

# FINAL DRAFT CUMULATIVE IMPACTS ANALYSIS REPORT LINCOLN COUNTY COALITION SMP UPDATE

---



## **Prepared for**

Lincoln County and the Towns of Odessa and Reardan

## **Prepared by**

Anchor QEA, LLC  
8033 West Grandridge Boulevard, Suite A  
Kennewick, Washington 99336

## **Prepared with assistance from**

Oneza & Associates  
431 Columbia Point Drive  
Richland, Washington 99352

*This report was funded through a grant from Washington State Department of Ecology.*

**October 2015**

---

## TABLE OF CONTENTS

1	INTRODUCTION .....	1
1.1	Report Purpose .....	1
2	SETTING .....	4
3	REASONABLY FORESEEABLE FUTURE DEVELOPMENT AND POTENTIAL IMPACTS TO ECOLOGICAL FUNCTION .....	6
3.1	Foreseeable Future Development.....	6
3.2	Potential Impacts to Ecological Function from Development .....	15
4	PROTECTION PROVISIONS OF THE PROPOSED SHORELINE MASTER PROGRAM AND ESTABLISHED REGULATION.....	17
4.1	Critical Area Protection and Mitigation .....	17
4.2	Beneficial Effects of Established Regulation and Recreational Land Management Agreement .....	17
4.3	Restoration Opportunities .....	19
4.4	Environment Designations .....	24
4.5	Exempt Activities .....	28
4.6	Response to Unanticipated Impacts .....	29
5	ASSESSMENT OF CUMULATIVE IMPACTS .....	30
6	REFERENCES .....	57

### List of Tables

Table 1	County Shorelines.....	7
Table 2	Site-specific Restoration and Protection Opportunities.....	21
Table 3	Cumulative Impacts Analysis.....	31

---

## LIST OF ACRONYMS AND ABBREVIATIONS

BLM	Bureau of Land Management
BMP	best management practice
CCSP	Crab Creek Subbasin Plan
CCSS	Crab Creek Subbasin Summary
Coalition County	Lincoln County, the Town of Odessa, and the Town of Reardan Lincoln County
CPTED	Crime Prevention Through Environmental Design
Ecology	Washington State Department of Ecology
ESA	Endangered Species Act
HPA	Hydraulic Project Approval
IAC	Inventory, Analysis, and Characterization
LCC	Lincoln County Code
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
OHWM	ordinary high water mark
RCW	Revised Code of Washington
Reclamation	U.S. Bureau of Reclamation
RM	river mile
SLWMP	Swanson Lakes Wildlife Area Management Plan
SLWPW	Swanson Lakes Wildlife Area Management Plan
SMA	Shoreline Management Act
SMP	Shoreline Master Program
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WSDOT	Washington State Department of Transportation
WQC	Water Quality Certification

---

# 1 INTRODUCTION

## 1.1 Report Purpose

Lincoln County (County), the Town of Odessa, and the Town of Reardan (referred to collectively as the Coalition<sup>1</sup>) are in the process of updating their respective Shoreline Master Programs (SMPs). The County received grant funding from the Washington State Department of Ecology (Ecology) for the Coalition to develop an updated SMP. A primary purpose of this effort is to update the SMP to comply with Chapter 90.58 Revised Code of Washington (RCW; WSL 2011), the Shoreline Management Act (SMA), and Ecology's 2003 SMP Guidelines (Washington Administrative Code [WAC] 2011).

The guidelines require the Coalition members to demonstrate 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 (2011)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*

---

<sup>1</sup> The City of Sprague was initially included in the Coalition and the Town of Reardan was not. However, after completing the preliminary shoreline jurisdiction analysis, it is recommended that Negro Creek, within the City of Sprague, not be included as shoreline jurisdiction and the Audubon Lakes in Reardan be included; this changed the Coalition composition.

- *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, 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; a more detailed discussion of the setting is available through the

Inventory Analysis and Characterization (IAC) Report (Anchor QEA 2014). Also included in this report 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 these inputs, the anticipated future performance for each shoreline area is addressed. Overall, the 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 and towns.

---

## 2 SETTING

The County is located in the eastern portion of Washington State and includes the Towns of Odessa and Reardan. The County encompasses a total area of 2,339 square miles (6,059 square kilometers), of which 2,275 square miles (5,894 square kilometers) are land and 64 square miles (165 square kilometers; 2.7%) are water. The County is bordered by Okanogan, Ferry, and Stevens counties to the north, Spokane County to the east, Adams and Whitman counties to the south, and Grant County to the west. The Town of Odessa is located in the southwest corner of the County at the crossroads of Highways 21 and 28. Crab Creek runs through Odessa from east to west. Reardan is located in the northeast portion of the state along Highway 231. The Audubon Lakes are located directly north of Reardan.

The County falls within the Okanogan Big Bend region of Washington (NOAA 2015a, 2015b). This region includes fruit-producing valleys along the Columbia River. The annual precipitation ranges from 11 inches in the valley to 16 inches in some areas of the Columbia River Plateau. Snowfall varies from 30 to 70 inches and occurs from November through March or April. Monthly average high temperatures in January range from 28 to 32 degrees with low temperatures between 15 to 20 degrees. Monthly average high temperatures in the summer average between 85 to 90 degrees with low temperatures occurring in the lower 50s (WRCC 2015).

Existing land use throughout the County's shoreline is primarily agricultural and public lands. Only a small portion of the shoreline land use is residential or commercial, 0.08% and 0.05% respectively. Much of the agricultural land is used for dryland crops due to the arid conditions of the County. Private ownership is approximately 55% above the ordinary high water mark (OHWM) with the rest of land falling under public ownership. The U.S. Bureau of Reclamation (Reclamation) is the largest public shoreline land holder in the County with 24.9% ownership above OHWM. A large portion of recreational land exists on the shoreline of the Lake Roosevelt National Recreation Area along the Columbia and Spokane rivers. This area is managed by the National Park Service (NPS). The Washington Department of Natural Resources (WDNR) and the Washington Department of Fish and Wildlife (WDFW) have public ownership along Crab Creek and Lake Creek. Land use in the Town of Odessa is

mainly residential with a limited amount of commercial use. The shoreline of the Town of Reardan is currently undeveloped with a portion of the northeast end of Audubon Lake recently changed from Industrial to Agricultural.

---

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

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

The County has an estimated population of 10,700 based on 2014 Office of Financial Management data. From 2010 to 2014, the population growth has been about 1.23% with annual growth rate ranging from 0% to 0.71% (OFM 2014). Population growth has declined for the Town of Odessa from 2010 to 2014 at 1.1%. The Town of Reardan has also experienced a decline in growth from 2010 to 2014 at 0.18%.

