

EXHIBIT I

Drainage Report



Cedarview at Glennwood Plat

Poulsbo, WA

Drainage Report

June 2026 | Preliminary Plat Report



Drainage Report

June 2026

Prepared for:

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I, Jeremy Febus, PE, LEED AP, hereby state that this Drainage Report has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community of professional engineers. The analysis has been prepared utilizing procedures and practices specified by the City of Poulsbo and within the standard accepted practices of the industry. I understand that the City of Poulsbo does not and will not assume any liability for the sufficiency, suitability, or performance of drainage facilities prepared by me.



06/15/2026

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- Appendix D – Critical Areas Determination Report

1. Introduction

The Cedarview at Glennwood Plat project proposes a Planned Residential Development (PRD) and subdivision of approximately 5 acres into 22 single-family residential lots with associated tracts, roadway, utility infrastructure, and stormwater drainage facilities.

The project site is located just to the east of the intersection of NW Swenson Court and Ashby Avenue NW in the City of Poulsbo, Washington, on tax parcels number 102601-2-017-2000 and 102601-2-108-2009. The site is bounded by Olympic College to the east, NW Swenson Court to the west, and single-family residential lots to the north and south.

This Drainage Report analyzes the pre- and post-development conditions of the Cedarview at Glennwood Plat to support the drainage system design. This report is intended to be reviewed in conjunction with the stormwater plans included with this report.

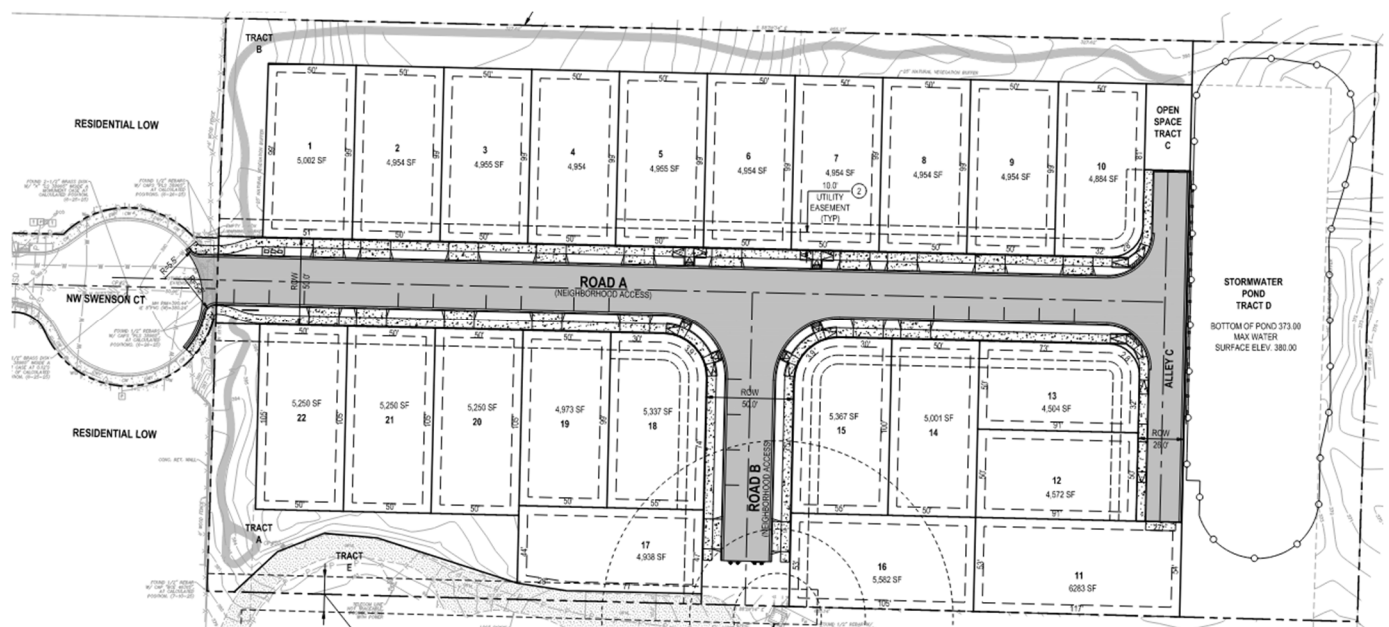


Figure 1-1: Proposed Subdivision Plan

2. Minimum Requirements Summary

In compliance with the City of Poulsbo Municipal Code (PMC), the proposed development shall be in accordance with the Washington State Department of Ecology's 2019 Stormwater Management Manual for Western Washington (SWMMWW).

MINIMUM REQUIREMENT NO. 1: PREPARATION OF STORMWATER SITE PLANS

Detailed grading and storm drainage plans depicting locations and sizes of stormwater elements have been prepared for this development. Complete storm drainage plans will be included in the construction permit submittal.

MINIMUM REQUIREMENT NO. 2: CONSTRUCTION STORMWATER POLLUTION PREVENTION

Construction stormwater will be managed per the requirements of volume II of the SWMMWW. A detailed Construction Stormwater Pollution Prevention Plan (CSWPPP) will be provided with the construction permit submittal.

MINIMUM REQUIREMENT NO. 3: SOURCE CONTROL OF POLLUTION

Generation of significant or specific stormwater pollutants or spill hazards from typical residential use or construction is not anticipated. No specific source control Best Management Practices (BMPs) or spill prevention plans are currently proposed.

MINIMUM REQUIREMENT NO. 4: PRESERVATION OF NATURAL DRAINAGE SYSTEMS AND OUTFALLS

Based on available topographic information, runoff from the site generally exits the site at the south and drains southeast. Surface runoff from this region generally trends toward overland flowing to the south toward an unnamed stream and ultimately into Liberty Bay. The proposed conditions will maintain the southeastern flow path toward the unnamed stream and subsequently Liberty Bay. Downstream conditions are discussed in Section 4 of this report.

MINIMUM REQUIREMENT NO. 5: ON-SITE STORMWATER MANAGEMENT

The project is subject to Low-Impact Development (LID) Site Assessment in accordance with the SWMMWW. Refer to Section 6 for the LID Site Assessment.

MINIMUM REQUIREMENT NO. 6: RUNOFF TREATMENT

The proposed project will result in more than 5,000 square feet of pollution-generating hard surface, triggering the requirement for runoff treatment for the new and replaced pollution-generating hard surface areas. To address this requirement, runoff from the project site will be treated by an Oldcastle BioPod Water Quality Vault approved by the Department of Ecology for general use prior to entering the proposed pond and discharging from the site. Refer to Section 6 of this report for discussion of the runoff treatment strategy.

MINIMUM REQUIREMENT NO. 7: FLOW CONTROL

The proposed project will result in more than 10,000 square feet of impervious surface, triggering the requirement for flow control. Stormwater duration discharges for the developed site shall match the pre-developed forested durations from 50 percent of the 2-year peak flow up to the full 50-year peak flow. This is achieved through the proposed detention pond. Refer to Section 6 of this report for additional information.

MINIMUM REQUIREMENT NO. 8: WETLANDS PROTECTION.

The Critical Area Determination Report by Wetland Resources dated March 2025 determined no wetlands or surface water bodies exist on-site. One wetland (Wetland A) was identified approximately 230 feet east on the neighboring Olympic College property, but the buffer does not project onto the subject property.

MINIMUM REQUIREMENT NO. 9: OPERATION AND MAINTENANCE

A Stormwater Facility Operation and Maintenance Manual will be provided with the construction permit submittal.

3. Project Overview

PROJECT LOCATION

The project is located northwest of Liberty Bay just to the east of the intersection of NW Swenson Court and Ashby Avenue NW in the City of Poulsbo, Washington. Refer to Figure 3-1 for a site vicinity map.

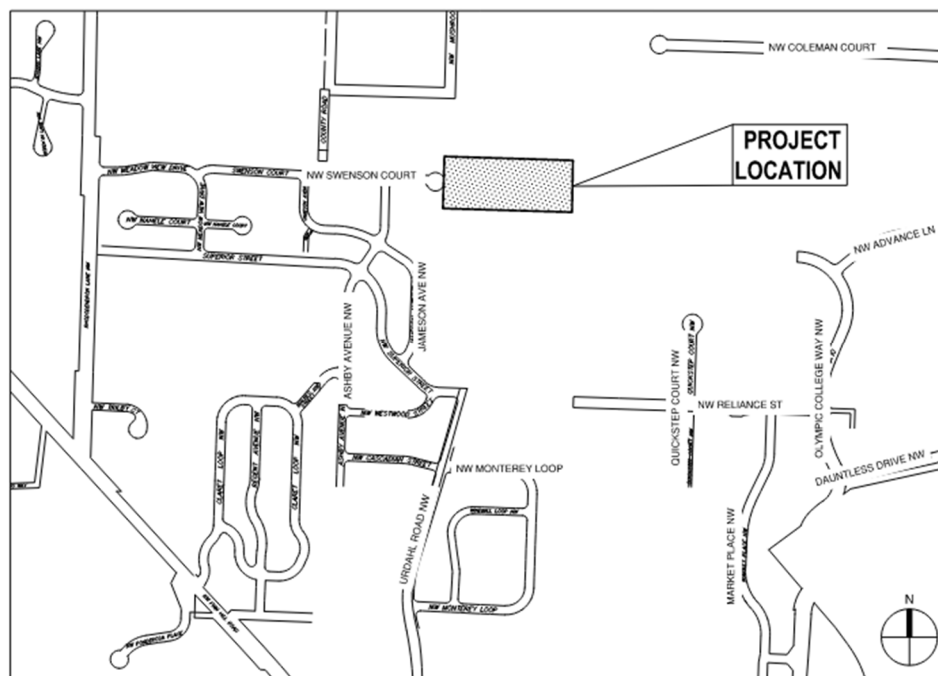


Figure 3-1: Site Vicinity Map.

