



January 21, 2020

Zachary Pyle, PE  
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(210) 849-5592

Re: Rock Cove Preliminary Critical Areas Assessment

Zach,

Ecological Land Services (ELS) completed a field assessment for FDM Development to determine whether wetlands or fish and wildlife habitat conservation areas (hereafter collectively termed critical areas) are located on or adjacent to parcels 02070100130300, 02070100130400, and 02070100130200 (hereafter referred to as the study area) in the City of Stevenson, Skamania County, Washington. The study area is in the SW  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 1, Township 2 N, and Range 7 East of the Willamette Meridian, coordinates 45.6890, -121.8992, and accessed from Rock Cove Drive (Figure 1). City of Stevenson zoning is "Commercial Recreation" (CR).

ELS completed fieldwork for a critical areas determination on December 30, 2019 in collaboration with Washington Department of Ecology (Ecology) staff. This letter provides a description of the study area's existing conditions as observed on December 30<sup>th</sup> and a summary of critical areas findings in accordance with Stevenson Municipal Code (SMC), Title 18 "Environmental Protection", Chapters 18.08 "Shoreline Management" and 18.13 "Critical Areas and Natural Resource Lands", and Stevenson's Shoreline Master Programs (SMP) dated 1977 (approved) and 2018 (in review).

#### *Site Description*

The study area consists of three parcels that form a peninsula in Rock Cove; Rock Cove is a side channel of the Columbia River formed by the berm for Lewis and Clark Hwy (WA 14) and an adjacent railroad. An unnamed tributary enters Rock Cove north of the study area and Rock Creek enters Rock Cove to the east (Figure 3). An open connection between Rock Cove and the Columbia River is present at its confluence with Rock Creek, southeast of the study area. The study area is currently undeveloped (there are no buildings) but it retains improvements from prior industrial land uses that include concrete and gravel surfaces, gravel roads accessing various points within the study area, a graveled boat launch, and riprap embankments that span the majority of shoreline. A line of abandoned wooden pilings is located just offshore northeast.

Dominant vegetation in the study area included Douglas fir (*Pseudotsuga menziesii*) and red alder (*Alnus rubra*) with Himalayan blackberry (*Rubus armeniacus*) in the understory and rooted in riprap along the

shoreline, and clusters of reed canarygrass (*Phalaris arundinacea*) and soft rush (*Juncus effuses*) rooted in places along the water's edge, at the head of sediment bars and mudflats, and along the river's ordinary high water mark (OHWM).

### *Methods*

ELS followed the U.S. Army Corps of Engineers (Corps) Routine Determination Method described in the "Wetland 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)" (Corps 2010). To make determinations about the presence of wetland in the study area. For regulatory purposes under the Clean Water Act (Section 404) the Environmental Protection Agency (EPA) defines wetlands as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (EPA 2014). Wetlands are regulated as "Waters of the United States" by the Corps, as "Waters of the State" by Ecology, and locally by the City of Stevenson.

The Revised Code of Washington (RCW) 90.58.030(2)(b) and Washington Administrative Code (WAC) 173-22-030(11), defines ordinary high water mark as the action of water "so common and usual and so long continued in all ordinary years as to mark upon the soil a character distinct from that of the abutting upland." In collaboration with Ecology staff, ELS used principles in this guidance to identify transitions in vegetation, wrack lines, scouring under trees and exposed roots, and breaks in topography to distinguish the OHWM of the Columbia River along the study area boundary. Ecology and ELS flagged the OHWM with consecutively numbered orange tape flagging. The flag locations were professionally surveyed by S&F Land Services.

### *Critical areas findings*

ELS and Ecology identified one unnamed tributary north of the study area (Figures 2 and 3). The tributary is identified as a Type F (fish-bearing) water by Washington Department of Natural Resources (DNR) (Figure 4). Rock Creek is east of the study area and is designated as Type S, a shoreline of the state. Rock Cove surrounds the study area on three sides. The Columbia River is designated Type S and is a shoreline of statewide significance. There were no wetlands or other surface waters in the study area, and no priority habitat for terrestrial wildlife. According to SMC 18.13.095(D), the area designated as a fish and wildlife habitat conservation area (FWHCA) for Type F waters is 100 feet and for Type S waters, 150 feet.<sup>1</sup> SMC 18.13.095(D)(3) addresses functionally isolated buffers, indicating areas that "do not protect the FWHCA from adverse impacts due to features such as "lawns, pre-existing roads, structures, or vertical separation" are exempt from buffer criteria. Accordingly, portions of the study area are exempt from the FWHCA for Rock Cove due to areas of maintained vegetation and the presence of riprap which is both structural and vertical separation from Rock Cove (Figure 2).

