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PREPARED FOR: FERRY COUNTY AND THE CITY OF REPUBLIC

# Final Draft Cumulative Impacts Analysis Report

## Ferry County Coalition Shoreline Master Program Update

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**List of Acronyms and Abbreviations**

°F	degrees Fahrenheit
BMP	best management practice
Coalition	Ferry County and the City of Republic
County	Ferry County
CTCR	Confederated Tribes of the Colville Reservation
CWA	Clean Water Act
Ecology	Washington State Department of Ecology
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
HPA	Hydraulic Project Approval
IAC	Inventory Analysis and Characterization
NF	North Fork
NPDES	National Pollutant Discharge Elimination System
OHWM	ordinary high water mark
RCW	Revised Code of Washington
RR	regulatory reach
SDP	Substantial Development Permit
SMA	Shoreline Management Act
SMP	Shoreline Master Program
SR	subreach
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WQC	Water Quality Certification

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# 1 INTRODUCTION

## 1.1 Report Purpose

Ferry County (County) and the City of Republic (referred to collectively as the Coalition) have partnered to develop an updated Shoreline Master Program (SMP). The County has an existing SMP, with applicable provisions being incorporated into the update; the City is developing an SMP for the first time. The County received grant funding from the Washington State Department of Ecology (Ecology) for the Coalition to support the update. A primary purpose of this effort is to update the SMP to comply with Chapter 90.58 Revised Code of Washington (RCW), the Shoreline Management Act (SMA), and Ecology’s 2003 Shoreline Master Program Guidelines (Chapter 173-26 Washington Administrative Code [WAC]).

The guidelines require the Coalition members to demonstrate that the updated SMP will result in no net loss to shoreline ecological functions during implementation. Developing this conclusion requires an examination of projected future development, how this development may risk ecological function, and regulatory and non-regulatory actions, including restoration plans, which can influence this risk.

WAC 173-26-201(2)c provides this guidance for protection of ecological functions of shorelines:

*“Master programs shall contain policies and regulations that assure, at minimum, no net loss of ecological functions necessary to sustain shoreline natural resources. To achieve this standard while accommodating appropriate and necessary shoreline uses and development, master programs should establish and apply:*

- *Environment designations with appropriate use and development standards; and*
- *Provisions to address the impacts of specific common shoreline uses, development activities and modification actions; and*
- *Provisions for the protection of critical areas within the shoreline; and*
- *Provisions for mitigation measures and methods to address unanticipated impacts.*

*When based on the inventory and analysis requirements and completed consistent with the specific provisions of these guidelines, the master program should ensure that development will be protective of ecological functions necessary to sustain existing shoreline natural resources and meet the standard. The concept of "net" as used herein, recognizes that any development has potential or actual, short-term or long-term impacts and that through application of appropriate development standards and employment of mitigation measures in accordance with the mitigation sequence, those impacts will be addressed in a manner necessary to assure that the end result will not diminish the shoreline resources and values as they currently exist. Where uses or development that impact ecological functions are necessary to achieve other objectives of RCW 90.58.020, master program provisions shall, to the greatest extent feasible, protect existing ecological functions and avoid new impacts to habitat and ecological functions before implementing other measures designed to achieve no net loss of ecological functions.*

*Master programs shall also include policies that promote restoration of ecological functions, as provided in WAC 173-26-201 (2)(f), where such functions are found to have been impaired based on analysis described in WAC 173-26-201 (3)(d)(i). It is intended that local government, through the master program, along with other regulatory and nonregulatory programs, contribute to restoration by planning for and fostering restoration and that such restoration occur through a combination of public and private programs and actions. Local government should identify restoration opportunities through the shoreline inventory process and authorize, coordinate and facilitate appropriate publicly and privately initiated restoration projects within their master programs. The goal of this effort is master programs which include planning elements that, when implemented, serve to improve the overall condition of habitat and resources within the shoreline area of each city and county.”*

Combined with the Restoration Plan (Anchor QEA 2015a), the Cumulative Impacts Analysis Report is the final analysis step for the Coalition’s comprehensive SMP updates. This report includes a brief introduction to the County and City, along with a more detailed discussion of the setting is available through the Inventory Analysis and Characterization (IAC) Report (Anchor QEA 2015b). Also included is a discussion of anticipated development within the

next 20 years; this is based on the land-capacity analysis presented in the IAC Report, which is further refined based on the foreseeable rate of development within each shoreline reach during the next 20 years. Potential impacts to ecological functions from this development are identified, along with provisions to address these impacts. Finally, based on all of these inputs, the anticipated future performance for each shoreline area is addressed. Overall, this report will serve to demonstrate that future development under the proposed SMP will result in no net loss of shoreline ecological function in the County.

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## 2 SETTING

The County is located in the northeastern portion of Washington and includes the City of Republic and several other smaller towns. The City of Republic is located in the central part of the County. The County is bordered by the Canadian Province of British Columbia to the north, Stevens County to the east, Lincoln County to the south and southeast, and Okanogan County to the west.

The County encompasses a total area of 2,257 square miles (5,846 square kilometers). The Confederated Tribes of the Colville Reservation (CTCR) encompasses 1,079 square miles (2,794 square kilometers; 47.8%) of the southern portion of the County. Private lands held in fee ownership on the CTCR that are along shoreline jurisdiction waterbodies fall under County jurisdiction; as such, entire waterbodies (streams and lakes) were included in shoreline jurisdiction, as applicable, even where they are on the CTCR. Of the 1,178 square miles (3,051 square kilometers) of land in the study area (but outside of the CTCR), 1,124 square miles (2,912 square kilometers) are land and 54 square miles (139 square kilometers; 4.6%) are water.

The County falls within the Northeastern region of Washington (NOAA 2015a, 2015b). Annual precipitation increases in a northeasterly direction from 17 to 28 inches in the northeastern corner of the state. The average winter season snowfall varies from 40 to 80 inches in the valleys. In the lower elevations, snow reaches a depth of 15 to 30 inches and typically remains on the ground from the first of December until March. Both rainfall and snowfall increase along the slopes of the mountains (WRCC 2015).

High temperatures in January can range from 15 to 30 °F. The average minimum temperature varies from negative 10 to negative 20 °F. Summer high temperatures are usually 85 to 90 °F with low temperatures of 45 to 50 °F (WRCC 2015).

Existing land use throughout County shorelines is split fairly evenly between public (30%), private (39%), and tribal (31%) ownership. Agriculture is not prevalent in the shorelines of the County and makes up only 1% of the total shoreline area (611 acres). Population density is also very low in the County, resulting in only a few highly developed areas, which account

for 2% of shoreline land cover. Forests (8,910 acres, 17%) and shrublands (5,533 acres, 11%) are the most common terrestrial shoreline land-cover types. The U.S. Bureau of Reclamation is the largest owner of public shorelines in the County, mostly due to ownership of lands within the Lake Roosevelt National Recreation Area. City of Republic shoreline is mostly designated as private residential ownership, with only 0.5% of the shoreline area under the Public Lands category; however, most of this area is included in the Perry Wilderness Park.

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### **3 REASONABLY FORESEEABLE FUTURE DEVELOPMENT AND POTENTIAL IMPACTS TO ECOLOGICAL FUNCTION**

#### **3.1 Foreseeable Future Development**

The County has an estimated population of 7,660 based on 2014 Office of Financial Management data. From 2010 to 2014, the population has grown at about 1.44%, with annual growth rate ranging from no growth to 0.66% within the County. The City of Republic's estimated population is 1,100. The population at the City of Republic has grown at about 2.52% from 2010 to 2014 (OFM 2015).

With this minimal development trend in the County, it is anticipated development would be further limited in the shoreline areas in the next 20 years due to public ownership of land by multiple state and federal agencies. The southern half of the County is within the CTCR. This limits the development potential along the shoreline on the south side of the County. Existing land uses, including agricultural and forest lands, also limit future high-intensity development potential within the shoreline. Additionally, steep slopes, floodplain, and lack of access and utilities would affect future development. State and federal land ownership could add recreational development but would limit residential development along the shoreline. Additionally, future developments are likely to be impacted by major roads and railroads abutting the shoreline. For example, the eastern portion of the Kettle River shoreline is bordered by U.S. Route 395 and the western portion is bordered by Highway 21 North.

Residential developments are primarily anticipated on privately owned lands in the form of subdivisions, development on existing land, and development of existing vacant lots. Privately owned lands along the Kettle River, Sanpoil River, Deadman Creek, Curlew Creek, and Curlew Lake shorelines anticipate much of the future residential development. The most intense development may occur within the Rural Service Areas where smaller lots are allowed, such as Curlew Lake and Twin Lakes.

Future development along the Columbia River shoreline is limited due to the Lake Roosevelt National Recreational Area and tribal ownership of land. In some of the lakes that are

remotely located and publicly owned, such as Round, Bourgeau, and Swan lakes, minimal or no development is anticipated within the planning timeframe.