4. Existing Conditions Summary

ON-SITE ANALYSIS

Based on available topographic information, the site area drains south and southeast. The site is moderately forested with minimal above- or below-grade existing improvements. Existing infrastructure is limited to water and sewer mains on the west side of the site. Stormwater runoff from the site generally conveys south toward Liberty Bay.

UPSTREAM ANALYSIS

It is not anticipated that significant drainage from adjacent properties will flow onto the site. Drainage from the parcel to the north appears to flow toward a local depression within its site boundaries or convey east and south toward the existing wetland area on the Olympic College site. NW Swenson Court and adjacent parcels are graded to drain away from the project site, collecting and conveying stormwater to an existing private detention pond southwest of the project site. No upstream impacts are anticipated to the proposed project.

DOWNSTREAM ANALYSIS

Based on field observations, survey, and GIS contours, it appears stormwater sheet flows from the site from from north to southeast through densely forested private parcels. Stormwater flowing east is collected by existing drainage infrastructure on the Olympic College site then ultimately conveyed south, converging with southerly flows less than ¼ mile downstream. See Figure 4-1 below for the existing downstream flowpath.

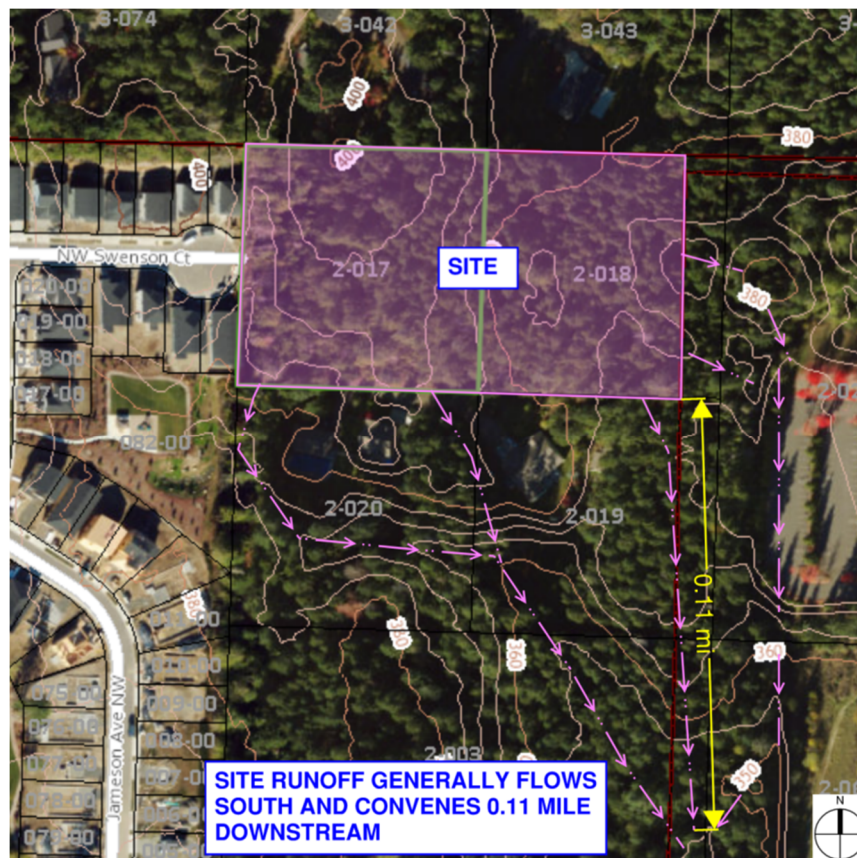


Figure 4-1: Existing Downstream Path

In the proposed condition, conveyance follows the same southeast trajectory as in existing conditions. Runoff will be collected by catch basins and conveyed in underground pipes to the proposed detention pond. The pond outflow will enter a dispersion trench at the southeast corner of the site. Downstream of dispersion, runoff travels south in a vegetated ditch before it outfalls at an existing unnamed stream approximately half-a-mile downstream. The emergency overflow spillway is located at the southeast corner of the pond; emergency overflow discharge will follow the same downstream flow path as the proposed discharge. The unnamed stream outfalls to Liberty Bay. See Figure 4-2 for the downstream path.

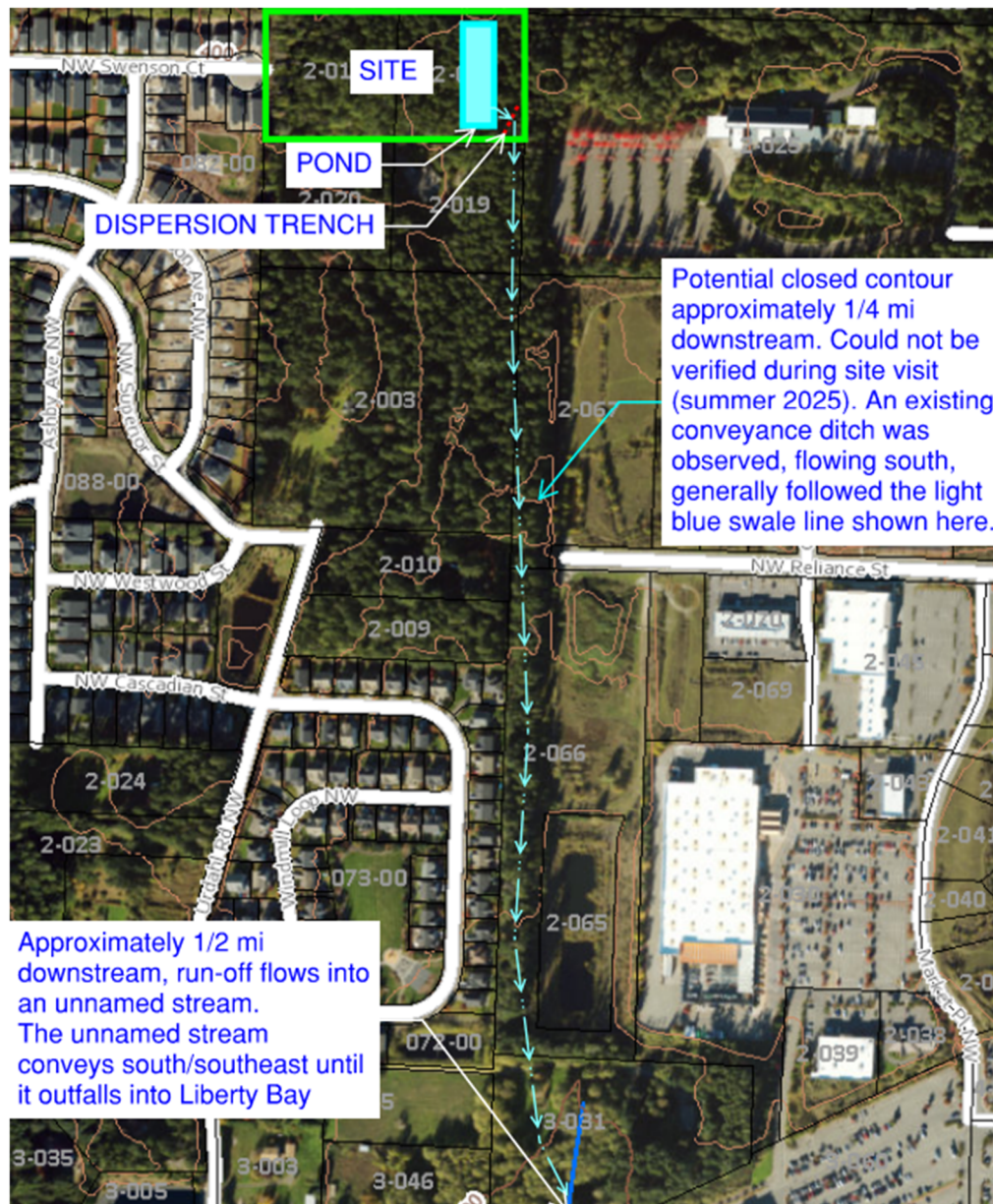


Figure 4-2: Proposed Downstream Path

SOILS AND SUBSURFACE INFORMATION

According to the Geotechnical Engineering Report prepared by Earth Solutions NW dated July 22, 2025, the site soil consists of topsoil underlain by silty sand with varying amounts of gravel. Groundwater was not encountered during Earth Solutions NW's soil exploration, and existing slopes vary from 0 to 15 percent, with the steepest sections running north-south through the center of the site. See Appendix A for the Geotechnical Report.