SMC 18.13.095(D)(6) outlines provisions for buffer averaging or riparian habitat buffer reduction with mitigation to allow reasonable use of a parcel.

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<sup>1</sup> Table 18.13.095-1 - Fish & Wildlife Habitat Conservation Area Protective Buffer Widths

Averaged buffers must meet the following conditions:

- a. There are no feasible alternatives to the site design
- b. The averaged buffer will not result in degradation of the FWHCA's functions and values.
- c. The total buffer area after averaging is equal to the area required without averaging.
- d. The buffer at its narrowest point is never less than 75% of the required base buffer width.

Reduced buffers must meet the following conditions:

- a. mitigation involves restoration or enhancement of all remaining buffers.
- b. Conservation covenants shall--and performance bonds may--be required.
- c. Reduced buffers do not result in a net loss of existing buffer functions.

#### *December 2018 SMP requirements*

The standard shoreline management area (or shoreline setback) for all designated shorelines is 200 feet, measured landward from the OHWM. The study area is zoned "active waterfront"; according to the 2018 SMP, setbacks for development proposed in active waterfront is typically 50 feet.<sup>2</sup>

Regarding improvements from prior industrial land uses including concrete and gravel surfaces, gravel roads, the graveled boat launch, and riprap embankments, the following condition applies:

A shoreline use that was lawfully constructed prior to the effective date of the SMA or the December 2018 SMP and that does not conform to the current SMP standards is considered a nonconforming use. For the purposes of the December 2018 SMP, existing roads (whether asphalt, gravel, or dirt) are considered nonconforming uses and do not need a Shoreline Conditional Use Permit to be retained or improved (SMP 2018).

Thank you for the opportunity to provide this information. The findings in this letter are intended for FDM Development's planning strategy and should be considered preliminary until they're reviewed and approved in writing by the City of Stevenson and Washington Department of Ecology. If you have any questions, please contact me by phone (360) 578-1371 or email [andrew@eco-land.com](mailto:andrew@eco-land.com).

Sincerely,



Andrew R. Allison  
Wetland Scientist, Principal

Attachments:

Figures 1-4

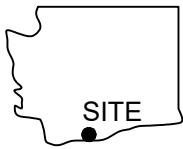
Photoplates 1-4

City of Stevenson 2018 SMP "Table 5.1 Shoreline Use & Setback Standards"

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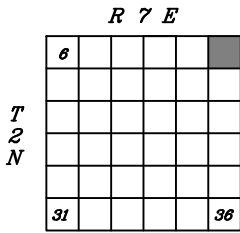
<sup>2</sup> Tables identifying setback distances per development type are attached to this letter for reference.

WASHINGTON



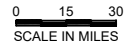
Latitude: 45.6886°  
Longitude: -121.8981°

LOCATION MAP



**NOTE:**  
USGS topographic quadrangle map reproduced using  
MAPTECH Inc., Terrain Navigator Pro software.

### PROJECT VICINITY MAP



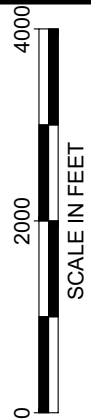
**SITE**

Figure 1

VICINITY MAP  
Rock Cove CAR  
FDM Development  
City of Stevenson, Skamania County, Washington  
Section 1, Township 2N, Range 3E, W.M.

DATE: 1/17/20  
DWN: EF  
REQ. BY: AA  
PRJ. MGR: AA  
CHK: AA  
PROJECT NO:  
2682.02

1157 3rd Ave., Suite 220A  
Longview, WA 98632  
Phone: (360) 578-1371  
Fax: (360) 414-9305  
www.eco-land.com



1/17/2020 3:00 PM 2686.02 DL.dwg Emilio

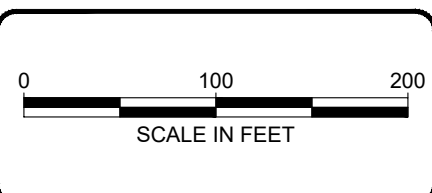
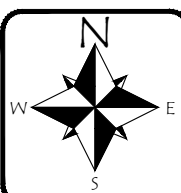


**LEGEND:**

- Site Boundary
- OHWM
- Stream with Flow Direction
- FWHCA Buffer for Type F
- FWHCA Buffer for Type S
- Shoreline Management Plan Setback
- Culvert
- Existing Graveled or Concrete Surfacing
- Existing Rip Rap

**NOTE(S):**

1. Aerial from Google Earth™.
2. OHWM line was determined through a joint effort by Ecological Land Services and Washington Department of Ecology on December 30, 2019. OHWM flags were professionally surveyed by S&F Land Services December 30-31, 2019.
3. FWHCA buffer is functionally isolated along existing riprap and existing gravelled or concrete surfacing.






