UPPER COLUMBIA RIVER
Geographic Response Plan
(UCR-GRP)
UPPER COLUMBIA RIVER

Geographic Response Plan

(UCR-GRP)

June 2017
# Spill Response Contact Sheet

## U.S. Environmental Protection Agency

<table>
<thead>
<tr>
<th>Region 10 – Spill Response</th>
<th>(206) 553-1263*</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Washington Ops Office</td>
<td>(360) 753-9437</td>
</tr>
<tr>
<td>- RCRA / CERCLA Hotline</td>
<td>(800) 424-9346</td>
</tr>
<tr>
<td>- Public Affairs</td>
<td>(206) 553-1203</td>
</tr>
</tbody>
</table>

## U.S. Coast Guard

<table>
<thead>
<tr>
<th>Sector Puget Sound</th>
<th>(206) 217-6200</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Emergency / Watchstander</td>
<td>(206) 217-6001*</td>
</tr>
<tr>
<td>- Command Center</td>
<td>(206) 217-6002*</td>
</tr>
<tr>
<td>- Incident Management</td>
<td>(206) 217-6214</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13th Coast Guard District</th>
<th>(800) 982-8813</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Strike Force</td>
<td>(252) 331-6000</td>
</tr>
<tr>
<td>- Pacific Strike Team</td>
<td>(415) 883-3311</td>
</tr>
</tbody>
</table>

## National Oceanic Atmospheric Administration

<table>
<thead>
<tr>
<th>Scientific Support Coordinator</th>
<th>(206) 526-6829</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather (NWS Spokane)</td>
<td>(509) 244-0110</td>
</tr>
</tbody>
</table>

## Industry Contacts

| BNSF (Service Interruption Desk) | (817) 352-2832* |

## Local Government

| City of Quincy                | (509) 787-4718 |
| City of East Wenatchee        | (509) 884-9515 |
| City of Wenatchee             | (509) 888-4200 |
| Chelan County DEM             | (509) 667-6864 |
| Douglas County DEM            | (509) 888-6841 |
| Grant County DEM              | (509) 766-5014 |
| Kittitas County DEM           | (509) 962-7525 |

## Other Federal Agencies

| U.S. Fish & Wildlife Service | (360) 534-9313* |
| U.S. Department of Interior  | (503) 326-2489 |

## Response Contractors (OSRO & PRC)

| Able Clean-Up                | (866) 466-5255* |
| Big Sky Industrial           | (800) 582-4949  |
| Clean Harbors                | (800) 645-8265* |
| Marine Spill Response Corp.  | (425) 252-1300* |
| NRC Environmental Services  | (800) 337-7455* |

## Contact Numbers

- **Other Contact Numbers** - Contact Numbers staffed 24-hour/day

## Required Notifications

- Federal Notification - National Response Center: (800) 424-8802*
- State Notification - Washington Emergency Management Division: (800) 258-5990*

## Other Contact Numbers

- Dept Archaeology & Historic Preservation: (360) 586-3065
- Dept of Ecology:
  - Headquarters (Lacey): (360) 407-6000
  - Eastern Regional Office (Spokane): (509) 329-3400
- Dept of Fish and Wildlife (Wenatchee):
  - Emergency HPA Assistance: (360) 902-2537*
  - Oil Spill Team: (360) 534-8233*
- Dept of Health:
  - Drinking Water: (800) 525-0127
  - After normal business hours: (800) 521-0323
- Dept of Natural Resources: (360) 902-1064
- Dept of Transportation (Wenatchee): (509) 667-3000
- State Parks & Recreation Commission: (360) 902-8613
- State Patrol - District 6: (509) 682-8090

## State Notification

- Washington Emergency Management Division: (800) 525-0127
- Command Center: (206) 217-6002*
- Drinking Water: (800) 521-0323
- Incident Management: (206) 217-6214
- Pacific Strike Team: (415) 883-3311
- National Strike Force: (252) 331-6000

- City of Quincy: (509) 787-4718
- City of East Wenatchee: (509) 884-9515
- City of Wenatchee: (509) 888-4200
- Chelan County DEM: (509) 667-6864
- Douglas County DEM: (509) 888-6841
- Grant County DEM: (509) 766-5014
- Kittitas County DEM: (509) 962-7525
Before you print this document

Chapter 4 with appendices (pages 27-122) and Appendix 6A (page 135) of this document are provided in “landscape” page orientation; all other chapters and appendices are oriented in “portrait.” The appendices in Chapter 4 (pages 65-122) have been designed for duplex printing (front and back side of paper), “open to top” configuration.
Purpose and Use of this Plan

This Geographic Response Plan (GRP) constitutes the federal and state on-scene coordinators’ orders during the initial phase of an oil spill response in the planning area. It’s meant to aid the response community during the initial phase of an oil spill, from the time a spill occurs until a Unified Command is established. The plan prioritizes tactical response strategies based on locations where spills might occur and the proximity and relative priority of those locations to sensitive natural, cultural, and economic resources. By using this document it’s hoped that immediate and proper action can be taken to reduce oil’s impact on sensitive resources.
# Record of Changes

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Summary of Changes</th>
<th>Name of Person Making Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

## CHAPTER 1 – Introduction

- 1.1 GRP Chapters and Appendices ........................................................................................................... 12
- 1.2 Geographic Response Plan Development Process .............................................................................. 12
- 1.3 Standardized Response Language ..................................................................................................... 13
- 1.4 Terminology and Definitions ................................................................................................................ 13

## APPENDIX 1A – Comments, Corrections, or Suggestions ................................................................. 15

## CHAPTER 2 – Site Description

- 2.1 Chapter Introduction ............................................................................................................................ 17
- 2.2 Physical Features ................................................................................................................................. 17
- 2.3 Hydrology ............................................................................................................................................... 19
- 2.4 Climate and Winds .................................................................................................................................. 20
- 2.5 Tides and Currents ................................................................................................................................. 21
- 2.6 Risk Assessment .................................................................................................................................... 21
- 2.7 References ............................................................................................................................................ 23

## CHAPTER 3 – (Reserved) ......................................................................................................................... 25

## CHAPTER 4 – Response Strategies and Priorities

- 4.1 Chapter Introduction ............................................................................................................................ 29
  - 4.1.1 On-site Considerations ................................................................................................................ 29
  - 4.1.2 Historical River Flow Ranges ........................................................................................................ 32
- 4.2 Area Overview Maps ............................................................................................................................ 34
- 4.3 Strategy and Response Priorities ......................................................................................................... 40
  - 4.3.1 General Response Priorities ........................................................................................................ 40
  - 4.3.2 Strategy Priorities based on Potential Oil Spill Origin Points .................................................... 40
- 4.4 Sector Maps (Strategy Locations) ....................................................................................................... 45
- 4.5 Matrices ................................................................................................................................................ 53
  - 4.5.1 Naming Conventions (Short Names) ............................................................................................. 53
LIST OF FIGURES

Figure 4-1: Mean Monthly Discharge Measurements for the Columbia River .............................................33
Figure 4-2: Response Strategy Locations .................................................................................................................... 35
Figure 4-3: Notification Strategy Locations................................................................................................................................ 36
Figure 4-4: Staging Area Locations ................................................................................................................................ 37
Figure 4-5: Boat Launch Locations ................................................................................................................................ 38
Figure 4-6: Potential Oil Spill Origin Point Locations ............................................................................................. 39
Figure 4-7: Sector Map UCR-1 .......................................................................................................................................... 45
Figure 4-8: Sector Map UCR-2 .......................................................................................................................................... 46
Figure 4-9: Sector Map UCR-3 .......................................................................................................................................... 47
Figure 4-10: Sector Map UCR-4 ....................................................................................................................................... 48
Figure 4-11: Sector Map UCR-5 ....................................................................................................................................... 49
Figure 4-12: Sector Map UCR-6 ....................................................................................................................................... 50
Figure 4-13: Sector Map UCR-7 ....................................................................................................................................... 51
Figure 4-14: Sector Map UCR-8 ....................................................................................................................................... 52
Figure 6-1: Upper Columbia River (North) Specific Geographic Areas of Concern ................................ 129
Figure 6-2: Upper Columbia River (South) Specific Geographic Areas of Concern .............................. 130
LIST OF TABLES

Table 4-1: Water Speed Drift Measurement Table .................................................................................................. 31
Table 4-2: Historical Streamflow for the Columbia River..................................................................................... 32
Table 4-3: UCR-A (Rocky Reach Dam) .......................................................................................................................... 42
Table 4-4: UCR-B (Wenatchee River) ............................................................................................................................ 43
Table 4-5: UCR-C (Rock Island Dam) ............................................................................................................................. 44
Table 6-1: UCR-GRP Cultural Resource Contacts .................................................................................................. 131
CHAPTER 1

Introduction

This plan focuses on sensitive resource protection after an oil spill on or near the water occurs. It serves as the federal and state on-scene-coordinators’ orders during the initial phase of an oil spill response in the planning area. It has been approved by Regional Response Team 10 and the Chairs and Co-Chairs of the Northwest Area Committee. Geographic Response Plans (GRPs) are living documents that can be revised at any time based on new information from comments and lessons learned from drills and spills. These changes are typically reflected as interim updates on the website for each GRP until they are fully incorporated into the plan during a future update. We value your input and hope that you’ll let us know how the plan might be improved. Please submit comments online at http://www.rrt10nwac.com/Comment. Comments may also be emailed to GRPs@ecy.wa.gov or submitted by mail using the form and information provided in the appendix of this chapter.

The Upper Columbia River GRP planning area (UCR-GRP) is approximately 207 square miles and extends from Rocky Reach Dam to three miles below the Crescent Bar Recreation Area. The Upper Columbia River GRP has three distinct areas: the pool between Rocky Reach and Rock Island Dams, the confluence of the Wenatchee and Columbia Rivers, and the pool between Rock Island and Wanapum Dams. The communities of Wenatchee, East Wenatchee, and Rock Island are included in this area. The planning area resides partially within Water Resource Inventory Area Alkali-Squilchuck (WRIA 40), Lower Crab (WRIA 41), Moses Coulee (WRIA 44), Wenatchee (WRIA 45), and Entiat (WRIA 46). The planning area resides within the boundaries of Chelan, Douglas, Grant, and Kittitas Counties.

Additional information about the planning area, including physical features, hydrology, climate and winds, tides and currents, and oil spill risks, can be found in Chapter 2 (Site Description). Information about potential response options in the planning area can be found in Chapter 3 (Response Options and Considerations). The bulk of this plan is contained in Chapter 4 (Response Strategies and Priorities). It provides information on tactical response strategies and the order they should be implemented, based on Potential Oil Spill Origin Points (POSOPs) and the proximity and relative priority of sensitive resources near those point locations. Area and sector maps and information on staging areas and boat launch locations are also provided in that chapter.

Control and Containment of an Oil Spill are a Higher Priority than the Implementation of GRP Response Strategies

If in the responder’s best judgment, control and containment at or near the source of a spill isn’t feasible, or if the source is controlled and contained but oil has spread out beyond initial containment, then the priorities laid out in Section 4.3 of this plan should take precedence until a Unified Command is formed. Oil spill response priorities, beyond those described in this plan, should rely on aerial observations and spill trajectory modeling. A booming strategy listed as a high
priority in Section 4.3 would not necessarily be implemented if a spill trajectory didn't warrant action in that area; however, the priority tables should be followed until oil spill trajectory information becomes available. During an incident, modifications to the deployment priorities provided in Section 4.3 of this plan may be made if approved by the Incident Commander, Unified Command, or are identified as necessary by the Environmental Unit.

The downstream movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting strategy implementation priorities. The strategies discussed in this plan have been designed for use with oils that float on water and may not be suitable for other petroleum products or hazardous substances. For information about non-floating oil spill response, refer to the Non-Floating Oil Spill Response Tool in the Northwest Area Contingency Plan (NWACP), Section 9412. For hazardous substance spills, refer to the NWACP, Chapter 7000. For policy on gasoline and flammable liquid spills refer to the NWACP, Section 4622.

Information meant to support initial Environmental Unit functions can be found in Chapter 6 of this plan (Resources at Risk). Chapter 6 and its appendix provide information about the type and location of natural and economic resources in the area. Specific information about the location of cultural sites in the planning area was taken into consideration in the development of this plan but because of the confidential nature of the material, details about cultural and historic sites aren't included in this document.

### 1.1 GRP CHAPTERS AND APPENDICES

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>Introduction</td>
</tr>
<tr>
<td>Appendix 1A</td>
<td>Comments, Corrections, or Suggestions</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>Site Descriptions</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Reserved</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Response Strategies and Priorities</td>
</tr>
<tr>
<td>Appendix 4A</td>
<td>Response Strategies</td>
</tr>
<tr>
<td>Appendix 4B</td>
<td>Notification Strategies</td>
</tr>
<tr>
<td>Appendix 4C</td>
<td>Staging Area</td>
</tr>
<tr>
<td>Appendix 4D</td>
<td>Boat Launch Locations</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Reserved</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>Resources at Risk</td>
</tr>
<tr>
<td>Appendix 6A</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

### 1.2 GEOGRAPHIC RESPONSE PLAN DEVELOPMENT PROCESS

GRPs are part of the Northwest Area Contingency Plan, just developed and revised separately. The plans are prepared through the efforts of, and in cooperation with, Washington Department of Ecology, Oregon Department of Environmental Quality, Idaho Bureau of Homeland Security, U.S. Coast Guard, U.S. Environmental Protection Agency, as well as other state and federal agencies, tribes, local governments, natural resource trustees, response organizations, emergency
responders, and communities. GRPs are developed through workshops, field work and meetings. Participants identify resources that may be at risk of injury from spills and work to develop oil spill response or notification strategies to reduce the chance of injury to those resources.