SITE LIMITATIONS

Per the Geotechnical Engineering Study prepared by Earth Solutions NW dated July 22, 2025, the site is underlain by ice-contact glacial deposits comprised of silty sand with or without gravel and large-scale infiltration is considered infeasible on-site.

There are no known geologically hazardous areas on-site.

SITE REQUIREMENTS

All proposed plans and construction shall adhere to the following codes and requirements:

- Tree retention and landscape plans will adhere to the requirement of PMC 19.190.
- New utilities will be provided in the proposed conditions and coordinated accordingly with the storm sewer design to meet the City of Poulsbo requirements.

5. Proposed Conditions Summary

PROPOSED CONDITIONS

The Cedarview at Glennwood Plat development proposal includes 22 single-family residential lots with associated tracts, utilities, drainage facilities, roads, and open space. Off-site improvements are limited to utility connections in NW Swenson Court, a new curb and sidewalk on NW Swenson Court, and connections to proposed on-site roads connecting to NW Swenson Court.

All runoff from the site will be conveyed via underground piping to the proposed water quality vault for treatment immediately upstream of the detention pond. The detention pond will discharge to a dispersion trench located at the southeast corner of the site.

See Figure 5-1 for the Area Breakdown Map. Refer to Tables 5-1 for detailed breakdown of the project areas.

There are 0.26 acres of open space proposed in the southwest corner of that site that includes undisturbed forest and a gravel driveway to the south property in the existing condition. In the proposed condition, this area will be replanted as forest and the existing driveway will be preserved. This area does not drain to the pond and is considered bypass in the MGSFlood model.

There are 0.28 acres of open space proposed at the east property boundary that does not drain to the pond. It is existing forested area, and will be forested in the post-developed condition, therefore it has been omitted from the model.

Refer to Appendix B for a proposed conditions map and MGSFlood model report.

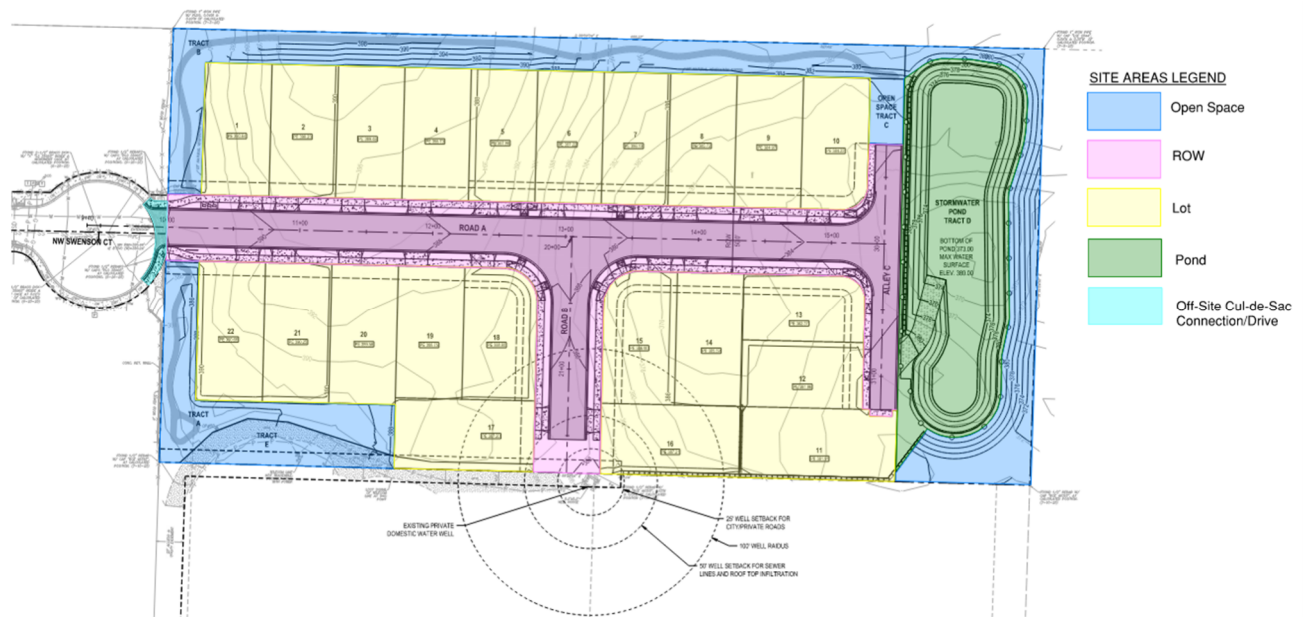


Figure 5-1: Area Breakdown Map

Table 5-1: Area Breakdown

Area	Impervious (Acres)	Pervious (Acres)	Total Area (Acres)
On-Site			
Lot Area	1.54	1.02	2.56
ROW	0.84	0.00	0.84
Open Space	0.00	1.03	1.03
Pond	0.48	0.00	0.48
On-Site Total	2.85	2.05	4.91
Off-Site			
Off-Site Cul-de-Sac/Connection	0.01	0.00	0.01
Total Area	2.87	2.05	4.92

For preliminary calculations, proposed ROW within the project boundary is assumed to be 95 percent impervious, proposed lots are assumed to be 60 percent impervious, and areas outside of the work limits (including protected critical area buffer and tree retention areas) are excluded from the project area.

ON-SITE STORMWATER BMP REQUIREMENTS

As previously stated, On-Site Stormwater Management BMPs are required per Minimum Requirement No. 5. Please refer to Figure 5-2 below.

Project Location and Parcel Size	Minimum Requirement #5 Compliance Options
Projects inside the UGA, on any size parcel	- Use the LID BMPs from List #2 for all surfaces within each type of surface in List #2; or - Use any Flow Control BMPs desired to achieve the LID Performance Standard, and apply BMP T5.13: Post-Construction Soil Quality and Depth.
Projects outside the UGA, on a parcel smaller than 5 acres	
Projects outside the UGA, on a parcel 5 acres or larger	Use any Flow Control BMPs desired to achieve the LID Performance Standard, and apply BMP T5.13: Post-Construction Soil Quality and Depth .
Note: This text refers to the Urban Growth Area (UGA) as designated under the Growth Management Act (GMA) (Chapter 36.70A RCW) of the State of Washington. If the project is located in a county that is not subject to planning under the GMA, the city limits shall be used instead.	

Figure 5-2: Volume 1, Section 3-4.5, Table 3.1 from the 2019 DOE SWMMWW

The project proposes to use the List Approach for Minimum Requirement No. 5 compliance. A summary of List 2 BMPs and project feasibility is provided in the sections below.

Per the Geotechnical Report, rooftop infiltration and large scale infiltration on-site is infeasible. Refer to the infiltration memo in Appendix C.

Lawn and Landscaped Areas

Post Construction Soil Quality and Depth (BMP T5.13) is required in accordance with the 2019 SWMMWW. This will be provided in landscaped areas on-site.

Roofs

- **Full Dispersion:** Dispersion of roof surface on the remaining lots is not feasible because the minimum available vegetated flow path is less than the required 100 feet.
- **Downspout Infiltration:** As previously noted, large scale infiltration is infeasible.
- **Bioretention:** Infiltrating bioretention is infeasible due to infiltration infeasibility.

Non-infiltrating bioretention is infeasible due to proposed slopes on site in excess of 8 percent and overflow flow path requirements.

- **Downspout Dispersion Systems:** Dispersion of roof surface on the remaining lots is not feasible because the minimum available vegetated flow path is less than the required 100 feet.
- **Perforated Stub-Out Connections:** Perforated stub-out connections are infeasible for the project due to infiltration infeasibility.

Other Hard Surfaces

- **Full Dispersion:** Full dispersion is not feasible for hard surfaces because the minimum available vegetated flow path is less than the required 100 feet.
- Stormwater discharge from the proposed detention pond will be dispersed at grade on-site. The dispersion is proposed to minimize impacts and match existing drainage patterns, not to meet On-Site Stormwater BMP criteria.
- **Permeable Pavement:** Permeable pavement is infeasible due to infiltration infeasibility.

- **Bioretention:** Infiltrating bioretention is infeasible due to infiltration infeasibility.

Non-infiltrating bioretention is infeasible due to proposed slopes on-site in excess of 8 percent and overflow flow path requirements.

- **Sheet Flow Dispersion or Concentrated Flow Dispersion:** Sheet flow and concentrated flow dispersion are both infeasible due to limitations on available dispersion flow path.

As noted above, all List 2 BMPs for roof and road flows are infeasible due to site constraints. The project will provide both Post-Construction Soil Quality and Depth in accordance with Minimum Requirement No. 5.

Dispersion Trench Design Criteria

The detention pond dispersion trench will be fully designed and detailed during construction document preparation.