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Figure 2  
 SITE MAP  
 Rock Cove CAR  
 FDM Development  
 City of Stevenson, Skamania County, Washington  
 Section 1, Township 2N, Range 3E, W.M.

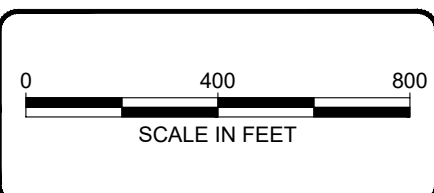
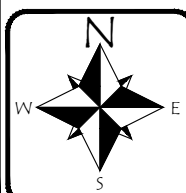


**LEGEND:**

-  Site Boundary
-  OHWM
-  Stream with Flow Direction

**NOTE(S):**

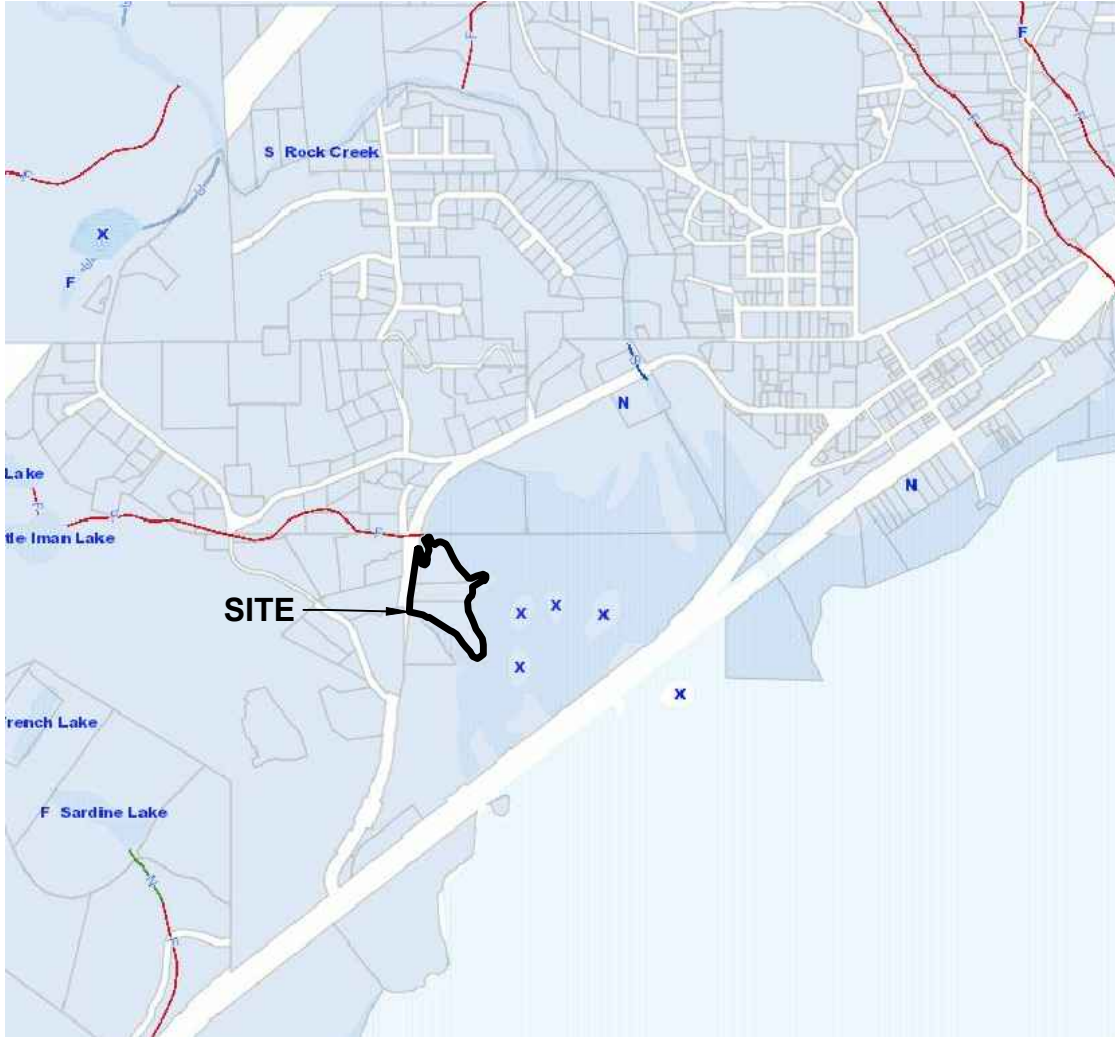
1. Aerial from Google Earth™.