With the minimal development trends, it is anticipated development would be further limited in the shoreline areas in the next 20 years due to steep cliffs along the shoreline, Federal Emergency Management Agency floodplains, and public ownership. The future development potential within the County is also limited by additional factors, such as recreational sites, areas under federal management for hydropower, and existing land use being predominantly agricultural and rangeland. Future development along the Columbia River and portion of the Spokane River shoreline is largely limited due to the Lake Roosevelt Recreation Area managed by the NPS. Additionally, there are agricultural land and rangeland on the shoreline that would limit future development. Future development could occur on privately owned lands in the form of subdivision and development on existing land, and development of existing vacant lots. Public land improvement may include enhancement of existing recreational amenities. Shoreline along Crab Creek is mostly used for agricultural purposes. A significant portion of the Crab Creek shoreline is owned by the Bureau of Land Management (BLM), and some portion is owned by WDNR. Future development in the Crab Creek shoreline is also limited due to the exiting agricultural use and public ownership.

Within the Town of Odessa, there is some vacant land on the east side of the shoreline, which could be developed in the future. The entire shoreline in the Town of Reardan is within the 100-year floodplain. This shoreline has limited development potential. Zoning of the northwest end of the shoreline has recently been changed from Industrial to Agricultural, which would prohibit construction of any permanent structure (Johnson 2013).

Potential for future development is summarized in Table 16 of the IAC Report (Anchor QEA, 2014). Table 1 of this report presents a number of development indicators and details for each shoreline reach by environment designations. The following terms are used in Table 1:

- **Developable Areas:** Presents the vacant areas with development potential, either subdivided or not yet platted
- **Anticipated Development:** Includes the anticipated residential, commercial, or recreational development during the next 20 years
- **Environment Designations:** Identifies the environment designations for each reach that are tied to the anticipated development

**Table 1  
County Shorelines**

<b>Columbia River – Reach 1</b>	
<b>Developable Areas:</b> 1-acre and 2-acre areas, portion of parcels within shoreline	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by the NPS; rocky and high banks	
<b>Environment Designations</b>	<b>Anticipated Development</b>
Rural Conservancy	There is potential for development on 1-acre and 2-acre areas with portion within shoreline.
Recreation Conservancy	No new development is anticipated.
Recreation	No new development is anticipated, except for regular maintenance and operation of Eden Harbor boat moorage and Spring Canyon Campground.
<b>Columbia River – Reach 2</b>	
<b>Developable Areas:</b> One vacant lot (1.5 acres); one area with portion of parcels within shoreline (1.5 acres)	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS; rocky and high banks in some locations	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated.
Rural Conservancy	There is potential for development of three lots; one near Morgan Lane, two east of Cayuse Bay.
Recreation Conservancy	No new development is anticipated.

<b>Columbia River – Reach 3</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS; Keller Ferry, managed by WSDOT; existing single family development	
Environment Designation	Anticipated Development
Rural Conservancy	No new development is anticipated.
Recreation	No new development is anticipated, except for regular maintenance and operation of the campground, boat launches, and the beach area.
<b>Columbia River – Reach 4</b>	
<b>Developable Areas:</b> 3 acres on Jones Bay, 4.5 acres north of Kennedy Road, 3 acres east of Halvestor Canyon, ten vacant plats in Lincoln, 5 acres near Welch Creek Cove	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS; rocky and high banks in some locations	
Environment Designation	Anticipated Development
Natural	Three residential lots could be developed with only a portion of the lot within the shoreline.
Rural Conservancy	There is potential for residential development parcels with portion within the shoreline, on ten vacant lots near Lincoln; three lots near Welch Creek Cove, and two near Halvestor Canyon.
Recreation Conservancy	A group boat-in campsite is to be designated in Penix Canyon.
Recreation	There is potential for a low-impact (gravel) overflow parking lot in Lincoln.
<b>Columbia River – Reach 5</b>	
<b>Developable Areas:</b> 2 acres on Hawk Creek	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS; rocky and high banks in some locations	
Environment Designation	Anticipated Development
Natural	No new development is anticipated.
Rural Conservancy	There is one lot in Hawk Creek.
Recreation	No new development is anticipated, except for regular maintenance and operation.
<b>Columbia River – Reach 6</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS	
Environment Designation	Anticipated Development
Natural	No new development is anticipated.

<b>Columbia River – Reach 7</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Recreation Conservancy	No new development is anticipated.
Recreation	No new development is anticipated.
<b>Columbia River – Reach 8</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural Conservancy	No new development is anticipated.
Recreation Conservancy	No new development is anticipated, except for regular maintenance and operation of the Seven Bays Marina.
Recreation	No new development is anticipated.
<b>Spokane River – Reach 1</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated.
Recreation	No new development is anticipated.
<b>Spokane River – Reach 2</b>	
<b>Developable Areas:</b> Eight vacant lots near Porcupine Bay (Reach 2a), 24.5 acres in Reach 2c, 12 vacant lots in Reach 2c	
<b>Future Development Constraints:</b> Lake Roosevelt Recreational Area, managed by NPS	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Natural	There is potential for designation of group boat-in campsites in Detillion.
Rural Conservancy	There is potential for residential development on 12 vacant lots; 16 new lots could be created; most lots with portion within shoreline.
Recreation	There is potential to add low-impact (gravel) overflow parking lot at Fort Spokane and Porcupine Bay; widen the boat launch at Fort Spokane.
Shoreline Residential	There is potential for residential development on 12 vacant lots; most lots would have a portion within the shoreline.
<b>Spokane River – Reach 3</b>	
<b>Developable Areas:</b> Four vacant lots and 5-acre area near Spring Creek	
<b>Future Development Constraints:</b> Steep slope, agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural Conservancy	There is potential for development of seven residential units, each with portions within the shoreline.

<b>Spokane River – Reach 4</b>	
<b>Developable Areas:</b> Ten vacant lots (portion in shoreline), 3 acres west of Long Lake	
<b>Future Development Constraints:</b> Little Falls Dam	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural Conservancy	There is potential for development of 12 residential units, each with portions within the shoreline.
Recreation	No new development is anticipated.
High Intensity	Redevelopment or facilities expansion or replacement potential is possible, along with regular maintenance and operation of Little Falls Dam.
<b>Spokane River – Reach 5</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Long Lake Dam	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
High Intensity	Redevelopment or facilities expansion or replacement potential is possible, along with regular maintenance and operation of Long Lake Dam.
<b>Crab Creek – Reach 1 and Peterson Lake</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Resource Agricultural use; railroad; BLM ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 2</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Agricultural land use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 3</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Constrained by BLM ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Rural Conservancy	No new development is anticipated.

<b>Crab Creek – Reach 4</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Agricultural use; railroad	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 5</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Constrained by BLM ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 6</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 7 (Sylvan Lake)</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> High bank	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 8</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 9</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Constrained by BLM ownership	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Rural Conservancy	No new development is anticipated.

<b>Crab Creek – Reach 10</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Constrained by BLM ownership, agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 11</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lack of access road	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 12</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Crab Creek – Reach 13</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Agricultural use	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Aquatic – Crab Creek	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>Sprague Lake – Reach 1</b>	
<b>Developable Areas:</b> Available land on the south bank	
<b>Future Development Constraints:</b> Railroad; constrained by WDFW easement	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated.
Rural Conservancy	There is potential for expansion of the railroad on the north bank.
Recreation	No new development is anticipated; maintain regular maintenance and operation of existing facilities.
Shoreline Residential	No new development is anticipated.

