Website

WADNR PUBLIC FP Soils

Soils - Highly Erodible

WADNR PUBLIC FP Soils

Soils - Highly Unstable

WADNR PUBLIC FP Soils

Soils - Hydric

4.1.1 Slope Stability Analysis

The Simplified Bishop Method, utilizing 'STABLE' software, was used to analyze the static stability of the site slopes. Seismic conditions were estimated utilizing worst case scenario values from the static analysis, a quasi-static analysis coefficient of at least 0.15, and applying the applicable values to STABLE software. Various radii's and center points of the circle were automatically selected, and produced factor of safeties in a graphical and tabular format. Worst case scenario values were used in the slope stability analysis in regards to topography, surcharges, water content, internal friction and cohesion of the site soils. STABLE software has been repeatedly checked with manual calculations, and consistently proved to be a very conservative program. The following soil properties were used in the analysis, and are based on observed conditions, known geology, and/or published parameters:

Soil unit weight:	124 pcf
Angle of internal friction:	30 degrees
Cohesion:	250 psf

Based on the slope stability analysis, unacceptable factors of safety could be present on and near the critical slope, but do not reflect conditions where development is expected to occur. For this project, at the location of the proposed development, minimum factor of safeties for static and dynamic conditions were estimated to be at least 1.5 and 1.1, respectively. See the slope stability information in Appendix C for a depiction of minimum factors of safety away from the project.

4.2 Erosion

Based on the USCS description of the project soils, the surface soils are considered moderately erodible. According to the Resource Map from the Washington State DNR, as provided above, the project is not within terrain labeled 'highly erodible.' This project is not within an erosion hazard area as defined by the MCRO. Erosion hazard areas are those with USDA SCS designations of River Wash (Ra), Coastal Beaches (Cg), Alderwood Gravelly Sandy Loam on slopes 15% or greater (Ac and Ad), Cloquallum Silt Loam on slopes 15% or greater (Cd), Harstine Gravelly Sandy Loam on slopes 15% or greater (Hb), and Kitsap Silt Loam on slopes 15% or greater (Kc).

It is our opinion that minor erosion control recommendations provided in this report is sufficient for the development of this project, and additional engineered erosion control plans are not required. Temporary and permanent erosion control measures are required for site development. Extents of temporary erosion control will mostly depend on the timeliness of construction, moisture content of the soil, and amount of rainfall during construction. Soil erosion typical to the existing site conditions and planned disturbance

of the project include wind-borne silts during dry weather, and sediment transport during prolonged wet weather. Sediment transport could be from stormwater runoff or tracking off-site with construction equipment.

The Temporary and Permanent Erosion Control Section (Section 5.6) of this report consist of specific erosion controls to be implemented. Additional erosion control information and specifications may be found in the latest addition of the "Stormwater Management Manual for Western Washington," prepared by the Washington State Department of Ecology Water Quality Program.

4.2.1 Shoreline Recession

Due to the close proximity of a shoreline, an evaluation of the shoreline recession rate for this project was completed. This was accomplished by interviewing property owners within the vicinity of the project, and/ or carefully reviewing and comparing historical aerial photographs of the project. Historical aerial photograph sources may be found in the 1951 aerial for the Soil Survey of Mason County, aerials from the Washington State Department of Ecology, and from the Washington State Department of Natural Resources website. Based on available information, we conclude that the past shoreline recession for this project is less than 5 feet in 50 years.

4.3 Seismic Considerations and Liquefaction

There are no known faults beneath this project. The nearest Class 'A' or 'B' fault to this property is the Olympia Structure Fault Zone , which is not located on the property or adjacent properties. This information is supported by the USGS Quaternary Fault and Fold Database for the United States.

Potential landslides due to seismic hazards have been considered, and are addressed in the Slope Stability Analysis Section provided earlier in this report.

Soils immediately below the expected foundation depth for this project are generally Type D, corresponding to the International Building Code (IBC) soil profiles. According to the IBC, the regional seismic zone is 3 for this project. The estimated peak ground acceleration ranges from 0.50g to 0.60g. This estimation is based on the United States Geological Survey (USGS) National Seismic Hazard project in which there is an estimated 2% probability of exceedance within the next 50 years.

4.3.1 Liquefaction

The potential for liquefaction is believed to be low for this project. This is based, in part, on the subsurface conditions such as soil characteristics and the lack of a permanent shallow water table. Subgrade characteristics that particularly

contribute to problems caused from liquefaction include submerged, confined, poorly-graded granular soils (i.e. gravel, sand, silt). Although gravel- and silt-sized soil particles could be problematic, fine and medium grained sands are typically subjected to these types of seismic hazards. No significant saturated sand stratifications are anticipated to be within the upper 50 feet of the subsoil for this project.

4.4 Landslide, Erosion and Seismic Hazards Conclusions

DNR did indicate historic landslide activity, both on and near the project. This landslide appears to be ancient – and most likely resulting from the last ice age melt. Mapped slope conditions, as delineated by the Departments of Ecology and/ or Natural Resources, were considered in our slope stability assessment. Based on the proximity and severity of mapped delineations with respect to the proposed development, results of the aforesaid slope stability analysis, observed surface conditions, and other pertinent information, it is our opinion that the proposed development may occur in accordance with the recommendations in this geotechnical report.

4.5 Lateral Earth Pressures

Retaining walls may be utilized for this project. The lateral earth pressures exerted through the backfill of a retaining wall are dependent upon several factors including height of retained soil behind the wall, type of soil that is retained, degree of backfill compaction, slope of backfill, surcharges, hydrostatic pressures, earthquake pressures, and the direction and distance that the top of the wall moves.

An equivalent fluid unit weight used for structural design may be estimated as the product of the backfill soil unit weight and the earth pressure coefficient for at-rest pressures. Retaining walls should be designed to resist a lateral earth pressure based on an equivalent fluid unit weight of the following:

	At-Rest	Active
Native Soils	49 pcf	32 pcf
Engineered Fill Soils	45 pcf	28 pcf

The values provided above shall be increased by 1 pcf for every 1 degree of backfill/ natural slope angle. These equivalent fluid unit weight values do not include lateral earth pressures induced by earthquakes, groundwater, or surcharges from live loads. Earthquake pressures should be added to the wall analysis, and treated as an inverted pressure triangle where the resultant pressure is located at 2/3 of the wall height, or other method approved by a structural engineer. The following resultant earthquake pressures

as a function of the wall height (H) may be utilized:

	At-Rest	Active
Native Soils	15.4H psf	9.8H psf
Engineered Fill Soils	13.6H psf	8.2H psf

See the Earthwork Construction Recommendations Section for details concerning the use of native soils, engineered fill and placement of backfill.

4.6 On-Site and Off-Site Impacts

From a geotechnical position, it is Envirotech's opinion that the subject property and adjacent properties to the proposed development should not be significantly impacted if all recommendations in this report are followed. This opinion is based on the expected site development, existing topography, existing nearby development, land cover, and adhering to the recommendations presented in this report. Future development or land disturbing activities on neighboring properties or properties beyond adjacent parcels that are upslope and/or downslope from the subject property could cause problems to the subject property. For this reason, future development or land disturbance near the subject property should be evaluated by a geotechnical engineer.

5.0 ENGINEERING RECOMMENDATIONS

The following sections present engineering recommendations for the proposed improvements of the project. These recommendations have been made available based on the planned improvements as outlined in the Introduction Section of this report; general observations including drainage and topography as recapitulated in the Surface Conditions Section; soil/ geologic conditions that were identified from the geotechnical investigation that is summarized in the Subsurface Investigation Section; and, project research, analyses and conclusions as determined in the Engineering Analysis and Conclusions Section. Recommendations for the project that is provided herein, includes pertinent information for building foundations, earthwork construction, building and/ or footing setbacks, drainage, vegetation considerations, and erosion control.