The County has experienced very minimal development within its shoreline in the past 5 years; the rate is up to four units per year, including new developments and expansions (Whipple 2014). In order to anticipate similar development trends, 5% of the total development capacity was used for each reach. Future development would mostly include recreational improvements with limited new residential, commercial, and industrial developments. Potential for future development is summarized in Table 25 of the IAC Report. Table 1 presents a number of development indicators and details for each shoreline reach by environment designations.

- **Developable lots/units** – Presents the vacant parcels or areas either subdivided or not yet platted. In most cases, only a portion of these lots is within the shoreline. All Developable lots in this table are estimated for analysis purposes only. Actual development will vary.
- **Anticipated development** – Includes the anticipated residential, commercial, or recreational development throughout the next 20 years.
- **Environment designations** – Identifies the environment designations for each reach that are tied to the anticipated development.

**Table 1  
County Shorelines**

Kettle River	
<b>Kettle River – Reach 1</b>	
<b>Total area:</b> 527 acres	
<b>Developable Lots:</b> 232	
<b>Future Development Constraints:</b> FEMA floodway, 100-year floodplain, agricultural use, public ownership	
Environment Designations	Anticipated Development
Rural	Potential for 12 residential units with portion within shoreline
Recreation	Potential recreational improvements in the Beal Park
<b>Kettle River – Reach 2</b>	
<b>Total area:</b> 379 acres	
<b>Developable Lots:</b> 132	

<b>Future Development Constraints:</b> FEMA floodway, 100-year floodplain, agricultural use, public ownership, steep slope, existing residential development	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for seven residential units with portion within shoreline
<b>Developable Areas:</b> None	
<b>Kettle River – Reach 3</b>	
<b>Total area:</b> 20 acres	
<b>Developable lots:</b> 132	
<b>Future Development Constraints:</b> FEMA floodway, 100-year floodplain, agricultural use, public ownership, steep slope, mostly developed	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for one new residential development
Recreation	No new development is anticipated on the Ol’ Swimmin’ Hole Park
High Intensity	Potential for commercial development on one lot
<b>Kettle River – Reach 4</b>	
<b>Total area:</b> 446 acres	
<b>Developable Lots:</b> 145	
<b>Future Development Constraints:</b> FEMA floodway, 100-year floodplain, agricultural use, public ownership, steep slope	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for seven new residential developments
Recreation	No new development is anticipated on Lone Ranch Park
<b>Kettle River – Reach 5</b>	
<b>Total area:</b> 113 acres	
<b>Developable Lots:</b> 38	
<b>Future Development Constraints:</b> 100-year floodplain, agricultural use, public ownership	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
High Intensity	Potential for commercial development on two lots in the Rural Service Area
<b>Kettle River – Reach 6</b>	
<b>Total area:</b> 138 acres	
<b>Developable Lots:</b> 88	
<b>Future Development Constraints:</b> 100-year floodplain, public ownership	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for four new residential developments on lots with portion within shoreline
<b>Kettle River – Reach 7</b>	

Reasonably Foreseeable Future Development and Potential Impacts to Ecological Function

<b>Total area:</b> 89 acres	
<b>Developable Lots:</b> 4	
<b>Future Development Constraints:</b> FEMA floodway, 100-year floodplain, public ownership, steep slope, existing residential development, road bordering the shoreline	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for one new residential development
Recreation	No new development is anticipated on Matney Park
<b>Kettle River – Reach 8</b>	
<b>Total area:</b> 92 acres	
<b>Developable Lots:</b> 69	
<b>Future Development Constraints:</b> 100-year floodplain, steep slope	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for three residential units on lots with portion within shoreline
<b>Kettle River – Reach 9</b>	
<b>Total area:</b> 11 acres	
<b>Developable Lots:</b> 3	
<b>Future Development Constraints:</b> 100-year floodplain, existing development	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Shoreline Residential	No new development is anticipated
High Intensity	Potential for commercial/office development on one lot
<b>Kettle River – Reach 10</b>	
<b>Total area:</b> 137 acres	
<b>Developable Lots:</b> 83	
<b>Future Development Constraints:</b> 100-year floodplain, public ownership	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Potential for three residential units with portion within shoreline
High Intensity	Potential for commercial/office development on one lot
<b>Kettle River – Reach 11</b>	
<b>Total area:</b> 88 acres	
<b>Developable Lots:</b> 32	
<b>Future Development Constraints:</b> 100-year floodplain, existing residential development	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated
Rural	Potential for one residential development with portion within shoreline
Shoreline Residential	Potential for one residential development on vacant lot
<b>Kettle River – Reach 12</b>	
<b>Total area:</b> 124 acres	
<b>Developable Lots:</b> 29	

<b>Future Development Constraints:</b> Public ownership, existing residential development	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated
Rural	Potential for one residential development with portion within shoreline
Recreation	No new development is anticipated
Shoreline Residential	No new development is anticipated
<b>Kettle River-Associated Tributaries</b>	
<b>Toroda Creek Reach 1</b>	
<b>Total area:</b> 212 acres	
<b>Developable Lots:</b> 75	
<b>Future Development Constraints:</b> Steep cliffs	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural	Four new residential units could be developed
<b>South Fork Boulder Creek</b>	
<b>Total area:</b> 508 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Public ownership, lack of access roads	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
<b>Boulder Creek</b>	
<b>Total area:</b> 118 acres	
<b>Developable Lots:</b> 23	
<b>Future Development Constraints:</b> Public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>Deadman Creek</b>	
<b>Total area:</b> 247 acres	
<b>Developable Lots:</b> 64	
<b>Future Development Constraints:</b> Public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on three lots
<b>Curlew Creek</b>	
<b>Total area:</b> 483 acres	
<b>Developable Lots:</b> 100	
<b>Future Development Constraints:</b> Agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on five lots

<b>Columbia River</b>	
<b>Columbia River Reach 1</b>	
<b>Total area:</b> 384 acres	
<b>Developable Lots:</b> 64	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated
High Intensity	Potential for one residential unit with portion within shoreline
<b>Columbia River Reach 2</b>	
<b>Total area:</b> 1,538 acres	
<b>Developable Lots:</b> 95	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on five lots
Recreation	No new development is anticipated
High Intensity	No new development is anticipated
<b>Columbia River Reach 3</b>	
<b>Total area:</b> 1,016 acres	
<b>Developable Lots:</b> 36	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on two lots
<b>Columbia River Reach 4</b>	
<b>Total area:</b> 387 acres	
<b>Developable Lots:</b> 8	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
High Intensity	No new development is anticipated
Shoreline Residential	No new development is anticipated
<b>Columbia River Associated Tributaries</b>	
<b>Sherman Creek</b>	
<b>Total area:</b> 529 acres	
<b>Developable Lots:</b> 6	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership, other public ownership	

<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>Hall Creek</b>	
<b>Total area:</b> 1,136 acres	
<b>Developable Lots:</b> 47	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership, Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on two lots
<b>Stranger Creek</b>	
<b>Total area:</b> 394 acres	
<b>Developable Lots:</b> 28	
<b>Future Development Constraints:</b> Lake Roosevelt National Recreational Area public ownership, Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>Ninemile Creek</b>	
<b>Total area:</b> 350 acres	
<b>Developable Lots:</b> 30	
<b>Future Development Constraints:</b> Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on two lots
<b>Sanpoil River</b>	
<b>Sanpoil River Reach 1</b>	
<b>Total area:</b> 647 acres	
<b>Developable Lots:</b> 88	
<b>Future Development Constraints:</b> 100-year floodplain, agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on four lots
<b>Sanpoil River Reach 2</b>	
<b>Total area:</b> 130 acres	
<b>Developable Lots:</b> 25	
<b>Future Development Constraints:</b> 100-year floodplain, steep slope, public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>Sanpoil River Reach 3</b>	
<b>Total area:</b> 1,043 acres	
<b>Developable Lots:</b> 17	

<b>Future Development Constraints:</b> 100-year floodplain, agricultural use, steep slope, Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
Recreation	No new development is anticipated
<b>Sanpoil River Reach 4</b>	
<b>Total area:</b> 941 acres	
<b>Developable Lots:</b> 24	
<b>Future Development Constraints:</b> 100-year floodplain, Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>Sanpoil River Reach 5</b>	
<b>Total area:</b> 820 acres	
<b>Developable Lots:</b> 48	
<b>Future Development Constraints:</b> 100-year floodplain, Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on two lots
Recreation	No new development is anticipated
<b>Sanpoil River Reach 6</b>	
<b>Total area:</b> 469 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> 100-year floodplain, Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated
High Intensity	No new development is anticipated
<b>Sanpoil River Associated Tributaries</b>	
<b>Granite Creek</b>	
<b>Total area:</b> 117 acres	
<b>Developable Lots:</b> 10	
<b>Future Development Constraints:</b> 100-year floodplain	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on two lots
<b>Granite Creek City of Republic</b>	
<b>Total area:</b> 51 acres	
<b>Developable Lots:</b> 25	
<b>Future Development Constraints:</b> 100-year floodplain, existing development	