<b>Negro Creek</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Floodplain	
Environment Designation	Anticipated Development
Agricultural Conservancy	No new development is anticipated.
<b>Southeast Corner Lake Group (Browns Lake, Ames Lake, Fishtrap Lake, Downs Lake, Fourth of July Lake, and Two Unnamed Lakes)</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Rangeland and BLM ownership	
Environment Designation	Anticipated Development
Rural Conservancy	No new development is anticipated.
<b>Lake Creek Lake Group (Wall Lake, Twin Lakes – Upper and Lower, Coffee Pot Lakes, Deer Springs Lake, Tavares Lake, Cormana Lake, and Three Unnamed Lakes)</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Public ownership of land with less development potential	
Environment Designation	Anticipated Development
Natural	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
Recreation Conservancy	No new development is anticipated.
<b>West-Central Lake Group (H Lake, Greenwood Lake, Bergeau Lake, Swanson Lake – Upper and –Lower, Philips Lake, Wills Lake, Meadow Lake, Goetz Lake, Sullivan Lake and one Unnamed Lake)</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> WDFW ownership	
Environment Designation	Anticipated Development
Natural	No new development is anticipated.
Rural Conservancy	No new development is anticipated.
<b>East-Central Lake Group (Reardan Audubon Lakes)</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> 100-year floodplain; WDFW Swanson Lakes Wildlife Area	
Environment Designation	Anticipated Development
Natural	No new development is anticipated.
Recreation Conservancy	No new development is anticipated.
Shoreline Residential	No new development is anticipated.

<b>Long Lake</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Lack of access roads	
Environment Designation	Anticipated Development
Rural Conservancy	No new development is anticipated.
<b>Town of Odessa, Crab Creek – Reach 1</b>	
<b>Developable Areas:</b> Vacant lots south of Crab Creek	
<b>Future Development Constraints:</b> Floodplain	
Environment Designation	Anticipated Development
Aquatic – Crab Creek	No new development is anticipated.
Shoreline Residential	There is potential for development of three residential units on vacant lots; there is potential for redevelopment and trail improvements.
High Intensity – Public Facility	No new development is anticipated; maintain regular maintenance and operation of existing facilities. There is potential for trail improvements.
<b>Town of Odessa, Crab Creek – Reach 2</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Build out	
Environment Designation	Anticipated Development
Aquatic – Crab Creek	No new development is anticipated.
Recreational	No new development is anticipated, except for potential trail improvements.
Shoreline Residential	There is potential for redevelopment and trail improvements.
High Intensity – Commercial	There is potential for trail improvements.
<b>Town of Odessa, Crab Creek – Reach 3</b>	
<b>Developable Areas:</b> South bank of Crab Creek	
<b>Future Development Constraints:</b> Floodplain	
Environment Designation	Anticipated Development
Aquatic – Crab Creek	No new development is anticipated.
Agricultural Conservancy	No new development is anticipated, except for potential trail improvements.
Shoreline Residential	Potential development of four residential units on vacant lots and potential for trail improvements.

<b>Town of Reardan, Reardan Audubon Lakes</b>	
<b>Developable Areas:</b> No development potential	
<b>Future Development Constraints:</b> Constrained by WDFW Swanson Lakes Wildlife area; local zoning prohibits development	
<b>Environment Designation</b>	<b>Anticipated Development</b>
Natural	No new development is anticipated.
Recreation Conservancy	No new development is anticipated.
Shoreline Residential	No new development is anticipated.

## Notes:

BLM = Bureau of Land Management

NPS = National Park Service

WDFW = Washington Department of Fish and Wildlife

WSDOT = Washington State Department of Transportation

### 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 over-water 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, and shoreline hardening can affect subsurface water supply cycles, impacting hyporheic exchange. Over-water 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 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. Runoff from these surfaces may include toxins or pathogens, which can affect water quality. Vegetation alterations have similar impacts and may also increase water temperatures due to the loss of overhanging canopies.

Landscaped areas and agriculture lands where fertilizers, herbicides, and/or pesticides are used can 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. Over-water 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.

---

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

The Coalition's SMP will work in conjunction with other town, 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 and towns have critical area regulations for wetlands, geologically hazardous areas, and fish and wildlife habitat conservation areas. The codes also describe general mitigation requirements, including avoiding, minimizing, rectifying, or compensating for adverse impacts to these areas or their buffers. Existing regulations were updated for the shoreline to be consistent with Ecology's *Wetland and CAO Updates: Guidance for Small Cities, Eastern Washington Edition* (Ecology 2014) and will be updated for critical areas outside the shoreline within Lincoln County subsequent to the SMP update.

### **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 County's shoreline jurisdiction, in addition to the SMP requirements. Development thresholds that commonly lead to state and 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 in concert with, the following existing state and federal regulations:

- **Hydraulic Project Approval (HPA)** – The HPA is administered by the WDFW. 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 projects within the shoreline jurisdiction that require construction below or

over 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. 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 permit, including individual permit decisions and jurisdictional determinations.
- **CWA Section 401 Water Quality Certification (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 Water Quality Certification (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 upon. The National Marine Fisheries Service (NMFS) 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 aims to 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, Lincoln Conservation District, and other local cities and towns. The following list of key parties may not name all groups that have contributed to shoreline restoration or protection in the past or may in the future, as there may be others that arise.

- Lincoln Conservation District
- Spokane Tribe of Indians
- National Oceanic and Atmospheric Administration
- Washington Trout
- The Nature Conservancy
- Ducks Unlimited
- Inland Northwest Land Trust
- Reardan Chamber of Commerce
- BLM
- Reclamation
- NPS
- U.S. Department of Agriculture
- USFWS
- Washington State Recreation and Conservation Office
- Washington State Conservation Commission
- Washington State Department of Natural Resources
- Ecology
- Washington State Department of Fish and Wildlife

Although most restoration plans and programs applicable within 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 City's SMP Restoration Plan (Anchor QEA 2015) to match chronological order of reaches, but the project number has remained consistent with the Restoration Plan.