5.1 Building Foundation Recommendations

The recommended allowable bearing capacities and settlements as presented below, consider the probable type of construction as well as the field investigation results by implementing practical engineering judgment within published engineering standards. Evaluations include classifying site soils based on observed field conditions and soil testing for this project. After deriving conservative relative densities, unit weights and angles of internal friction of the in-situ soils, the Terzhagi ultimate bearing capacity equation was utilized for determining foundation width and depth. Foundation parameters provided herein account for typical structural pressures due to the planned type of development. A structural analysis is beyond the scope of a geotechnical report, and a structural engineer may be required to design specific foundations and other structural elements based on the soil investigation. Stepped foundations are acceptable, if warranted for this project. Continuous, isolated, or stepped foundations shall be horizontally level between the bottom of the foundation and the top of the bearing strata. The frost penetration depth is not expected to extend beyond 12 inches below the ground surface for this project under normal circumstances and anticipated design features.

5.1.1 Bearing Capacity

Existing in-situ soils for this project indicates that the structure can be established on shallow, continuous or isolated footings. Foundations shall be established on relatively undisturbed native soil that is competent and unyielding. Alternatively, foundations may be constructed on selective re-compacted native soil or compacted engineered fill as described in the Earthwork Construction Recommendations Section of this report.

For a bearing capacity requirement of no more than 1500 psf, a minimum continuous footing width of 15 inches shall be placed at a minimum of 18 inches below the existing natural ground surface atop unyielding soils and away from any potential old fill or disturbed soils. Existing fill soils were tested to be dense

and consolidated, however, additional testing is required once the foundation excavation is completed in order to assure complete competency of the fill. Foundation recommendations are made available based on adherence to the remaining recommendations that are provided in this report. Alterations to the aforementioned foundation recommendations may be completed upon a site inspection by a geotechnical engineer after the foundation excavation is completed.

5.1.2 Settlement

Total and differential settlement that a structure will undergo depends primarily on the subsurface conditions, type of structure, amount and duration of pressure exerted by the structure, reduction of pore water pressure, and in some instances, the infiltration of free moisture. Based on the expected native soil conditions, anticipated development, and construction abides by the recommendations in this report, the assumed foundation system may undergo a maximum of 1.0 inch total settlement, and a maximum differential settlement of 0.75 inch.

5.1.3 Concrete Slabs-on-Grade

Interior slabs, if utilized, should be supported on a minimum of 4 inches of compacted coarse, granular material (Retained on U.S. Sieve #10 or greater) that is placed over undisturbed, competent native subgrade or engineered fill per the Earthwork Recommendations Section below.

The recommendations for interior concrete slabs-on-grade as presented herein are only relevant for the geotechnical application of this project. Although beyond the scope of this report, concrete slabs should also be designed for structural integrity and environmental reliability. This includes vapor barriers or moisture control for mitigating excessive moisture in the building.

5.2 Earthwork Construction Recommendations

Founding material for building foundations shall consist of undisturbed native soils to the specified foundation depths. Compacted engineered fill, or selective re-compacted native soils may be used to the extents provided in this Earthwork Construction Recommendations Section. The following recommendations include excavations, subgrade preparation, type of fill, and placement of fill for building foundations.

5.2.1 Excavation

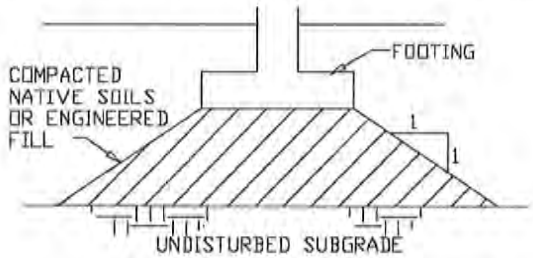
Excavation is recommended to remove any excessive organic content, old fills/ disturbed soils or other deleterious material, if present, beneath foundations and to achieve appropriate foundation depth. Additional sub-excavation will be required

for this project if the soils below the required foundation depth are loose, saturated, not as described in this report, or otherwise incompetent due to inappropriate land disturbing, or excessive water trapped within foundation excavations prior to foundation construction. All soils below the bottom of the excavation shall be competent, and relatively undisturbed or properly compacted fill. If these soils are disturbed or deemed incompetent, re-compaction of these soils below the anticipated footing depth is necessary. Excavations shall be completely dewatered, compacted, and suitable before placement of additional native soil, engineered fill or structural concrete.

5.2.2 Placement and Compaction of Native Soils and Engineered Fill

For engineered fill or disturbed native soils that will be utilized as fill material directly beneath foundations, observation and/ or geotechnical testing is required prior to foundation construction. The following placement and compaction requirements are necessary.

For disturbed native soils or engineered fill beneath foundations, limits of compacted or re-compacted fill shall extend laterally from the bottom edge of the foundation at a rate of one horizontal foot for each foot of compacted or re-compacted fill depth beneath the foundation. See the illustration below.



Both engineered fill and native soils used as compacted fill should be free of roots and other organics, rocks over 6 inches in size, or any other deleterious matter. Because of moisture sensitivity, importing and compacting engineered fill may be more economical than compacting disturbed native soils. Engineered fill shall include having the soils retained on the No. 4 sieve crushed (angular), and should consist of the following gradation:

U.S. Standard Sieve	% Finer (by weight)
6"	100
3"	60 – 100
No. 4	20 – 60
No. 200	0 - 8

Table 1
Particle Size Distribution of Engineered Fill

Compaction shall be achieved in compacted lifts not to exceed 6 inches for both native soils and engineered fill, respectively. Each lift should be uniformly compacted to at least 95% of the modified Proctor maximum dry density (ASTM D 1557) and within 3% of optimum moisture content. Each lift surface should be adequately maintained during construction in order to achieve acceptable compaction and inter-lift bonding.

Fill soils may also be used for driveways and yards, and should be limited to not more than 2 feet in height. Temporary earth cuts and fill slopes exceeding 4 feet in height should be limited to a slope of 1:1 (horizontal:vertical) for not more than 2 months unless during the dry season of the year. Utility trenches or other confined excavations exceeding 4 feet should conform to OSHA safety regulations. Permanent cut and fill slopes of native soils shall be limited to a slope of 2:1, and engineered fill may be 1.75:1.

5.2.3 Retaining Wall Backfill

Native soils may be used as retaining wall backfill for this project if the total wall height is 4 feet or less and the recommendations below are followed. Native soils for retaining walls exceeding 4 feet in height must be approved by the local authority or evaluated by an engineer. Backfill may consist of engineered fill, as presented in this report, or borrow material approved by a geotechnical engineer. Compaction of these materials shall be achieved in compacted lifts of about 12 inches. Each lift should be uniformly compacted to at least 85%, and no more than 90% of the modified Proctor maximum dry density (ASTM D 1557). If pavement or building loads are planned to be located within retaining wall backfill, then 90% compaction is required. In addition, heavy construction equipment should be at a distance of at least ½ the wall height. Over-compaction and limiting heavy construction equipment should be prevented to minimize the risk of excess lateral earth pressure on the retaining structure. Envirotech recommends that retaining wall backfill is compacted with light equipment such as a hand-held power tamper. If clean, coarse gravel soils are utilized as engineered fill, and surcharges will not influence the retaining wall, compaction may be achieved by reasonably densifying granular soils with construction equipment.