<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>West Fork Sanpoil River</b>	
<b>Total area:</b> 250 acres	
<b>Developable Lots:</b> 35	
<b>Future Development Constraints:</b> Indian allotment trust land, steep slope	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on two lots
<b>East Ferry Lakes Group – North</b>	
<b>Lake Ellen</b>	
<b>Total area:</b> 54 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated
<b>Elbow Lake</b>	
<b>Total area:</b> 84 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
<b>La Fleur Lake</b>	
<b>Total area:</b> 90 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
<b>East Ferry Lakes Group – South</b>	
<b>Camille Lake</b>	
<b>Total area:</b> 27 acres	
<b>Developable Lots:</b> 3	
<b>Future Development Constraints:</b> Indian allotment trust land, lack of access road	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on one lot
<b>Round Lake</b>	
<b>Total area:</b> 129 acres	

<b>Developable Lots: 3</b>	
<b>Future Development Constraints:</b> Indian allotment trust land, environmentally sensitive land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
<b>Bourgeau Lake</b>	
<b>Total area:</b> 50 acres	
<b>Developable Lots: 0</b>	
<b>Future Development Constraints:</b> Indian allotment trust land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
<b>Twin Lakes Group</b>	
<b>North Twin Lake</b>	
<b>Total area:</b> 439 acres	
<b>Developable Lots: 14</b>	
<b>Future Development Constraints:</b> Indian allotment trust land, existing residential development, environmentally sensitive areas	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated
High Intensity	Improvement of existing facilities may take place; however, no new development is anticipated
Shoreline Residential	Potential residential development on one lot
<b>South Twin Lake</b>	
<b>Total area:</b> 231 acres	
<b>Developable Lots: 24</b>	
<b>Future Development Constraints:</b> Indian allotment trust land, existing residential development	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated
Shoreline Residential	Potential residential development on one lot
<b>Curlew Lake</b>	
<b>Total area:</b> 400 acres	
<b>Developable Lots: 138</b>	
<b>Future Development Constraints:</b> Public ownership, existing residential development	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential residential development on three lots
Recreation	No new development is anticipated

High Intensity	Improvement of existing facilities may take place; however, no new development is planned
Shoreline Residential	Potential residential development on four lots
<b>West Ferry Lakes Group – North</b>	
<b>Sanpoil Lake</b>	
<b>Total area:</b> 87 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Adjoining major road, existing industrial development, environmentally sensitive land	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
High Intensity	Existing gravel mining operation is expected to continue; however, no new improvement or expansion of this facility is anticipated
<b>Mud Lake</b>	
<b>Total area:</b> 27 acres	
<b>Developable Lots:</b> 8	
<b>Future Development Constraints:</b> Adjoining major road	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	Potential development of one residential unit is anticipated
<b>West Ferry Lakes Group – South</b>	
<b>Ferry Lake</b>	
<b>Total area:</b> 29 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated
<b>Swan Lake</b>	
<b>Total area:</b> 44 acres	
<b>Developable Lots:</b> 0	
<b>Future Development Constraints:</b> Public ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural	No new development is anticipated
Recreation	No new development is anticipated

## **3.2 Potential Impacts to Ecological Function from Development**

Conventional development can lead to negative impacts to the ecological function of shorelines. The degree of impacts can be tied to the intensity of development, the intensity of human use, the buffer distance between upland development and the shoreline, whether shoreline features such as overwater structures and bank hardening are included, and the maintenance operation procedures and materials used. Potential impacts are described below based on the categories of hydrology, sediment, water quality, and habitat.

### **3.2.1 Hydrology**

Impervious surfaces affect subsurface storage and flows. Shoreline hardening can affect subsurface water supply cycle, impacting hyporheic exchange. Overwater structures can affect surface flow dynamics (creating eddies, which are localized changes in water velocity).

### **3.2.2 Sediment**

Sheet flow from impervious surfaces can increase soil erosion and impact the natural nutrient cycles. Vegetation removal also increases soil erosion. Shoreline hardening can affect the sediment supply cycle impacting hyporheic exchange; it can also increase wave energy and thus soil/sediment erosion at the toe of the slope and transfer energy downstream/down current of the hardened area. Wakes from recreation vessels can further exacerbate soil and sediment-erosion issues.

### **3.2.3 Water Quality**

Impervious surfaces affect nutrient cycling, and runoff from these surfaces may include toxins or pathogens affecting water quality. Vegetation alterations have similar impacts and may also increase water temperatures due to the loss of overhanging canopies. Landscaped areas where fertilizers, herbicides, and/or pesticides are used contribute to harmful toxin inputs into the aquatic environment. At boat ramps, gasoline and other chemicals associated with vessel and truck operations and maintenance can potentially enter the aquatic environment.

### **3.2.4 Habitat**

Development, including shoreline infrastructure, can replace habitat patches and fragment patches, and/or corridors. Disturbance may increase invasive wildlife and plant species, limiting resources for native species. Overwater structures alter sediment, organic material pathways, and the photic zone. Aquatic fill can affect spawning habitat, and shoreline hardening may replace variable-sized nearshore sediment materials with large homogenous substrates that are less conducive to threatened and endangered aquatic species. Artificial light and increased noise can disturb native wildlife species. Water crossing structures (e.g., bridges, culverts, fords) can impact wood and sediment transport and fish movements/migrations within the shoreline aquatic environment.

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## **4 PROTECTION PROVISIONS OF THE PROPOSED SHORELINE MASTER PROGRAM AND ESTABLISHED REGULATION**

The Coalition's SMP will work in conjunction with other city, state, and federal regulations and programs that aim to protect ecological resources and the health and well-being of citizens. The following section summarizes the critical area state and federal regulations and plans for restoration. It also describes activities that will be exempt from shoreline development permits that are administered through the SMP.

### **4.1 Critical Area Protection and Mitigation**

The County has sensitive area regulations for wetlands, geologically hazardous areas, and fish and wildlife habitat conservation areas. The Sensitive Areas Code also describes general mitigation requirements, including avoiding, minimizing, rectifying, or compensating for adverse impacts to these areas or their buffers. Existing sensitive area regulations were updated for the shoreline to be consistent with Ecology's *Wetland & CAO Updates: Guidance for Small Cities, Eastern Washington Version* (Ecology 2014) and will be updated for critical areas outside the shoreline. The code provisions also apply to development within the City of Republic.

### **4.2 Beneficial Effects of Established Regulation and Recreational Land Management Agreement**

Certain state and federal agencies have jurisdiction over certain types of potential development impacts within the Coalition's shoreline jurisdiction, in addition to the SMP requirements. Development thresholds that commonly lead to federal agency consultation include proposals that may impact federally listed fish or wildlife, wetlands, and streams; affect the floodplain or floodway; or include clearing and grading of land.

The updated SMP regulations are meant to be consistent with, and work with, the following existing state and federal regulations:

- **Hydraulic Project Approval (HPA)** – The HPA is administered by the Washington Department of Fish and Wildlife (WDFW). Any work that uses, diverts, obstructs, or changes the natural flow of beds or banks of state waters is subject to

WDFW regulation and could require HPA approval. This could include any projects within the shoreline jurisdiction that require construction below or above the ordinary high water mark (OHWM) of lakes, rivers, and streams. This could also include projects that propose creating new impervious surfaces that would increase stormwater runoff to the waters of the state.

- **National Pollutant Discharge Elimination System (NPDES)** – NPDES permits are administered by Ecology. Any activity that results in the discharge of wastewater to surface water from industrial facilities to municipal wastewater treatment plants requires an NPDES permit. In addition, activities that result in stormwater discharge from industrial facilities, construction sites larger than 1 acre, and municipal stormwater systems that serve more than 100,000 people, require an NPDES permit.
- **Clean Water Act (CWA) Section 404 Permit (Section 404)** – The federal CWA provides the regulatory structure that authorizes the discharge of pollutants from point sources to waters of the United States. Section 404 of the CWA regulates the discharge of dredged or fill material into the water of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) administers and enforces the 404 permits, including individual permit decisions and jurisdictional determinations.
- **CWA Section 401 Water Quality Certification (WQC; Section 401)** – Section 401 of the CWA requires that activities under Section 404 meet the state water quality standards. Ecology reviews and certifies that a proposed project meets the state’s standards with the issuance of the Section 401 WQC. The WQC is required for all general and individual Section 404 permits.
- **Section 10 Rivers and Harbors Act (Section 10)** – In conjunction with the Section 404 permit, USACE also administers the Section 10 permit. All projects and activities that take place in navigable waters of the United States are subject to Section 10.
- **Endangered Species Act (ESA) compliance** – The ESA serves to protect and recover threatened and endangered species and the habitat that the species depend on. The National Marine Fisheries Service and U.S. Fish and Wildlife Service (USFWS) jointly administer ESA compliance. Projects that are associated with federal funding or that require approvals for activities that may affect ESA-listed species will trigger compliance.