**Table 2**  
**Site-specific Restoration and Protection Opportunities**

No.	Area	Site	Restoration/Protection Opportunities	Priority <sup>1</sup>	Source	Key Impairments	Key Benefits to Ecological Functions
1	Crab Creek Reaches 1 through 13	Crab Creek	<ul style="list-style-type: none"> <li>• Re-connect floodplain where appropriate</li> <li>• Reduce sedimentation</li> <li>• Re-establish wetland connectivity</li> <li>• Protect/enhance/restore riparian conditions</li> <li>• Control non-native invasive vegetation species</li> <li>• Protect/enhance/restore shrub-steppe habitat</li> <li>• Provide landowner incentives such as the Conservation Reserve Enhancement Program</li> </ul>	Very High	CCSP CCSS IAC	<ul style="list-style-type: none"> <li>• Isolation and fragmentation of native habitat</li> <li>• Dropping ground water table (150 feet during the past few decades)</li> <li>• Conversion of native habitat for production of irrigated and dryland crops</li> <li>• Degradation of remaining native habitat, due to development and urbanization, road construction, and hydropower</li> <li>• Direct and indirect impacts of runoff from croplands, including extreme water flows (quantity and speed), movement of sediments and chemicals, and alteration of habitat</li> <li>• Impacts from crop production and livestock grazing activities</li> <li>• Non-native and/or altered fishery due to widespread changes in land-use</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian vegetation recruitment for native terrestrial species foraging/breeding/nesting habitat</li> <li>• Temperature/dissolved oxygen improvements</li> <li>• Improved toxin/pathogen management capabilities</li> <li>• Increased habitat for terrestrial species foraging/breeding/nesting; protect against toxin and pathogen sources</li> <li>• Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> <li>• Protection for aquatic and terrestrial species</li> </ul>
2	Crab Creek, Odessa Reach	Odessa	<ul style="list-style-type: none"> <li>• Enhancement of seasonal tributary at entrance to Crab Creek near Roy Avenue within Odessa</li> <li>• Manage non-native vegetation along shorelines within Odessa</li> <li>• Enhance local wetlands through non-native species control and protection measures</li> </ul>	High	IAC CCSP	<ul style="list-style-type: none"> <li>• Management of flood risk</li> <li>• Degradation of riparian habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Removal of non-native vegetation enhances recruitment for native terrestrial species foraging/breeding/nesting habitat</li> <li>• Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> <li>• Protection for aquatic and terrestrial species</li> </ul>
3	West-Central Lake Group	Publicly- owned lands in the vicinity of the Swanson Lake Wildlife Area	<ul style="list-style-type: none"> <li>• Protect remaining shrub-steppe and riparian habitat</li> <li>• Increase the quality and quantity of shrub-steppe and riparian habitat in existing areas.</li> <li>• Establish new riparian shrub and tree plantings</li> <li>• Restore wetlands along Lake Creek through removal of artificial levees and channelization</li> <li>• Protect and increase the population of sharp-tailed grouse on the Wildlife Area and surrounding lands</li> <li>• Reduce impact of public use on shrub-steppe obligates and their habitat, while allowing a multitude of public uses on the Wildlife Area</li> <li>• Control noxious weeds</li> </ul>	High	SLWMP IAC	<ul style="list-style-type: none"> <li>• Isolation and fragmentation of native habitat</li> <li>• Direct and indirect impacts of runoff from croplands and livestock grazing areas</li> <li>• Disturbed shoreline vegetation/loss of riparian vegetation and introduction of invasive plant species due to livestock grazing</li> <li>• Expansion of non-native species of plants, fish and wildlife, resulting in reduction and extirpation of many native species</li> </ul>	<ul style="list-style-type: none"> <li>• Protection for aquatic and terrestrial species</li> <li>• Riparian vegetation recruitment for native terrestrial species foraging/breeding/nesting habitat</li> <li>• Temperature/dissolved oxygen improvements</li> <li>• Improved toxin/pathogen management capabilities</li> <li>• Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration; specifically provide lekking, nesting, foraging, and winter habitat for the Columbian sharp-tailed grouse, a state-listed threatened species; as well as for reintroduced sage grouse</li> </ul>

No.	Area	Site	Restoration/Protection Opportunities	Priority <sup>1</sup>	Source	Key Impairments	Key Benefits to Ecological Functions
4	East-central Lake Group; Reardan	Publicly-owned lands in the vicinity of the Reardan Audubon Lake Wildlife Area	<ul style="list-style-type: none"> <li>Protect/enhance/restore shrub-steppe habitat</li> <li>Protect/enhance/restore wetland habitat</li> <li>Protect water quality</li> <li>Preserve upland and waterfowl habitat</li> <li>Provide formalized recreational trail access; fence off smaller desire trails</li> </ul>	High	SLWPPW IAC	<ul style="list-style-type: none"> <li>Direct and indirect impacts of runoff from croplands and livestock grazing areas on water quality and water quantity</li> <li>Disturbed shoreline vegetation/loss of riparian vegetation and introduction of invasive plant species due to livestock grazing</li> <li>Expansion of non-native species of plants, fish and wildlife, resulting in reduction and extirpation of many native species</li> <li>Reduced or disturbed shoreline vegetation due to recreational activities; informal trails</li> </ul>	<ul style="list-style-type: none"> <li>Improved toxin/pathogen management capabilities</li> <li>Increased habitat for terrestrial species foraging/breeding/nesting; protect against toxin and pathogen sources</li> <li>Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> <li>Protection for aquatic and terrestrial species</li> </ul>
4	Spokane River	Recreation areas at Fort Spokane	<ul style="list-style-type: none"> <li>Protect remaining shrub-steppe and riparian habitat</li> <li>Provide education to visitors on habitat types</li> <li>Increase the quality and quantity of shrub-steppe by fencing Providing formalized recreational trail access; fence off smaller desire trails between campgrounds and docks</li> <li>Consider riparian planting combined with curb cuts at boat launch parking lot to provide stormwater irrigation to planted areas</li> </ul>	Moderate	IAC	<ul style="list-style-type: none"> <li>Isolation and fragmentation of native habitat</li> </ul>	<ul style="list-style-type: none"> <li>Riparian vegetation recruitment for native terrestrial species foraging/breeding/nesting habitat</li> <li>Increased habitat for terrestrial species foraging/breeding/nesting; protect against toxin and pathogen sources</li> <li>Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> </ul>
5	Spokane River	Irrigated Agricultural Field adjacent to Chamokane Drive East (downstream of Little Falls dam)	<ul style="list-style-type: none"> <li>Provide landowner incentives towards replanting mass wasting landslide areas to re-establish riparian habitat within these gaps in the riparian buffer</li> </ul>	Moderate	IAC	<ul style="list-style-type: none"> <li>Water quality impacts from agricultural runoff</li> <li>Isolation and fragmentation of native habitat</li> </ul>	<ul style="list-style-type: none"> <li>Improved toxin/pathogen management capabilities</li> <li>Increased habitat for terrestrial species foraging/breeding/nesting; protect against toxin and pathogen sources</li> <li>Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> <li>Protection for aquatic and terrestrial species</li> </ul>
6	Lake Roosevelt	Keller Wilbur Ferry/Keller Wilbur Marina area and Campground	<ul style="list-style-type: none"> <li>Protect remaining shrub-steppe and riparian habitat</li> <li>Increase the quality and quantity of shrub-steppe by formalizing trails between boat launch and car parking near marina/boat launch, and also formalizing trails between campground area and ferry shoreline area</li> <li>Consider riparian planting combined with curb cuts at marina boat launch parking lot to provide stormwater irrigation to planted area</li> </ul>	High	IAC	<ul style="list-style-type: none"> <li>Isolation and fragmentation of native habitat</li> </ul>	<ul style="list-style-type: none"> <li>Riparian vegetation recruitment for native terrestrial species foraging/breeding/nesting habitat</li> <li>Increased habitat for terrestrial species foraging/breeding/nesting; protect against toxin and pathogen sources</li> <li>Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> <li>Protection for aquatic and terrestrial species</li> </ul>