5.2.4 Wet Weather Considerations

Due to the types of subsurface soils, additional provisions may be required during prolonged wet weather. Every precaution should be made in order to prevent free moisture from saturating the soils within excavations. If the bottom of excavations used for footing placement changes from a moist and dense/ hard characteristic as presented in this report to muck or soft, saturated conditions, then these soils

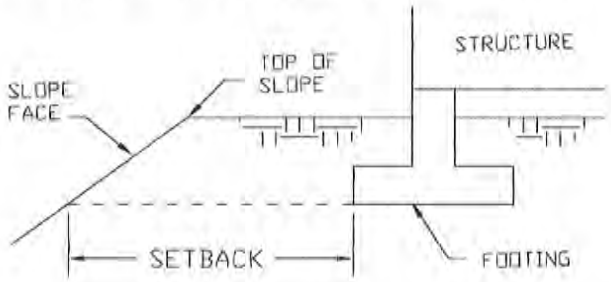
become unsuitable for foundation bearing material. If this situation occurs, a geotechnical engineer should be notified, and these soils should be completely removed and replaced with compacted engineered fill or suitable native material as presented in this section.

5.2.5 Building Pads

Building pad fills for this project, if utilized, shall be constructed per the fill placement and compaction recommendations as presented above. Both engineered fill and native soils may be used for building pads. Building pad slopes shall be no steeper than 2:1 for both compacted engineered fill and re-compacted native soils used as fill. Building pad fill shall be "keyed" into the existing subgrade to a depth of at least 2 feet below the existing ground surface. The term "keyed," as used here, implies that the interface between the building pad and subgrade is horizontally level. Alternatively, building pads may be keyed into the subgrade to the above specified depth, and stepped. Stepped fill should be keyed into the subgrade at a minimum width of 10 feet. All footings shall be located at least 5 feet away from the top of the engineered fill slope. For this project, fill pads are limited to heights of 2 feet and less.

5.3 Building and Footing Setbacks

Provided that assumptions relating to construction occur and recommendations are followed as presented in this report, the factor of safety for slope stability is sufficient for a 27 feet footing setback from the face of the nearby descending slopes exceeding 40%. See the figure below and the Site Plan in Appendix A for an illustration of the setbacks.



A setback reduction of 5 feet is allowed if foundations are at least 3 feet below the existing ground surface, and only applies to those foundation within the setback encroachment. A setback reduction of 10 feet is allowed if foundations are at least 5 feet below the existing ground surface. All depths should be measured from the downslope side of the foundation edge.

5.4 Surface and Subsurface Drainage

Positive drainage should be provided in the final design for all planned residential buildings. Drainage shall include sloping the ground surface, driveways and sidewalks away from the project structures. All constructed surface and subsurface drains should be adequately maintained during the life of the structure. If drainage problems occur during or after construction, additional engineered water mitigation will be required immediately. This may include a combination of swales, berms, drain pipes, infiltration facilities, or outlet protection in order to divert water away from the structures to an appropriate protected discharge area. Leakage of water pipes, both drainage and supply lines, shall be prevented at all times.

If impervious thresholds are exceeded per the prevailing agency code, then engineered stormwater management plans are required for this project. The drainage engineer must coordinate with a geotechnical engineer for input with relation to slope stability prior to submitting drainage plans. If stormwater management plans are not required for this project, then the following recommendations should be followed.

For this project, we recommend that infiltration is avoided in order to maintain slope stability, and that roof water shall be tightlined to a protected discharge point beyond the slope toe. Recommended drainage details are provided in Appendix E of this report. In addition, the existing curtain drain on the property must be continually monitored and maintained immediately if not functioning as intended. Driveway runoff should be allowed to sheet flow over natural or established vegetation. Foundation perimeter drains are required for this project, and should have a gravity outlet located at least 20 feet beyond the east side of the residence. The foundation drain may share the roof tightline if a backflow preventor is utilized to prevent roof water from entering the foundation drains in the event of clogged pipes.

5.5 Vegetation Buffer and Considerations

For this project, we believe that a detailed clearing and grading plan is not warranted unless the prevailing agency thresholds are exceeded, and basic vegetation management practices should be adhered to.

Vegetation Buffer – Any trees may be limbed for viewing. Vegetation shall not be removed from the face of the critical slope or within a distance of 5 feet beyond the top of the slope. However, any tree deemed hazardous to life or property shall be removed. If tree removal is necessary, then stumps and roots shall remain in place, and the underbrush and soil shall remain undisturbed as much as possible. Any disturbed soil shall be graded and re-compacted in order to restore the terrain similar to preexisting conditions and drainage patterns. See the Site Plan in Appendix A of this report for a depiction of the vegetation buffer.

5.6 Temporary and Permanent Erosion Control

Erosion control during construction should include minimizing the removal of vegetation to the least extent possible. Erosion control measures during construction may include stockpiling cleared vegetation, silt fencing, intercepting swales, berms, straw bales, plastic cover or other standard controls. Although other controls may be used, if adequate, silt fencing is presented in this report as the first choice for temporary erosion control. Any erosion control should be located down-slope and beyond the limits of construction and clearing of vegetation where surface water is expected to flow. If the loss of sediments appears to be greater than expected, or erosion control measures are not functioning as needed, additional measures must be implemented immediately. See Appendix D for sketches and general notes regarding selected erosion control measures. The Site Plan in Appendix A depicts the recommended locations for erosion control facilities to be installed as necessary.

Permanent erosion control is necessary if substantial vegetation has not been established within disturbed areas upon completion of the project. Temporary erosion control should remain in place until permanent erosion control has been established. Permanent erosion control may include promoting the growth of vegetation within the exposed areas by mulching, seeding or an equivalent measure. Selected recommendations for permanent erosion control are provided in Appendix D. Additional erosion control measures that should be performed include routine maintenance and replacement, when necessary, of permanent erosion control, vegetation, drainage structures and/or features.

5.7 Septic Drainfields

Septic drainfields have been constructed with a final permit accepted at the time of our site visit.

5.8 Structural Mitigation

With respect to landslide alleviation or slope improvements, structural mitigation is not necessary for this project unless setback reductions are needed. See Section 5.3 for this type of mitigation. This determination is based on the anticipated improvements of the project, engineering conclusions, and compliance with all recommendations provided in this report.

6.0 CLOSURE

Based on the project information provided by the owner, the proposed development, and site conditions as presented in this report, it is Envirotech's opinion that additional geotechnical studies are not required to further evaluate this project.

Due to the inherent natural variations of the soil stratification and the nature of the geotechnical subsurface exploration, there is always a possibility that soil conditions encountered during construction are different than those described in this report. It is not recommended that a qualified engineer performs a site inspection during earthwork construction unless fill soils will influence the impending foundation. However, if native, undisturbed subsurface conditions found on-site are not as presented in this report, then a geotechnical engineer should be consulted.

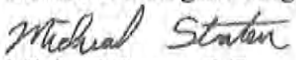
This report presents geotechnical design guidelines, and is intended only for the owner, or owners' representative, and location of project described herein. This report should not be used to dictate construction procedures or relieve the contractor of his responsibility.

Any and all content of this geotechnical report is only valid in conjunction with the compliance of all recommendations provided in this report. Semantics throughout this report such as 'shall,' 'should' and 'recommended' imply that the correlating design and/or specifications must be adhered to in order to potentially protect life and/ or property. Semantics such as 'suggested' or 'optional' refer that the associated design or specification may or may not be performed, but is provided for optimal performance. The recommendations provided in this report are valid for the proposed development at the issuance date of this report. Changes to the site other than the expected development, changes to neighboring properties, changes to ordinances or regulatory codes, or broadening of accepted geotechnical standards may affect the long-term conclusions and recommendations of this report.