### 4.3 Restoration Opportunities

The SMP objective is to maintain no net loss of ecological shoreline functions necessary to sustain shoreline natural resources. It also should improve the shoreline natural resources through restoration planning. Many groups are involved in shoreline restoration and protection in the region containing the County, including the federal and state government, Ferry Conservation District, and local towns. The following is a list of groups that have contributed to shoreline restoration or protection. The list of key parties does not name all groups that have contributed in the past or that may do so in the future, as there may be others that arise:

- Kettle River Advisory Board
- Ferry Conservation District
- CTCR
- Ecology
- National Oceanic and Atmospheric Administration
- National Park Service
- U.S. Bureau of Reclamation
- The Nature Conservancy
- The Okanogan Land Trust
- USFWS
- U.S. Bureau of Land Management
- U.S. Department of Agriculture
- U.S. Forest Service
- Washington State Conservation Commission
- Washington State Department of Natural Resources
- Washington State Recreation and Conservation Office
- WDFW
- Wild Fish Conservancy Northwest, formerly Washington Trout

Although most restoration plans and programs from the SMP jurisdictional area address large-scale direction and management, there is a small set of actions that are named or planned for specific areas. Table 2 lists these restoration locations and opportunities and provides the source document or project proponent, as well as the impairment to be

addressed and the key benefits to ecological function expected as a result of the project implementation. Projects have been reordered in this table from the list of projects in the County's SMP Restoration Plan (Anchor QEA 2015a) to match chronological order of reaches, but the project number has remained consistent with the Restoration Plan.

**Table 2**  
**Restoration and Protection Opportunities and Priorities<sup>1</sup> in the Ferry County Coalition Area**

No.	Area	Location	Restoration/Protection Opportunities	Priority <sup>1</sup>	Source	Key Impairments	Key Benefits to Ecological Functions
1	Columbia River	SR 3c (Redford Canyon), Reach 4 (Moonbeam Bay)	Reduce erosion from wave action by installing log booms	Moderate	USBR Lake Roosevelt Shoreline Protection Systems <sup>2</sup>	Shoreline stabilization	Reduce erosion
2	Kettle River	Reach 1	Restore 900 linear feet of the northeast bank of the Kettle River through placement of large wood, native vegetation planting, and exclusion fencing	High	Private Project <sup>3</sup>	Habitat quality, riparian vegetation	Increase habitat complexity, recruit riparian vegetation
3	Curlew Lake	Headwaters/ Curlew Creek	Improve floodplain connectivity through placement of large wood and boulders	High	USFS – Republic Ranger District <sup>4</sup>	Habitat quality	Increase habitat complexity
4	Curlew Lake	Roberta Lake/ Southern Extension of Curlew Lake	Improve trail facilities including a new boardwalk across Roberta Creek	Moderate	RCO ALEA Act <sup>5</sup>	Shoreline stabilization, water quality	Reduce erosion
5	Curlew Lake	Entire Lake	Remove purple loosestrife from lake via herbicide treatment	Moderate	Ferry County Weed Board <sup>6</sup>	Water quality	Reduce presence of noxious weeds
6	Kettle River	Reach 7	Riparian restoration planting efforts to provide shading and nutrient inputs in non-vegetated areas along U.S. Route 395	Moderate	IAC Report <sup>7</sup>	Riparian vegetation	Recruit riparian vegetation
7	Kettle River	Reach 10	Implement riparian restoration planting efforts to reduce erosion and increase filtration near agricultural field at southern edge of subreach	High	IAC Report	Riparian vegetation, water quality	Recruit riparian vegetation/ reduce erosion
8	South Fork Boulder Creek	N/A	Rebuild National Forest-6110 bridge	Moderate	IAC Report	Shoreline stabilization	Reduce erosion
9	Columbia River	SR 1c	Formalize boat launch and incorporate riparian or aquatic structure complexity associated with these improvements	Moderate	IAC Report	Riparian vegetation, recreation	Recruit riparian vegetation
10	Sanpoil River	SR 5d	Stabilize banks along Silver Creek Road	Moderate	IAC Report	Shoreline stabilization	Reduce erosion
11	Granite Creek	SR 1b	Remove or replace aging wooden trail bridges within the Perry Wilderness Park	Moderate	Community <sup>3</sup>	Riparian vegetation, habitat quality	Remove unneeded structures and improve riparian vegetation and reduce erosion
12	Toroda Creek	SR 1a	Replace two farther upstream culverts on Toroda Creek Road	Moderate	Ferry County Public Works	Improve fish passage and habitat quality	Increase habitat complexity and improve fish passage

Notes:

1 = Very High – Habitat protection projects or actions that have a high likelihood of successfully addressing restoration of ecosystem functions and a high certainty of funding; or address critically important species and habitat concerns; High – Restoration of ecosystem functions (funded actions take higher priority within this category); and Moderate – Restoration of habitat structure (funded actions take higher priority within this category)

2 = USBR (United States Bureau of Reclamation) 2015

3 = Ferry County View 2015a

4 = Ferry County View 2015b

5 = RCO (Recreation and Conservation Office) 2013

6 = Ferry County View 2015c

7 = Anchor QEA 2015

IAC = Inventory, Analysis, and Characterization

NF = North Fork

SR = subreach

#### 4.4 Environment Designations

The County has designated shorelines pursuant to RCW 90.58 by defining them, providing criteria for their identification, and establishing the shoreline ecological functions to be protected. Project proponents are responsible for determining whether a shoreline exists and is regulated pursuant to this SMP. The SMP classifies the County's shoreline into eight shoreline Environment Designations, listed here with their purpose:

- **Aquatic** – This environment designation is used to protect, restore, and manage the unique characteristics and resources of the areas waterward of OHWM.
- **Natural** – This environment designation is used to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline ecological functions less tolerant of human use. These systems require that only very low-intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes. Consistent with the policies of the designation, restoration of degraded shorelines within this environment is appropriate.
- **Rural** – This environment designation is used to: 1) protect and conserve existing natural and resource-based uses such as rural agricultural and working forest lands, large-lot home sites, other privately owned large parcels, and lands in public ownership; 2) restrict intensive development along undeveloped spaces; and 3) protect shoreline ecological functions and valuable historic and cultural areas to provide for sustained resource use, maintenance of natural processes, and recreational opportunities. In addition to existing and future agricultural, rangeland, and forest uses, examples of uses that are appropriate in Rural shoreline environments include low- and high- intensity recreational uses, natural resource-based low-intensity uses, development in support of agricultural uses, and low-intensity residential development uses.
- **High Intensity** – This environment designation is used to provide for water-dependent public and private commercial and transportation uses. The preferred use emphasis is on water-dependent or water-oriented commerce. Examples of uses that are appropriate in a High Intensity shoreline environment include transportation, ferry terminal, navigation uses, grain elevators, fish hatcheries, marinas, hotels and restaurants (when designed with water-enjoyment features), and similar uses. This environment may also provide for recreation while protecting existing ecological

functions and restoring ecological functions in areas that have been previously degraded.

- **Recreation Conservancy** – This environment designation is used to provide continued and enhanced recreational opportunities while protecting shoreline ecological functions; conserve existing natural resources and valuable historic and cultural areas in order to provide for sustained resource use; and achieve natural floodplain processes where applicable. Examples of uses that are appropriate in a Recreation Conservancy shoreline designation include public lands with low-impact recreation uses and water-oriented commercial development.
- **Recreation** – This environment designation is used to provide for water-oriented recreational uses with some commercial uses and residential mixed uses; and support recreational uses while protecting existing ecological functions, conserving existing natural resources, and restoring ecological functions in areas that have been previously degraded.
- **Shoreline Residential** – This environment designation is used to accommodate primarily residential development and appurtenant structures, but also allow other types of development consistent with this chapter. An additional purpose is to provide appropriate public access and recreational uses.

The City of Republic has designated shorelines pursuant to RCW 90.58 by defining them, providing criteria for their identification, and establishing the shoreline ecological functions to be protected. Project proponents are responsible for determining whether a shoreline exists and is regulated pursuant to this program. The SMP classifications for the City of Republic are shown here with their purpose:

- **Aquatic** – This environment designation is used to protect, restore, and manage the unique characteristics and resources of the areas waterward of OHWM.
- **Rural Conservancy** – This environment designation is used to: 1) protect and conserve existing natural and resource-based uses such as rural agricultural and working forest lands, large-lot home sites, other privately owned large parcels, and lands in public ownership; 2) restrict intensive development along undeveloped spaces; and 3) protect shoreline ecological functions and valuable historic and cultural areas to provide for sustained resource use, maintenance of natural processes, and recreational opportunities. In addition to existing and future agricultural, rangeland, and forest

uses, examples of uses that are appropriate in Rural shoreline environments include low- and high- intensity recreational uses, natural resource-based low-intensity uses, development in support of agricultural uses, and low-intensity residential development.

The environment designations for County and City shorelines are based on ecological function protection, physical limitations of the shoreline, and existing and planned or envisioned development. These Environment Designations are one of the key tools for achieving the no-net-loss standard for ecological function and other policy goals within the SMP. For each environment designation, the SMP indicates which shoreline activities, uses, developments, and modifications may be allowed or prohibited within the shoreline jurisdiction. Activities, uses, developments, and modifications are classified as follows:

- **Permitted Uses** – These uses require a Shoreline Substantial Development Permit (SDP) or a Shoreline Exemption Permit.
- **Conditional Uses** – These uses require a Shoreline Conditional Use Permit.
- **Prohibited** – This category includes activities, uses, developments, and modifications that are not allowed and cannot be permitted through a Shoreline Variance Permit (i.e., only allowed where extraordinary circumstances would impose unnecessary hardships or thwart State Use preference policies) or a Shoreline Conditional Use Permit.