WATER QUALITY REQUIREMENTS

Enhanced water quality treatment will be provided for runoff from pollution generating surfaces. Following detention, stormwater will be treated using an Oldcastle BioPod Water Quality Vault, which is an Ecology-approved methodology that meets this requirement. The selected BioPod has plan dimensions of 8 feet by 16 feet, with a bypass capacity of 6.5 cfs and an Ecology GULD performance flow rate of 0.384 cfs. Modeling performed in MGSFlood determined that the off-line facility design discharge rate is 0.340 cfs, and the 100-year post-development runoff is 4.028 cfs. Based on these results, the selected BioPod provides sufficient treatment capacity, with adequate bypass capability and treatment flow rates to meet enhanced water quality treatment requirements. Refer to Appendix B for the MGSFlood model report.

FLOW CONTROL REQUIREMENTS

Runoff from developed on-site areas will be collected by catch basins and conveyed in underground pipes to the detention pond located at the eastern extents of the site. The detention pond is designed to have a live storage depth of 6.5 feet and a bottom area of 9,398 square feet. A control structure will be used to restrict flows from the detention vault. A summary of the detention pond design is included in table 5-2.

Table 5-2: Stormwater Detention Pond Summary Table

Component	Quantity
Bottom of Pond Area	9,398 sq. ft.
Pond Volume (Top of Storage)	96,707 cu. ft.
Pond Water Storage Height	6.5 ft.
Pond Freeboard	1 ft.
Control Structure	Circular Standpipe with 3 Orifices

Full MGS Flood model output is provided in Appendix B, and the detention facility and the overall site stormwater compliance are detailed in tables 5-3 and 5-4.

Table 5-3: Pre-Developed and Mitigated Flow Rate Comparison

Return Period	Pre-Developed Flow (cfs)	Mitigated Flow (cfs)
2-year	0.163	0.102
10-year	0.305	0.231
25-year	0.418	0.282
50-year	0.575	0.314
100-year	0.643	0.319

Table 5-4: Pre-Developed and Mitigated Flow Duration Comparison

	Required	Performance
Excursion at Pre-Developed 50% Q2	$\leq 0\%$	-36.1%
Maximum Excursion from 50% Q2 to Q2	$\leq 0\%$	-8.6%
Maximum Excursion from Q2 to Q50	$< 10\%$	-10.8%
Percent Excursion from Q2 to Q50	$< 50\%$	0.0%

6. Conveyance

The conveyance system will be designed to convey the 100-year, 24-hour peak storm without overtopping. Conveyance calculations for the proposed on-site conveyance system will be provided with the construction permit submittal.

7. Temporary Erosion and Sediment Control

Temporary Erosion and Sediment Control (TESC) measures will be installed to prevent sediment-laden runoff from entering adjacent roadway and stream buffer area. Runoff will be collected and treated on-site using a temporary sediment pond in the future detention pond location. TESC facilities will be provided for the project in accordance with the Drainage Manual and PMC. TESC facilities to be used include temporary interceptor swales, rock check dams, silt fencing, construction fencing, inlet protection, construction entrances, and a temporary sediment pond. Additional TESC details will be provided as part of the engineering plans.

The project disturbance is greater than 1 acre; therefore, a Stormwater Pollution Prevention Plan (SWPPP) is required. A draft SWPPP will be provided with the construction permit submittal.

8. Operation and Maintenance

Operation and maintenance of the drainage facilities shall be accomplished per PMC 13.17.090. An operation and maintenance plan will be provided with the construction permit submittal.

Appendix A

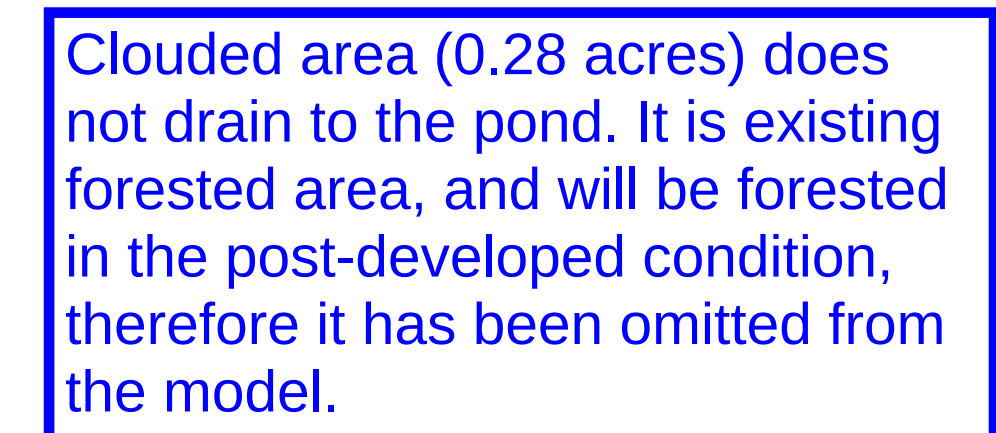
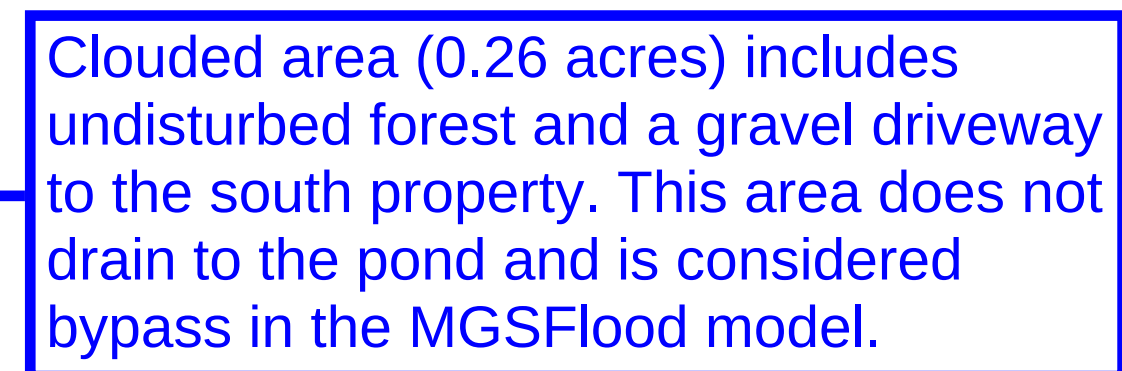
Geotechnical Engineering Report (Submitted Separately)

Appendix B

Drainage Calculations

Includes:

- Proposed Conditions Map
- Preliminary Flow Control MGS Flood Output
- Preliminary Water Quality MGS Flood Output



AREA	IMPERVIOUS (ACRES)	PERVIOUS (ACRES)	TOTAL AREA (ACRES)
LOT AREA 	1.54	1.02	2.56
ROW 	0.80	0.00	0.80
OPEN SPACE 	0.00	0.58	0.54
POND 	0.45	0.00	0.48
TOTAL AREA DRAINING TO POND (ACRES)	2.79	1.60	4.38
BYPASS - FOREST 	0.00	0.48	0.48
BYPASS - DRIVEWAY 	0.06	0.00	0.06
TOTAL SITE (ACRES)	2.85	2.08	4.92

1	09/2025	RAG	JRN	JSF	INITIAL PRELIMINARY PLAT SUBMITTAL	DRAWN BY RAG	DESIGNED BY JRN
2	03/2026	RAG	EKC	JSF	PRELIMINARY PLAT RESUBMITTAL 1	CHECKED BY EKC	APPROVED BY JSF
3	05/2026	RAG	EKC	JSF	PRELIMINARY PLAT RESUBMITTAL 2		
4	06/2026	RAG	EKC	JSF	PRELIMINARY PLAT RESUBMITTAL 3		
							DATE OCTOBER 9, 2026
NO.	DATE	BY	CHD.	APPR.	REVISION	JOB No.:	2500156

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CEDARVIEW AT GLENNWOOD PLANNED RESIDENTIAL DEVELOPMENT
POULSBORO, WASHINGTON

SHEET

PROPOSED CONDITIONS MAP

MGS FLOOD PROJECT REPORT

Program Version: MGSFlood 4.70
Program License Number: 200410007
Project Simulation Performed on: 06/02/2026 12:45 PM
Report Generation Date: 06/02/2026 12:45 PM

Input File Name: Figgis Prelim Detention - Fill - 2026-06-02 MQF.fld
Project Name: Figgis Detention Model
Analysis Title:
Comments: Prelim PPlat Pond - Fill Scenario
Includes Off-Site Driveway

PRECIPITATION INPUT

Computational Time Step (Minutes): 15

Extended Precipitation Time Series Selected

Full Period of Record Available used for Routing

Climatic Region Number: 5
Precipitation Station : 95004405 Puget West 44 in_5min 10/01/1939-10/01/2147
Evaporation Station : 951044 Puget West 44 in MAP

Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : Ecology Default

***** Default HSPF Parameters Used (Not Modified by User) *****

***** WATERSHED DEFINITION *****

Predevelopment/Post Development Tributary Area Summary

	Predeveloped	Post Developed
Total Subbasin Area (acres)	4.920	4.920
Area of Links that Include Precip/Evap (acres)	0.000	0.000
Total (acres)	4.920	4.920