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Figure 3  
SITE OVERVIEW MAP  
Rock Cove CAR  
FDM Development  
City of Stevenson, Skamania County, Washington  
Section 1, Township 2N, Range 3E, W.M.



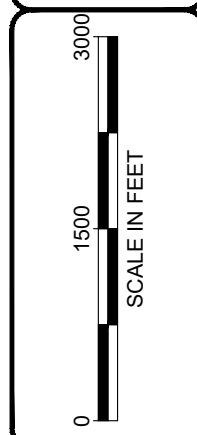
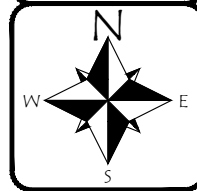
No mapped streams indicated onsite by the Washington State Department of Natural Resources (DNR).

**LEGEND:**

**Streams**

Streams

- Type S
- Type F
- Type N, Np, Ns
- U, unknown
- X, non-typed per WAC 222-16



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 2682.02

Figure 4  
**DNR STREAM TYPE MAP**  
 Rock Cove CAR  
 FDM Development  
 City of Stevenson, Skamania County, Washington  
 Section 1, Township 2N, Range 3E, W.M.

**NOTE:** Map provided online by Washington State Department of Natural Resources at web address: <https://fortress.wa.gov/dnr/protectiongis/fpamt/index.html>



**Photo 1. Inflow point of the unnamed tributary via concrete culvert.**



**Photo 2. Unnamed tributary flowing toward Rock Cove.**



**Photo 3. Overview of unnamed tributary's confluence with Rock Cove.**



**Photo 4. Mud flat adjoining Rock Cove.**



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PR#: 2682.02

**Photoplate 1**  
**Site Photos**  
Rock Cove Preliminary Critical Areas Assessment  
FDM Development, Inc.  
City of Stevenson, Washington





**Photo 1. Vegetated shoreline on the north end of the study area.**



**Photo 2. Vegetated shoreline extending toward the unnamed tributary.**



**Photo 3. Riprap on the eastern shoreline, facing north.**



**Photo 4. Riprap on the eastern shoreline, facing south.**



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**Photoplate 2**  
**Site Photos**  
Rock Cove Preliminary Critical Areas Assessment  
FDM Development, Inc.  
City of Stevenson, Washington



**Photo 1. Graveled boat launch on the east side of the study area.**



**Photo 2. Vegetated shoreline on the west side, facing south.**



**Photo 3. Vegetated shoreline and mud flat in the southwest portion of the study area, facing south.**



**Photo 4. Groomed vegetation in the center of the study area.**



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**Photoplate 3**  
**Site Photos**  
Rock Cove Preliminary Critical Areas Assessment  
FDM Development, Inc.  
City of Stevenson, Washington



**Photo 1. Existing concrete and gravel surfacing.**



**Photo 2. Existing concrete and gravel surfacing.**



**Photo 3. Groomed vegetation in the center of the study area.**



**Photo 4. Existing gravel road.**



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**Photoplate 4**  
**Site Photos**  
Rock Cove Preliminary Critical Areas Assessment  
FDM Development, Inc.  
City of Stevenson, Washington