These designations are summarized within the Shoreline Use and Modification Matrix and Shoreline Development Standards tables within the SMP.

#### **4.5 Exempt Activities**

The following types of development are exempt from SDP requirements (WAC 173-27-040); however, these activities must comply with all development standards, such as setbacks and other regulations, in the local SMP.

- **Normal maintenance or repair of existing structures** – Maintenance or repair of existing lawful structures and developments is exempt when they are subject to damage by accident, fire, or the elements. Culvert replacements considered routine

maintenance are also exempt. Enlargement of undersized culverts that necessitates a larger structure or footprint area would not fall under an SMP exemption.

- **Owner-occupied single-family residences** – These residences are exempt when they are less than 35 feet above ground level and appurtenant structures, such as garages, decks, driveways, fences, utilities, and grading require moving less than 250 cubic yards of material.
- **Building bulkheads to protect single-family residences** – State rules specify that a bulkhead should be installed at or near OHWM and be for the sole purpose of protecting an existing single-family residence and/or appurtenant structures. A bulkhead cannot be exempt if constructed for the purpose of creating dry land.
- **Constructing docks designed for pleasure craft** – This exemption is only for a dock designed for pleasure craft and for the private, noncommercial use of the owner, lessee, or contract purchaser of single- and multiple-family residences. The fair market value of the dock shall not exceed \$10,000 in fresh waters.
- **Certain agricultural construction activities and practices** – These practices include feedlots, processing plants, and other commercial ventures; irrigation, and drainage activities, including operation and maintenance of existing canals, reservoirs, and irrigation facilities; and operation of dikes, ditches, drains, and other facilities existing on September 8, 1975.
- **Emergency construction to protect property from the elements** – This exemption applies for emergency construction that is necessary to protect property from damage by the elements. Emergency construction does not include building new permanent protective structures that previously did not exist. Restoration actions include control of aquatic noxious weeds, improving fish or wildlife habitat or fish passage, cleaning toxic waste, controlling weeds, or restoring watersheds. A special kind of exemption, defined in the Model Toxic Control Act RCW 70.105D, is exempt from all procedural requirements, but not substantive requirements of the SMA and local SMP.
- **Site exploration and investigation activities** – Activities performed in preparation for applying for a development authorization are exempt if they conform to conditions listed in RCW 90.58.030.(3).(e).xi.
- **Building navigation aids and marking property lines** – Navigational aids such as channel markers and anchor buoys are exempt from permit requirements.

## 4.6 Response to Unanticipated Impacts

Policies within the SMP provide the process for protecting shoreline ecological function from anticipated and unanticipated development through the environment designations, setbacks, and mitigation standards. Additional provisions for unanticipated development, conditional uses, and unique development situations are as follows:

- A reasonable description of shoreline uses through the environment designations
- Buffers and setbacks
- Public input required for conditional-use permitted development
- Review by the County and Ecology for conditional-use permitted development and variances
- Civil penalties for unauthorized development
- Adherence to a strict, no net loss of ecological function policy
- Implementation of actions proposed within the Restoration Plan (Anchor QEA 2015a) to improve habitat over current conditions and mitigate for development impacts

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## 5 ASSESSMENT OF CUMULATIVE IMPACTS

The assessment of cumulative impacts combines existing conditions, environment designations, and anticipated development by proposed environment designation with the potential ecological risks that characterize unregulated development. The provisions within the proposed SMP that can address the risks to ecological functions are also identified, allowing an assessment of the future performance of net effect. Table 3 summarizes these elements for each shoreline reach.

Anticipated development is based on a qualitative land-capacity analysis and discussions with County planners through the environment designation development process. The environment designations also determine permitted, permitted as an accessory unit, permitted as special use, and prohibited uses of the shoreline as shown in the Use Tables within the SMP regulations.

**Table 3  
Cumulative Impacts Analysis**

Notes:  
 BMP = best management practice  
 N/A = not applicable  
 NMFS = National Marine Fisheries Service  
 OHWM = ordinary high water mark  
 RR = Regulatory Reach  
 SMA = Shoreline Management Act  
 SMP = Shoreline Master Program  
 USACE = U.S. Army Corps of Engineers  
 WDFW = Washington Department of Fish and Wildlife