← ON-SITE DISTURBED
AREA + OFF-SITE
BYPASS

-----SCENARIO: PREDEVELOPED

Number of Subbasins: 2

----- Subbasin : Predeveloped Site -----

-----Area (Acres) -----

C, Forest, Flat 4.380 ← PREDEVELOPED
FORESTED
CONDITION

PRELIMINARY DETENTION POND SIZING

Subbasin Total 4.380

----- Subbasin : Bypass -----
-----Area (Acres) -----
C, Forest, Flat 0.540

Subbasin Total 0.540

-----**SCENARIO: POSTDEVELOPED**
Number of Subbasins: 2

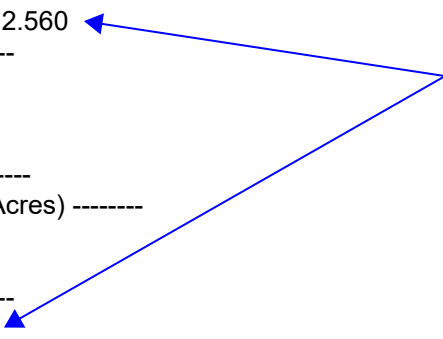
----- Subbasin : Developed Site -----
-----Area (Acres) -----
C, Lawn, Flat 1.020
ROADS/FLAT 0.800
ROOF TOPS/FLAT 2.560

Subbasin Total 4.380

----- Subbasin : Bypass -----
-----Area (Acres) -----
C, Forest, Flat 0.480
ROADS/FLAT 0.060

Subbasin Total 0.540

**PROPOSED LAND USE
PER STORM DRAINAGE
MODEL MAP**



***** **LINK DATA** *****

-----**SCENARIO: PREDEVELOPED**
Number of Links: 1

Link Name: POC
Link Type: Copy
Downstream Link: None

***** **LINK DATA** *****

-----**SCENARIO: POSTDEVELOPED**
Number of Links: 3

Link Name: Pond
Link Type: Structure
Downstream Link Name: POC

Prismatic Pond Option Used

PRELIMINARY DETENTION POND SIZING

Pond Floor Elevation (ft) : 373.50
Riser Crest Elevation (ft) : 380.00
Max Pond Elevation (ft) : 380.50
Storage Depth (ft) : 6.50
Pond Bottom Length (ft) : 36.0
Pond Bottom Width (ft) : 261.0
Pond Side Slopes (ft/ft) : Z1= 2.00 Z2= 2.00 Z3= 2.00 Z4= 2.00
Bottom Area (sq-ft) : 9396.
Area at Riser Crest El (sq-ft) : 17,794.
(acres) : 0.408
Volume at Riser Crest (cu-ft) : 87,635.
(ac-ft) : 2.012
Area at Max Elevation (sq-ft) : 18496.
(acres) : 0.425
Vol at Max Elevation (cu-ft) : 96,707.
(ac-ft) : 2.220

POND STORAGE DEPTH

MIN POND AREA

Hydraulic Conductivity (in/hr) : 0.00
Massmann Regression Used to Estimate Hydralic Gradient
Depth to Water Table (ft) : 100.00
Bio-Fouling Potential : Low
Maintenance : Average or Better

Riser Geometry
Riser Structure Type : Circular
Riser Diameter (in) : 12.00
Common Length (ft) : 0.000
Riser Crest Elevation : 380.00 ft

Hydraulic Structure Geometry

Number of Devices: 3

---Device Number 1---

Device Type : Circular Orifice
Control Elevation (ft) : 373.50
Diameter (in) : 1.13
Orientation : Horizontal
Elbow : No

---Device Number 2---

Device Type : Circular Orifice
Control Elevation (ft) : 377.56
Diameter (in) : 1.75
Orientation : Horizontal
Elbow : Yes

---Device Number 3---

Device Type : Circular Orifice
Control Elevation (ft) : 378.50
Diameter (in) : 1.63
Orientation : Horizontal
Elbow : Yes

PRELIMINARY DETENTION POND SIZING

Link Name: POC

Link Type: Copy

Downstream Link: None

Link Name: WQ Before Pond

Link Type: Copy

Downstream Link Name: Pond

*******FLOOD FREQUENCY AND DURATION STATISTICS*********-----SCENARIO: PREDEVELOPED**

Number of Subbasins: 2

Number of Links: 1

***** Link: POC

***** Link Outflow 1

Frequency Stats

Flood Frequency Data (cfs)

(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs) Flood Peak (cfs)

=====	
2-Year	0.163
5-Year	0.243
10-Year	0.305
25-Year	0.418
50-Year	0.575
100-Year	0.643
200-Year	0.695
500-Year	0.787

-----SCENARIO: POSTDEVELOPED

Number of Subbasins: 2

Number of Links: 3

*******Groundwater Recharge Summary *******

Recharge is computed as input to Perlnd Groundwater Plus Infiltration in Structures

Total Predeveloped Recharge During Simulation	
Model Element	Recharge Amount (ac-ft)

Subbasin: Predeveloped Site	1077.935
Subbasin: Bypass	132.896
Link: POC	0.000

Total:	1210.831
--------	----------

Total Post Developed Recharge During Simulation	
Model Element	Recharge Amount (ac-ft)

Subbasin: Developed Site	166.658
--------------------------	---------

PRELIMINARY DETENTION POND SIZING

Subbasin:	Bypass	118.130
Link:	Pond	Not Computed
Link:	POC	0.000
Link:	WQ Before Pond	Not Applicable

Total: 284.788

Total Predevelopment Recharge is Greater than Post Developed

Average Recharge Per Year, (Number of Years= 208)

Predeveloped: 5.821 ac-ft/year, Post Developed: 1.369 ac-ft/year

*******Water Quality Facility Data*******

-----SCENARIO: PREDEVELOPED

Number of Links: 1

***** Link: POC *****

2-Year Discharge Rate : 0.163 cfs

15-Minute Timestep, Water Quality Treatment Design Discharge

On-line Design Discharge Rate (91% Exceedance): 0.13 cfs

Off-line Design Discharge Rate (91% Exceedance): 0.07 cfs

Infiltration/Filtration Statistics-----

Inflow Volume (ac-ft): 901.48

Inflow Volume Including PPT-Evap (ac-ft): 901.48

Total Runoff Infiltrated (ac-ft): 0.00, 0.00%

Total Runoff Filtered (ac-ft): 0.00, 0.00%

Primary Outflow To Downstream System (ac-ft): 901.48

Secondary Outflow To Downstream System (ac-ft): 0.00

Volume Lost to ET (ac-ft): 0.00

Percent Treated (Infiltrated+Filtered+ET)/Total Volume: 0.00%

-----SCENARIO: POSTDEVELOPED

Number of Links: 3

***** Link: POC *****

2-Year Discharge Rate : 0.102 cfs

15-Minute Timestep, Water Quality Treatment Design Discharge

On-line Design Discharge Rate (91% Exceedance): 999.00 cfs

Off-line Design Discharge Rate (91% Exceedance): 999.00 cfs

Infiltration/Filtration Statistics-----

Inflow Volume (ac-ft): 2720.59

Inflow Volume Including PPT-Evap (ac-ft): 2720.59

Total Runoff Infiltrated (ac-ft): 0.00, 0.00%

Total Runoff Filtered (ac-ft): 0.00, 0.00%

PRELIMINARY DETENTION POND SIZING

Primary Outflow To Downstream System (ac-ft): 2720.59
Secondary Outflow To Downstream System (ac-ft): 0.00
Volume Lost to ET (ac-ft): 0.00
Percent Treated (Infiltrated+Filtered+ET)/Total Volume: 0.00%

*****Compliance Point Results *****

Scenario Predeveloped Compliance Link: POC
Scenario Postdeveloped Compliance Link: POC

*** Point of Compliance Flow Frequency Data ***

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	0.163	2-Year	0.102
5-Year	0.243	5-Year	0.164
10-Year	0.305	10-Year	0.231
25-Year	0.418	25-Year	0.282
50-Year	0.575	50-Year	0.314
100-Year	0.643	100-Year	0.319
200-Year	0.695	200-Year	0.385
500-Year	0.787	500-Year	0.530

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

**** Flow Duration Performance ****

Excursion at Predeveloped 50%Q2 (Must be Less Than or Equal to 0%):	-36.1%	PASS
Maximum Excursion from 50%Q2 to Q2 (Must be Less Than or Equal to 0%):	-8.6%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	-10.8%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.0%	PASS

MEETS ALL FLOW DURATION DESIGN CRITERIA: PASS

MGS FLOOD PROJECT REPORT

Program Version: MGSFlood 4.70
Program License Number: 200410007
Project Simulation Performed on: 06/02/2026 1:37 PM
Report Generation Date: 06/02/2026 1:39 PM

Input File Name: Figgis Prelim Detention - Water Quality - Fill.fld
Project Name: Figgis Detention Model - Water Quality
Analysis Title:
Comments: Water Quality
Prelim PPlat Pond - Fill Scenario
Includes Off-Site Driveway

PRECIPITATION INPUT

Computational Time Step (Minutes): 15

Extended Precipitation Time Series Selected

Full Period of Record Available used for Routing

Climatic Region Number: 5
Precipitation Station : 95004405 Puget West 44 in_5min 10/01/1939-10/01/2147
Evaporation Station : 951044 Puget West 44 in MAP

Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : Ecology Default

***** Default HSPF Parameters Used (Not Modified by User) *****

***** WATERSHED DEFINITION *****

Predevelopment/Post Development Tributary Area Summary

	Predeveloped	Post Developed
Total Subbasin Area (acres)	4.920	4.920
Area of Links that Include Precip/Evap (acres)	0.000	0.000
Total (acres)	4.920	4.920

ON-SITE
DISTURBED
AREA + OFF-SITE
BYPASS

-----SCENARIO: PREDEVELOPED
Number of Subbasins: 2

----- Subbasin : Predeveloped Site -----
-----Area (Acres) -----

PRELIMINARY WATER QUALITY INFORMATION

C, Forest, Flat 4.380

Subbasin Total 4.380

----- Subbasin : Bypass -----
-----Area (Acres) -----

C, Forest, Flat 0.540

Subbasin Total 0.540

**PREDEVELOPED
FORESTED
CONDITION**

-----**SCENARIO: POSTDEVELOPED**

Number of Subbasins: 2

----- Subbasin : Developed Site -----
-----Area (Acres) -----

C, Lawn, Flat 1.020

ROADS/FLAT 0.800

ROOF TOPS/FLAT 2.560

Subbasin Total 4.380

----- Subbasin : Bypass -----
-----Area (Acres) -----

C, Forest, Flat 0.480

ROADS/FLAT 0.060

Subbasin Total 0.540

**PROPOSED LAND USE
PER STORM DRAINAGE
MODEL MAP**

***** **LINK DATA** *****

-----**SCENARIO: PREDEVELOPED**

Number of Links: 1

Link Name: POC

Link Type: Copy

Downstream Link: None

***** **LINK DATA** *****

-----**SCENARIO: POSTDEVELOPED**

Number of Links: 3

Link Name: Pond

Link Type: Structure

Downstream Link Name: POC

PRELIMINARY WATER QUALITY INFORMATION

Prismatic Pond Option Used

Pond Floor Elevation (ft) : 373.50
Riser Crest Elevation (ft) : 380.00
Max Pond Elevation (ft) : 380.50
Storage Depth (ft) : 6.50
Pond Bottom Length (ft) : 36.0
Pond Bottom Width (ft) : 261.0
Pond Side Slopes (ft/ft) : Z1= 2.00 Z2= 2.00 Z3= 2.00 Z4= 2.00
Bottom Area (sq-ft) : 9396.
Area at Riser Crest El (sq-ft) : 17,794.
(acres) : 0.408
Volume at Riser Crest (cu-ft) : 87,635.
(ac-ft) : 2.012
Area at Max Elevation (sq-ft) : 18496.
(acres) : 0.425
Vol at Max Elevation (cu-ft) : 96,707.
(ac-ft) : 2.220

POND STORAGE DEPTH

MIN POND AREA

Hydraulic Conductivity (in/hr) : 0.00
Massmann Regression Used to Estimate Hydralic Gradient
Depth to Water Table (ft) : 100.00
Bio-Fouling Potential : Low
Maintenance : Average or Better

Riser Geometry

Riser Structure Type : Circular
Riser Diameter (in) : 12.00
Common Length (ft) : 0.000
Riser Crest Elevation : 380.00 ft

Hydraulic Structure Geometry

Number of Devices: 3

---Device Number 1---

Device Type : Circular Orifice
Control Elevation (ft) : 373.50
Diameter (in) : 1.13
Orientation : Horizontal
Elbow : No

---Device Number 2---

Device Type : Circular Orifice
Control Elevation (ft) : 378.00
Diameter (in) : 1.75
Orientation : Horizontal
Elbow : Yes

---Device Number 3---

Device Type : Circular Orifice
Control Elevation (ft) : 378.90
Diameter (in) : 1.63
Orientation : Horizontal
Elbow : Yes

PRELIMINARY WATER QUALITY INFORMATION

Link Name: POC

Link Type: Copy

Downstream Link: None

Link Name: WQ Before Pond

Link Type: Copy

Downstream Link Name: Pond

*****FLOOD FREQUENCY AND DURATION STATISTICS*****

-----**SCENARIO: PREDEVELOPED**

Number of Subbasins: 2

Number of Links: 1

***** Link: POC

***** Link Outflow 1

Frequency Stats

Flood Frequency Data (cfs)

(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs) Flood Peak (cfs)

=====	
2-Year	0.163
5-Year	0.243
10-Year	0.305
25-Year	0.418
50-Year	0.575
100-Year	0.643
200-Year	0.695
500-Year	0.787

-----**SCENARIO: POSTDEVELOPED**

Number of Subbasins: 2

Number of Links: 3

***** Link: Pond

***** Link Outflow 1

Frequency Stats

Flood Frequency Data (cfs)

(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs) Flood Peak (cfs)

=====	
2-Year	6.836E-02
5-Year	0.134
10-Year	0.188
25-Year	0.232
50-Year	0.253
100-Year	0.262
200-Year	0.470
500-Year	0.935

PRELIMINARY WATER QUALITY INFORMATION

***** Link: Pond

***** Link WSEL

Stats

WSEL Frequency Data(ft)
(Recurrence Interval Computed Using Gringorten Plotting Position)
Tr (yrs) WSEL Peak (ft)

=====

1.05-Year	376.124
1.11-Year	376.323
1.25-Year	376.634
2.00-Year	377.600
3.33-Year	378.170
5-Year	378.563
10-Year	379.075
25-Year	379.532
50-Year	379.810
100-Year	379.942

*****Groundwater Recharge Summary *****

Recharge is computed as input to PerInd Groundwater Plus Infiltration in Structures

Model Element	Total Predeveloped Recharge During Simulation Recharge Amount (ac-ft)
Subbasin: Predeveloped Site	1077.935
Subbasin: Bypass	132.896
Link: POC	0.000
Total:	1210.831

Model Element	Total Post Developed Recharge During Simulation Recharge Amount (ac-ft)
Subbasin: Developed Site	166.658
Subbasin: Bypass	118.130
Link: Pond	0.000
Link: POC	Not Applicable
Link: WQ Before Pond	Not Applicable
Total:	284.788

Total Predevelopment Recharge is Greater than Post Developed

Average Recharge Per Year, (Number of Years= 208)

Predeveloped: 5.821 ac-ft/year, Post Developed: 1.369 ac-ft/year

*****Water Quality Facility Data *****

-----SCENARIO: PREDEVELOPED

Number of Links: 1

***** Link: POC

PRELIMINARY WATER QUALITY INFORMATION

2-Year Discharge Rate : 0.163 cfs

15-Minute Timestep, Water Quality Treatment Design Discharge

On-line Design Discharge Rate (91% Exceedance): 0.13 cfs

Off-line Design Discharge Rate (91% Exceedance): 0.07 cfs

Infiltration/Filtration Statistics-----

Inflow Volume (ac-ft): 901.48

Inflow Volume Including PPT-Evap (ac-ft): 901.48

Total Runoff Infiltrated (ac-ft): 0.00, 0.00%

Total Runoff Filtered (ac-ft): 0.00, 0.00%

Primary Outflow To Downstream System (ac-ft): 901.48

Secondary Outflow To Downstream System (ac-ft): 0.00

Volume Lost to ET (ac-ft): 0.00

Percent Treated (Infiltrated+Filtered+ET)/Total Volume: 0.00%

-----SCENARIO: POSTDEVELOPED

Number of Links: 3

***** Link: Pond

Basic Wet Pond Volume (91% Exceedance): 21113. cu-ft

Computed Large Wet Pond Volume, 1.5*Basic Volume: 31669. cu-ft

2-Year Discharge Rate : 0.068 cfs

15-Minute Timestep, Water Quality Treatment Design Discharge

On-line Design Discharge Rate (91% Exceedance): 0.61 cfs

Off-line Design Discharge Rate (91% Exceedance): 0.34 cfs

Infiltration/Filtration Statistics-----

Inflow Volume (ac-ft): 2592.62

Inflow Volume Including PPT-Evap (ac-ft): 2592.62

Total Runoff Infiltrated (ac-ft): 0.00, 0.00%

Total Runoff Filtered (ac-ft): 0.00, 0.00%

Primary Outflow To Downstream System (ac-ft): 2592.61

Secondary Outflow To Downstream System (ac-ft): 0.00

Volume Lost to ET (ac-ft): 0.00

Percent Treated (Infiltrated+Filtered+ET)/Total Volume: 0.00%

*****Compliance Point Results *****

Scenario Predeveloped Compliance Link: POC

Scenario Postdeveloped Compliance Link: Pond

*** Point of Compliance Flow Frequency Data ***

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)

PRELIMINARY WATER QUALITY INFORMATION

2-Year	0.163	2-Year	1.642
5-Year	0.243	5-Year	2.133
10-Year	0.305	10-Year	2.466
25-Year	0.418	25-Year	3.192
50-Year	0.575	50-Year	3.574
100-Year	0.643	100-Year	4.028
200-Year	0.695	200-Year	4.109
500-Year	0.787	500-Year	4.276
** Record too Short to Compute Peak Discharge for These Recurrence Intervals			

Water quality unit
has sufficient
bypass capacity
to pass the 100
year inflow

**** Flow Duration Performance ****

Excursion at Predeveloped 50%Q2 (Must be Less Than or Equal to 0%):	410.2%	FAIL
Maximum Excursion from 50%Q2 to Q2 (Must be Less Than or Equal to 0%):	1941.5%	FAIL
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	99999.0%	FAIL
Percent Excursion from Q2 to Q50 (Must be less than 50%):	100.0%	FAIL

FLOW DURATION DESIGN CRITERIA: FAIL

Appendix C

Infiltration Memo

February 4, 2026
ES-10443.01

JKM Holdings, LLC
PO Box 188
Puyallup, Washington 98371

Attention: Geoffrey Sherwin

**Subject: Response to Comments
Proposed Cedar View at Glenwood
East of Northwest Swenson Court and
Ashby Avenue Northwest
Poulsbo, Washington**

Greetings:

As requested, Earth Solutions NW, LLC (ESNW) has prepared this letter in response to the referenced Peer Review letter issued by BHC Consultants, LLC (BHC). In preparing this letter, ESNW reviewed the referenced geotechnical engineering study (study) prepared by our firm, along with a conceptual site plan and grading quantities.