After compiling information on sensitive resources in the area, site visits are conducted to gather data and determine if spill response strategies near those resources should be added, modified, or deleted. In this, the anticipated effectiveness of existing strategies are reviewed, modifications made as determine necessary, potentially unsafe or ineffective strategies removed, and new strategies added to the plan. Unfortunately, the dynamics of marine and inland water environments, and the present limitations of response technology, make the development of strategies for all sensitive resource locations impracticable. A draft plan is produced after site visits are completed, and made available for public review and comment before a final version of the GRP is produced and published. A responsiveness summary is also published that addresses public comments received during the GRP update and development process.

1.3 STANDARDIZED RESPONSE LANGUAGE

In order to avoid confusion in response terminology, this plan uses standard National Interagency Incident Management System, Incident Command System (NIIMS ICS) terminology.

1.4 TERMINOLOGY AND DEFINITIONS

The glossary provided in Section 1910 of the NWACP and other sections of the area plan with glossaries independent of Section 1910 should be used when seeking the meaning of terms used in this plan.
APPENDIX 1A
Comments, Corrections, or Suggestions

Geographic Response Plans (GRPs) are living documents that can be revised at any time based on new information from comments and lessons learned from drills and spills. These changes are typically reflected as interim updates on the websites for each GRP until they are fully incorporated into the plan during a future update.

We value your input and hope that you will submit comments on how this plan might be improved. If you have any questions or comments, suggestions for improvement, or find errors in this document please submit comments online at http://www.rrt10nwac.com/Comment, email them to us at GRPs@ecy.wa.gov, or forward them via U.S. Mail to the following agencies:

United States Environmental Protection Agency
Region 10
Office of Environmental Cleanup
1200 Sixth Avenue
Room ECL-116
Seattle, WA 98101

Washington State Department of Ecology
Spill Prevention, Preparedness, and Response (GRPs)
P.O. Box 47600
Olympia, WA 98504-7600

The form on the following page of this attachment can be used to submit comments by mail. Contact information is requested so that we can give you a call if more information or comment clarification is needed.

Please use the GRP Field Report Form for providing information on GRP strategy field visits or the testing of response strategies. The form is available online at http://www.ecy.wa.gov/programs/spills/preparedness/GRP/Form-GRPFieldReport.pdf. Additional information on Geographic Response Plans is available at http://www.rrt10nwac.com/GRP.
**GRP Comment Form**

Today’s Date: __________________________

Your Name: ____________________________

Title: ____________________________

Company/Agency: ______________________

Address: ______________________________

City: ________________________________

State/Province: _______________________ Zip: ____________________________

Email: ________________________________ Ph: ____________________________

GRP Page Number: _____________________ Section or Paragraph: ______________

Comment(s): ________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

Mail Completed Form to:

US Environmental Protection Agency
Region 10
Office of Environmental Cleanup
1200 Sixth Avenue Room ECL-116
Seattle, WA 98101

Washington State Department of Ecology
Spills Program (GRPs)
P.O. Box 47600
Olympia, WA 98504-7600
CHAPTER 2

Site Description

2.1 CHAPTER INTRODUCTION

This chapter provides an overview of the area’s physical features, hydrology, climate and winds, and tides and currents in the Upper Columbia River GRP planning area, and an oil spill risk assessment in Section 2.6. The southernmost portion of the planning area begins near Crescent Bar Recreation Area at River Mile (RM) 437. The Columbia River heads in a northwesterly direction past the Rock Island Dam at RM 452 toward the City of Wenatchee. From the confluence of the Wenatchee River at RM 468, the main stem heads in a northerly direction toward the Rocky Reach Dam. Some of the tributaries in this area include Colockum, Douglas, Rock Island, Squilchuck, Stemilt, Tarpiscan, and Tekison Creeks. The planning area covers about 207 square miles and resides partially within Water Resource Inventory Area Alkali-Squilchuck (WRIA 40), Lower Crab (WRIA 41), Moses Coulee (WRIA 44), and Wenatchee (WRIA 45). The communities of Wenatchee, East Wenatchee, and Rock Island are located within the boundaries of this planning area, as well as portions of Chelan, Douglas, Grant, and Kittitas Counties.

2.2 PHYSICAL FEATURES

The physical features of the area now known as eastern and central Washington and Oregon were greatly influenced by volcanic activity, which built up a stratum of mud, ash, and lava in the geologic column during the Eocene (55.8-33.9 million years ago), Oligocene (33.9-23 million years ago), and Miocene (23-5.3 million years ago) Epochs. Basalt flows, known as the Columbia River Basalt Group, then covered the area in layers, forming a strong foundation of basaltic rock at least one mile thick. Subsequent lava and ash eruptions raised the Cascade Mountains during the Miocene and Pleistocene Epochs (2.6 million – 11,700 years ago). As the mountains rose, the Columbia River carved out a deep gorge. Towards the end of the Pleistocene (~16,000-14,000 years ago) cataclysmic mega-floods scoured the landscape. The floods originated from the margins of the Cordilleran Ice Sheet, particularly Glacial Lake Missoula in present day Montana. The Missoula floods battered the area over 100 times when the glacial dam forming Glacial Lake Missoula was repeatedly breached. The portion of the Columbia River within this planning area formed the western boundary of the area known as the Channeled Scablands. This is a complex of “vein-like” channels, rock basins, broad coarse-grained alluvial deposits, and loess islands created by these floods. This series of events has been described as one of the greatest flood occurrences in the

---

1 http://www.ucmp.berkeley.edu/zoic/cenozoic.php
2 http://hugefloods.com/Basalt.html
history of the earth. Dramatic examples of the results of these floods can be seen clearly in the present landscape in and around this planning area. The steep basalt cliffs surrounding the Columbia River and the numerous coulees flowing into the river were caused by these floods. These coulees are steep-walled canyons which either lack any active streams or contain streams so small that they couldn’t have been responsible for the scale of erosion needed to gouge them out. Some examples of this are Grand Coulee, where large volumes of flowing water scoured a channel about one mile wide, and Moses Coulee, which stretches for more than 40 miles from Mansfield to the Columbia River near Rock Island. Quincy Potholes, just south of planning area, is another dramatic example of these Pleistocene floods.

The Upper Columbia River GRP planning area is a large area surrounding the Columbia River from the Rock Island Dam north of Wenatchee to just north of the Quincy potholes area. This area covers approximately 207 square miles and an almost 37-mile stretch of the Columbia River. It also covers one mile of the Wenatchee River at its confluence with the Columbia River; seven miles of Moses Coulee, and portions of 18 smaller creeks, canyons, gulches, and coulees. Most of the planning area has an annual rainfall of less than 15 inches, consists of a shrub steppe ecosystem, and is a place of rock bluffs and rolling hills used for farming and ranching. Irrigation from the Columbia River allows for a large amount of agriculture in Wenatchee and the surrounding areas. Wenatchee is often referred to as the “Apple Capital of the World” due to the many orchards in the vicinity. Wenatchee is the largest city in the planning area with a population of approximately 33,000. Other communities include East Wenatchee, Malaga, Rock Island, Trinidad, and Quincy.

Human activity has greatly altered the Columbia River over more than 100 years. In 1873 the USACE began modifying the river to aid navigation by removing obstructions, and from 1876-1915 building canals. Hydroelectric development came next with the damming of the main stem of the Columbia and Snake rivers in the 1930s. The first, which began construction in 1932, was Rock Island Dam near Wenatchee. Bonneville Dam followed in 1938. Construction of dams on the Columbia and Snake rivers continued into the 1970s, with most of the development occurring between 1950 and 1970. One other dam, the Rocky Reach Dam built in 1961, is also present in this planning area. Today there are 56 dams built exclusively for hydropower in the Columbia River Basin, and hydropower now supplies roughly 50 percent of the electricity used in the Northwest. Other benefits provided by many of the dams include navigation for large barges; irrigation to farms in drier areas; boat launches for recreational activities; and flood control.

This part of the state is rich with cultural history. Thousands of archaeological sites spanning over 13,000 years have been recorded in the Scablands and Plateau region. One of the more significant archaeological sites in Washington lies within this GRP planning area. Dozens of Clovis points and other artifacts dating from between 11,000 to 12,000 radiocarbon years Before Present were discovered at a relatively undisturbed site known as the East Wenatchee Clovis Site. In more recent times the Native American tribe known as the Wenatchi lived in this area. The Wenatchi did not receive reservation land and most now live on the Colville Indian Reservation located to the

---

northeast or the Yakama Reservation to the south. In addition to the Colville and Yakama, the Nez Perce, Samish, Spokane, Tulalip, and Umatilla Tribes all have potential interests in the area due to their usual and accustomed fishing places.

The City of Wenatchee is located at the center of north-south and east-west transportation routes in this part of the state. Highway 2 goes west from Wenatchee over Stevens Pass to the Puget Sound. The road also continues east toward Spokane after paralleling the Columbia River in a northerly direction for approximately 20 miles. Highway 97 and 97A parallel the Columbia River on both banks heading north towards Canada. Heading south from Wenatchee, Highway 28 follows the east bank of the Columbia while Highway 285 follows the west bank. Railroad routes also converge in Wenatchee. BNSF railroad tracks follow the Wenatchee River east from Stevens Pass and then south along the Columbia River. There are 52 miles of BNSF track within this planning area. The Cascade and Columbia River Railroad tracks go north from Wenatchee following the west bank of the Columbia River towards their terminus at Oroville near the Canadian border. There are six miles of Cascade and Columbia River tracks within this planning area.

### 2.3 HYDROLOGY

The Columbia River drains the Central Cascade range and experiences high volumes of precipitation in the fall and winter, but the peak flows are in late spring and early summer from glaciers and mountain snowmelt. There are two hydroelectric dams on this stretch of the Columbia River and both are managed by the Chelan County Public Utility District. Because of the agricultural nature of the land adjacent to the Columbia River, water is drawn for irrigation in the summer. There are two USGS stations in the planning area tracking velocity and river height, located at Rocky Reach Dam at river mile 473.7 and at Rock Island Dam at river mile 453.5. These gages show that the highest flows are from April to June, with an average flow from 116,000 cubic feet per second (cfs) in April to 191,500 cfs in June, and a monthly low of approximately 76,400 cfs in September.\(^7\)

The tributaries downstream of the Rocky Reach Dam gage – Rock Island, Squilchuck, and Stemilt Creeks and the Wenatchee River – contribute additional water to the Columbia River. The greatest difference in cfs between the two gages is in June while the smallest difference is in September.

The planning area resides within Water Resource Inventory Areas Alkali-Squilchuck (WRIA 40), Lower Crab (WRIA 41), Moses Coulee (WRIA 44), and Wenatchee (WRIA 45).

**Alkali-Squilchuck** (WRIA 40): Much of central Washington is arid, receiving less than 20 inches of rain annually. Most of this precipitation arrives during the winter months when overall water demands are the lowest. During the summer, snow pack is gone, there is little rain, and naturally low stream flows are dependent on groundwater inflow. This means

---

\(^7\) USGS [https://maps.waterdata.usgs.gov/mapper/index.html](https://maps.waterdata.usgs.gov/mapper/index.html)
that groundwater and surface water are least available when water demands are the highest.⁸

**Lower Crab** (WRIA 41): The Lower Crab Watershed located in eastern Washington includes the portion of the Crab Creek between Ephrata and its confluence with the Columbia River. In addition, there are numerous tributary creeks and streams of which most are seasonal. Annual precipitation ranges from seven inches per year in the Beverly area, to over ten inches in the higher elevations. Only a fraction of this precipitation becomes groundwater available for human and economic uses. Most of the precipitation arrives during the winter months, when water demands are the lowest. During the summer, the snowpack is gone, there is little rain, and naturally low stream flows are dependent on groundwater inflow. This means that groundwater and surface water are least available when water demands are the highest.⁹

**Moses Coulee** (WRIA 44): Much of central Washington is arid, receiving less than 20 inches of rain annually. Most of this precipitation arrives during the winter months when water demands are the lowest. During the summer, the snowpack is gone, there is little rain, and naturally low stream flows are dependent on groundwater inflow. At the same time the demand for water for human uses, including irrigation are at the yearly maximum. This means that groundwater and surface water are least available when water demands are the highest.¹⁰

**Wenatchee** (WRIA 45): Many areas of central Washington are arid, receiving less than 20 inches of rain annually. Most of this precipitation arrives during the winter months when water demands are the lowest. During the summer, the snowpack is gone, there is little rain, and naturally low stream flows are dependent on groundwater inflow. At the same time the demand for water for human uses including irrigation are at the yearly maximum. This means that groundwater and surface water are least available when water demands are the highest.¹¹

### 2.4 CLIMATE AND WINDS

The temperatures in the Columbia River area vary dramatically, with winter lows below freezing, and highs in the low 90s from July to August. Wenatchee averages 26 inches of snowfall in the winter months, but zero inches of accumulation.¹² Total precipitation averages nine inches annually. In the southern part of the planning area, precipitation slightly decreases and temperature rises. Trinidad averages eight inches of precipitation and 23 inches of snowfall.¹³

---

¹⁰ WA Dept. of ECY 2015 [http://www.ecy.wa.gov/water/wria/44.html](http://www.ecy.wa.gov/water/wria/44.html)
¹² WRCC 2016 [http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa9074](http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa9074)
¹³ WRCC 1961 [http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa8579](http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa8579)
Wind speed at Pangborn Memorial Airport averages 6.9 mph.\textsuperscript{14} Winds in East Wenatchee tend to blow in a westerly direction year-round. Chelan County experiences elevated wind speeds, typically in the fall and winter, with wind gusts reaching 51 mph. In 2016, the highest wind speed was recorded at 38 mph in early September.\textsuperscript{15}

\section*{2.5 TIDES AND CURRENTS}

The flow speed on the Columbia River at the Rocky Reach Dam gage (river mile 473.7) is 2.3 mph at the annual mean velocity of 102,000 cfs. Each portion of the river will have faster or slower speeds based on a variety of factors, including channel width, channel depth, debris blockages, and elevation change, among others. This part of the Columbia River is not tidally influenced.