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
Toroda Creek – Reach 1	Rural	Partially Functioning	Four new residential units could be developed	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	<p><b>Section 90.58.100 Section 4.13 Residential Development:</b></p> <p>A. Single-family residential development is a preferred use when it is developed in a manner consistent with SMP provisions.</p> <p>B. Residential development shall be located and constructed to result in no net loss of shoreline ecological function.</p> <p>C. Lots for residential use shall have a maximum density consistent with the local government Comprehensive Plan and development regulations. Lot density and number for residential use may be further limited by other provisions, including goals, policies, and use regulations of this SMP.</p> <p>D. Accessory uses and structures shall be located outside of the riparian buffer, unless the structure is or supports a water-dependent use. Storage structures to support water-related uses are not water-dependent uses and, therefore, shall be located outside of the riparian buffer.</p> <p>E. All residential development shall be located or designed in such a manner as to prevent measurable degradation of water quality from stormwater runoff. Adequate mitigation measures shall be required and implemented where there is the reasonable potential for such adverse effect on water quality.</p> <p>F. New shoreline residences and appurtenant structures shall be sufficiently set back from steep slopes and shorelines vulnerable to erosion so that structural improvements, including bluff walls and other shoreline stabilization and flood control structures, are not necessary to protect proposed residences and associated uses.</p> <p>G. New floating residences and overwater residential structures are prohibited in shoreline jurisdiction.</p> <p>H. New multi-unit residential development, including duplexes, fourplexes, and the subdivision of land into five or more lots, shall make adequate provisions for public access consistent with the regulations set forth in SMP Section 3.07, Public Access.</p> <p>I. Fences associated with single family residences and multi-family structures and their appurtenances shall not obstruct existing visual access to shorelines from public rights of way.</p> <p>J. New residential development shall connect with sewer systems, when available.</p> <p>K. All new residential development shall meet the vegetation management provisions contained in SMP Section 3.05, Shoreline Vegetation Conservation, and SMP Section 5.07, Fish and Wildlife Habitat Conservation Areas.</p> <p>L. Residential development clustering may be required by the Shoreline Administrator where appropriate to minimize ecological and visual impacts on shorelines, including minimization of impacts on shoreline vegetation consistent with SMP Section 3.05, Shoreline Vegetation Conservation.</p>	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as four units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
Kettle River – Reach 1	Rural	Partially Functioning	Potential for twelve residential units with portion within shoreline	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	See Residential development provisions (90.58.100 Section 4.13)	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as 12 units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Kettle River – Reach 1	Recreation	Partially Functioning	Potential recreational improvements in the Beal Park	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	<p><b>Section 90.58.100 .12 Recreational Development:</b></p> <p>A. General Preferences:</p> <ol style="list-style-type: none"> <li>1. Recreational uses and facilities shall include features that relate to access, enjoyment, and use of Ferry County Coalition shorelines.</li> <li>2. Both passive and active shoreline recreation uses are allowed.</li> <li>3. Water-oriented recreational uses and activities are preferred in shoreline jurisdiction. Water-dependent recreational uses shall be preferred as a first priority and water-related and water-enjoyment recreational uses as a second priority.</li> <li>4. Existing passive recreational opportunities, including hunting, angling, nature appreciation, primitive trails where motorized vehicles are not allowed, and environmental interpretation shall be maintained.</li> <li>5. Preference shall be given to the development and enhancement of public access to the shoreline to increase fishing, boating, and other water related recreational opportunities.</li> </ol> <p>B. General Performance Standards:</p> <ol style="list-style-type: none"> <li>1. The potential adverse impacts of all recreational uses shall be mitigated and adequate provisions for shoreline rehabilitation shall be made part of any proposed recreational use or development to ensure no net loss of shoreline ecological function.</li> <li>2. Sites with fragile and unique shoreline conditions, such as high-quality wetlands and wildlife habitats, shall be used only for non-intensive recreation activities such as</li> </ol>	<p>The Recreation environment designation was applied to partially impacted areas that are suitable for future recreational development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>Additionally, restoration of 900 linear feet of the northeast bank of the Kettle River, including</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
					<p>trails, viewpoints, interpretive signage, and similar passive and low-impact facilities that result in no net loss of shoreline ecological function and do not require the construction and placement of permanent structures.</p> <p>3. Use of chemical fertilizers and pesticides should be avoided at recreational developments in shoreline environments. New recreational developments shall be designed to avoid their use. Where their use is required, such use shall be minimized. Measures shall be taken to avoid pesticides and fertilizers leaching into soils and nearshore hyporheic zones in shorelines. The proponent shall specify the BMPs to be used to prevent these applications and resultant leachate from entering adjacent waters.</p> <p>4. Recreational developments shall be located and designed to preserve, enhance, or create scenic views and vistas.</p> <p>5. In approving shoreline recreational developments, the Shoreline Administrator shall ensure that the development will maintain, enhance, or restore desirable shoreline features including unique and fragile areas, scenic views, and aesthetic values. The Shoreline Administrator may, therefore, adjust or prescribe project dimensions, on-site location of project components, intensity of use, screening, lighting, parking, and setback requirements.</p> <p>C. Signs indicating the public's right to access shoreline areas shall be installed and maintained in conspicuous locations at all points of access.</p> <p>D. Recreational developments shall provide facilities for non-motorized access to the shoreline, such as pedestrian and bicycle paths and equestrian access, as applicable. New motorized vehicle access shall be located and managed to protect riparian, wetlands, and shrub steppe habitat functions and value.</p> <p>E. Proposals for recreational developments shall include a landscape plan indicating how self-sustaining native plant communities are incorporated into the proposal to maintain ecological functions. The removal of on-site native vegetation shall be limited to the minimum necessary for the development of permitted structures or facilities and shall be consistent with provisions of SMP Section 3.05, Shoreline Vegetation Conservation, and Section 5.00, Critical Areas.</p> <p>F. Accessory uses and support facilities, such as maintenance facilities, utilities, and other non-water-oriented uses, shall be consolidated and located in upland areas outside shoreline, wetland, and riparian buffers unless such facilities, utilities, and uses are allowed in shoreline buffers based on the regulations of this SMP.</p> <p>G. The placement of picnic tables, playground apparatus, and other similar minor components within the floodways shall be permitted, provided such structures are located and installed in such a manner as to prevent them from being swept away during a flood event.</p> <p>H. Recreational facilities shall make adequate provisions, such as screening, landscaping buffer strips, fences, and signs, to prevent trespass upon adjacent properties and to protect the value and enjoyment of adjacent or nearby private properties and natural areas, as applicable.</p>	<p>placing large woody debris, native vegetation planting, and herbivory exclusion fencing, is planned.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
					I. Recreational facilities or structures are only allowed to be built over water when they provide public access or facilitate a water-dependent use and shall be the minimum size necessary to accommodate the permitted activity. J. Recreational developments shall make adequate provisions for all of the following items: 1. On-site and off-site access and, where appropriate, equestrian access. 2. Appropriate water supply and waste disposal methods. 3. Security and fire protection. K. Structures associated with recreational development shall not exceed 35 feet in height, except when such structures document that the height beyond 35 feet will not obstruct the view of a substantial number of adjoining residences, as noted in SMP Section 3.02, Development Standards. L. Recreational development shall minimize effective impervious surfaces in shoreline jurisdiction and incorporate low-impact development techniques.	
Kettle River – Reach 2	Rural	Partially Functioning	Potential for seven residential units with portion within shoreline	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	See Residential development provisions (90.58.100 Section 4.13).	The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.  Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as seven units.  No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
Kettle River – Reach 3	Rural	Impaired	Potential for one new residential development	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Kettle River – Reach 3	Recreation	Impaired	No new development is anticipated on the Ol' Swimmin' Hole Park	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Kettle River – Reach 3	High Intensity	Impaired	Potential for commercial development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	<p><b>Section 90.58.100 Section 4.05 Commercial Development:</b></p> <p>A. Water-dependent commercial development shall be given priority over non water dependent commercial uses within shoreline environments. Secondly, water related and water-oriented uses shall be given priority over non-water-oriented commercial uses.</p> <p>B. Non-water-oriented commercial uses shall be allowed if they can demonstrate at least one or more of the following requirements:</p> <ol style="list-style-type: none"> <li>1. The commercial use is part of a mixed-use project that includes water dependent uses and provides a significant public benefit with respect to the objectives of the SMA.</li> <li>2. The commercial use is physically separated from the shoreline by another property, public right-of-way, or levee.</li> <li>3. The commercial use is farther upland than 200 feet from the OHWM; therefore, a water-oriented use is not a viable option.</li> </ol> <p>C. Non-water-oriented uses, including, but not limited to, residential uses, may be located with water oriented commercial uses provided the following requirements are met:</p>	<p>The High Intensity environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions and functional breaks from existing development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Development will be maintained within existing disturbed areas to avoid impacts. Wetland and riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
					<ol style="list-style-type: none"> <li>1. The mixed-use project includes one or more water-dependent uses.</li> <li>2. Water-dependent commercial uses, as well as other water-oriented commercial uses, have preferential locations along the shoreline.</li> <li>3. The underlying development land use district permits residential uses together with commercial uses.</li> <li>4. Public access is provided and/or ecological restoration is provided as a public benefit.</li> <li>D. The Shoreline Administrator shall use the following criteria in its review of all commercial development applications:               <ol style="list-style-type: none"> <li>1. Whether there is a water-oriented aspect of the proposed commercial use or activity when it is located within 200 feet of the OHWM.</li> <li>2. Whether the proposed commercial use is consistent with the Shoreline Use and Modification Matrix in SMP Section 3.01.</li> <li>3. Whether the application has the ability to enhance compatibility with the shoreline environment and adjacent uses.</li> <li>4. Whether adequate provisions are made for public and private visual and physical shoreline access.</li> <li>5. Whether the application makes adequate provisions to prevent adverse environmental impacts and provides for shoreline ecological or critical area mitigation, where appropriate.</li> </ol> </li> <li>E. Commercial development shall be designed and maintained in a manner compatible with the character and features of surrounding areas. Developments should incorporate low-impact development techniques into new developments. Architectural and landscape elements should be employed that recognize the river and lake environments. The local government may prescribe and modify project dimensions, screening standards, setbacks, or operation intensities to achieve this purpose.</li> <li>F. Eating and drinking facilities and lodging facilities shall be oriented to provide views to the waterfront when such view is available from the site.</li> <li>G. Commercial uses shall provide for public access as a condition of approval, unless such public access is demonstrated by the proponent to be infeasible or inappropriate for the shoreline pursuant to SMP Section 3.07, Public Access.</li> <li>H. Commercial uses shall provide for suitable measures to rehabilitate and enhance the shoreline ecology as a condition of approval.</li> <li>I. Non-water-oriented commercial uses shall not be allowed over water in any shoreline environment.</li> <li>J. All commercial loading and service areas shall be located upland or away from the shoreline. Provisions shall be made to screen such areas with walls, fences, and landscaping and to minimize aesthetic impacts.</li> <li>K. The storage of potentially hazardous or dangerous substances or wastes is prohibited in the floodway or within 200 feet of the OHWM, whichever boundary extends farthest landward.</li> </ol>	<p>quality protection and vegetation conservation provisions will be applied to protect shoreline functions from redevelopment. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>Land-management efforts could include improved parking, road, and facility areas maintenance and protection of existing vegetation, all to reduce ecological impairment due to fine sediment and pollution runoff.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
					L. Development shall be located, designed, and constructed in a manner that ensures no net loss of shoreline ecological functions and without adverse impacts on other preferred land uses and public access features.	
Curlew Creek	Rural	Partially Functioning	Potential residential development on five lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as five units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Kettle River – Reach 4	Rural	Partially Functioning	Potential for seven new residential developments	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	See Residential development provisions (90.58.100 Section 4.13) and Piers and Docks provisions (90.58.100 Section 4.11).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private</p>

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						residential development could include as many as seven units.  No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Kettle River – Reach 4	Recreation	Partially Functioning	No new development is anticipated on Lone Ranch Park	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Kettle River – Reach 5	Rural	Partially Functioning	No development is anticipate	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Kettle River – Reach 5	Shoreline Residential	Partially Functioning	Potential for commercial development on two lots in the Rural Service Area	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Commercial development provisions (90.58.100 Section 4.05).	The Shoreline Residential environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions and functional breaks from existing development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.  Development will be maintained within existing disturbed areas to avoid impacts. Wetland and riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from redevelopment. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.  Land-management efforts could include improved parking, road, and facility areas maintenance and protection of existing vegetation, all to reduce ecological impairment due to fine sediment and pollution runoff.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.
Kettle River – Reach 6	Rural	Partially Functioning	Potential for four new residential developments on lots with portion within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as four units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Kettle River – Reach 7	Rural	Partially Functioning	Potential for one new residential development	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						residential development could include as many as one unit.  No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Kettle River – Reach 7	Recreation	Partially Functioning	No new development is anticipated on Matney Park	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Kettle River – Reach 8	Rural	Partially Functioning	Potential for three residential units on lots with portion within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.  Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as three units.  No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Kettle River – Reach 9 (at Orient)	Shoreline Residential and Rural	Partially Functioning	Potential for commercial/office development on one lot	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	See Commercial development provisions (90.58.100 Section 4.05).	The Shoreline Residential environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions and functional breaks from existing development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>Development will be maintained within existing disturbed areas to avoid impacts. Wetland and riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from redevelopment. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>Land-management efforts could include improved parking, road, and facility areas maintenance and protection of existing vegetation, all to reduce ecological impairment due to fine sediment and pollution runoff.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>
Kettle River – Reach 9	Shoreline Residential	Partially Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Boulder Creek	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>residential development could include as many as one unit.</p> <p>Additional restoration efforts for this location are planned including decommissioning roads, restoring the natural disturbance regime to forests, and enhancing lynx habitat through forest thinning and regeneration efforts.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
South Fork Boulder Creek	Rural	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Kettle River – Reach 10	Rural	Partially Functioning	Potential for three residential units with portion within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as three units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
Kettle River – Reach 10 (near Orient)	Rural	Partially Functioning	Potential for commercial/office development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Commercial development provisions (90.58.100 Section 4.05).	<p>The Rural environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions and functional breaks from existing development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Development will be maintained within existing disturbed areas to avoid impacts. Wetland and riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from redevelopment. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>Land-management efforts could include improved parking, road, and facility areas maintenance and protection of existing vegetation, all to reduce ecological impairment due to fine sediment and pollution runoff.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>
Kettle River – Reach 11	Rural	Impaired	Potential for one residential development with portion within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Kettle River – Reach 11	Shoreline Residential	Impaired	Potential for one residential development on vacant lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Shoreline Residential environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Kettle River Reach 11	Natural	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