RESPONSE TO COMMENTS

Preliminary Stormwater Site Plan

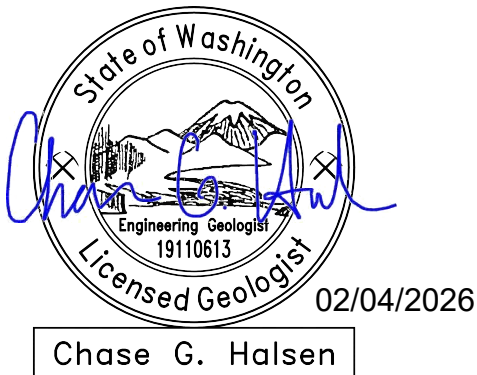
BHC Comment 1 – The “Infiltration Feasibility” section of the Geotechnical Report prepared by JKM Holdings, LLC states that “a localized area of poorly graded gravel with sand was encountered at depth at TP-5. Small-scale or low-impact development designs may be feasible in this area.” Please further evaluate the potential to infiltrate runoff from impervious surfaces (roofs) located within this target area.

ESNW Response – As indicated above, a localized area of relatively clean gravels was observed within the test pit location TP-5 within the northwestern project area. However, these soils are not consistent with the overall deposition/shallow soil makeup across the larger project area and are not extensive in depth or area. Based on a review of the provided earthwork quantities, this area of the site will be subject to cuts of five or more feet, and thus, the deeper, very dense, and weakly cemented soil horizon will likely be fully exposed at the proposed surface grades. In our experience, these soil conditions are not conducive to infiltration designs and should not be pursued as such. On this basis, it is our opinion that infiltration should be considered infeasible for the proposed project.

We trust this letter meets your current needs. Should you have any questions or if additional information is required, please call.

Sincerely,

EARTH SOLUTIONS NW, LLC



Chase G. Halsen, L.G., L.E.G.
Project Manager



Henry T. Wright, P.E.
Principal Engineer

References:

- Cedar View at Glenwood Plat Preliminary Stormwater Site Plan – Peer Review, prepared by BHC Consultants, LLC, dated January 23, 2026
- Geotechnical Engineering Study, prepared by ESNW, ES-10443, updated July 22, 2025

Appendix D

Critical Area Determination Report



March 31, 2025

Entitle Fund Five, LLC
Attn: Geoffrey P. Sherwin
PO Box 188
Puyallup, WA 98371

**RE: Wetland and Fish & Wildlife Habitat Conservation Critical Areas
Determination Report for Kitsap County Tax Parcels 102601-2-017-2000 and 102601-
2-018-2009**

Wetland Resources, Inc. (WRI) performed a site investigation on March 11, 2025, to identify and evaluate wetlands, streams, and fish and wildlife habitat conservation areas on or near the above-referenced parcels. The property is located at the eastern terminus of NW Swenson Court in Poulsbo, Washington. The site is under the Public Land Survey System as portion of Section 10, Township 26N, Range 01E, W.M. It is situated within the Puget Sound drainage basin in the Olalla Valley-Frontal Puget Sound Watershed, Water Resources Inventory Area (WRIA) 15.

The subject property is 4.92 acres in size and is located in residential zoning surrounded by single-family residence developments and Olympic College. The site is comprised of undeveloped forest and the topography slopes down to the east.

No wetlands, streams, or fish and wildlife habitat conservation areas were identified on the subject property. One wetland, Wetland A, was identified off site to the east, but the buffer does not project onto the subject property. No special flood hazard areas are located on or near the site. Assessment of erosion, landslide, and seismic hazard areas and critical aquifer recharge areas is outside the scope of this study.

PUBLICLY AVAILABLE INFORMATION

Prior to conducting the site visit, public resource information was reviewed to gather background information on and in the vicinity of the subject property regarding wetlands, streams, and other critical areas. These sources include the following:

- USDA/Natural Resources Conservation Service (NRCS) - Web Soil Survey: The Web Soil Survey maps soils on the western half of the site as Poulsbo gravelly sandy loam, six to 15 percent slopes. The eastern half of the site is underlain with Poulsbo gravelly sandy loam, zero to six percent slopes.

- United States Fish and Wildlife Service (USFWS) - National Wetlands Inventory (NWI): No features are mapped within 300 feet of the site.
- Washington Department of Natural Resources - Forest Practices Application Mapping Tool (FPAMT): No streams or waterbodies are mapped within 300 feet of the site.
- Washington Department of Fish and Wildlife (WDFW) - SalmonScape: No features are mapped within 300 feet of the site on the SalmonScape online map.
- Washington Department of Fish and Wildlife (WDFW) - Priority Habitat and Species (PHS): No features are mapped within 300 feet of the site on the PHS interactive online map.
- Kitsap County GIS Database: Kitsap County Wetlands database maps a NWI sourced wetland along the eastern boundary of the site, however this map is not present on NWI's online mapper. There is now a parking lot in that area. No other critical area features were mapped by Kitsap County.
- City of Poulsbo Interactive Zoning Map: The City of Poulsbo maps a delineated wetland east of the subject property, north of Olympic College.

METHODOLOGY

The ordinary high water mark (OHWM) of streams is determined using the methodology described in the Washington Department of Ecology's publication, *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Anderson, et al. 2016).

The presence of wetlands was determined using the routine determination approach described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (U.S. Army Corps of Engineers 2010). Under the routine methodology, the process for making a wetland determination is based on three steps:

- 1) Examination of the site for hydrophytic vegetation (species present and percent cover);
- 2) Examination of the site for hydric soils;
- 3) Determining the presence of wetland hydrology

FINDINGS

Dominant vegetation on the property includes a canopy of western white pine (*Pinus monticola*, FACU), Douglas-fir (*Pseudotsuga menziesii*, FACU), western hemlock (*Tsuga heterophylla*, FACU), and western redcedar (*Thuja plicata*, FACU). The understory is comprised of evergreen huckleberry (*Vaccinium ovatum*, FACU), salal (*Gaultheria shallon*, FACU), Pacific rhododendron (*Rhododendron macrophyllum*, FACU), low Oregon-grape (*Mahonia nervosa*, FACU), common sword fern (*Polystichum munitum*, FACU), and bracken fern (*Pteridium aquilinum*, FACU). Dominant vegetation across the

site is rated as facultative upland (FACU) and therefore is not considered to be a hydrophytic plant community.



Figure 1 - Looking south from the center of the site.

Soils across the site are generally very dark brown (10YR2/2) loam in the upper layer, and the sublayer is generally dark yellowish brown (10YR4/4) sandy loam. No hydric soil or hydrology indicators were observed during the March 2025 site visit. No saturation or other wetland hydrology indicators were observed. No areas on the property meet wetland criteria. No flowing water, scoured areas, sorted streambed material, or other evidence of fish and wildlife habitat conservation areas were observed on or in the vicinity of the site.

A City delineated wetland, Wetland A, is mapped approximately 250 feet east of the subject property. A preliminary rating, based on publicly available information, rates Wetland A as a Category II wetland with a moderate habitat score. Pursuant to Poulsbo Municipal Code (PMC) 16.20.230.B, Wetland A would receive a buffer of 150 feet with high impact usage and 75 feet with low impact usage. The entire buffer area would remain off site and would not project a regulatory buffer onto the subject property.

CONCLUSION

These findings indicate that there are no wetlands, streams, or fish and wildlife habitat conservation critical areas on the subject property and no nearby critical areas that would project a buffer onto the property were observed. Therefore, any development of the subject property will not impact any wetlands, streams, or their buffers.

USE OF THIS REPORT

This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to critical areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

This report conforms to the standard of care employed by ecologists. No other representation or warranty is made concerning the work or this report and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.