No.	Area	Site	Restoration/Protection Opportunities	Priority <sup>1</sup>	Source	Key Impairments	Key Benefits to Ecological Functions
7	Lake Roosevelt	Redwine Canyon Road Boat launch (Redwine Canyon Road North and East Mill Drive)	<ul style="list-style-type: none"> <li>Consider fenced shrub steppe habitat restoration with educational signs in area south of trailer parking lot</li> <li>Consider riparian planting combined with curb cuts at boat launch parking lot (east of lot) to provide stormwater irrigation to planted areas</li> </ul>	Moderate	IAC	<ul style="list-style-type: none"> <li>Isolation and fragmentation of native habitat</li> </ul>	<ul style="list-style-type: none"> <li>Riparian vegetation recruitment for native terrestrial species foraging/breeding/nesting habitat</li> <li>Increased habitat for terrestrial species foraging/breeding/nesting; protect against toxin and pathogen sources</li> <li>Increased habitat for terrestrial and aquatic species foraging/breeding/nesting/rearing/migration</li> <li>Protection for aquatic and terrestrial species</li> </ul>

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); Moderate – Restoration of habitat structure (funded actions take higher priority within this category)

CCSP = Crab Creek Subbasin Plan (KWA 2004)

CCSS = Crab Creek Subbasin Summary (WDFW 2001)

IAC = Inventory, Analysis, and Characterization Report (Anchor QEA 2014)

SLWMP = Swanson Lakes Wildlife Area Management Plan (WDFW 2006)

SLWPW = Swanson Lakes Wildlife Area Management Plan (WDFW 2014)

#### 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 development proposal is regulated pursuant to this SMP. The SMP classifies the County's shoreline into ten 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.
- **Aquatic – Crab Creek** – This environment designation is used to protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM, while acknowledging the loss of ecological function that occurs in Crab Creek in typical years when the stream is often dry for several months of the year.
- **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 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.
- **Agricultural Conservancy** – This environment designation is used to protect shoreline ecological functions, conserve existing natural and agricultural resources in order to provide for sustained resource use, achieve natural floodplain processes where applicable, and provide recreational opportunities. In addition to existing and future agriculture uses, examples of uses that are appropriate in Agricultural Conservancy shoreline designation include low-impact, passive recreational uses, natural resource-based low-intensity uses, development in support of agricultural uses, and low-intensity residential development.
- **Rural Conservancy** – This environment designation is used to protect shoreline ecological functions; conserve existing natural resources and valuable historic and cultural areas in order to provide for sustained resource use; achieve natural floodplain processes where applicable; and provide recreational opportunities. In addition to existing agriculture uses, examples of uses that are appropriate in a

Rural Conservancy shoreline designation include low-impact, passive recreation uses, water-oriented commercial development, and low-intensity residential development.

- **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.
- **High Intensity Public Facility** – This environment designation is used to provide for higher intensity public facility utility or infrastructure that needs shoreline location for operation and is associated with high-intensity water-oriented power generation, irrigation water supply conveyance, transportation, or navigation uses. This environment may also provide for some recreational uses while protecting public safety and 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.
- **High Intensity Commercial** – This environment designation is used to provide for intensive land uses such as commercial, industrial, office, transportation, retail, and mixed-use developments, together with appropriate accessory uses, while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.

The Coalition cities and towns each have 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 thus regulated pursuant to this SMP. The SMP classifies each city's or town's shoreline into multiple shoreline environment designations, shown here with their purpose:

- **Aquatic (Applicable for all Coalition cities and towns)** – This environment designation is used to protect, restore, and manage the unique characteristics and resources of the areas waterward of OHWM.
- **Aquatic – Crab Creek (Odessa only)** – This environment designation is used to protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM, while acknowledging the loss of ecological function that occurs in Crab Creek in typical years when the stream is often dry for several months of the year.
- **Natural (Reardan only)** – This environment designation is used to protect those shoreline areas that are relatively free of human influence or 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.
- **Agricultural Conservancy (Odessa only)** – This environment designation is used to protect shoreline ecological functions, conserve existing natural and agricultural resources in order to provide for sustained resource use, achieve natural floodplain processes where applicable, and provide recreational opportunities. In addition to existing and future agriculture uses, examples of uses that are appropriate in Agricultural Conservancy shoreline designation include low-impact, passive recreation uses, natural resource-based low-intensity uses, development in support of agricultural uses, and low-intensity residential development.
- **Recreation Conservancy (Reardan only)** – The “Recreation Conservancy” 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 (Odessa only)** – 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.
- **High Intensity Public Facility (Odessa only)** – This environment designation is used to provide for higher-intensity public facility utility or infrastructure that needs shoreline location for operation and that are associated with high intensity water-oriented power generation, irrigation water supply conveyance, transportation, or navigation uses. This environment may also provide for some recreational uses while protecting public safety and existing ecological functions, conserving existing natural resources, and restoring ecological functions in areas that have been previously degraded.
- **Shoreline Residential (Odessa and Reardan)** – 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.
- **High Intensity Commercial (Odessa only)** – This environment designation is used to provide for intensive land uses such as commercial, industrial, office, transportation, retail, and mixed-use developments, together with appropriate accessory uses, while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.

The environment designations for County and Coalition city and town 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 achieving 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** – Uses that require a Shoreline Substantial Development Permit or Shoreline Exemption
- **Conditional Uses** – Uses that require a Shoreline Conditional Use Permit
- **Prohibited** – 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 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 substantial development permit requirements (WAC 173-27-040); however, these activities must comply with 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 exempted when such structures are subject to damage by accident, fire, or the elements.
- **Owner-occupied single-family residences** – These residences are exempt when they are less than 35 feet above ground level and construction of 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 exempted 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 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, which 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 the 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
- Implement actions proposed within the Restoration Plan (Anchor QEA 2015) to improve habitat over current conditions and mitigate for development impacts.

---

## 5 ASSESSMENT OF CUMULATIVE IMPACTS

The assessment of cumulative impacts combines existing conditions and 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 4 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**

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 1	Rural Conservancy	Partially functioning	Potential development on 1 acre and 2 acre areas with lot portion in shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	Residential development provisions (18.02.430) A. Single-family residential development is a preferred use when it is developed in a manner consistent with pollution control and prevents damage to the natural environment. B. Residential development shall be located and constructed to result in no net loss of shoreline ecological function. No net loss of shoreline ecological functions shall be ensured through the implementation of buffers specified in Article V, Critical Areas, and other provisions of this SMP related to shoreline stabilization, vegetation management, and on-site sewage disposal. C. Lots for residential use shall have a maximum density consistent with the Lincoln County Coalition’s Comprehensive Plan and zoning regulations. 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. 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. 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. G. New floating residences and overwater residential structures shall be prohibited in shoreline jurisdiction. 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 LCC 18.02.260, Public Access. I. New residential development shall connect with sewer systems, when available. J. All new residential development shall be required to meet the vegetation management provisions contained in LCC 18.02.240, Shoreline Vegetation Conservation, and LCC 18.02.530, Fish and Wildlife Habitat Conservation Areas. K. 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 LCC 18.02.240, Shoreline Vegetation Conservation.	The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low-intensity development based on some limited impairment of existing 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 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.  No net loss of ecological function is anticipated as SMP provisions are applied.