<p>Kettle River Reach 12</p>	<p>Rural</p>	<p>Partially Functioning</p>	<p>Potential for one residential development with portion within shoreline</p>	<p>Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low</p>	<p><b>Section 90.58.100 Section 4.11 Piers:</b></p> <p>A. All boating uses, development, and facilities shall protect the rights of navigation and demonstrate no net loss of ecological functions, including providing on-site and off-site mitigation, as applicable.</p> <p>B. Shared moorage serving single-family use consisting of docks and piers with more than four berths, commercial moorage available to the general public, and moorage related to clubs or other groups not associated with a particular residential development are regulated as Boating Facilities under SMP Section 4.03.</p> <p>C. Docks and piers with four or fewer berths or any number of mooring buoys are regulated under this Section.</p> <p>D. Boating facilities shall avoid the following sites:</p> <ol style="list-style-type: none"> <li>1. Areas where shoreline modification is required for approach and other upland facilities.</li> <li>2. Locations where they would adversely impact upland riparian or nearshore habitat for aquatic species.</li> <li>3. Locations where they would adversely affect flood channel capacity or create a flood hazard.</li> <li>4. Locations where water depths for vessels are not adequate without dredging.</li> </ol> <p>E. Boating facilities, except those accessory to single-family residences, shall provide public access in accordance with SMP Section 3.07, Public Access, and shall be located and designed such that existing public access to public shorelines is not obstructed nor made hazardous.</p> <p>F. All in-water and overwater structures shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Wood treated with creosote, pentachlorophenol, or other similarly toxic materials is prohibited. Docks generally shall be constructed of untreated materials such as untreated wood, approved plastic composites, concrete, or steel.</p> <p>G. Vessels shall be restricted from extended mooring on waters of the state except as allowed by state regulations and unless a lease or other permission is obtained from the state and impacts to navigation and public access are mitigated.</p> <p>H. Boat Launches:</p> <ol style="list-style-type: none"> <li>1. Boat launches accessory to single-family and multi-family residential uses are prohibited.</li> <li>2. Private boat launches shall be allowed only for water-dependent uses and marinas and only when it is demonstrated that public boat launches will not feasibly serve the use. Rail and track systems shall be preferred over concrete ramps.</li> <li>3. New public boat launches for general public use or expansion of public boat launches by adding launch lanes shall demonstrate that the following requirements are met:             <ol style="list-style-type: none"> <li>a. Water depths are adequate to avoid the need for dredging and eliminate or minimize potential loss of shoreline ecological functions or other shoreline resources from offshore or foreshore channel dredging.</li> <li>b. Adjacent residential properties will not be adversely affected by adverse proximity impacts such as noise, light and glare, or scale and aesthetic impacts. Fencing or landscape areas may be required to provide a visual screen.</li> <li>c. Exterior lighting will not adversely impact aquatic species.</li> </ol> </li> </ol>	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit with one dock.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
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					<ul style="list-style-type: none"> <li>d. Adequate provisions are made for restroom, sewage, and solid waste disposal facilities in compliance with applicable health regulations.</li> <li>e. Access and parking shall not produce traffic hazards, shall not result in excessive noise or other impacts, shall minimize traffic impacts on nearby streets, and shall include adequate parking for boat trailers. Parking on public streets may be allowed for peak periods if it is demonstrated that such parking will not adversely impact through traffic or residential uses.</li> <li>i. New moorage to serve a single-family residence may be allowed only if the following requirements are met:             <ul style="list-style-type: none"> <li>1. An applicant demonstrates that existing facilities (boat launches and public and private marinas) are not reasonably available to meet demand.</li> <li>2. The lot does not have access to shared moorage in an existing subdivision, and there is no homeowners association or other corporate entity capable of developing shared moorage.</li> <li>3. In cases where a new dock or pier is approved, the Coalition may require an agreement to share with nearby residences with water frontage and provide for expansion to serve such additional users.</li> </ul> </li> <li>J. A dock or pier serving a single-family residence shall meet the following standards:             <ul style="list-style-type: none"> <li>1. Piers and ramps:                 <ul style="list-style-type: none"> <li>a. To prevent damage to shallow water habitat, piers and ramps shall extend at least 40 feet perpendicular from the OHWM. In some instances and sites, it may not be practical to extend a ramp 40 feet from OHWM (for instance, where this could conflict with navigation). The Coalition may grant exceptions on a case-by-case basis depending on documentation of specific limitation that exist and in coordination with other permitting agencies.</li> <li>b. Piers and ramps shall be no more than 4 feet in width.</li> <li>c. The bottom of either the pier or landward edge of the ramp shall be elevated at least 2 feet above the plane of OHWM.</li> <li>d. Grating shall cover the entire surface area (100%) of the pier or ramp. The open area of grating shall be at least 50%, as rated by the manufacturer.</li> <li>e. Skirting shall not be placed on piers, ramps, or floats. Protective bumper material will be allowed along the outside edge of the float as long as the material does not extend below the bottom edge of the float frame or impede light penetration.</li> <li>f. Shoreline concrete anchors must be placed at least 10 feet landward from the OHWM and shall be sized no larger than 4 feet wide by 4 feet long, unless otherwise approved by the Coalition, National Oceanic and Atmospheric Administration Fisheries, USACE, and WDFW. The maximum anchor height shall be only what is necessary to elevate the bottom of either the pier or landward edge of the ramp at least 2 feet above the plane of the OHWM. The intent of the anchor criteria is to limit impacts to riparian vegetation along the shoreline. The Coalition may grant exceptions on a case-by-case basis from the 10-foot landward requirement if site conditions warrant, based on documentation of specific limitation that exist and in coordination with other permitting agencies.</li> </ul> </li> <li>2. Preservatives:</li> </ul> </li> </ul>	
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Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
					<ul style="list-style-type: none"> <li>a. The dock shall be built with materials that do not leach preservatives or other materials.</li> <li>b. No treated wood of any kind shall be used on any overwater structure (float, pier, or ramp).</li> <li>c. No paint, stain, or preservative shall be applied to the overwater structure.</li> <li>3. General:               <ul style="list-style-type: none"> <li>a. No electricity shall be provided to, or on, the overwater structure.</li> <li>b. No boat lifts or watercraft lifts (e.g., jet ski lifts) of any type will be placed on, or in addition to, the overwater structure. The Coalition may grant exceptions on a case-by-case basis, in coordination with other permitting agencies, if the applicant can demonstrate that the proposed boat lift meets the intent of the criteria to minimize structure, maximize light penetration, and maximize depth. However, these structures must meet the size criteria of the plan (160 square feet total).</li> <li>c. Shoreline armoring (i.e., bulkheads, riprap, and retaining walls) shall not occur in association with installation of the overwater structure.</li> <li>d. Construction of the overwater structure shall be completed during the applicable in-water work window.</li> </ul> </li> <li>4. Piling and float anchors:               <ul style="list-style-type: none"> <li>a. Piling shall not exceed 8 inches in diameter. The intent of this criterion is not to require existing pilings to be removed, cut, or capped but to place limits on the size of new pilings. The Coalition may grant exceptions to allow for larger pilings on a case-by-case basis in coordination with other permitting agencies in areas where safety considerations merit it.</li> <li>b. Pilings shall be spaced at least 18 feet apart on the same side of any component of the overwater structure. The pier/ramp and float are separate components.</li> <li>c. Each overwater structure shall utilize no more than four piles total for the entire project. A combination of two piles and four helical anchors may be used in place of four piles.</li> <li>d. All pilings shall be fitted with devices to prevent perching by piscivorous (fish-eating) birds.</li> <li>e. Submerged float anchors will be constructed from concrete and shall be horizontally compressed in form, by a factor of five or more, for a minimum profile above the stream bed (the horizontal length and width will be at least five times the vertical height). A helical screw anchor may be utilized where substrate allows. The owner shall be responsible for demonstrating feasibility and for proper installation such that anchor displacement does not occur.</li> <li>f. No in-water fill material will be allowed, with the exception of pilings and float anchors (uncured concrete or its byproducts shall not be allowed).</li> </ul> </li> <li>5. Floats:               <ul style="list-style-type: none"> <li>a. Float components shall not exceed the dimensions of 8 by 20 feet, or an aggregate total of 160 square feet, for all float components.</li> </ul> </li> </ul>	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
					<ul style="list-style-type: none"> <li>b. Flotation materials shall be permanently encapsulated to prevent breakup into small pieces and dispersal in water (e.g., rectangular float tubs).</li> <li>c. Grating shall cover 100% of the surface area of the float(s). The open area of the grating shall be no less than 50%, as rated by the manufacturer.</li> <li>d. Functional grating will cover no less than 50% of the float.</li> <li>e. Floats shall not be located in shallow-water habitat where they could ground or impede the passage or rearing of any salmonid life stage.</li> <li>f. Nothing shall be placed on the overwater structure that will reduce natural light penetration through the structure.</li> <li>g. Floats shall be positioned at least 40 feet horizontally from the OHWM and no more than 100 feet from the OHWM, as measured from the landward-most edge of the float. Adjustments to this requirement may be made on an individual basis where street compliance with this standard may present safety issues or be excessive for site conditions.</li> <li>h. Project construction shall cease under high flow conditions that could result in inundation of the project area except for efforts to avoid or minimize resource damage.</li> <li>K. Shared residential docks and piers shall generally meet the standards for single family docks (in SMP Section 4.11[J]), except that the number of floats and the size of piers and other facilities may be increased to serve additional slips to provide one moorage space per residence served.</li> <li>L. Docks and piers shall be set back a minimum of 10 feet from side property lines, except that joint-use facilities may be located closer to, or upon, a side property line when agreed to by contract or covenant with the owners of the affected properties. This agreement shall be recorded with the County Auditor and a copy filed with the shoreline permit application.</li> </ul>	
Kettle River Reach 12	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	NA	No development is anticipated.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
Kettle River Reach 12	Shoreline Residential I	Partially Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	NA	No development is anticipated.
Deadman Creek	Rural	Partially Functioning	Potential residential development on three lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as three units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Columbia River – Reach 1	Rural	Partially Functioning - Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River – Reach 1	Shoreline Residential	Impaired	Potential for one residential unit with portion within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Shoreline Residential y environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions and functional breaks from existing development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>Development will be maintained within existing disturbed areas to avoid impacts. Wetland and riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from redevelopment. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>Land-management efforts could include improved parking, road, and facility areas maintenance and protection of existing vegetation, all to reduce ecological impairment due to fine sediment and pollution runoff.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>
Columbia River – Reach 1	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River – Reach 2	Rural	Partially Functioning - Functioning	Potential residential development on five lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						residential development could include as many as five units.  No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Columbia River – Reach 2	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River – Reach 2	High Intensity	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Ninemile Creek	Rural	Functioning	Potential residential development on two lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13)	The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.  Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as two units.  No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Hall Creek	Rural	Partially Functioning	Potential residential development on two lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as two units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Stranger Creek	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
Columbia River – Reach 3	Rural	Functioning – Partially Functioning	Potential residential development on two lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as two units.</p> <p>Restoration efforts for this Redford Canyon are planned, including installation of a log-boom waterway barrier to restrict recreational boat traffic, and reduction of erosion and trampling.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Columbia River – Reach 4	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>Restoration efforts for Moonbeam Bay are planned, including installation of a log-boom waterway barrier to restrict recreational boat traffic, and reduction of erosion and trampling.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Columbia River – Reach 4	High Intensity	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River – Reach 4	Shoreline Residential	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Sherman Creek	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>Multiple restoration efforts are planned for Sherman Creek. These projects include bank stabilization/large woody debris installation, removing culverts for fish passage, and improvement of large-game habitat through restoration of upland shrub ecosystems.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Granite Creek	Rural	Partially Functioning	Potential residential development on two lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as two units.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Granite Creek – Republic	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Sanpoil River – Reach 1	Rural	Partially Functioning	Potential residential development on four lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as four units.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Sanpoil River – Reach 2	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Sanpoil River – Reach 3	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Sanpoil River – Reach 3	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.
Sanpoil River – Reach 4	Rural	Partially Functioning - Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Sanpoil River – Reach 5	Rural	Partially Functioning	Potential residential development on two lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as two units.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Sanpoil River – Reach 5	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.
Sanpoil River – Reach 6	Rural	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.
Sanpoil River – Reach 6	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.
Sanpoil River – Reach 6	High Intensity	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands. Additionally, restoration efforts to reduce the numbers of walleye and smallmouth bass to protect native species, such as kokanee, are planned.
East Ferry Lakes Group – North	Rural	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Invasive species removal restoration efforts are planned for Lake Ellen.
East Ferry Lakes Group – North	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Invasive species removal restoration efforts are planned for Lake Ellen.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
East Ferry Lakes Group – South	Rural	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13) and Piers and Docks provisions (90.58.100 Section 4.11).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit with one dock.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
West Fork Sanpoil River	Rural	Functioning	Potential residential development on two lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as two units.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Twin Lakes Group	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	<p>The Recreation environment designation was applied to partially impacted areas that are suitable for future recreational development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Twin Lakes Group	High Intensity	Partially Functioning	Improvement of existing facilities may take place; however, no new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	<p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands.</p>
Twin Lakes Group	Shoreline Residential	Partially Functioning	Potential residential development on one lot	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13) and Piers and Docks provisions (90.58.100 Section 4.11).	<p>The Shoreline Residential environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						<p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit with one dock.</p> <p>Preservation efforts for this location for protecting bird habitat include protecting interior grasslands, ponderosa pine, and oak woodlands.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Curlew Lake	Rural	Partially Functioning	Potential residential development on three lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13) and Piers and Docks provisions (90.58.100 Section 4.11).	<p>The Rural environment designation was applied to partially impacted areas that are suitable for future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as three units with three docks.</p> <p>Restoration efforts for this location include removing the invasive species purple loosestrife.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Curlew Lake	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Restoration efforts for this location include removing the invasive species purple loosestrife.
Curlew Lake	High Intensity	Partially Functioning	Improvement of existing facilities may take place; however, no new development is planned	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	Restoration efforts for this location include removing the invasive species purple loosestrife.
Curlew Lake	Shoreline Residential	Partially Functioning	Potential residential development on four lots	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See Residential development provisions (90.58.100 Section 4.13) and Piers and Docks provisions (90.58.100 Section 4.11).	<p>The Shoreline Residential environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as four units with four docks.</p> <p>Restoration efforts for this location include removing the invasive species purple loosestrife.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
West Ferry Lakes Group – North	Rural	Impaired	Potential development of one	Hydrology: Low Sediment: Low	See Residential development provisions (90.58.100 Section 4.13) and Piers and Docks provisions (90.58.100 Section 4.11).	The Rural environment designation was applied to partially impacted areas that are suitable for