\section*{2.6 RISK ASSESSMENT}

The Upper Columbia River area is plentiful in natural, cultural, and economic resources, all at risk of injury from oil spills. Potential oil spill risks include, but are not limited to, road transportation, rail transportation, aircraft, recreational boating, and other risks. This section briefly discusses these risks and how they could impact the GRP planning area.

\textbf{Oil Types:} Both refined petroleum products and crude oil are transported in bulk within this planning area.

Crude oil and refined products contain a mix of hydrocarbons with varying properties; different types of crude oil and refined products will behave differently when spilled. Recent changes in oil production have led to an increase in the movement of Bakken light crude transported through the planning area via rail, and diluted bitumen from Canada transported through the planning area via rail.

Crude oil from the Bakken fields in North Dakota has properties similar to gasoline or diesel, and poses a higher risk of fire because much of it will evaporate quickly into flammable vapors. Unlike gasoline, the heavier hydrocarbons in the crude will persist in the environment after the light ends evaporate or burn. Bitumen from the oil sands in Alberta, Canada, is heavy, almost asphalt-like, until it is mixed with lighter oil products known as diluents to create diluted bitumen. Once mixed, the diluted bitumen will initially float on water after being spilled. Environmental conditions, such as the density of the receiving waters and sediment load of the receiving waters, will affect how long diluted bitumen floats. As the light diluents evaporate, the remaining heavy constituents may sink into the water column.\textsuperscript{16} There are specific response actions recommended for non-floating oils, detailed in the Non-Floating Oil Spill Response Tool in the \textit{Northwest Area Contingency Plan} (NWACP), Section 9412.

\begin{footnotesize}
\begin{enumerate}
\item WRCC 2006 \url{http://www.wrcc.dri.edu/climatedata/climtables/westwind/#WASHINGTON}
\item NOAA \url{http://w2.weather.gov/climate/index.php?wfo=otx}
\item NASEM 2016 \url{http://www.nap.edu/21834}
\end{enumerate}
\end{footnotesize}
**Road Systems:** Vehicle traffic on roadways pose an oil spill risk in areas where they run adjacent to the shorelines, or cross over lakes, rivers, creeks, and ditches, that drain into the Upper Columbia River. Two U.S. highways – 2 and Alt 97 – parallel the river banks in the northern portion of the planning area. Several smaller roads run parallel to the river, including State Routes 28 and 285. There are two highway bridges that cross the Upper Columbia River inside the planning area: Frances Farmer Memorial Bridge and Senator George Sellar Bridge.

A vehicle spill onto one of these bridges or roadways can cause fuel or oil to flow from hardened surfaces into the Upper Columbia River or its tributaries. Commercial trucks can contain hundreds to thousands of gallons of fuel and oil, especially fully loaded tank trucks, and may carry almost any kind of cargo, including hazardous waste or other materials that might injure sensitive resources if spilled. Smaller vehicle accidents pose a risk as well, a risk commensurate to the volume of fuel and oil they carry.

**Rail Transportation and Facilities:** Rail companies transport oil via both unit trains and manifest trains in this area. Unit trains include: up to four locomotives, buffer cars, and 118 loaded tank cars transporting oil in 714-barrel (29,998 gallon) capacity USDOT-approved tank cars. Manifest trains include: up to four locomotives, a mix of non-oil merchandise cars, and one or more 714-barrel (29,998 gallon) capacity USDOT-approved tank cars carrying refined oil products, such as diesel, lubrication oil, or gasoline. These trains may include emptied tank cars, each with residual quantities of up to 1,800 gallons of crude oil or petroleum products. Every train locomotive typically holds a few hundred gallons of engine lubrication oil, plus saddle tanks that each have an approximate capacity of 5,000 gallons of diesel fuel. Manifest trains may also transport biological oils and non-petroleum chemicals.

Unit trains carrying crude currently operate on specific routes. Unit trains carrying crude from the Bakken Formation in North Dakota enter Washington State near Spokane, continue along the Columbia River to Vancouver, and then head north along I-5. After delivering crude oil to one of the refineries in western Washington, the trains will travel east over the Cascade Mountains on their way back to the interior of North America.

Within this planning area, BNSF Railway owns the majority of commercial railroad tracks as part of its “Columbia River Subdivision”. There is a direct-to-locomotive fueling location at the BNSF Yard in Wenatchee. Also, Union Pacific and other smaller railroads transport cargo through the area. The other BSNF tracks in the planning area are known as the Scenic subdivision, which runs west from Wenatchee to the Everett area.

**Aircraft:** Pangborn Memorial Airport lies in the eastern portion of the UCR-GRP area, on the outskirts of East Wenatchee, and is jointly operated by the Port of Chelan County and the Port of Douglas County. Alaska Airlines and its regional partner Horizon Air offer

---

17 Pangborn Memorial Airport [https://www.flywenatchee.com/airline-information/](https://www.flywenatchee.com/airline-information/)
flights to and from Seattle-Tacoma International Airport. Since this airport is located less than two miles from the river, the potential exists for aircraft failures during inbound or outbound flights that result in a spill by releasing aviation fuel to the Columbia River or its tributaries.

**Recreational Boating:** Accidents involving recreational watercraft on the Columbia River have the potential to result in spills of a few gallons of gasoline up to hundreds of gallons of diesel fuel. Examples of such accidents might include vessel collisions, allisions, groundings, fires, sinking, or explosions.

**Other Spill Risks:** Other potential oil spill risks in the area include: dam turbine mechanical failures from upriver dams, fuel storage areas (including waste oil storage), road run-off during rain events, on-shore or near shore activities where heavy equipment is being operated or stored, and the migration of spilled oil through soil on lands adjacent to the river or its tributary streams.

### 2.7 REFERENCES


CHAPTER 3
Response Options and Considerations
(Reserved)
CHAPTER 4
Response Strategies and Priorities

June 2017
Before you print this document

This chapter and its appendices, as well as the appendix at the end of Chapter 6, are provided in “landscape” page orientation. The detailed 2-page information sheets for response strategies, notification strategies, staging areas, and boat launch locations in appendices 4A though 4D (pages 65-122) have been designed for duplex printing (front and back side of paper), “open to top” configuration.
4.1  CHAPTER INTRODUCTION

This chapter provides information on GRP response strategies and the order they should be implemented, based on Potential Oil Spill Origin Points (POSOPs) and the proximity and relative priority of sensitive resources near those point locations. Area maps, sector maps, and information on staging areas and boat launch locations are also provided in this chapter. During a spill incident, GRP response strategies should be implemented as soon as possible. Unless circumstances unique to a particular spill situation dictate otherwise, the priority tables in Section 4.3 should be used to decide the order that GRP strategies are deployed. The downstream movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting implementation priorities. Information on resources at risk, sensitive areas, and flight restrictions can be found in Chapter 6 of this plan. Information on shoreline countermeasures can be found in the Northwest Area Shoreline Countermeasures Manual (NWACP Section 9420). The Northwest Area Contingency Plan (NWACP) is available online at http://www.rrt10nwac.com/NWACP/Default.aspx.

The GRP strategies provided in this chapter have been created to reduce spilled oil's impact on sensitive resources. They are not everything that should or could be done during a response to lessen the chance of injury to natural, cultural, and economic resources at risk from oil spills. Control and containment of an oil spill is always a higher priority than the implementation of GRP response strategies. Although designed to be implemented during the initial phase of an oil spill, GRP strategies may continue to be used throughout a response at the discretion of the Incident Commander, Unified Command, or the Environmental Unit.

4.1.1  On-site Considerations

Before Deploying a GRP Strategy (Questions to Ask)

- Are conditions safe? Response managers and responders must first determine if efforts to implement a response strategy would pose an undue risk to worker safety or the public, based on conditions present during the time of the emergency. No strategy should be implemented if doing so would threaten public safety or present an unreasonable risk to the safety of responders.

- Has initial control and containment been sufficiently achieved? Control and containment of the spill at or near the source are always higher priorities than the deployment of GRP response strategies, especially when concurrent response activities are not possible.

- How far downstream or out into the river environment is the spilled oil likely to travel before response personnel will be ready and able to deploy GRP response strategies?
• Are permits required? Consult the Northwest Area Contingency Plan Permit Summary Table (NWACP Section 9401) for information specific to your location and circumstance.

• Will equipment or vehicles need to be staged on or near a roadway? If so, traffic control may be required. Contact the Washington State Patrol, or local, county, municipality, or tribal police for assistance. At minimum, Washington Department of Transportation (WSDOT) guidelines for work zone traffic control should be followed when working on or near a roadway.

  o Chelan County Sheriff (509) 667-6851
  o Douglas County Sheriff (509) 884-0941
  o Grant County Sheriff (509) 754-2011
  o Kittitas County Sheriff (509) 962-7525
  o Washington State Patrol - District 6 (509) 682-8090

**During Strategy Implementation (Things to Remember)**

• On-scene conditions (weather, currents, tides, waves, river speed, and debris) may require that strategies be modified in order to be effective. There is a significant chance that weather and conditions experienced at a particular strategy location during an actual spill event will be different from that when data was gathered during field visits. Response managers and responders must remain flexible and modify the strategies provided in this chapter as needed to meet the challenges experienced during an actual response.

• Certain strategies may call for access points or staging areas that are not easily reached at all times of the year or in all conditions.

• The GRP response strategies provided in this chapter were designed for use with persistent heavy oils that float on water and may not be suitable for other petroleum products or hazardous substances. For information about non-floating oil spill response, refer to the Non-Floating Oil Spill Response Tool in the Northwest Area Contingency Plan (NWACP), Section 9412.

**After Strategy Implementation (Things to Understand)**

• Oil containment boom should be maintained and periodically monitored to ensure its effectiveness. Changes in river or current speed will likely require modifications to boom deflection angles (see Table 4-1). Depending on conditions, some booming strategies may require around-the-clock tending.
Water Speed and Boom Deflection Angle

Measure the speed that water is moving by anchoring a line with two floating markers/buoys attached that are spaced 100 feet apart. Time the movement of floating debris between the two buoys, and then use Table 4-1 to estimate the water speed based on the travel time of the debris between the two buoys. You can also measure 100 feet along a straight portion of river bank or shoreline, and time the movement of debris between those points, but this method is generally less accurate than using the buoys. The maximum boom deflection angle is also provided in the table, based on the water speed measurements.