**Table 3  
Cumulative Impacts Analysis**

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 1	Recreation Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River Reach 1	Recreation	Partially functioning	No new development is anticipated, except for regular maintenance and operation of Eden Harbor boat moorage and Spring Canyon Campground	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	Recreational development provisions (18.02.420) A. General Preferences: 1. Recreational uses and facilities shall include features that relate to access, enjoyment, and use of the Lincoln County Coalition’s shorelines. 2. Both passive and active shoreline recreation uses are allowed. 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. 4. Existing passive recreational opportunities, including nature appreciation, non-motorized trails, environmental interpretation, and native habitat protection, shall be maintained. 5. Preference shall be given to the development and enhancement of public access to the shoreline to increase fishing, kayaking, and other water related recreational opportunities. B. General Performance Standards: 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. 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 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. 3. For proposed recreation developments that require the use of fertilizers, pesticides, or other toxic chemicals, the proponent shall specify the BMPs to be used to prevent these applications and resultant leachate from entering adjacent waters. 4. Recreational developments shall be located and designed to preserve, enhance, or create scenic views and vistas. 5. In approving shoreline recreational developments, the Shoreline Administrator shall ensure that the development will maintain, enhance, or	No development is anticipated. Efforts could include improved parking, road, and recreational areas maintenance to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.

**Table 3  
Cumulative Impacts Analysis**

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 1	Recreation	Partially functioning	No new development is anticipated, except for regular maintenance and operation of Eden Harbor boat moorage and Spring Canyon Campground	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	<p>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, 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 native, self-sustaining vegetation is 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 LCC 18.02.240, Shoreline Vegetation Conservation, and LCC 18.02, Article V, 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>I. Recreational 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.</p> <p>J. Recreational developments shall make adequate provisions for:</p> <ol style="list-style-type: none"> <li>1. On-site and off-site access and, where appropriate, equestrian access;</li> <li>2. Appropriate water supply and waste disposal methods; and</li> <li>3. Security and fire protection.</li> </ol> <p>K. Structures associated with recreational development shall not exceed 35 feet in height, except for as noted in LCC 18.02.210, Development Standards, when such</p>	No development is anticipated. Efforts could include improved parking, road, and recreational areas maintenance to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.

**Table 3  
Cumulative Impacts Analysis**

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>structures document that the height beyond 35 feet will not obstruct the view of a substantial number of adjoining residences.</p> <p>L. Recreational development shall minimize effective impervious surfaces in shoreline jurisdiction and incorporate low-impact development techniques.</p>	
Columbia River Reach 2	Rural Conservancy	Partially functioning	Potential development of three lots; one (1) near Morgan Lane, two (2) east of Cayuse Bay	<p>Hydrology: Low</p> <p>Sediment: Low</p> <p>Water Quality: Low</p> <p>Habitat: Low</p>	See residential development provisions (18.02.430)	<p>The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low-intensity development based on some limited impairment of existing 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Columbia River Reach 2	Recreation Conservancy	Partially functioning	No development is anticipated	<p>Hydrology: Low</p> <p>Sediment: Low</p> <p>Water Quality: Low</p> <p>Habitat: Low</p>	N/A	No development is anticipated.
Columbia River Reach 3	Rural Conservancy	Impaired to partially functioning	No development is anticipated	<p>Hydrology: Low</p> <p>Sediment: Low</p> <p>Water Quality: Low</p> <p>Habitat: Low</p>	N/A	No development is anticipated.

**Table 3  
Cumulative Impacts Analysis**

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	Recreation	Impaired	No new development is anticipated, except for regular maintenance and operation of the campground, boat launches, and the beach area	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See recreational development provisions (18.02.420)	No development is anticipated. Efforts could include improved parking, road, and recreational areas maintenance to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.
Columbia River Reach 4	Natural	Impaired to partially functioning to functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River Reach 4	Rural Conservancy	Impaired to partially functioning	Potential residential developments parcels with portion within the shoreline, on 10 vacant lots near Lincoln; 3 lots near Welch Creek Cove, 2 near Halvestor Canyon	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low-intensity development based on some limited impairment of existing 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 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.  No net loss of ecological function is anticipated as SMP provisions are applied.

**Table 3**  
**Cumulative Impacts Analysis**

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 4	Recreation Conservancy	Impaired to partially functioning to functioning	A group boat-in campsites is to be designated in Penix Canyon	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See recreational development provisions (18.02.420)	<p>The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low-intensity development based on some limited impairment of existing 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>

**Table 3  
Cumulative Impacts Analysis**

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 4	Recreation	Impaired to partially functioning	Potential for a low-impact (gravel) overflow parking lot in Lincoln	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	<p>Transportation: Trails, Roads, and Parking provisions (18.02.460 (G) thru (I) – for provisions related to parking):</p> <p>G. Parking facilities are not a water-dependent use and shall only be permitted in the shoreline jurisdiction to support an authorized use where it can be demonstrated to the satisfaction of the Shoreline Administrator that there are no feasible alternative locations away from the shoreline. Parking as a primary use shall not be allowed within 50 feet of edge of riparian vegetation corridor. Accessory parking facilities shall be subject to the same permit type as the primary use.</p> <p>H. Accessory parking facilities shall be planned to avoid or minimize adverse effects on unique or fragile shoreline features and shall not result in a net loss of shoreline ecological functions or adversely affect existing or planned water dependent uses. Parking facilities shall be located upland of the principal structure, building, or development they serve, and preferably outside of shoreline jurisdiction, except:</p> <ol style="list-style-type: none"> <li>1. Where the proponent demonstrates that an alternate location would reduce adverse impacts on the shoreline and adjacent uses;</li> <li>2. Where another location is not feasible; and/or</li> <li>3. Except when ADA standards require otherwise.</li> </ol> <p>In such cases, the applicant shall demonstrate use of measures to reduce adverse impacts of parking facilities in shoreline jurisdiction, such as low-impact development techniques, buffering, or other measures approved by the Shoreline Administrator.</p> <p>I. Parking facilities shall be landscaped in a manner to minimize adverse visual and aesthetic impacts on adjacent shoreline and abutting properties.</p>	<p>The Recreation environment designation was applied to 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>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Columbia River Reach 5	Natural	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

**Table 3  
Cumulative Impacts Analysis**

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 5	Rural Conservancy	Partially functioning	One lot in Hawk Creek	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	<p>The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low-intensity development based on some limited impairment of existing 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Columbia River Reach 5	Recreation	Partially functioning	No new development is anticipated, except for regular maintenance and operation	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See recreational development provisions (18.02.420)	No development is anticipated. Efforts could include improved parking, road, and recreational areas maintenance to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.
Columbia River Reach 6	Natural	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River Reach 7	Recreation Conservancy	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

**Table 3  
Cumulative Impacts Analysis**

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 7	Recreation	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River Reach 8	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River Reach 8	Recreation Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Columbia River Reach 8	Recreation	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Spokane River Reach 1	Natural	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe and riparian habitat restoration, provide environmental education opportunities, and provide landowner incentives for riparian restoration
Spokane River Reach 1	Recreation	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Spokane River Reach 2	Natural	Partially functioning	Potential designation of group boat-in campsites in Detillion	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See recreational development provisions (18.02.420)	Shrub-steppe and riparian habitat restoration, provide environmental education opportunities, and provide landowner incentives for riparian restoration
Spokane River Reach 2	Rural Conservancy	Partially functioning	Potential residential development on 12 vacant lots; 16 new could be created; most lots with portion within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low intensity development based upon some limited impairment of existing 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.