Emily Prosser
Associate Ecologist & Wildlife Biologist



Meryl Kamowski, PWS
Senior Ecologist

Enclosures:

Wetland Determination Data Forms
Determination Map

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

Project/Site: Figgis Plat - Poulsbo WRI# 25083 City/County: Poulsbo/Kitsap Sampling Date: 3/11/2025
 Applicant/Owner: Entitle Fund Five, LLC State: WA Sampling Point: S1
 Investigator(s): EP, MK Section, Township, Range: S10, T26N, R01E
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): 17
 Subregion (LRR): LRR-A Lat: 47.765849 Long: -122.666539 Datum: WGS84
 Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m ²)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
1. <u>Pinus monticola</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Thuja plicata</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
<u>100</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: 3m²) 1. <u>Vaccinium ovatum</u> <u>20</u> <u>Y</u> <u>FACU</u> 2. <u>Rhododendron macrophyllum</u> <u>10</u> <u>Y</u> <u>FACU</u> 3. <u>Gaultheria shallon</u> <u>5</u> <u>N</u> <u>FACU</u> 4. <u>Mahonia nervosa</u> <u>5</u> <u>N</u> <u>FACU</u> 5. _____				
<u>40</u> = Total Cover				
Herb Stratum (Plot size: 1m²) 1. <u>None</u> <u>-</u> <u>-</u> <u>-</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				
<u>0</u> = Total Cover				Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ 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.
Woody Vine Stratum (Plot size: 1m²) 1. <u>None</u> <u>-</u> <u>-</u> <u>-</u> 2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>90</u>				
Remarks:				

SOIL

Sampling Point: S1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0 - 3	10YR2/2	100					loam	
3 - 16	10YR4/4	100					sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)	
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)	

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☐ No ☒
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
☐ 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)

Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
--	---

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

Remarks:

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

Project/Site: Figgis Plat - Poulsbo WRI# 25083 City/County: Poulsbo/Kitsap Sampling Date: 3/11/2025
 Applicant/Owner: Entitle Fund Five, LLC State: WA Sampling Point: S2
 Investigator(s): EP, MK Section, Township, Range: S10, T26N, R01E
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): 16
 Subregion (LRR): LRR-A Lat: 47.765723 Long: -122.665129 Datum: WGS84
 Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 to 6 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks:	

VEGETATION – Use scientific names of plants.

Stratum	Plot size	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 5m ²)					
1. <u>Tsuga heterophylla</u>		<u>20</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Thuja plicata</u>		<u>20</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Psuedotsuga menziesii</u>		<u>10</u>	<u>Y</u>	<u>FACU</u>	
4. _____					
		<u>50</u>	<u>= Total Cover</u>		
Sapling/Shrub Stratum (Plot size: 3m ²)					
1. <u>Gaultheria shallon</u>		<u>40</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Rhododendron macrophyllum</u>		<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Vaccinium ovatum</u>		<u>15</u>	<u>N</u>	<u>FACU</u>	
4. <u>Arbutus menziesii</u>		<u>10</u>	<u>N</u>	<u>UPL</u>	
5. <u>Tsuga heterophylla</u>		<u>10</u>	<u>N</u>	<u>FACU</u>	
		<u>90</u>	<u>= Total Cover</u>		
Herb Stratum (Plot size: 1m ²)					
1. <u>None</u>		<u>-</u>	<u>-</u>	<u>-</u>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
		<u>0</u>	<u>= Total Cover</u>		
Woody Vine Stratum (Plot size: 1m ²)					
1. <u>None</u>		<u>-</u>	<u>-</u>	<u>-</u>	
2. _____					
		<u>0</u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>90</u>					
Remarks:					

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = <u>0</u>
FACW species _____	x 2 = <u>0</u>
FAC species _____	x 3 = <u>0</u>
FACU species _____	x 4 = <u>0</u>
UPL species _____	x 5 = <u>0</u>
Column Totals: <u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is >50%

☐ Prevalence Index is ≤3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Wetland Non-Vascular Plants¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒

SOIL

Sampling Point: S2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0 - 1	10YR2/2	100					loam	
1 - 16	10YR4/4	100					sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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 Soils³: ☐ 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 ☒
Remarks:	

HYDROLOGY

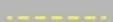
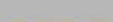
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ 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)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A) ☐ Frost-Heave Hummocks (D7)	Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)
		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

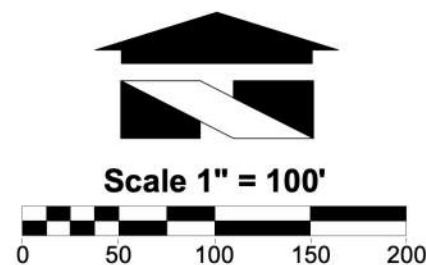
CRITICAL AREAS DETERMINATION MAP
FIGGIS PLAT - POULSBO
PORTION OF SECTION 10, TOWNSHIP 26N, RANGE 01E, W.M.



PLEASE NOTE: THIS MAP IS **APPROXIMATE** FOR PLANNING AND DISCUSSION PURPOSES ONLY. THIS DOES NOT REPRESENT A DELINEATION OR SURVEY. ALL WETLAND BOUNDARIES, BUFFERS, PROPERTY LINES AND SAMPLING POINT LOCATIONS ARE **APPROXIMATE**. THE LOCATIONS SHOWN ON THIS MAP SHOULD **NOT** BE USED TO CREATE A FORMAL SITE LAYOUT.

LEGEND

-  WETLAND
-  HIGH IMPACT USE BUFFER
-  LOW IMPACT USE BUFFER
-  SAMPLING POINTS



Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett, Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

CRITICAL AREAS DETERMINATION MAP
FIGGIS PLAT - POULSBO
POULSBO, WA

Entitle Fund Five, LLC	Sheet 1/1
Attn: Geoffrey P. Sherwin	WRI #: 25083
PO Box 188	Drawn by: EP
Puyallup, WA 98371	Date: 03/31/2025



1601 Fifth Avenue, Suite 500
Seattle, Washington 98101

p. 206.505.3400
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January 23, 2026

Donald Washburn
City of Poulsbo Engineering Department
200 NE Moe St, Poulsbo, WA 98370
Ph: 360-394-9767 Fax: 360-697-8269

Re: Cedar View at Glenwood Plat Preliminary Stormwater Site Plan – Peer Review

Dear Mr. Washburn:

BHC Consultants, LLC (BHC) is under contract with the City of Poulsbo (City) to assist in the review of the following documents prepared by KPFF Consulting Engineers, LLC, for the Cedar View at Glenwood Plat project:

- Preliminary Drainage Report, dated October, 2025.
- Preliminary Civil Plans, dated October 9, 2025.

The purpose of this review is to evaluate the above documents for conformance with the following:

- 2019 Stormwater Management Manual for Western Washington (SWMMWW).
- Poulsbo Municipal Code (PMC), Section 13.17.

This letter provides comments on the documents where revisions or clarifications are needed to demonstrate conformance with the requirements listed above.

Preliminary Stormwater Site Plan:

1. The “Infiltration Feasibility” section of the Geotechnical Report prepared by JKM Holdings, LLC states that “a localized area of poorly graded gravel with sand was encountered at depth at TP-5. Small-scale or low-impact development designs may be feasible in this area.” Please further evaluate the potential to infiltrate runoff from impervious surfaces (roofs) located within this target area.
2. The downstream conveyance system installed as part of the Olympic College project was sized to handle wetland surcharge flows as stated in the Drainage Report. Please confirm the existing downstream stormwater system is adequately sized to handle additional flow contributions from the proposed Cedarview Plat.
3. Please provide additional information identifying the drainage areas that will drain to, and areas that will bypass the stormwater pond. The site was measured to be just under 5 acres (measured on the Civil Plans); however, the Drainage Report provides a total site area of 4.11 acres, making it unclear which drainage areas the pond was sized to accept.
4. Per the Geotechnical Report, (“Preliminary Detention Pond Considerations” section) the need for a pond liner shall be evaluated during the final plat design.

5. Please clarify how the emergency overflow spillway will “direct overflows back into the downstream conveyance system or other acceptable discharge point” as required by the design criteria provided in the 2019 SWMMWW, Volume V – Chapter 12.
6. It appears that general length and width pond dimensions were used to calculate the total storage volume (access ramp was not accounted for in total storage volume). Please re-run the MGS model with stage-storage analysis.
7. Show that the pond has enough capacity to manage runoff from the design event while meeting flow control requirements.

Preliminary Civil Plans:

1. SWMMWW Volume I, Chapter 3.4.2 provides guidance on preparation of Construction Stormwater Pollution Prevention Plan (SWPPP) and erosion and sediment control plan. Please prepare and provide a Construction SWPPP and an erosion and sediment control plan for review during final plat design.
2. Provide details and sections of the outlet control structure and Oldcastle BioPod Water Quality Vault for review during final plat design.

Please let me know if you have questions or comments regarding this letter. We look forward to supporting the City with resubmittal reviews for this project.

Sincerely,
BHC Consultants

Becca Ochiltree, PE
BHC Project Manager
E-mail: becca.ochiltree@bhccconsultants.com
Cell Phone: 206-355-8953

cc: Sam Ferguson, BHC Project Engineer