### Table 4-1: Water Speed Drift Measurement Table

<table>
<thead>
<tr>
<th>Time to Drift 100 Feet (seconds)</th>
<th>Velocity (ft/sec)</th>
<th>Velocity (m/sec)</th>
<th>Velocity (knots)</th>
<th>Max Boom Deflection Angle (degrees)</th>
<th>Boom required for 100-foot Profile to Current (feet)</th>
<th>Anchors needed if Placed Every 50 feet (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>16.7</td>
<td>5.1</td>
<td>10.00</td>
<td>4.0</td>
<td>1,429</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>12.5</td>
<td>3.8</td>
<td>7.50</td>
<td>5.4</td>
<td>1,071</td>
<td>22</td>
</tr>
<tr>
<td>10</td>
<td>10.0</td>
<td>3.1</td>
<td>6.00</td>
<td>6.7</td>
<td>857</td>
<td>18</td>
</tr>
<tr>
<td>12</td>
<td>8.3</td>
<td>2.5</td>
<td>5.00</td>
<td>8.0</td>
<td>714</td>
<td>15</td>
</tr>
<tr>
<td>14</td>
<td>7.1</td>
<td>2.2</td>
<td>4.29</td>
<td>9.4</td>
<td>612</td>
<td>13</td>
</tr>
<tr>
<td>17</td>
<td>5.9</td>
<td>1.8</td>
<td>3.53</td>
<td>11.4</td>
<td>504</td>
<td>11</td>
</tr>
<tr>
<td>20</td>
<td>5.0</td>
<td>1.5</td>
<td>3.00</td>
<td>13.5</td>
<td>429</td>
<td>10</td>
</tr>
<tr>
<td>24</td>
<td>4.2</td>
<td>1.3</td>
<td>2.50</td>
<td>16.3</td>
<td>357</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>3.3</td>
<td>1.0</td>
<td>2.00</td>
<td>20.5</td>
<td>286</td>
<td>7</td>
</tr>
<tr>
<td>40</td>
<td>2.5</td>
<td>0.8</td>
<td>1.50</td>
<td>27.8</td>
<td>214</td>
<td>5</td>
</tr>
<tr>
<td>60</td>
<td>1.7</td>
<td>0.5</td>
<td>1.00</td>
<td>44.4</td>
<td>143</td>
<td>4</td>
</tr>
<tr>
<td>&gt;86</td>
<td>≤1.2</td>
<td>≤0.35</td>
<td>≤0.70</td>
<td>90.0</td>
<td>100</td>
<td>3</td>
</tr>
</tbody>
</table>

4.1.2 Historical River Flow Ranges

Streamflow data from U.S. Geological Survey (USGS) was used to determine the mean monthly discharge for rivers and streams in the planning area. Stream discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph) or nautical miles per hour (knots) are not available. Table 4-1 provides information that can be used to calculate local river velocities on-site, based on the time it takes a floating object to drift 100 feet downstream from any given point in a river or creek. Additional information for USGS gage stations in the planning area are provided below (hyperlinked column headers), and may include real-time or near real-time streamflow data. The USGS National Water System Mapper is useful for locating gage stations of interest, and is available online at http://maps.waterdata.usgs.gov/mapper/index.html.

Table 4-2: Historical Streamflow for the Columbia River

<table>
<thead>
<tr>
<th>Monthly average flow in Cubic Feet per Second (cfs)</th>
<th>Columbia River at Rocky Reach Dam USGS 12453700 (data from 2005 to 2015)</th>
<th>Columbia River below Rock Island Dam USGS 12462600 (data from 1961 to 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>107,000</td>
<td>108,000</td>
</tr>
<tr>
<td>Feb</td>
<td>96,900</td>
<td>107,000</td>
</tr>
<tr>
<td>Mar</td>
<td>98,100</td>
<td>106,000</td>
</tr>
<tr>
<td>Apr</td>
<td>123,000</td>
<td>118,000</td>
</tr>
<tr>
<td>May</td>
<td>156,000</td>
<td>159,000</td>
</tr>
<tr>
<td>Jun</td>
<td>177,000</td>
<td>195,000</td>
</tr>
<tr>
<td>Jul</td>
<td>148,000</td>
<td>151,000</td>
</tr>
<tr>
<td>Aug</td>
<td>108,000</td>
<td>109,000</td>
</tr>
<tr>
<td>Sep</td>
<td>65,200</td>
<td>76,800</td>
</tr>
<tr>
<td>Oct</td>
<td>68,000</td>
<td>77,300</td>
</tr>
<tr>
<td>Nov</td>
<td>85,300</td>
<td>88,800</td>
</tr>
<tr>
<td>Dec</td>
<td>97,000</td>
<td>101,000</td>
</tr>
</tbody>
</table>
Figure 4-1: Mean Monthly Discharge Measurements for the Columbia River
4.2 AREA OVERVIEW MAPS

The following maps provide a geographic overview of the Upper Columbia River. Sector maps in Section 4.4 of this chapter provide more detail on the location of response strategies, notification strategies, staging areas, boat launch locations, and Potential Oil Spill Origin Points (POSOPs). Detailed information for each location can be found in the matrices of Section 4.5 or in the chapter appendices. Priority tables for potential oil spill origin points can be found in Section 4.3.2.

The following area maps are provided for reference:

- Response Strategy Locations
- Notification Strategy Locations
- Staging Area Locations
- Boat Launch Locations
- Potential Oil Spill Origin Point Locations
Figure 4-2: Response Strategy Locations

Figure 4-3: Notification Strategy Locations
Figure 4-4: Staging Area Locations
Figure 4-5: Boat Launch Locations
Figure 4-6: Potential Oil Spill Origin Point Locations
4.3 STRATEGY AND RESPONSE PRIORITIES

4.3.1 General Response Priorities

The following list provides the order of response priorities after an oil spill in the planning area occurs.

- **Safety is always the number one priority.** Do not implement GRP strategies or take actions that will unduly jeopardize public, worker, or personal safety.
- Notify local public health and safety personnel.
- Control and contain the source of the spill; mobilize resources to the spill location. Source control and containment are always a higher priority than the implementation of GRP strategies.
- Determine the priority or order GRP strategies should be implemented based on the location of the spill or affected area. Priorities based on POSOPs are included in this chapter and should be used unless the situation or circumstances dictate otherwise (see Section 4.3.2).
- As response resources become available, implement the GRP Strategies in order of priority or as necessary based on the scenario, trajectory, or conditions of the day.
- Permits may be required. Consult the Northwest Area Contingency Plan Permit Summary Table (NWACP Section 9401) for information.

4.3.2 Strategy Priorities based on Potential Oil Spill Origin Points

Potential Oil Spill Origin Points (POSOPs) are geographic locations that have a defined list of response strategy implementation priorities provided in a table within Section 4.3. The placement of each POSOP is often based on spill risks in the area. Occasionally POSOPs are generalized to ensure implementation priorities are developed throughout an entire planning area.

These points are displayed on area overview and sector maps as red boxes. In establishing priorities during a response, or selecting an appropriate POSOP, the downstream and/or tidal movement of spilled oil and the time it takes to mobilize and deploy response resources must be considered. Generally, on streams, creeks, and rivers, GRP strategies should first be implemented downstream, well beyond the furthest extent of the spill, with deployments continuing upstream towards the spill source and in some cases slightly beyond. POSOPs are alphabetically designated.
The following tables provide the strategy implementation order for Potential Oil Spill Origin Points in the Upper Columbia River GRP; points UCR-A, UCR-B, and UCR-C. The priority tables provided in this section were developed using a combination of variables, including: notification time, travel time for responders and equipment, average and seasonal flow rates, average winds, deployment time, proximity to the spill source, trustee input, the relative priority of the resources at risk, and other considerations.

*Source control and containment are a higher priority than GRP strategy implementation*
Table 4-3: UCR-A (Rocky Reach Dam)

<table>
<thead>
<tr>
<th>Implementation Priority</th>
<th>Strategy Number</th>
<th>Sector Map</th>
<th>Strategy Matrix</th>
<th>Strategy Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UCR-472.7</td>
<td>45</td>
<td>58</td>
<td>91</td>
</tr>
<tr>
<td>2</td>
<td>UCR-468.6</td>
<td>46</td>
<td>57</td>
<td>89</td>
</tr>
<tr>
<td>3</td>
<td>UCR-468.3</td>
<td>46</td>
<td>57</td>
<td>87</td>
</tr>
<tr>
<td>4</td>
<td>UCR-467.8a</td>
<td>46</td>
<td>56</td>
<td>83</td>
</tr>
<tr>
<td>5</td>
<td>UCR-467.8b</td>
<td>46</td>
<td>57</td>
<td>85</td>
</tr>
<tr>
<td>6</td>
<td>UCR-467.6</td>
<td>46</td>
<td>56</td>
<td>81</td>
</tr>
<tr>
<td>7</td>
<td>UCR-466.9</td>
<td>46</td>
<td>56</td>
<td>79</td>
</tr>
<tr>
<td>8</td>
<td>UCR-466.8</td>
<td>46</td>
<td>55</td>
<td>77</td>
</tr>
<tr>
<td>9</td>
<td>UCR-462.7</td>
<td>47</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>10</td>
<td>UCR-458.9</td>
<td>47</td>
<td>55</td>
<td>73</td>
</tr>
</tbody>
</table>
Table 4-4: UCR-B (Wenatchee River)

<table>
<thead>
<tr>
<th>Implementation Priority</th>
<th>Strategy Number</th>
<th>Sector Map</th>
<th>Strategy Matrix</th>
<th>Strategy Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WENA-0.8</td>
<td>46</td>
<td>58</td>
<td>95</td>
</tr>
<tr>
<td>2</td>
<td>WENA-0.7</td>
<td>46</td>
<td>58</td>
<td>93</td>
</tr>
<tr>
<td>3</td>
<td>UCR-468.3</td>
<td>46</td>
<td>57</td>
<td>87</td>
</tr>
<tr>
<td>4</td>
<td>UCR-467.8a</td>
<td>46</td>
<td>56</td>
<td>83</td>
</tr>
<tr>
<td>5</td>
<td>UCR-467.8b</td>
<td>46</td>
<td>57</td>
<td>85</td>
</tr>
<tr>
<td>6</td>
<td>UCR-467.6</td>
<td>46</td>
<td>56</td>
<td>81</td>
</tr>
<tr>
<td>7</td>
<td>UCR-466.9</td>
<td>46</td>
<td>56</td>
<td>79</td>
</tr>
<tr>
<td>8</td>
<td>UCR-466.8</td>
<td>46</td>
<td>55</td>
<td>77</td>
</tr>
<tr>
<td>9</td>
<td>UCR-462.7</td>
<td>47</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>10</td>
<td>UCR-458.9</td>
<td>47</td>
<td>55</td>
<td>73</td>
</tr>
</tbody>
</table>
Table 4-5: UCR-C (Rock Island Dam)

<table>
<thead>
<tr>
<th>Implementation Priority</th>
<th>Strategy Number</th>
<th>Sector Map</th>
<th>Strategy Matrix</th>
<th>Strategy Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UCR-448.8</td>
<td>49</td>
<td>54</td>
<td>71</td>
</tr>
<tr>
<td>2</td>
<td>UCR-440.8a</td>
<td>50</td>
<td>54</td>
<td>67</td>
</tr>
<tr>
<td>3</td>
<td>UCR-440.8b</td>
<td>50</td>
<td>54</td>
<td>69</td>
</tr>
</tbody>
</table>
Figure 4-7: Sector Map UCR-1

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri Staging Area and Boat Launch symbols are offset to prevent overlapping.
Figure 4-8: Sector Map UCR-2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri Staging Area and Boat Launch symbols are offset to prevent overlapping.
Figure 4-9: Sector Map UCR-3
Figure 4-10: Sector Map UCR-4

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri Staging Area and Boat Launch symbols are offset to prevent overlapping.
Figure 4-11: Sector Map UCR-5

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri Staging Area and Boat Launch symbols are offset to prevent overlapping.
Figure 4-12: Sector Map UCR-6
Figure 4-13: Sector Map UCR-7

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri
Staging Area and Boat Launch symbols are offset to prevent overlapping.
Figure 4-14: Sector Map UCR-8

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri Staging Area and Boat Launch symbols are offset to prevent overlapping.
4.5 MATRICES

4.5.1 Naming Conventions (Short Names)

Each strategy, staging area, and boat launch location in this document has been given a unique “Short Name” which includes one to six letters denoting the associated waterbody. Following the letters are numbers that specify the location. On rivers or other linear waterbodies, the location is named by river mile: the distance from the mouth of the river or creek upstream to the site location. Some short names indicate whether the site is located on river right, river left, or mid-river by an “R”, “L” or “M” after the river mile. On lakes, the numbers indicate the location by shoreline mile, typically starting at the northernmost point and increasing clockwise around the lake. In marine areas, the numbers do not have a geographic meaning. Notification strategies are indicated by an “-N” at the end of the name. Staging Areas and Boat Launches are indicated by the prefix “SA” or “BL”.