**Table 3  
Cumulative Impacts Analysis**

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 upon 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Spokane River Reach 2	Recreation	Partially functioning	Potential to add low-impact (gravel) overflow parking lot at Fort Spokane and Porcupine Bay; widen the boat launch at Fort Spokane;	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	<p>See recreational development provisions (18.02.420)</p> <p>See transportation provisions related to parking (18.02.460 (G) through (I))</p>	<p>The Recreation environment designation was applied to impacted areas that are suitable for future recreational development or redevelopment based upon 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 upon 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>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>

**Table 3  
Cumulative Impacts Analysis**

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
Spokane River Reach 2	Shoreline Residential	Partially functioning	Potential residential development on 12 vacant lots; most lots with portion within shoreline	N/A	See residential development provisions (18.02.430)	<p>Shoreline Residential is applied to impacted areas that are suitable for future development or redevelopment based upon 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>Development, to the extent possible, will be maintained within existing disturbed areas to avoid impacts. Wetland buffers will be applied based upon 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Spokane River Reach 3	Rural Conservancy	Partially functioning	Potential development of 7 residential units, all with portions within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	<p>The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low intensity development based upon some limited impairment of existing 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 upon 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. Shrub-steppe and riparian habitat restoration, provide</p>

**Table 3  
Cumulative Impacts Analysis**

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>environmental education opportunities, and provide landowner incentives for riparian restoration. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Spokane River Reach 4	Rural Conservancy	Partially functioning	Potential development of 12 residential units, all with portions within shoreline	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	<p>The Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low intensity development based upon some limited impairment of existing 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 upon 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. Shrub-steppe and riparian habitat restoration, provide environmental education opportunities, and provide landowner incentives for riparian restoration. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>

**Table 3  
Cumulative Impacts Analysis**

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
Spokane River Reach 4	Recreation	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Spokane River Reach 4	High Intensity	Partially functioning	Redevelopment or facilities expansion or replacement potential is possible, along with regular maintenance and operation of Little Falls Dam	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	<p>Industrial development provisions (18.02.380)</p> <p>A. Water-dependent, and then water-related industrial uses shall have priority over non-water-oriented industrial uses, developments, and activities.</p> <p>B. Non-water-oriented industrial uses shall be prohibited, unless the proponent provides for public access and shoreline ecological enhancement and at least one of the following criteria is met:</p> <ol style="list-style-type: none"> <li>1. The industrial use is part of a mixed-use project that includes water dependent uses.</li> <li>2. Navigability by recreational users is severely limited at the proposed site.</li> <li>3. The use provides a significant public benefit with respect to the objectives of the SMA.</li> <li>4. The industrial use is physically separated from the shoreline by another property, public right-of-way, or levee.</li> </ol> <p>C. The Shoreline Administrator shall condition operational intensities, screening requirements, setbacks or buffers, and other project elements as necessary to preserve the character of the shoreline.</p> <p>D. All loading and service areas shall be located upland of the activity. Loading and service areas shall be screened from adjacent uses to protect the aesthetics of the shoreline.</p> <p>E. New industrial developments shall provide public access to the shorelines unless public access is inappropriate due to health, safety (including consistency with CPTED principles, where applicable), or environmental hazards.</p> <p>F. The proponent shall demonstrate by use of the most current, available scientific and technical information that appropriate practices and methods will be utilized in connection with industrial uses and activities to prevent the contamination of nearby waterbodies and any potential adverse impacts on plant, fish, and animal life.</p> <p>G. Development shall be located, designed, and constructed in a manner that ensures no net loss of shoreline ecological functions and without significant adverse impacts on other preferred land uses and public access features.</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 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 to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>

**Table 3  
Cumulative Impacts Analysis**

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
Spokane River Reach 5	Natural	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe and riparian habitat restoration, provide environmental education opportunities, and provide landowner incentives for riparian restoration
Spokane River Reach 5	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Spokane River Reach 5	High Intensity	Partially functioning	Redevelopment or facilities expansion or replacement potential is possible, along with regular maintenance and operation of Little Falls Dam	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	See industrial development provisions (18.02.380)	<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> <p>Land management efforts could include improved parking, road, and facility areas maintenance to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>

**Table 3  
Cumulative Impacts Analysis**

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
Crab Creek Reach 1 and Peterson Lake	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 1 and Peterson Lake	Agricultural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 1 and Peterson Lake	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 2	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 2	Agricultural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 2	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 3	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 3	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 4	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation

**Table 3  
Cumulative Impacts Analysis**

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
Crab Creek Reach 4	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 5	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 5	Agricultural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 5	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 6	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 6	Agricultural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 7 (Sylvan Lake)	Rural Conservancy	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 8	Aquatic – Crab Creek	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation

**Table 3  
Cumulative Impacts Analysis**

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
Crab Creek Reach 8	Agricultural Conservancy	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 9	Aquatic – Crab Creek	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 9	Rural Conservancy	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 10	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 10	Agricultural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 10	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 11	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 11	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 12	Aquatic – Crab Creek	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation

**Table 3  
Cumulative Impacts Analysis**

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
Crab Creek Reach 12	Rural Conservancy	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Crab Creek Reach 13	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Shrub-steppe, riparian, and wetland habitat restoration, floodplain reconnection, and landowner incentives to promote conservation
Crab Creek Reach 13	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Negro Creek	Agricultural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Southeast Corner Lake Group	Rural Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Lake Creek Lake Group	Rural Conservancy	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
West-Central Lake Group	Rural Conservancy	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
East-Central Lake Group	Natural	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Long Lake	Rural Conservancy	Functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

**Table 3  
Cumulative Impacts Analysis**

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
Town of Odessa, Crab Creek – Reach 1	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Town of Odessa, Crab Creek – Reach 1	Shoreline Residential	Partially functioning	Redevelopment is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	<p>Shoreline Residential is 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>Development, to the extent possible, will be maintained within existing disturbed areas to avoid impacts. 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Town of Odessa, Crab Creek – Reach 1	High Intensity – Public Facility	Partially functioning	No new development is anticipated; regular maintenance and operation of existing facilities	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated. Land management efforts could include improved maintenance to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.
Town of Odessa, Crab Creek – Reach 2	Aquatic – Crab Creek	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