The services described in this report were prepared under the responsible charge of Michael Staten, a professional engineer with Envirotech. Michael Staten has appropriate education and experience in the field of geotechnical engineering in order to assess landslide hazards, earthquake hazards, and general soil mechanics.

Please contact Michael Staten at 360-275-9374 if you have any questions, comments, or require additional information.

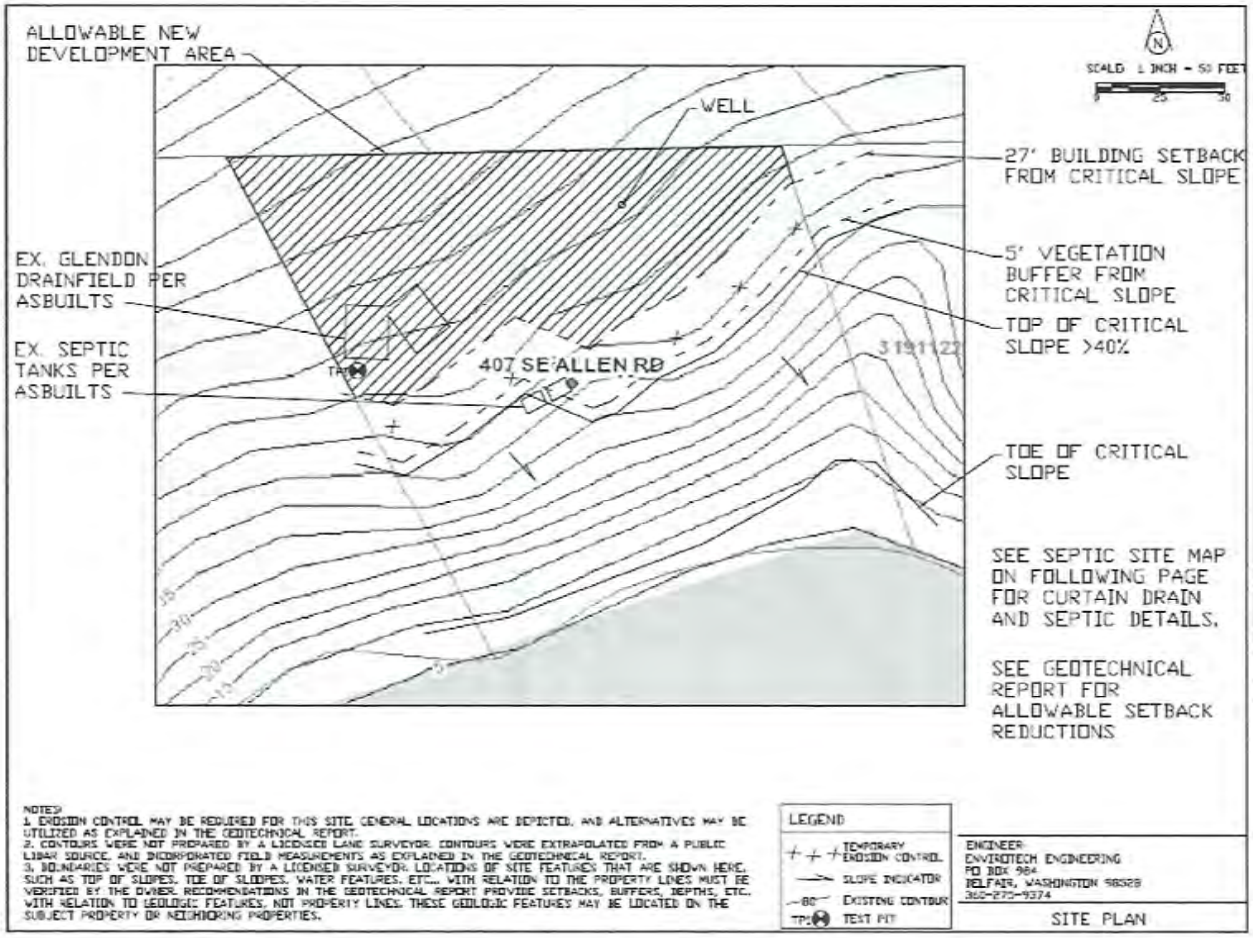
Sincerely,
Envirotech Engineering



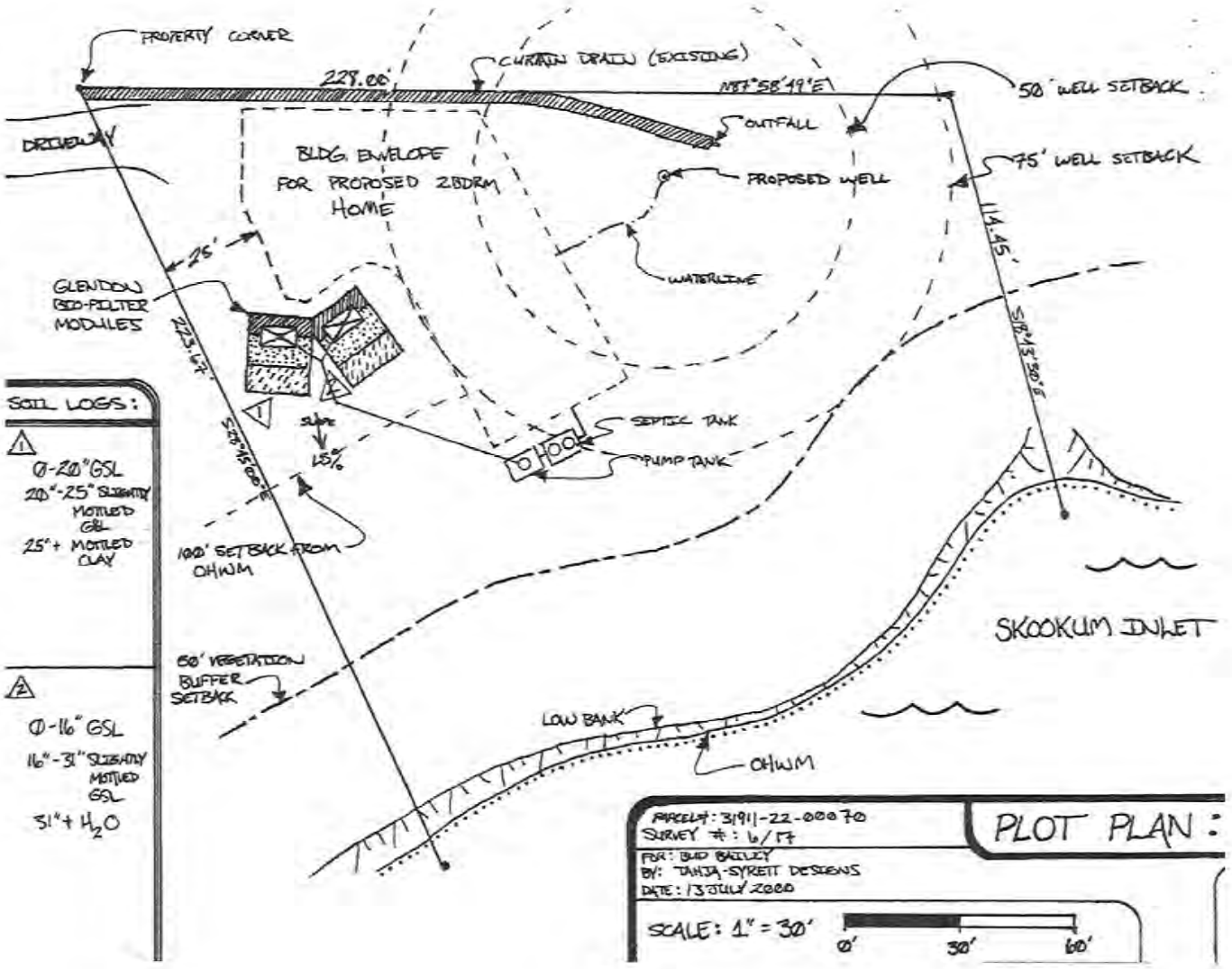
Michael Staten, P.E.
Geotechnical Engineer