Associated waterbody short name designations used in this plan are: UCR = Upper Columbia River & WENA = Wenatchee River
### 4.5.2 Response Strategy Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Location</th>
<th>Strategy Type</th>
<th>Boom Length</th>
<th>Boat Req?</th>
<th>Staging Area</th>
<th>Resources At Risk</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UCR-440.8a</strong></td>
<td>Crescent Bar Recreation Area-West 47.21424 -119.99840</td>
<td>Collection</td>
<td>Boom 700ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-448.8 YoYo Rock WDFW Water Access Site (7800 Tarpiscan Rd, Malaga, WA 98828).</td>
<td>Public Recreation Site/Area, Riparian Area, Salmonids</td>
<td>Crescent Bar Recreation Area is managed by the Grant County Public Utility District. Notify Grant County PUD prior to deployment; call 800-216-5226.</td>
</tr>
<tr>
<td><strong>UCR-440.8b</strong></td>
<td>Crescent Bar Recreation Area-East 47.21497 -119.99542</td>
<td>Exclusion</td>
<td>Boom 400ft, Sorbent 400ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-448.8 YoYo Rock WDFW Water Access Site (7800 Tarpiscan Rd, Malaga, WA 98828).</td>
<td>Backwater Area, Public Recreation Site/Area, Salmonids</td>
<td>Crescent Bar Recreation Area is managed by the Grant County Public Utility District. Notify Grant County PUD prior to deployment; call 800-216-5226.</td>
</tr>
<tr>
<td><strong>UCR-448.8</strong></td>
<td>YoYo Rock WDFW Water Access Site 47.28181 -120.09153</td>
<td>Collection</td>
<td>Boom 700ft</td>
<td>Yes</td>
<td>Onsite Stage equipment at SA-UCR-448.8 YoYo Rock WDFW Water Access Site (7800 Tarpiscan Rd, Malaga, WA 98828).</td>
<td>Boat Launch/Ramp, Riparian Area, Salmonids</td>
<td>YoYo Rock WDFW Water Access Site is managed by the Washington Department of Fish &amp; Wildlife. Notify WDFW Region 2 prior to deployment; call 509-662-0452.</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------</td>
<td>-------------</td>
<td>-----------</td>
<td>--------------</td>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>UCR-458.9</td>
<td>Left Bank RM 458.9, 47.37527 -120.18929</td>
<td>Exclusion</td>
<td>Boom 200ft, Sorbent 200ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-462.9 Kirby Billingsley Hydro Park (1430 WA-28 S, East Wenatchee, WA 98802)</td>
<td>Backwater Area, Salmonids</td>
<td>Left bank of Columbia River is part of Douglas County. Notify Douglas County Department of Emergency Management prior to deployment; call 509-888-6841.</td>
</tr>
<tr>
<td>UCR-462.7</td>
<td>Kirby Billingsley Hydro Park 47.38652 -120.26333</td>
<td>Collection</td>
<td>Boom 700ft</td>
<td>Yes</td>
<td>Onsite Stage equipment at SA-UCR-462.9 Kirby Billingsley Hydro Park (1430 WA-28 S, East Wenatchee, WA 98802)</td>
<td>County Park, Riparian Area, Salmonids</td>
<td>Kirby Billingsley Hydro Park is managed by Chelan County Public Utility District. Notify Chelan County P.U.D. prior to deployment; call 509-661-4000.</td>
</tr>
<tr>
<td>UCR-466.8</td>
<td>Wenatchee Riverfront Park-North 47.43265 -120.31082</td>
<td>Collection</td>
<td>Boom 700ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801)</td>
<td>County Park, Riparian Area, Salmonids</td>
<td>Strategy location is part of Wenatchee Riverfront Park. Notify Chelan County P.U.D. prior to deployment; call 509-661-4000.</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------</td>
<td>-------------</td>
<td>-----------</td>
<td>--------------</td>
<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td>UCR-466.9</td>
<td>Porter's Pond Nature Area 47.43519 -120.30597</td>
<td>Exclusion</td>
<td>Boom 900ft, Sorbent 900ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).</td>
<td>Recreational Use Area, Riparian Area, Salmonids</td>
<td>Strategy location is part of Porter's Pond Nature Area. Notify Douglas County Department of Emergency Management prior to deployment; call 509-888-6841.</td>
</tr>
<tr>
<td>UCR-467.6</td>
<td>Walla Walla Point Park-South 47.44432 -120.31411</td>
<td>Deflection</td>
<td>Boom 600ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).</td>
<td>County Park, Riparian Area, Salmonids</td>
<td>Walla Walla Point Park is managed by Chelan County Public Utility District. Notify Chelan P.U.D. prior to deployment; call 509-661-4000.</td>
</tr>
<tr>
<td>UCR-467.8a</td>
<td>Walla Walla Point Park-Pedestrian Bridge 47.44663 -120.31715</td>
<td>Exclusion</td>
<td>Boom 100ft, Sorbent 100ft</td>
<td>No</td>
<td>Onsite Stage equipment at Walla Walla Point Park (1351 Walla Walla Ave, Wenatchee, WA 98801).</td>
<td>County Park, Salmonids, Sensitive Resources Nearby</td>
<td>Walla Walla Point Park is managed by Chelan County Public Utility District. Notify Chelan P.U.D. prior to deployment; call 509-661-4000.</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------</td>
<td>---------------</td>
<td>-------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>UCR-467.8b</td>
<td>Walla Walla Point Park-NE 47.44704 -120.31637</td>
<td>Collection</td>
<td>Boom 500ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).</td>
<td>County Park, Riparian Area, Salmonids, Sensitive Resources Nearby</td>
<td>Walla Walla Point Park is managed by Chelan County Public Utility District. Notify Chelan P.U.D. prior to deployment; call 509-661-4000.</td>
</tr>
<tr>
<td>UCR-468.3</td>
<td>Horan Nature Area 47.45424 -120.32467</td>
<td>Exclusion</td>
<td>Boom 300ft, Sorbent 300ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).</td>
<td>Backwater Area, Salmonids, State Park</td>
<td>Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373.</td>
</tr>
<tr>
<td>UCR-468.6</td>
<td>Wenatchee Confluence State Park-East 47.45855 -120.32394</td>
<td>Exclusion</td>
<td>Boom 200ft, Sorbent 200ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-468.8 Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).</td>
<td>Backwater Area, Salmon Habitat, State Park</td>
<td>Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373.</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------</td>
<td>-------------</td>
<td>-----------</td>
<td>--------------</td>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>UCR-472.7</td>
<td>Right Bank RM 472.7 47.52073 -120.30349</td>
<td>Collection</td>
<td>Boom 700ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-468.8 Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).</td>
<td>Downstream Resources, Riparian Area, Salmonids</td>
<td>Strategy location is ~1 mile downriver from Rocky Reach Dam. Notify Chelan County P.U.D. prior to deployment; call 509-661-4000.</td>
</tr>
<tr>
<td>WENA-0.7</td>
<td>Wenatchee Confluence State Park-South 47.45663 -120.32774</td>
<td>Exclusion</td>
<td>Boom 200ft, Sorbent 200ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-468.8 Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).</td>
<td>Backwater Area, Salmonids, State Park</td>
<td>Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373.</td>
</tr>
<tr>
<td>WENA-0.8</td>
<td>Wenatchee Confluence State Park-West 47.45792 -120.32998</td>
<td>Exclusion</td>
<td>Boom 300ft, Sorbent 300ft</td>
<td>Yes</td>
<td>Remote Stage equipment at SA-UCR-468.8 Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).</td>
<td>Backwater Area, Salmon Habitat, State Park</td>
<td>Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373. Strategy location is shallow.</td>
</tr>
</tbody>
</table>
### 4.5.3 Notification Strategy Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Location</th>
<th>Strategy Type</th>
<th>Resources at Risk</th>
<th>Implementation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCR-453.4-N</td>
<td>Rock Island Dam 47.34301 -120.09374</td>
<td>Notification</td>
<td>Lock and Dam</td>
<td>During Normal Business Hours and After Hours call CCPUD Dispatch at 509-661-4000. Inform them of any significant oil spill or potential spill that impacts or threatens the water resources of the Columbia River.</td>
<td>Notify Chelan County Public Utility District so that staff can protect the resources under their control.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCR-460.4-N</td>
<td>Greater Wenatchee Irrigation District 47.37789 -120.21851</td>
<td>Notification</td>
<td>Water Intakes</td>
<td>During Normal Business Hours and After Hours call GWID office at 509-884-4042. Inform them of any significant oil spill or potential spill that impacts or threatens the water resources of the Columbia River.</td>
<td>Notify Greater Wenatchee Irrigation District (GWID) so that staff can protect the resources under their control.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 4.5.4 Staging Area Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Location</th>
<th>Position</th>
<th>Nearest Address</th>
<th>Contact</th>
<th>Strategies Served</th>
<th>Comments</th>
<th>Sector Map (Page #)</th>
<th>Strategy Details (Page#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-UCR-448.8</td>
<td>YoYo Rock WDFW Water Access Site</td>
<td>47.28134-120.09283</td>
<td>780 Tarpiscan Rd Malaga, WA 98828</td>
<td>Washington Department of Fish &amp; Wildlife Region 2 - Wenatchee District Office Wenatchee, WA 98801 509-662-0452</td>
<td>UCR-440.8a UCR-440.8b UCR-448.8</td>
<td>YoYo Rock WDFW Water Access Site is managed by the Washington Department of Fish &amp; Wildlife. Coordinate staging with WDFW Region 2 (Wenatchee District Office); call 509-662-0452.</td>
<td>49</td>
<td>105</td>
</tr>
<tr>
<td>SA-UCR-462.9</td>
<td>Kirby Billingsley Hydro Park</td>
<td>47.38767-120.26624</td>
<td>1430 WA-28 S East Wenatchee, WA 98802</td>
<td>Chelan County Public Utility District Dispatch 509-661-4000 Chelan County Public Utilities District Main Office 509-663-8121</td>
<td>UCR-458.9 UCR-462.7</td>
<td>Kirby Billingsley Hydro Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.</td>
<td>47</td>
<td>107</td>
</tr>
<tr>
<td>SA-UCR-466.3</td>
<td>Wenatchee Riverfront Park</td>
<td>47.42550-120.30607</td>
<td>3 N Worthen St Wenatchee, WA 98801</td>
<td>Chelan County Public Utility District Dispatch Wenatchee, WA 98801 509-661-4000</td>
<td>UCR-466.8 UCR-466.9 UCR-467.6 UCR-467.8b UCR-468.3</td>
<td>Wenatchee Confluence State Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.</td>
<td>46</td>
<td>109</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Position</td>
<td>Nearest Address</td>
<td>Contact</td>
<td>Strategies Served</td>
<td>Comments</td>
<td>Sector Map (Page #)</td>
<td>Strategy Details (Page#)</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------</td>
<td>-------------------</td>
<td>----------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>SA-UCR-468.8</td>
<td>Wenatchee Confluence State Park</td>
<td>47.46246</td>
<td>333 Olds Station Rd Wenatchee, WA 98801</td>
<td>Washington State Parks and Recreation Commission Wenatchee Confluence State Park Wenatchee, WA 98801 509-664-6373</td>
<td>UCR-468.6 UCR-472.7 WENA-0.7 WENA-0.8</td>
<td>Wenatchee Confluence State Park is managed by the Washington State Parks and Recreation Commission. Coordinate staging with the commission; call 509-664-6373.</td>
<td>46</td>
<td>111</td>
</tr>
</tbody>
</table>
### 4.5.5 Boat Launch Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Name</th>
<th>Position</th>
<th>Nearest Address</th>
<th>Contact</th>
<th>Strategies Served</th>
<th>Comments</th>
<th>Sector Map (Page #)</th>
<th>Strategy Details (Page #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL-UCR-448.8</td>
<td>YoYo Rock WDFW Water Access Site</td>
<td>47.28134-120.09283</td>
<td>7800 Tarpiscan Rd Malaga, WA 98828</td>
<td>Washington Department of Fish &amp; Wildlife Region 2 - Wenatchee District Office Wenatchee, WA 98801 509-662-0452</td>
<td>UCR-440.8a UCR-440.8b UCR-448.8</td>
<td>YoYo Rock WDFW Water Access Site is managed by the Washington Department of Fish &amp; Wildlife. Coordinate staging with WDFW Region 2 (Wenatchee District Office); call 509-662-0452.</td>
<td>49</td>
<td>115</td>
</tr>
<tr>
<td>BL-UCR-462.9</td>
<td>Kirby Billingsley Hydro Park</td>
<td>47.38767-120.26624</td>
<td>1430 WA-28 S East Wenatchee, WA 98802</td>
<td>Chelan County Public Utility District Dispatch 509-661-4000 Chelan County Public Utilities District Main Office 509-663-8121</td>
<td>UCR-458.9 UCR-462.7</td>
<td>Kirby Billingsley Hydro Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.</td>
<td>47</td>
<td>117</td>
</tr>
<tr>
<td>BL-UCR-466.3</td>
<td>Wenatchee Riverfront Park</td>
<td>47.42550-120.30607</td>
<td>3 N Worthen St Wenatchee, WA 98801</td>
<td>Chelan County Public Utility District Dispatch Wenatchee, WA 98801 509-661-4000</td>
<td>UCR-466.8 UCR-466.9 UCR-466.7 UCR-467.8b UCR-468.3</td>
<td>Wenatchee Confluence State Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.</td>
<td>46</td>
<td>119</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Name</td>
<td>Position</td>
<td>Nearest Address</td>
<td>Contact</td>
<td>Strategies Served</td>
<td>Comments</td>
<td>Sector Map (Page #)</td>
<td>Strategy Details (Page#)</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
<td>----------</td>
<td>----------------</td>
<td>---------</td>
<td>------------------</td>
<td>----------</td>
<td>---------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>BL-UCR-468.8</td>
<td>Wenatchee Confluence State Park</td>
<td>47.46246 -120.32172</td>
<td>333 Olds Station Rd Wenatchee, WA 98801</td>
<td>Washington State Parks and Recreation Commission Wenatchee Confluence State Park Wenatchee, WA 98801 509-664-6373</td>
<td>UCR-468.6 UCR-472.8 WENA-0.7 WENA-0.8</td>
<td>Wenatchee Confluence State Park is managed by the Washington State Parks and Recreation Commission. Coordinate staging with the commission; call 509-664-6373.</td>
<td>46</td>
<td>121</td>
</tr>
</tbody>
</table>
APPENDIX 4A

Response Strategy 2-Pagers
# RESPONSE STRATEGIES - LIST

<table>
<thead>
<tr>
<th>UCR-440.8a</th>
<th>UCR-440.8b</th>
<th>UCR-448.8</th>
<th>UCR-458.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCR-462.7</td>
<td>UCR-466.8</td>
<td>UCR-466.9</td>
<td>UCR-467.6</td>
</tr>
<tr>
<td>UCR-467.8a</td>
<td>UCR-467.8b</td>
<td>UCR-468.3</td>
<td>UCR-468.6</td>
</tr>
<tr>
<td>UCR-472.8</td>
<td>WENA-0.7</td>
<td>WENA-0.8</td>
<td></td>
</tr>
</tbody>
</table>
Crescent Bar Recreation Area-West

Position - Location: 47° 12.856', -119° 59.896'  47° 12' 51.4", -119° 59' 53.7"  47.21427, -119.99826  Malaga

Strategy Objective: Collection : Collect oil moving downstream on Columbia River.