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
			residential unit on Mud Lake is anticipated	Water Quality: Low Habitat: Low		<p>future residential development or redevelopment based on existing impairment of ecological functions. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Wetland buffers will be applied based on wetland type and land-use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Private residential development could include as many as one unit with one dock.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
West Ferry Lakes Group – North	High Intensity	Impaired	Existing gravel mining operation is expected to continue; however, no new improvement or expansion of this facility is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	<p>The High Intensity environment designation was applied to impacted areas that are suitable for future development or redevelopment based on existing impairment of ecological functions and functional breaks from existing development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.</p> <p>Development will be maintained within existing disturbed areas to avoid impacts. Wetland and riparian buffers will be applied to protect riparian and upland habitat, water quality, and other functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from redevelopment. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p>

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions to Address Risk	Future Performance/Net Effect
						Land-management efforts could include improved parking, road, and facility areas maintenance and protection of existing vegetation, all to reduce ecological impairment due to fine sediment and pollution runoff.  No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.
West Ferry Lakes Group – South	Rural	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
West Ferry Lakes Group – South	Recreation	Partially Functioning	No new development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

Notes:  
 BMP = best management practice  
 N/A = not applicable  
 NMFS = National Marine Fisheries Service  
 OHWM = ordinary high water mark  
 RR = Regulatory Reach  
 SMA = Shoreline Management Act  
 SMP = Shoreline Master Program  
 USACE = U.S. Army Corps of Engineers  
 WDFW = Washington Department of Fish and Wildlife

As described in Table 3, the SMP will protect the baseline ecological functions within the County. The features that will provide this protection include the SMP environment designations and general requirements, the shoreline modification and use provisions, and, finally, the Restoration Plan (Anchor QEA 2015a). The SMP is expected to accommodate reasonable foreseeable shoreline development while affording these protections and restoration initiatives throughout the next 20 years. All of these provisions will result in no net loss of shoreline ecological function in the County and may actually lead to an improvement or gain of ecological function over time.

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