APPENDIX A

GEOTECHNICAL SITE PLAN

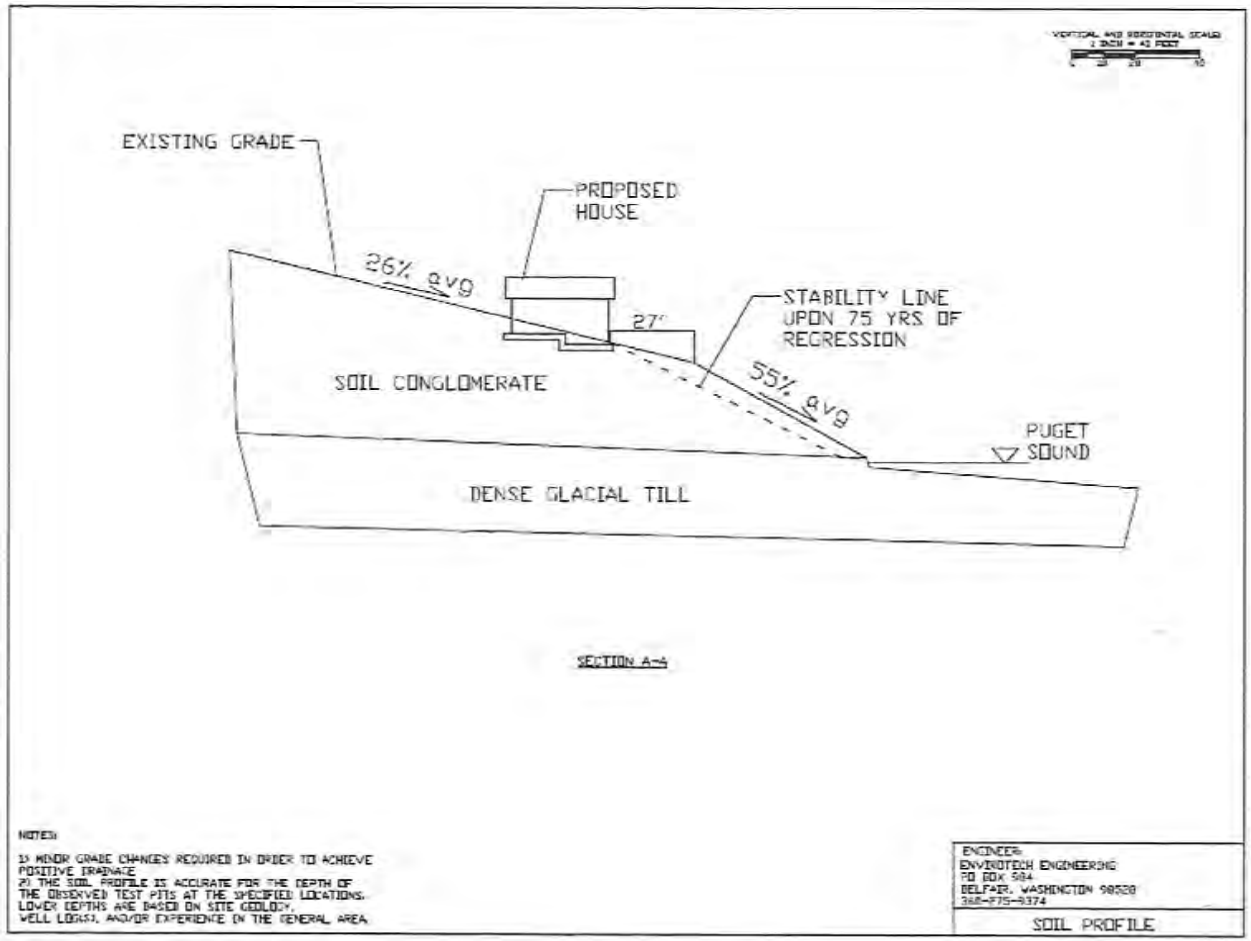

ALLOWABLE NEW DEVELOPMENT AREA
WELL
27' BUILDING SETBACK FROM CRITICAL SLOPE
EX. GLENDON DRAINFIELD PER ASBUILTS
5' VEGETATION BUFFER FROM CRITICAL SLOPE
EX. SEPTIC TANKS PER ASBUILTS
TOP OF CRITICAL SLOPE >40%
407 SE ALLEN RD
TOE OF CRITICAL SLOPE
SEE SEPTIC SITE MAP ON FOLLOWING PAGE FOR CURTAIN DRAIN AND SEPTIC DETAILS.
SEE GEOTECHNICAL REPORT FOR ALLOWABLE SETBACK REDUCTIONS
SCALE: 1 INCH = 50 FEET
0
25
50
N
NOTES:
1. EROSION CONTROL MAY BE REQUIRED FOR THIS SITE. GENERAL LOCATIONS ARE DEPICTED, AND ALTERNATIVES MAY BE UTILIZED AS EXPLAINED IN THE GEOTECHNICAL REPORT.
2. CONTOURS WERE NOT PREPARED BY A LICENSED LAND SURVEYOR. CONTOURS WERE EXTRAPOLATED FROM A PUBLIC LIDAR SOURCE, AND INCORPORATED FIELD MEASUREMENTS AS EXPLAINED IN THE GEOTECHNICAL REPORT.
3. BOUNDARIES WERE NOT PREPARED BY A LICENSED SURVEYOR. LOCATIONS OF SITE FEATURES THAT ARE SHOWN HERE, SUCH AS TOP OF SLOPES, TOE OF SLOPES, WATER FEATURES, ETC... WITH RELATION TO THE PROPERTY LINES MUST BE VERIFIED BY THE OWNER. RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PROVIDE SETBACKS, BUFFERS, DEPTHS, ETC. WITH RELATION TO GEOLOGIC FEATURES, NOT PROPERTY LINES. THESE GEOLOGIC FEATURES MAY BE LOCATED ON THE SUBJECT PROPERTY OR NEIGHBORING PROPERTIES.
LEGEND
TEMPORARY EROSION CONTROL
SLOPE INDICATOR
80 EXISTING CONTOUR
TP1 TEST PIT
ENGINEER:
ENVIROTECH ENGINEERING
PO BOX 98
BELFAIR, WASHINGTON 98528
360-275-9374
SITE PLAN

Septic Site Plan from Tahja-Syrett



APPENDIX B

SOIL INFORMATION



SECTION A-A

NOTES:

1) MINOR GRADE CHANGES REQUIRED IN ORDER TO ACHIEVE POSITIVE DRAINAGE.
2) THE SOIL PROFILE IS ACCURATE FOR THE DEPTH OF THE OBSERVED TEST PITS AT THE SPECIFIED LOCATIONS. LOWER DEPTHS ARE BASED ON SITE GEOLOGY, WELL LOG(S), AND/OR EXPERIENCE IN THE GENERAL AREA.