Implementation: Transport 700ft boom to site using workboat. Secure one end to left bank at/near Point A (47.21357, -119.99766). Avoid anchoring to the pilings to the west. Extend remaining boom NW and anchor at/near Point B (47.21491, -119.99950). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

Staging Area: Remote : Stage equipment at SA-UCR-448.8 YoYo Rock WDFW Water Access Site (7800 Tarpiscan Rd, Malaga, WA 98828).

Site Safety: Slips, Trips, Falls; Water Hazard

Field Notes: Crescent Bar Recreation Area is managed by the Grant County Public Utility District. Notify Grant County PUD prior to deployment; call 800-216-5226.

Watercourse: River - Below a Dam - Columbia River

Resources at Risk: Public Recreation Site/Area, Riparian Area, Salmonids, Sensitive Resources

Recommended Equipment

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring System(s)</td>
<td>9 Each</td>
<td>(anchor, lines, floats)</td>
</tr>
<tr>
<td>Anchoring System(s)- Shoreside</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>700 Feet</td>
<td></td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Vac Truck or Skimmer and Storage</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Personnel

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Operator</td>
<td>1</td>
</tr>
<tr>
<td>Laborer</td>
<td>3</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Crescent Bar Recreation Area-West

UCR-440.8a Photo: Looking NE from near anchor point A. Photo is oriented upriver.

Site Contact

Grant County Public Utility District
Land/Property Contact: Emergency Phone Number
800-216-5226

Grant County Department of Emergency Management
Emergency Contact: 24-Hour Duty Officer
509-237-2598

Nearest Address

7800 Tarpiscan Rd
Malaga, WA 98828

Driving Directions

TO STAGING AREA/BOAT LAUNCH at YoYo Rock WDFW Water Access Site (SA-UCR-448.8 & BL-UCR-448.8):
1. Start in Wenatchee
2. Head south on Malaga Alcoa Hwy
3. At fork keep left on Malaga Alcoa Hwy (Malaga Hwy) (7.65 miles)
4. Continue on Colockum Rd (2.84 miles)
5. Bear left on Tarpiscan Rd (0.67 miles)
6. Turn right to stay on Tarpiscan Rd (0.75 miles)
7. Finish at 7800 Tarpiscan Rd, 98828, on the left
### Crescent Bar Recreation Area-East

<table>
<thead>
<tr>
<th>Position - Location:</th>
<th>Exclusion: Keep oil out of Columbia River backwater area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Safety:</td>
<td>Slips, Trips, Falls; Water Hazard</td>
</tr>
<tr>
<td>Field Notes:</td>
<td>Crescent Bar Recreation Area is managed by the Grant County Public Utility District. Notify Grant County PUD prior to deployment; call 800-216-5226.</td>
</tr>
<tr>
<td>Watercourse:</td>
<td>River - Columbia River</td>
</tr>
<tr>
<td>Resources at Risk:</td>
<td>Backwater Area, Public Recreation Site/Area, Salmonids, Sensitive Resources</td>
</tr>
</tbody>
</table>

#### Implementation:
- Transport 400ft boom to site using workboat. Secure one end to right bank at/near Point A (47.21461, -119.99611). Extend remaining boom NE and anchor at/near Point B (47.21534, -119.99494). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

#### Staging Area:
- Remote: Stage equipment at SA-UCR-448.8 YoYo Rock WDFW Water Access Site (7800 Tarpiscan Rd, Malaga, WA 98828).

#### Recommended Equipment

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
</tr>
<tr>
<td>2</td>
<td>Anchoring System(s) - Shoreside</td>
</tr>
<tr>
<td>400 Feet</td>
<td>Boom - B3 (River Boom) or equivalent</td>
</tr>
<tr>
<td>400 Feet</td>
<td>Boom - Sorbent</td>
</tr>
<tr>
<td>1</td>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
</tr>
<tr>
<td>1</td>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
</tr>
</tbody>
</table>

#### Recommended Personnel

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boat Operator</td>
</tr>
<tr>
<td>2</td>
<td>Laborer</td>
</tr>
<tr>
<td>1</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>
Crescent Bar Recreation Area-East

UCR-440.8b Photo: Looking NE toward anchor point B. Water flows from left to right.

Site Contact

Grant County Public Utility District
Land/Property Contact: Emergency Phone Number
800-216-5226

Grant County Department of Emergency Management
Emergency Contact: 24-Hour Duty Officer
509-237-2598

Nearest Address

7800 Tarpiscan Rd
Malaga, WA 98828

Driving Directions

TO STAGING AREA/BOAT LAUNCH at YoYo Rock WDFW Water Access Site (SA-UCR-448.8 & BL-UCR-448.8):
1. Start in Wenatchee
2. Head south on Malaga Alcoa Hwy
3. At fork keep left on Malaga Alcoa Hwy (Malaga Hwy) (7.65 miles)
4. Continue on Colockum Rd (2.84 miles)
5. Bear left on Tarpiscan Rd (0.67 miles)
6. Turn right to stay on Tarpiscan Rd (0.75 miles)
7. Finish at 7800 Tarpiscan Rd, 98828, on the left
YoYo Rock WDFW Water Access Site  UCR-448.8

Position - Location:  47° 16.908', -120° 5.492'  47° 16' 54.5", -120° 5' 29.5"  47.28180, -120.09153  Malaga

Strategy Objective:  Collection: Collect oil moving downstream on Columbia River.

Implementation:  Transport 1000ft boom to site using workboat. Secure one end to right bank at/near Point A (47.28118, -120.09236). Extend remaining boom NE and anchor at/near Point B (47.28250, -120.09047). Also, extend 300ft boom from boat ramp to Point C (47.28192, -120.09198) so as to keep oil off of shoreline. Place Point A on top of or as close to the boat ramp as possible. Use additional anchoring systems (as needed) to keep boom secure in water.

Staging Area:  Onsite: Stage equipment at SA-UCR-448.8 YoYo Rock WDFW Water Access Site (7800 Tarpiscan Rd, Malaga, WA 98828).

Site Safety:  Slips, Trips, Falls; Water Hazard

Field Notes:  YoYo Rock WDFW Water Access Site is managed by the Washington Department of Fish & Wildlife. Notify WDFW Region 2 prior to deployment; call 509-662-0452.

Watercourse:  River - Below a Dam - Columbia River

Resources at Risk:  Boat Launch/Ramp, Riparian Area, Salmonids, Sensitive Resources

Recommended Equipment

- 13 Each Anchoring System(s) - (anchor, lines, floats)
- 1 Each Anchoring System(s)- Shoreside
- 1000 Feet Boom - B3 (River Boom) or equivalent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Vac Truck or Skimmer and Storage
- 1 Each Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

- 1 Boat Operator
- 4 Laborer
- 1 Supervisor
YoYo Rock WDFW Water Access Site

UCR-448.8 Photo: Aerial photo looking west toward right bank of Columbia River. Water flows from right to left.

Site Contact

Washington Department of Fish & Wildlife
Land/Property Contact: Region 2 - Wenatchee District Office
509-662-0452

Chelan County Department of Emergency Management
Emergency Contact: Assistant Director
509-667-6864

Nearest Address

7800 Tarpiscan Rd
Malaga, WA 98828

Driving Directions

TO STAGING AREA/BOAT LAUNCH at YoYo Rock WDFW Water Access Site (SA-UCR-448.8 & BL-UCR-448.8):
1. Start in Wenatchee
2. Head south on Malaga Alcoa Hwy
3. At fork keep left on Malaga Alcoa Hwy (Malaga Hwy) (7.65 miles)
4. Continue on Colockum Rd (2.84 miles)
5. Bear left on Tarpiscan Rd (0.67 miles)
6. Turn right to stay on Tarpiscan Rd (0.75 miles)
7. Finish at 7800 Tarpiscan Rd, 98828, on the left
**Left Bank RM 458.9**

| **Position - Location:** | 47° 22.516', -120° 11.357' | 47° 22' 31.0", -120° 11' 21.4" | 47.37527, -120.18929 | East Wenatchee |

**Strategy Objective:** Exclusion: Keep oil out of Columbia River backwater area.

**Implementation:**
Transport 200ft boom to site using workboat. Secure one end to shore at/near Point A (47.37547, -120.18944). Extend remaining boom SSE and anchor at/near Point B (47.37509, -120.18915). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at SA-UCR-462.9 Kirby Billingsley Hydro Park (1430 WA-28 S, East Wenatchee, WA 98802).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Left bank of Columbia River is part of Douglas County. Notify Douglas County Department of Emergency Management prior to deployment; call 509-888-6841.

**Watercourse:** River - Above a Dam - Columbia River

**Resources at Risk:** Backwater Area, Salmonids

---

**Recommended Equipment**

- 2 Each Anchoring System(s) - (anchor, lines, floats)
- 2 Each Anchoring System(s) - Shoreside
- 200 Feet Boom - B3 (River Boom) or equivalent
- 200 Feet Boom - Sorbent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- 1 Boat Operator
- 2 Laborer
- 1 Supervisor
UCR-458.9 Photo: Looking NNE toward gap in left bank in Columbia River. Water flows from left to right.

**Site Contact**

**Douglas County Department of Emergency Management**

Emergency Contact: Director

East Wenatchee, WA 98802
509-888-6841

**Nearest Address**

1430 WA-28 S
East Wenatchee, WA 98802

**Driving Directions**

TO STAGING AREA/BOAT LAUNCH at Kirby Billingsley Hydro Park (SA-UCR-462.9 & BL-UCR-462.9):
1. Continue on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW) (27.72 miles)
3. Finish at 1430 State Highway 28 S, 98802, on the left
### Kirby Billingsley Hydro Park

**Position - Location:** 47° 23.191', -120° 15.800'  
**47° 23' 11.5", -120° 15' 48.0"**  
47.38652, -120.26333  
**East Wenatchee**

**Strategy Objective:** Collect oil moving downstream on Columbia River.

**Implementation:** Transport 700ft boom to site using workboat. Secure one end to left bank at/near Point A (47.38636, -120.26191). Extend remaining boom WNW and anchor at/near Point B (47.38664, -120.26452). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Onsite: Stage equipment at **SA-UCR-462.9 Kirby Billingsley Hydro Park** (1430 WA-28 S, East Wenatchee, WA 98802).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Kirby Billingsley Hydro Park is managed by Chelan County Public Utility District. Notify Chelan County P.U.D. prior to deployment; call 509-661-4000.

**Watercourse:** River - Above a Dam - Columbia River

**Resources at Risk:** County Park, Riparian Area, Salmonids

#### Recommended Equipment

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Each</td>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
</tr>
<tr>
<td>1 Each</td>
<td>Anchoring System(s) - Shoreside</td>
</tr>
<tr>
<td>700 Feet</td>
<td>Boom - B3 (River Boom) or equivalent</td>
</tr>
<tr>
<td>1 Each</td>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
</tr>
<tr>
<td>1 Each</td>
<td>Vac Truck or Skimmer and Storage</td>
</tr>
<tr>
<td>1 Each</td>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
</tr>
</tbody>
</table>

#### Recommended Personnel

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boat Operator</td>
</tr>
<tr>
<td>3</td>
<td>Laborer</td>
</tr>
<tr>
<td>1</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>
Kirby Billingsley Hydro Park

UCR-462.7 Photo: Looking west across Columbia River. Photo is oriented upriver.

Site Contact

Chelan County Public Utility District
Land/Property Contact : Dispatch
509-661-4000

Chelan County Public Utilities District
Land/Property Owner : Main Office
509-663-8121

Nearest Address

1430 State Highway 28 S
East Wenatchee, WA 98802

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Kirby Billingsley Hydro Park (SA-UCR-462.9 & BL-UCR-462.9):
1. Continue on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW) (27.72 miles)
3. Finish at 1430 State Highway 28 S, 98802, on the left
### Wenatchee Riverfront Park-North

**Position - Location:** 47° 25.954', -120° 18.649'  
47° 25' 57.3", -120° 18' 38.9"  
47.43257, -120.31081  
Wenatchee

**Strategy Objective:** Collection - Collect oil moving downstream on Columbia River.

**Implementation:** Transport 1000ft boom to site using workboat. Secure one end to right bank at/near Point A (47.43168, -120.31072). Extend 500ft boom north and anchor at/near Point B (47.43308, -120.31079). Finally extend remaining boom NNE and anchor at/near Point C (47.43354, -120.31047). Place 300ft boom to form apex around structure ~300ft NW of Point A. Do not anchor the boom to the structure itself. Use additional anchoring systems (as needed) to keep boom secure in water.