**Table 3  
Cumulative Impacts Analysis**

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
Town of Odessa, Crab Creek – Reach 2	Shoreline Residential	Partially functioning	Redevelopment is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See residential development provisions (18.02.430)	<p>Shoreline Residential is 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>Development, to the extent possible, will be maintained within existing disturbed areas to avoid impacts. 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Town of Odessa, Crab Creek – Reach 2	High Intensity – Commercial	Partially functioning	Potential for redevelopment	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	<p>Commercial development provision (18.02.340)</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:</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. Navigability is severely limited at the proposed site, including opportunities for kayaking or other water-oriented uses.</li> <li>3. The commercial use is physically separated from the shoreline by another property, public right-of-way, or levee.</li> <li>4. 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>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, to the extent possible, 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.</p>

**Table 3  
Cumulative Impacts Analysis**

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>C. Non-water-oriented uses, including, but not limited to, residential uses, may be located with water oriented commercial uses provided:</p> <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 zoning 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> </ol> <p>D. Review Criteria. Lincoln County Coalition shall utilize the following information in its review of all commercial development applications:</p> <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 (LCC 18.02.200 (B));</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; and</li> <li>5. Whether the application makes adequate provisions to prevent adverse environmental impacts and provide for shoreline ecological or critical area mitigation, where appropriate.</li> </ol> <p>E. Commercial development shall be designed and maintained in a manner compatible with the character and features of surrounding areas. Developments are encouraged to incorporate low-impact development techniques into new and existing projects and integrate architectural and landscape elements that recognize the river and lake environments. The Lincoln County Coalition may prescribe and modify project dimensions, screening standards, setbacks, or operation intensities to achieve this purpose.</p> <p>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.</p> <p>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 LCC 12.08.260, Public Access.</p> <p>H. Commercial uses shall provide for suitable measures to rehabilitate and enhance the shoreline ecology as a condition of approval.</p> <p>I. Non-water-oriented commercial uses shall not be allowed over water in any shoreline environment.</p>	<p>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 to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>

**Table 3  
Cumulative Impacts Analysis**

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
Town of Odessa, Crab Creek – Reach 2	High Intensity – Commercial	Partially functioning	Potential for redevelopment	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	<p>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.</p> <p>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.</p> <p>L. Development shall be located, designed, and constructed in a manner that ensures no net loss of shoreline ecological functions and without significant adverse impacts on other preferred land uses and public access features.</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, to the extent possible, 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 to reduce impairment through fines and pollution runoff, and to protect and maintain existing vegetation.</p> <p>No net loss of ecological functions is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.</p>

**Table 3  
Cumulative Impacts Analysis**

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
Town of Odessa, Crab Creek – Reach 2	Recreation	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Town of Odessa, Crab Creek – Reach 3	Aquatic – Crab Creek	Impaired	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Town of Odessa, Crab Creek – Reach 3	Agricultural Conservancy	Impaired	Potential trail improvements	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	See recreational development provisions (18.02.420)	<p>The Agricultural Conservancy environment designation was applied to partially impacted areas that are suitable for future maintenance or low intensity development based upon some limited impairment of existing 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 upon 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</p>

**Table 3  
Cumulative Impacts Analysis**

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>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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied.</p>
Town of Odessa, Crab Creek – Reach 3	Shoreline Residential	Impaired	Potential development of 4 residential units on vacant lots, plus potential for redevelopment	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	See residential development provisions (18.02.430)	<p>Shoreline Residential is 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>Development, to the extent possible, will be maintained within existing disturbed areas to avoid impacts. 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.</p> <p>No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.</p>
Town of Reardan – Reardan Audubon Lakes	Natural	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.
Town of Reardan – Reardan Audubon Lakes	Recreation Conservancy	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

**Table 3**  
**Cumulative Impacts Analysis**

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
Town of Reardan – Reardan Audubon Lakes	Shoreline Residential	Partially functioning	No development is anticipated	Hydrology: Low Sediment: Low Water Quality: Low Habitat: Low	N/A	No development is anticipated.

Notes:  
 BMP = best management practice  
 CPTED = Crime Prevention Through Environmental Design  
 LCC = Lincoln County Code  
 N/A = not applicable  
 OHWM = ordinary high water mark  
 SMP = Shoreline Master Program

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 2015). The SMP is expected to accommodate reasonable foreseeable shoreline development, while also 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.

---

## 6 REFERENCES

- Anchor QEA, LLC (Anchor QEA), 2014. *Final Shoreline Inventory, Analysis, and Characterization Report, Lincoln County Coalition Shoreline Master Program Update*. Prepared for Lincoln County and the Towns of Odessa and Reardan. December 2014.
- Johnson B., 2013. Regarding: Reardon Zoning Map. Email to Ferdouse Oneza, Oneza and Associates. November 15, 2013. Correspondence with Bruce Johnson, Administrator, Town of Reardan.
- Ecology (Washington State Department of Ecology), 2014. *Wetland Rating Form for Eastern Washington*. Publication no. 14-06-030. Available from: <https://fortress.wa.gov/ecy/publications/summarypages/1406030.html>.
- KWA (KWA Ecological Sciences Inc.), 2004. Crab Creek Subbasin Plan. Prepared for the Washington Department of Fish and Wildlife and Lincoln County Conservation District. May 26, 2004.
- NOAA (National Oceanic and Atmospheric Administration), 2015a. *U.S. Climate Data and Maps*. April 2015.
- NOAA, 2015b. *Location of U.S. Climate Divisions*. Prepared for the Earth System Research Laboratory, Physical Sciences Division. April 2015.
- OFM (Office of Financial Management), 2014. *Population of Cities, Towns and Counties Used for Allocation of Selected State Revenues State of Washington*. April 2014.
- RCW (Revised Code of Washington). Updated: April 30, 2015. Available from: <http://apps.leg.wa.gov/rcw/>.
- USACE (U.S. Army Corps of Engineers), 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. ERDC/EL TR-08-28. September 2008.
- WAC (Washington Administrative Code), 2011. Chapter 173-26, State Master Program Approval/Amendment Procedures and Master Program Guidelines. February 2011.
- WSL (Washington State Legislature), 1971. Revised Code of Washington 90.58, Shoreline Management Act of 1971.

- WDFW (Washington Department of Fish and Wildlife), 2001. Draft Crab Creek Subbasin Summary. Prepared for the Northwest Power Planning Council by WDFW and others. March 2001.
- WDFW, 2006. Swanson Lakes Wildlife Area Management Plan. Prepared by Wildlife Area Manager, Juli Anderson. Available from:  
[http://wdfw.wa.gov/lands/wildlife\\_areas/management\\_plans/swanson\\_lakes/](http://wdfw.wa.gov/lands/wildlife_areas/management_plans/swanson_lakes/).
- WDFW, 2014. Swanson Lakes Wildlife Area Management Plan Public Workshop Summary – FINAL. Accessed May 8, 2015. Available from:  
[http://wdfw.wa.gov/lands/wildlife\\_areas/management\\_plans/swanson\\_lakes/notes\\_20140206.pdf](http://wdfw.wa.gov/lands/wildlife_areas/management_plans/swanson_lakes/notes_20140206.pdf).
- WRCC (Western Regional Climate Center), 2015. Climate of Washington: Okanogan-Big Bend. April 2015.