ENGINEER:
ENVIROTECH ENGINEERING
PO BOX 584
BELFAIR, WASHINGTON 98528
360-275-9374

SOIL PROFILE

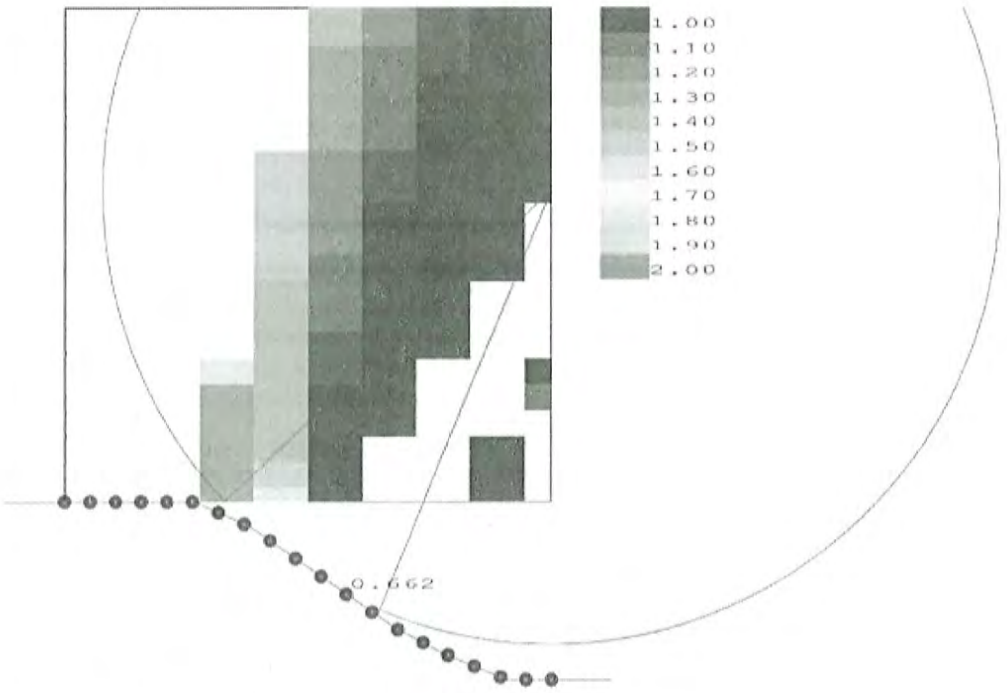
TEST PIT LOG
(TP-1)

Date of Log: July 31, 2024
Location: 407 SE Allen Road, Shelton
Logged By: MCS

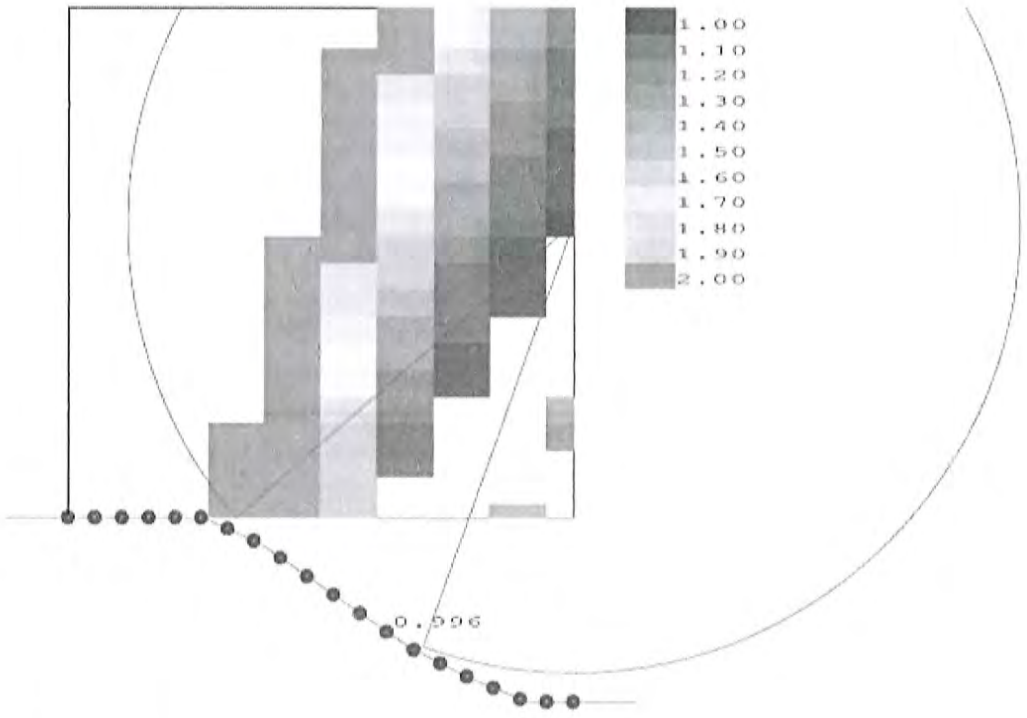
Depth	USCS	Description
0 – 3ft	SM	Silty Sand with Gravel. Medium brown and moist medium dense. Gravel is primarily coarse and subrounded Sand is mostly medium No plasticity Density increases with depth

APPENDIX C

SLOPE STABILITY



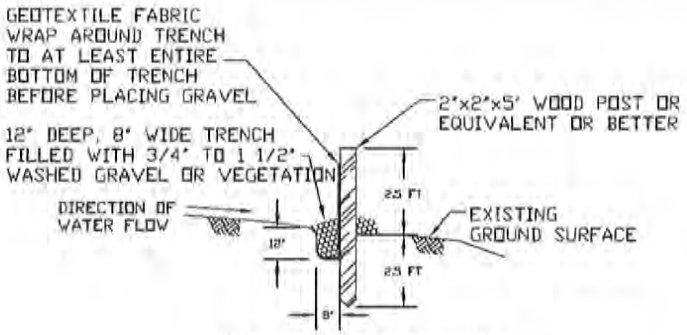
Slope Stability: Dynamic



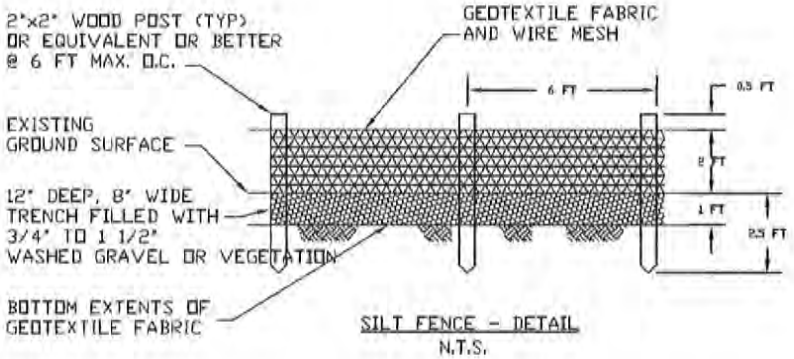
Slope Stability: Static

APPENDIX D

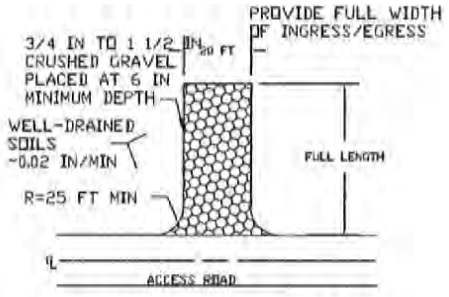
EROSION CONTROL



SILT FENCE - CROSS SECTION
N.T.S.