#### Staging Area:
Remote: Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).

#### Site Safety:
Slips, Trips, Falls; Water Hazard

#### Field Notes:
Strategy location is part of Wenatchee Riverfront Park. Notify Chelan County P.U.D. prior to deployment; call 509-661-4000.

#### Watercourse:
River - Below a Dam - Columbia River

#### Resources at Risk:
County Park, Riparian Area, Salmonids, Sensitive Resources

---

#### Recommended Equipment

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
<td>13 Each</td>
<td></td>
</tr>
<tr>
<td>Anchoring System(s)- Shoreside</td>
<td>3 Each</td>
<td></td>
</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>1000 Feet</td>
<td></td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Vac Truck or Skimmer and Storage</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
<td></td>
</tr>
</tbody>
</table>

#### Recommended Personnel

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Operator</td>
<td>1</td>
</tr>
<tr>
<td>Laborer</td>
<td>4</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Wenatchee Riverfront Park-North

UCR-466.8 Photo: Looking north toward anchor points B & C. Photo is oriented upriver.

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Turn left on N Worthen St
10. Turn right into park and follow road to boat launch behind Pybus Public Market
Porter's Pond Nature Area  

**Position - Location:** 47° 26.111', -120° 18.358'  
47° 26' 6.7", -120° 18' 21.5"  
47.43519, -120.30597  
Wenatchee

**Strategy Objective:** Exclusion: Keep oil out of Porter's Pond Nature Area.

**Implementation:** Transport 900ft boom to site using workboat. Secure one end to left bank at/near Point A (47.43645, -120.30563). Extend remaining boom SSW and anchor at/near Point C (47.43407, -120.30593). Near boom midpoint, use workboat to pull boom west into the river creating a chevron (west-pointing apex); anchor at/near Point B (47.43527, -120.30611). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Strategy location is part of Porter's Pond Nature Area. Notify Douglas County Department of Emergency Management prior to deployment; call 509-888-6841.

**Watercourse:** River - Below a Dam - Columbia River

**Resources at Risk:** Recreational Use Area, Riparian Area, Salmonids

---

**Recommended Equipment**

- 12 Each Anchoring System(s) - (anchor, lines, floats)
- 2 Each Anchoring System(s)- Shoreside
- 900 Feet Boom - B3 (River Boom) or equivalent
- 900 Feet Boom - Sorbent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- 1 Boat Operator
- 3 Laborer
- 1 Supervisor
UCR-466.9 Photo: Looking east toward left bank of Columbia River. Water flows from left to right.

**Site Contact**

**Douglas County Department of Emergency Management**
Emergency Contact: Director
East Wenatchee, WA 98802
509-888-6841

**Nearest Address**

3 N Worthen St
Wenatchee, WA 98801

**Driving Directions**

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Turn left on N Worthen St
10. Turn right into park and follow road to boat launch behind Pybus Public Market
Walla Walla Point Park-South

Position - Location: 47° 26.659', -120° 18.847'  47° 26' 39.6", -120° 18' 50.8"  47.44432, -120.31411 Wenatchee

Strategy Objective: Deflection: Keep oil away from Walla Walla Point Park shoreline.

Implementation: Transport 600ft boom to site using workboat. Secure one end to right bank at/near Point A (47.44447, -120.31475). Extend remaining boom SE and anchor at/near Point B (47.44381, -120.31289). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

Staging Area: Remote: Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).

Site Safety: Slips, Trips, Falls; Rocky Shoreline; Water Hazard; Wildlife Hazard

Field Notes: Walla Walla Point Park is managed by Chelan County Public Utility District. Notify Chelan P.U.D. prior to deployment; call 509-661-4000.

Watercourse: River - Below a Dam - Columbia River

Resources at Risk: County Park, Riparian Area, Salmonids

Recommended Equipment

- 8 Each Anchoring System(s) - (anchor, lines, floats)
- 1 Each Anchoring System(s)- Shoreside
- 600 Feet Boom - B3 (River Boom) or equivalent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

- 1 Boat Operator
- 3 Laborer
- 1 Supervisor
Walla Walla Point Park-South

UCR-467.6 Photo: Looking NW toward Walla Walla Point Park lagoon. Photo is oriented upriver.

**Site Contact**

**Chelan County Public Utilities District**
Primary Contact: System Operations (Lake Chelan Dam)
509-661-4000

Chelan County Public Utility District
Land/Property Contact: Dispatch
509-661-4000

**Nearest Address**

3 N Worthen St
Wenatchee, WA 98801

**Driving Directions**

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Turn left on N Worthen St
10. Turn right into park and follow road to boat launch behind Pybus Public Market
### Walla Walla Point Park-Pedestrian Bridge  
**Position - Location:** 47° 26' 47.9", -120° 19' 1.7"  
**Strategy Objective:** Exclusion: Keep oil out of small inlet south of pedestrian bridge.

**Implementation:** Transport 100ft boom to site using vehicle. Secure one end to river bank at/near Point A (47.44665, -120.31729). Extend remaining boom ESE and anchor at/near Point B (47.44657, -120.31696). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Onsite: Stage equipment at Walla Walla Point Park (1351 Walla Walla Ave, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Rocky Shoreline; Water Hazard

**Field Notes:** Walla Walla Point Park is managed by Chelan County Public Utility District. Notify Chelan P.U.D. prior to deployment; call 509-661-4000.

**Watercourse:** River - Below a Dam - Columbia River

**Resources at Risk:** County Park, Salmonids, Sensitive Resources Nearby

#### Recommended Equipment

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Each</td>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
</tr>
<tr>
<td>2 Each</td>
<td>Anchoring System(s)- Shoreside</td>
</tr>
<tr>
<td>100 Feet</td>
<td>Boom - B3 (River Boom) or equivalent</td>
</tr>
<tr>
<td>100 Feet</td>
<td>Boom - Sorbent</td>
</tr>
<tr>
<td>1 Each</td>
<td>Heaving Line(s)</td>
</tr>
<tr>
<td>100 Feet</td>
<td>Line - 1/2&quot; poly line</td>
</tr>
</tbody>
</table>

#### Recommended Personnel

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laborer</td>
<td>2</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Walla Walla Point Park-Pedestrian Bridge

UCR-467.8a Photo: Looking ESE towards far side of bridge. Photo is oriented downriver.

Site Contact

Chelan County Public Utility District
Emergency Contact: Dispatch
509-661-4000

Chelan County Public Utilities District
Primary Contact: System Operations (Lake Chelan Dam)
509-661-4000

Nearest Address

1351 Walla Walla Ave
Wenatchee, WA 98801

Driving Directions

1. Head east on I-90 towards George, WA
2. At exit 149 take ramp on the right to WA-281 N toward Quincy / Wenatchee (0.23 miles)
3. Turn left on WA-281 (State Route 281 N) toward Quincy / Wenatchee (10.62 miles)
4. Turn left on WA-28 (F St SW) (29.59 miles)
5. Keep left to proceed on WA-285 N toward Wenatchee (0.68 miles)
6. Turn right at Stevens St / S Mission St to stay on WA-285 (S Mission St) (1.95 miles)
7. Make sharp right on 9th St (0.31 miles)
8. Turn left on Walla Walla Ave (0.5 miles)
9. Turn right into Walla Walla Point Park. Take road to the north and follow Apple Cove Loop Trail to bridge, NE of parking area.
Walla Walla Point Park-NE

**Position - Location:** 47° 26.822', -120° 18.982' 47° 26' 49.3", -120° 18' 58.9" 47.44704, -120.31637 Wenatchee

**Strategy Objective:** Collection: Collect oil moving downstream on Columbia River.

**Implementation:** Transport 500ft boom to site using workboat. Secure one end to right bank at/near Point A (47.44634, -120.31628). Extend remaining boom NNE and anchor at/near Point B (47.44763, -120.31644). Use shoreside anchoring posts or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Rocky Shoreline; Water Hazard; Wildlife Hazard

**Field Notes:** Walla Walla Point Park is managed by Chelan County Public Utility District. Notify Chelan P.U.D. prior to deployment; call 509-661-4000.

**Watercourse:** River - Below a Dam - Columbia River

**Resources at Risk:** County Park, Riparian Area, Salmonids, Sensitive Resources Nearby

**Recommended Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring System(s)</td>
<td>6 Each</td>
<td>(anchor, lines, floats)</td>
</tr>
<tr>
<td>Anchoring System(s)-Shoreside</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>500 Feet</td>
<td></td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Skimmer (appropriately sized) with Portable Storage</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
<td></td>
</tr>
</tbody>
</table>

**Recommended Personnel**

<table>
<thead>
<tr>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Boat Operator</td>
</tr>
<tr>
<td>3 Laborer</td>
</tr>
<tr>
<td>1 Supervisor</td>
</tr>
</tbody>
</table>
Walla Walla Point Park-NE

UCR-467.8b Photo: Looking NNW toward Wenatchee Confluence State Park. Photo is oriented upriver.

Site Contact

Chelan County Public Utility District
Land/Property Contact : Dispatch
Wenatchee, WA 98801
509-661-4000

Nearest Address

3 N Worthen St
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Finish at Apple Capitol Recreational Loop Trail, 98801, on the right
Horan Nature Area

**Position - Location:** 47° 27.254', -120° 19.480'  
47° 27' 15.3", -120° 19' 28.8"  
47.45424, -120.32467  
Wenatchee

**Strategy Objective:** Exclusion: Keep oil out of Horan Nature Area.

**Implementation:** Transport 300ft boom to site using workboat. Secure one end to shore at/near Point A (47.45447, -120.32504). Extend remaining boom SE and anchor at/near Point B (47.45403, -120.32434). Do not use shoreside anchoring posts to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at SA-UCR-466.3 Wenatchee Riverfront Park (3 N Worthen St, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373.

**Watercourse:** River - Below a Dam - Columbia River

**Resources at Risk:** Backwater Area, Salmonids, Sensitive Resources, State Park

**Recommended Equipment**

- **4 Each** Anchoring System(s) - (anchor, lines, floats)
- **300 Feet** Boom - B3 (River Boom) or equivalent
- **300 Feet** Boom - Sorbent
- **1 Each** Bridle(s) - Towing (appropriately sized for boom)
- **1 Each** Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- **1 Boat Operator**
- **2 Laborer**
- **1 Supervisor**
Horan Nature Area

UCR-468.3 Photo: Looking south toward Wenatchee Confluence State Park. Water flows from right to left.

Site Contact

Washington State Parks and Recreation Commission
Land/Property Contact: Wenatchee Confluence State Park

Wenatchee, WA 98801
509-664-6373

Nearest Address

3 N Worthen St
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Finish at 3 N Worthen St, 98801, on the right
Wenatchee Confluence State Park-East

**Position - Location:** 47° 27' 51.3", -120° 19' 43.6"  
47° 27' 30.8", -120° 19' 26.2"  
47.45855, -120.32394  
Wenatchee

**Strategy Objective:** Exclusion: Keep oil out of Wenatchee Confluence State Park.

**Implementation:** Transport 200ft boom to site using workboat. Secure one end to shore at/near Point A (47.45883, -120.32384). Extend remaining boom SSW and anchor at/near Point B (47.45830, -120.32401). Do not use shoreside anchoring posts to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at SA-UCR-468.8 Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373.

**Watercourse:** River - Below a Dam - Columbia River

**Resources at Risk:** Backwater Area, Salmon Habitat, Sensitive Resources, State Park

**Recommended Equipment**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Each</td>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
</tr>
<tr>
<td>200 Feet</td>
<td>Boom - B3 (River Boom) or equivalent</td>
</tr>
<tr>
<td>200 Feet</td>
<td>Boom - Sorbent</td>
</tr>
<tr>
<td>1 Each</td>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
</tr>
<tr>
<td>1 Each</td>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
</tr>
</tbody>
</table>

**Recommended Personnel**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boat Operator</td>
</tr>
<tr>
<td>2</td>
<td>Laborer</td>
</tr>
<tr>
<td>1</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>
Wenatchee Confluence State Park-East

UCR-468.6 Photo: Looking WNW toward Wenatchee Confluence State Park. Water flows from right to left.