<b>TABLE 5.1 – SHORELINE USE &amp; SETBACK STANDARDS</b>										
	<b>Shoreline Environment Designation</b>									
	<b>Most Restrictive</b>					<b>to Least Restrictive</b>				
	<b>AQUATIC</b>		<b>NATURAL</b>		<b>SHORELINE RESIDENTIAL</b>		<b>URBAN CONSERVANCY</b>		<b>ACTIVE WATERFRONT</b>	
	<b>Allowance</b>	<b>Setbacks (ft)</b>	<b>Allowance</b>	<b>Setbacks (ft)</b>	<b>Allowance</b>	<b>Setbacks (ft)</b>	<b>Allowance</b>	<b>Setbacks (ft)</b>	<b>Allowance</b>	<b>Setbacks (ft)</b>
P= Permitted, C=Conditional Use, X= Not Permitted, n/a= Not Applicable										
<b>Agriculture &amp; Mining</b>										
Agriculture	X	n/a	X	n/a	X	n/a	X	n/a	X	n/a
Mining	X	n/a	X	n/a	X	n/a	X	n/a	X	n/a
<b>Aquaculture</b>										
Water-Oriented	C	n/a	X	n/a	X	n/a	C	0	C	0
Non-Water Oriented	X	n/a	X	n/a	X	n/a	X	n/a	C	150
<b>Boating Facilities &amp; Overwater Structures</b>										
Non-motorized Boat Launch	See Adjacent Upland Environment		C		P		P		P	
Motorized Boat Launch			X		C		C		P	
Mooring Buoy			C		C		P		P	
Float			X		C		C		P	
Private Leisure Deck			X	n/a	C	n/a	C	n/a	P	n/a
Public Leisure Pier			X		C		P		P	
Single-User Residential Dock			X		C		C		P	
Joint-Use Moorage			X		P		P		P	
Marina		X		X		C		P		
<b>Commercial &amp; Industrial</b>										
Water-Dependent	P				X <sup>1</sup>	0	P	0	P	0
Water-Related, Water Enjoyment	C	n/a	X	n/a	X <sup>1</sup>	75	P	50	P	33
Non-Water-Oriented	X				X	-	C <sup>2</sup>	150	C <sup>2</sup>	100
<b>Forest Practices</b>										
All	X	n/a	C	50	P	50	P	50	P	25
<b>Institutional</b>										
Water-Dependent	C		C	0	C	0	P	0	P	0
Water-Related	X	n/a	X	n/a	C	100	P	75	P	50
Non-Water-Oriented	X		X	n/a	C	100	C	100	P	100
Cemetery	X		X	n/a	C	50	P	50	C	50
<b>Instream Structures</b>										
All	C	n/a	C	0	C	0	C	0	C	0

**TABLE 5.1 – SHORELINE USE & SETBACK STANDARDS, CONT.**

	Shoreline Environment Designation									
	Most Restrictive					Least Restrictive				
	AQUATIC		NATURAL		SHORELINE RESIDENTIAL		URBAN CONSERVANCY		ACTIVE WATERFRONT	
	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)
P= Permitted, C=Conditional Use, X= Not Permitted, n/a= Not Applicable										
<b>Land Division</b>										
All	C	n/a	C	n/a	P	n/a	P	n/a	P	n/a
<b>Recreational</b>										
Water-Dependent	P		P	0	P	0	P	0	P	0
Water-Related/Water-Enjoyment	X		C	100	P	50	P	50	P	50
Trail Parallel to the Shoreline, View Platform	C	n/a	P	50	P	50	P	33	P	25
Dirt or Gravel Public Access Trail to the Water	X		P	0	P	0	P	0	P	0
Non-Water-Oriented (golf course, sports field)	X		X	n/a	X	n/a	C	150	C	100
<b>Residential</b>										
Single-Family	X		X		P	50	C	50	X	N/A
Multi-Family	X	n/a	X	n/a	P	50	P	50	P	50
Over-Water Residence	X		X		X	n/a	X	n/a	X	n/a
<b>Transportation &amp; Parking Facilities</b>										
Highway/Arterial Road	C		X	n/a	C	100	P	50	P	50
Access & Collector Road	X		C	100	P	100	P	50	P	50
Private Road	X		C	100	P	50	C	50	C	50
Bridge	C	n/a	C	0	C	0	P	0	P	0
Railroad	C		C	100	C	100	P	50	P	50
Airport	X		X	n/a	X	n/a	C	150	C	150
Primary Parking Facility	X		X	n/a	X	n/a	X	n/a	X	n/a
Accessory Parking (On-Site Parking Serving another Use, Including Recreation/Vista Uses)	X		P	100	P	100	P	50	P	33

**TABLE 5.1 – SHORELINE USE & SETBACK STANDARDS, CONT.**

	Shoreline Environment Designation									
	Most Restrictive					Least Restrictive				
	AQUATIC		NATURAL		SHORELINE RESIDENTIAL		URBAN CONSERVANCY		ACTIVE WATERFRONT	
	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)	Allowance	Setbacks (ft)
P= Permitted, C=Conditional Use, X= Not Permitted, n/a= Not Applicable										
<b>Utilities</b>										
Water-Oriented	P	n/a	C	0	C	0	P	0	P	0
Non-Water-Oriented (Parallel)	X	n/a	C	100	C	50	P	50	P	33
Non-water-Oriented (Perpendicular)	C	n/a	C	0	C	0	C	0	P	0
1 – All Industrial uses are prohibited, however, a Water-Oriented Commercial use may be allowed as a conditional use in the Shoreline Residential SED. 2 – Conditionally allowed only when a) the project provides a significant public benefit with respect to SMA objectives (e.g., providing public access and ecological restoration) and i) is part of a mixed-use project that includes water-dependent uses or ii) navigability is severely limited or b) the site is physically separated from the shoreline by another property or public right-of-way.										