SILT FENCE - DETAIL
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

GENERAL NOTES:

1. SHOULD THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE PLANS PROVE TO BE INADEQUATE DURING CONSTRUCTION, THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL FACILITIES.
2. ALL EROSION AND SEDIMENT CONTROL FACILITIES AND DEVICES SHALL BE INSPECTED DAILY AND IMMEDIATELY MAINTAINED, IF NECESSARY.
3. ALL EROSION AND SEDIMENT CONTROL FACILITIES AND DEVICES SHALL BE LEFT IN PLACE UNTIL THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

TEMPORARY EROSION CONTROL NOTES:

FOR ALL AREAS WHICH HAVE BEEN STRIPPED OF VEGETATION OR EXPERIENCED LAND DISTURBING ACTIVITIES, AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD EXCEEDING THE LISTED CRITERIA BELOW, ALL DISTURBED AREAS MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR. GRASS SEEDING ALONE WILL ONLY BE ACCEPTABLE DURING THE MONTHS OF APRIL THROUGH SEPTEMBER. HOWEVER, SEEDING MAY PROCEED WHENEVER IT IS IN THE INTEREST OF THE OWNER/CONTRACTOR, BUT MUST ALSO BE AUGMENTED WITH MULCHING, NETTING OR OTHER APPROVED TREATMENT.

DRY SEASON (MAY 1 THRU SEPTEMBER 30) -- THE CLEARING OF LAND, INCLUDING THE REMOVAL OF EXISTING VEGETATION OR OTHER GROUND COVER, MUST BE LIMITED TO ONLY AS MUCH LAND AS CAN RECEIVE APPROPRIATE PROTECTIVE COVER OR BE OTHERWISE STABILIZED, AFTER HAVING BEEN CLEARED OR OTHERWISE DISTURBED , BY NO LATER THAN SEPTEMBER 30 OF A GIVEN YEAR. UNLESS IMMEDIATE STABILIZATION IS SPECIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN, ALL AREAS CLEARED OR OTHERWISE DISTURBED MUST BE APPROPRIATELY STABILIZED THROUGH THE USE OF MULCHING, NETTING, PLASTIC SHEETING, EROSION BLANKETS, FREE DRAINING MATERIAL, ETC., BY SEPTEMBER 30 OR SOONER PER THE APPROVED PLAN OF ACTION, UNLESS OTHERWISE APPROVED BY THE COUNTY. SEEDING, FERTILIZING AND MULCHING OF CLEARED OR OTHERWISE DISTURBED AREAS SHALL BE PERFORMED DURING THE FOLLOWING PERIODS: MARCH 1 TO MAY 15, AND AUGUST 15 TO OCTOBER 1. SEEDING AFTER OCTOBER 1 WILL BE DONE WHEN PHYSICAL COMPLETION OF THE PROJECT IS IMMINENT AND THE ENVIRONMENTAL CONDITIONS ARE CONDUCIVE TO SATISFACTORY GROWTH. IN THE EVENT THAT PERANENT STABILIZATION IS NOT POSSIBLE, AN ALTERNATIVE METHOD OF GROUND COVER, SUCH AS MULCHING, NETTING, PLASTIC SHEETING, EROSION BLANKETS, ETC., MUST BE INSTALLED BY NO LATER THAN SEPTEMBER 30.

IN THE EVENT THAT CONSTRUCTION ACTIVITIES OR OTHER SITE DEVELOPMENT ACTIVITIES ARE DISCONTINUED FOR AT LEAST 4 CONSECUTIVE DAYS, THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION OF ALL EROSION AND SEDIMENT CONTROL FACILITIES IMMEDIATELY AFTER STORM EVENTS, AND AT LEAST ONCE EVERY WEEK. THE OWNER/ CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL EROSION AN SEDIMENT CONTROL FACILITIES.

WET SEASON (OCTOBER 1 THRU APRIL 30) -- ON SITES WHERE UNINTERUPTED CONSTRUCTION ACTIVITY IS IN PROGRESS, THE CLEARING OF LAND, INCLUDING THE REMOVAL OF EXISTING VEGETATION AND OTHER GROUND COVER, SHALL BE LIMITED TO AS MUCH LAND AREA AS CAN BE COVERED OR STABILIZED WITHIN 24 HOURS IN THE EVENT A MAJOR STORM IS PREDICTED AND/ OR EROSION AND SEDIMENT TRANSPORT OFF-SITE IS OBSERVED.

ALL CLEARED OR DISTURBED AREAS SHALL RECEIVE APPROPRIATE PROTECTIVE COVER OR BE OTHERWISE STABILIZED, SUCH AS MULCHING, NETTING, PLASTIC SHEETING, EROSION BLANKETS, FREE DRAINING MATERIAL, ETC., WITHIN 5 DAYS AFTER HAVING BEEN CLEARED OR OTHERWISE DISTURBED IF NOT BEING ACTIVELY WORKED. SILT FENCING, SEDIMENT TRAPS, SEDIMENT PONDS, ETC., WILL NOT BE VIEWED AS ADEQUATE COVER IN AND OF THEMSELVES. IN THE EVENT THAT ANY LAND AREA NOT BEING ACTIVELY WORKED REMAINS UNPROTECTED OR HAS NOT BEEN APPROPRIATELY STABILIZED 5 DAYS AFTER HAVING BEEN CLEARED, ALL CONSTRUCTION ACTIVITY ON THE SITE, EXCEPT FOR APPROVED EROSION AND SEDIMENT CONTROL ACTIVITY, SHALL IMMEDIATELY CEASE UNTIL SUCH A TIME AS AFOREMENTIONED LAND AREA HAS BEEN APPROPRIATELY PROTECTED OR STABILIZED.

PERMANENT EROSION CONTROL NOTES:

SEEDING FOR RAW SLOPES

1. BEFORE SEEDING, INSTALL NEEDED SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKES, SWALES, LEVEL SPREADERS AND SEDIMENT BASINS.
2. THE SEED BED SHALL BE FIRM WITH FAIRLY FINE SURFACE. FOLLOWING SURFACE ROUGHENING, PERFORM ALL OPERATIONS ACCROSS OR PERPENDICULAR TO THE SLOPE.
3. SEEDING RECOMMENDATIONS, AS SHOWN BELOW, AND SHOULD BE APPLIED AT THE RATE OF 120 POUNDS PER ACRE.
4. SEED BEDS PLANTED BETWEEN MAY 1 AND OCTOBER 31 WILL REQUIRE IRRIGATION AND OTHER MAINTENANCE AS NECESSARY TO FOSTER AND PROTECT THE ROOT STRUCTURE.
5. SEED BEDS PLANTED BETWEEN NOVEMBER 1 AND APRIL 30, ARMORING OF THE SEED BED WILL BE NECESSARY, (e.g., GEOTEXTILES, JUTE MAT, CLEAR PLASTIC COVERING).
6. FERTILIZERS ARE TO BE USED ACCORDING TO SUPPLIERS' RECOMMENDATIONS. AMOUNTS SHOULD BE MINIMIZED, ESPECIALLY ADJACENT TO WATER BODIES AND WETLANDS.

USE THE FOLLOWING RECOMMENDED SEED MIXTURE FOR EROSION CONTROL, OR A COUNTY APPROVED ALTERNATE SEED MIXTURE.

NAME	PROPORTIONS BY WEIGHT(%)	PURITY (%)	GERMINATION (%)
REDTOP (AGROSTIS ALBA)	10	92	90
ANNUAL RYE (LOLIUM MULTIFLORUM)	40	98	90
CHEWING FESUE (FESTUCA RUBRA COMMUTATA) (JAMESTOWN, BANNER, SHADOW, KOKET)	40	97	80
WHITE DUTCH CLOVER (TRIFOLIUM REPENS)	10	96	90

MULCHING

1. MATERIALS USED FOR MULCHING ARE RECOMMENDED TO BE WOOD FIBER CELLULOSE, AND SHOULD BE APPLIED AT A RATE OF 1000 POUNDS PER ACRE.
2. MULCH SHOULD BE APPLIED IN ALL AREAS WITH EXPOSED SLOPES GREATER THAN 2% (HORIZONTAL:VERTICAL).
3. MULCHING SHOULD BE USED IMMEDIATELY AFTER SEEDING OR IN AREAS WHICH CANNOT BE SEEDED BECAUSE OF THE SEASON. ALL AREAS REQUIRING MULCH SHALL BE COVERED BY NOVEMBER 1.

TOPSOILING

1. TOPSOIL SHOULD BE USED FOR THIS PROJECT DUE TO HIGHLY DENSE EXPOSED SOILS.
2. TOPSOIL SHOULD BE PLACED ON SLOPES NOT EXCEEDING 2:1.
3. STRIPPING AND STOCKPILING ON-SITE SOILS SHALL ONLY BE PERMITTED IF TOPSOIL IS FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM).
4. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREAS. A FOUR TO SIX INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. ALL SURFACE RUNOFF CONTROL STRUCTURES SHALL BE IN PLACE BEFORE STRIPPING.

STOCKPILE MANAGEMENT
1. STOCKPILE SHALL BE STABILIZED (WITH PLASTIC COVERING OR OTHER APPROVED DEVICE) DAILY BETWEEN NOVEMBER 1 AND MARCH 31.
2. IN ANY SEASON, SEDIMENT LEACHING FROM STOCK PILES MUST BE PREVENTED.
3. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
4. PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLANS.

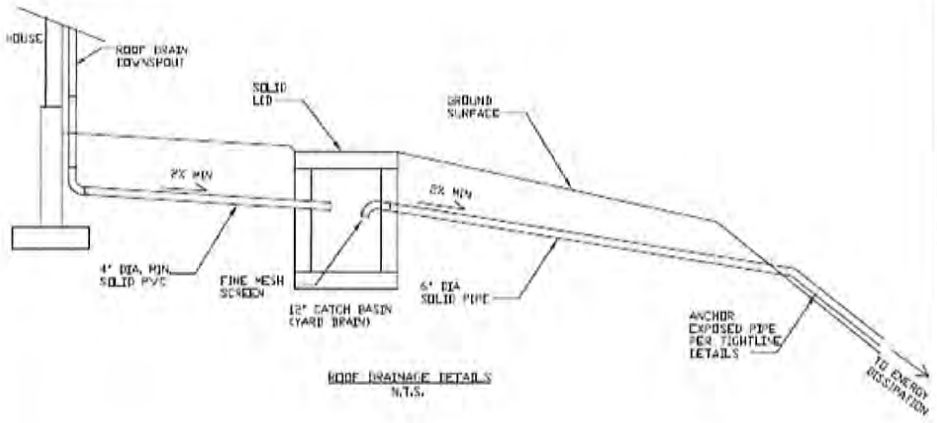
STABILIZED CONSTRUCTION ENTRANCE
1. MATERIAL SHALL BE 4 INCH TO 8 INCH QUARRY SPALLS (4 TO 6 INCH FOR RESIDENTIAL SINGLE FAMILY LOTS) AND MAY BE TOP-DRESSED WITH 1 INCH TO 3 INCH ROCK. (STATE STANDARD SPECIFICATIONS, SECTION 8-15.)
2. THE ROCK PAD SHALL BE AT LEAST 12 INCHES THICK AND 50 FEET LONG (20 FEET FOR SITES WITH LESS THAN 1 ACRE OF DISTURBED SOIL). WIDTH SHALL BE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA. SMALLER PADS MAY BE APPROVED FOR SINGLE-FAMILY RESIDENTIAL AND SMALL COMMERCIAL SITES.
3. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
4. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH A SILT FENCE.

SILT FENCE

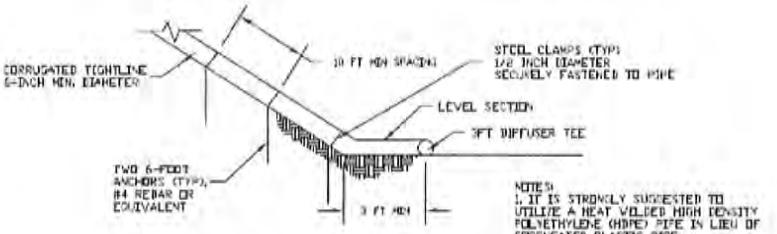
1. GEOTEXTILE FILTER FABRIC TYPE SHALL BE PER SPECIFIED IN THE "STORMWATER MANAGEMENT MANUAL FOR THE PUGET SOUND BASIN," OR APPLICABLE COUNTY STANDARDS
2. GEOTEXTILE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF EACH BARRIER TO AVOID USE OF JOINTS. IF JOINTS ARE NECESSARY, FILTER FABRIC SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-INCH OVERLAP AND SECURELY FASTENED AT BOTH ENDS TO THE POST.
3. STANDARD FILTER FABRIC SHALL BE FASTENED USING 1" STAPLES OR TIE WIRES (HOG RINGS) @ 4 IN SPACING.
4. POSTS SHALL BE SPACED AND PLACED AT DEPTHS INDICATED IN THE DETAILS ON THIS SHEET, AND DRIVEN SECURELY INTO THE GROUND.
5. WIRE MESH SHALL BE 2"X2"X14 GAUGE OR EQUIVILENT. THE WIRE MESH MAY BE ELIMINATED IF EXTRA-STRENGTH FILTER FABRIC (MONOFILAMENT), AND CLOSER POST SPACING IS USED.
6. A TRENCH SHALL BE EXCAVATED ACCORDING TO THE DETAILS ON THIS SHEET ALONG THE LINE OF THE POSTS AND UPSLOPE FROM THE SILT FENCE.
7. SILT FENCES SHALL BE LOCATED DOWNSLOPE FROM THE CLEARING LIMITS OF THE PROJECT.

APPENDIX E

DRAINAGE DETAILS

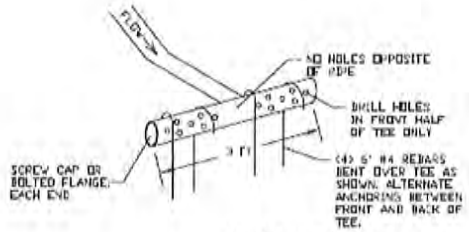


ROOF DRAINAGE DETAILS
N.T.S.



TIGHTLINE DETAILS
N.T.S.

NOTES:
1. IT IS STRONGLY SUGGESTED TO UTILIZE A HEAT WELDED HIGH DENSITY POLYETHYLENE (HDPE) PIPE IN LIEU OF CORRUGATED PLASTIC PIPE.
2. IF PLASTIC PIPE IS USED, FREQUENT INSPECTION (BI-ANNUALLY), AND NECESSARY MAINTENANCE IS REQUIRED.
3. HOLE DIAMETER SHALL BE 1 INCH FOR 6-INCH TEES, AND 2 INCHES FOR 12-INCH TEES.
4. HOLE SPACING SHALL BE EQUAL TO (3.0 X HOLE DIAMETER).
5. DIAMETER OF TEE SHALL EQUAL DIAMETER OF TIGHTLINE PIPE.



DIFFUSER TEE DETAILS
N.T.S.

ENGINEER:
ENVIROTECH ENGINEERING
PO BOX 984
BELFAIR, WASHINGTON 98528
360-275-9374

DRAINAGE DETAILS