Site Contact

Washington State Parks and Recreation Commission
Land/Property Contact: Wenatchee Confluence State Park

Wenatchee, WA 98801
509-664-6373

Nearest Address

333 Olds Station Rd
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Confluence State Park (SA-UCR-468.8 & BL-UCR-468.8):
1. Go north on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW)
3. Turn left on US-2 (US-97) (1.02 miles)
4. Take ramp on the right to US-97-ALT N toward Entiat / Chelan (0.24 miles)
5. Turn left on US-97-ALT (State Highway 97A) (0.15 miles)
6. Continue on Euclid Ave (0.36 miles)
7. Turn left at Penny Rd to stay on Euclid Ave (0.05 miles)
8. Turn right on Isenhart Ave (0.23 miles)
9. Turn right on Olds Station Rd (0.03 miles)
10. Finish at 333 Olds Station Rd, 98801, on the left
# Right Bank RM 472.8

**Position - Location:** 47° 31.294', -120° 18.205'  
47° 31' 17.6", -120° 18' 12.3"  
47.52156, -120.30342  
Wenatchee

**Strategy Objective:** Collect oil moving downstream on Columbia River.

**Implementation:** Transport 700ft boom to site using workboat. Secure one end to right bank at/near Point A (47.52018, -120.30437). Extend remaining boom NE and anchor at/near Point B (47.52157, -120.30265). Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at SA-UCR-468.8 Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Water Hazard; Steep Banks; Loose Rock

**Field Notes:** Strategy location is 0.9 miles downriver from Rocky Reach Dam. Notify Chelan County P.U.D. prior to deployment; call 509-661-4000.

**Watercourse:** River - Below a Dam - Columbia River

**Resources at Risk:** Downstream Resources, Riparian Area, Salmonids, Sensitive Resources

**Recommended Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
<td>9 Each</td>
</tr>
<tr>
<td>Anchoring System(s) - Shoreside</td>
<td>1 Each</td>
</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>700 Feet</td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
</tr>
<tr>
<td>Vac Truck or Skimmer and Storage</td>
<td>1 Each</td>
</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
</tr>
</tbody>
</table>

**Recommended Personnel**

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Operator</td>
<td>1</td>
</tr>
<tr>
<td>Laborer</td>
<td>3</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Right Bank RM 472.8

UCR-472.8 Photo: Looking NE toward anchor point B. Water flows from left to right.

Site Contact

Chelan County Public Utility District
Land/Property Contact: Dispatch
Wenatchee, WA 98801
509-661-4000

Nearest Address

333 Olds Station Rd
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Confluence State Park (SA-UCR-468.8 & BL-UCR-468.8):
1. Go north on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW)
3. Turn left on US-2 (US-97) (1.02 miles)
4. Take ramp on the right to US-97-ALT N toward Entiat/Chelan (0.24 miles)
5. Turn left on US-97-ALT (State Highway 97A) (0.15 miles)
6. Continue on Euclid Ave (0.36 miles)
7. Turn left at Penny Rd to stay on Euclid Ave (0.05 miles)
8. Turn right on Isenhart Ave (0.23 miles)
9. Turn right on Olds Station Rd (0.03 miles)
10. Finish at 333 Olds Station Rd, 98801, on the left
**Wenatchee Confluence State Park-South**

**Position - Location:** 47° 27.398', -120° 19.664'  
**Strategy Objective:** Exclusion : Keep oil out of Wenatchee Confluence State Park.

**Implementation:** Transport 200ft boom to site using workboat. Secure one end to shore at/near Point A (47.45670, -120.32807). Extend remaining boom ESE and anchor at/near Point B (47.45654, -120.32739). Do not use shoreside anchoring posts to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Remote :** Stage equipment at **SA-UCR-468.8** Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373.

**Watercourse:** River - Wenatchee River

**Resources at Risk:** Backwater Area, Salmonids, Sensitive Resources, State Park

---

**Recommended Equipment**

- 3 Each Anchoring System(s) - (anchor, lines, floats)
- 200 Feet Boom - B3 (River Boom) or equivalent
- 200 Feet Boom - Sorbent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- 1 Boat Operator
- 2 Laborer
- 1 Supervisor
Wenatchee Confluence State Park-South

WENA-0.7 Photo: Looking NNE into Wenatchee Confluence State Park. Water flows from left to right.

Site Contact

Washington State Parks and Recreation Commission  
Land/Property Contact: Wenatchee Confluence State Park  
Wenatchee, WA 98801  
509-664-6373

Nearest Address

333 Olds Station Rd  
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Confluence State Park (SA-UCR-468.8 & BL-UCR-468.8):
1. Go north on WA-281 (State Route 281 N)  
2. Turn left on WA-28 (F St SW)  
3. Turn left on US-2 (US-97) (1.02 miles)  
4. Take ramp on the right to US-97-ALT N toward Entiat / Chelan (0.24 miles)  
5. Turn left on US-97-ALT (State Highway 97A) (0.15 miles)  
6. Continue on Euclid Ave (0.36 miles)  
7. Turn left at Penny Rd to stay on Euclid Ave (0.05 miles)  
8. Turn right on Isenhart Ave (0.23 miles)  
9. Turn right on Olds Station Rd (0.03 miles)  
10. Finish at 333 Olds Station Rd, 98801, on the left
### Wenatchee Confluence State Park-West

**Position - Location:** 47° 27.475', -120° 19.799'  //  47° 27' 28.5", -120° 19' 47.9"  //  47.45792, -120.32998  //  Wenatchee

**Strategy Objective:** Exclusion: Keep oil out of Wenatchee Confluence State Park.

**Implementation:** Transport 300ft boom to site using workboat. Secure one end to shore at/near Point A (47.45815, -120.33033). Extend remaining boom SE and anchor at/near Point B (47.45770, -120.32965). Do not use shoreside anchoring posts to secure boom to shore. Use additional anchoring systems (as needed) to keep boom secure in water.

**Staging Area:** Remote: Stage equipment at **SA-UCR-468.8** Wenatchee Confluence State Park (333 Olds Station Rd, Wenatchee, WA 98801).

**Site Safety:** Slips, Trips, Falls; Water Hazard

**Field Notes:** Strategy location is part of Wenatchee Confluence State Park. Notify Washington State Parks prior to deployment; call 509-664-6373. Strategy location is shallow.

**Watercourse:** River - Wenatchee River

**Resources at Risk:** Backwater Area, Salmon Habitat, Sensitive Resources, State Park

### Recommended Equipment

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring System(s) (anchor, lines, floats)</td>
<td>4 Each</td>
</tr>
<tr>
<td>Boom (B3 (River Boom) or equivalent)</td>
<td>300 Feet</td>
</tr>
<tr>
<td>Boom - Sorbent</td>
<td>300 Feet</td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
</tr>
<tr>
<td>Workboat(s) - shallow-water</td>
<td>1 Each</td>
</tr>
</tbody>
</table>

### Recommended Personnel

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Operator</td>
<td>1</td>
</tr>
<tr>
<td>Laborer</td>
<td>2</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Wenatchee Confluence State Park-West

WENA-0.8 Photo: Looking ESE toward Wenatchee Confluence State Park. Photo is oriented downriver.

Site Contact

Washington State Parks and Recreation Commission
Land/Property Contact: Wenatchee Confluence State Park
Wenatchee, WA 98801
509-664-6373

Nearest Address

333 Olds Station Rd
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Confluence State Park (SA-UCR-468.8 & BL-UCR-468.8):
1. Go north on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW)
3. Turn left on US-2 (US-97) (1.02 miles)
4. Take ramp on the right to US-97-ALT N toward Entiat / Chelan (0.24 miles)
5. Turn left on US-97-ALT (State Highway 97A) (0.15 miles)
6. Continue on Euclid Ave (0.36 miles)
7. Turn left at Penny Rd to stay on Euclid Ave (0.05 miles)
8. Turn right on Isenhart Ave (0.23 miles)
9. Turn right on Olds Station Rd (0.03 miles)
10. Finish at 333 Olds Station Rd, 98801, on the left
APPENDIX 4B

Notification Strategy 2-Pagers
NOTIFICATION STRATEGIES - LIST

UCR-453.4-N

UCR-460.4-N
Rock Island Dam

**Position - Location:** 47° 20.581', -120° 5.624'  
47° 20' 34.8", -120° 5' 37.5"  
47.34301, -120.09374  
Wenatchee

**Strategy Objective:** Notification  
Notify Chelan County Public Utility District so that staff can protect the resources under their control.

**Implementation:** During Normal Business Hours and After Hours call CCPUD Dispatch at 509-661-4000. Inform them of any significant oil spill or potential spill that impacts or threatens the water resources of the Columbia River.

**Field Notes:** The CCPUD manages the hydroelectric dam for the benefit of the local community. The Dam staff can close the spillway and stop the flow of the oil slick on the river.

**Watercourse:** River - Above a Dam - Columbia River

**Resources at Risk:** Lock and Dam

**Communication Process and Action:**

During Normal Business Hours and After Hours call CCPUD Dispatch at 509-661-4000. Inform them of any significant oil spill or potential spill that impacts or threatens the water resources of the Columbia River. Once notified, the Dam staff will determine what action(s) they need to take in order to protect the resources under their control. Actions by personnel may include closing the fish ladders and spillway.
Rock Island Dam

UCR-453.4-N Photo: Aerial photo of Rock Island Dam from the right bank.

Site Contact

Chelan County Public Utility District
Emergency Contact: Dispatch

Wenatchee, WA 98801
509-661-4000

Nearest Address

327 N Wenatchee Ave
Wenatchee, WA 98801

Driving Directions

TO CHelan COUNTY PUBLIC UTILITY DISTRICT OFFICE:
1. Continue on WA-281 (State Route 281 N) (10.62 miles)
2. Turn left on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (1.08 miles)
8. Turn right on Whitman Way (0.07 miles)
9. Turn right on N Wenatchee Ave ()
10. Finish at 327 N Wenatchee Ave, 98801, on the left
## Greater Wenatchee Irrigation District

**Position - Location:** 47° 22.673', -120° 13.111'  
**47° 22' 40.4", -120° 13' 6.6"**  
47.37789, -120.21851  
East Wenatchee

**Strategy Objective:**  
Notification: Notify Greater Wenatchee Irrigation District (GWID) so that staff can protect the resources under their control.

**Implementation:**  
During Normal Business Hours and After Hours call GWID office at 509-884-4042. Inform them of any significant oil spill or potential spill that impacts or threatens the water resources of the Columbia River.

**Field Notes:**  
The GWID draws irrigation water through surface water intakes in the Upper Columbia River area and beyond. The District Supervisor can shut off those water intakes.

**Watercourse:**  
River - Above a Dam - Columbia River

**Resources at Risk:**  
Water Intakes

**Communication Process and Action:**  
During Normal Business Hours and After Hours call GWID office at 509-884-4042. Inform them of any significant oil spill or potential spill that impacts or threatens the water resources of the Columbia River. Once notified, the GWID staff will determine what action(s) they need to take in order to protect the resources under their control. Actions by the district may include shutting down intakes and closing intake valves.
Greater Wenatchee Irrigation District

UCR-460.4-N Photo: Aerial photo of left bank of Columbia River.

**Site Contact**

Greater Wenatchee Irrigation District
Primary Contact: Manager
East Wenatchee, WA 98802
509-884-4042

**Nearest Address**

3300 8th St SE
East Wenatchee, WA 98802

**Driving Directions**

TO GREATER WENATCHEE IRRIGATION DISTRICT OFFICE:
1. Continue on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW) (26.39 miles)
3. Turn right on S Nile Ave (0.71 miles)
4. Turn right on 8th St SE (1 miles)
5. Finish at 3300 8th St SE, 98802, on the right
APPENDIX 4C

Staging Area 2-Pagers
## STAGING AREAS - LIST

<table>
<thead>
<tr>
<th>SA-UCR-448.8</th>
<th>SA-UCR-462.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-UCR-466.3</td>
<td>SA-UCR-468.8</td>
</tr>
</tbody>
</table>
YoYo Rock WDFW Water Access Site  
**SA-UCR-448.8**

### Staging Area

| **Position - Location:** | 47° 16.880', -120° 5.570' | 47° 16' 52.8", -120° 5' 34.2" | 47.2814, -120.09283 | Malaga |

**Comments:** YoYo Rock WDFW Water Access Site is managed by the Washington Department of Fish & Wildlife. Coordinate staging with WDFW Region 2 (Wenatchee District Office); call 509-662-0452.

### Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>1 lane, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>16,000 SqFt</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Dirt/Gravel</td>
<td>100%</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Gravel</td>
<td>5</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Gravel</td>
<td>2</td>
</tr>
<tr>
<td>Power</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Vault</td>
<td>1</td>
</tr>
<tr>
<td>User Fee</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

### GRP Response Strategies Served:

UCR-440.8b, UCR-448.8, UCR-440.8a
YoYo Rock WDFW Water Access Site

SA-UCR-448.8 Photo: Looking south across Staging Area/Boat Launch parking lot.

Site Contact

Washington Department of Fish & Wildlife
Land/Property Contact: Region 2 - Wenatchee District Office

Wenatchee, WA 98801
509-662-0452

Nearest Address

7800 Tarpiscan Rd
Malaga, WA 98828

Driving Directions

1. Start in Wenatchee
2. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
3. Make sharp left on S Wenatchee Ave (1.01 miles)
4. Continue on Malaga Alcoa Hwy (2.55 miles)
5. At fork keep left on Malaga Alcoa Hwy (Malaga Hwy) (7.65 miles)
6. Continue on Colockum Rd (2.84 miles)
7. Bear left on Tarpiscan Rd (0.67 miles)
8. Turn right to stay on Tarpiscan Rd (0.75 miles)
9. Finish at 7800 Tarpiscan Rd, 98828, on the right
Kirby Billingsley Hydro Park

**Staging Area**

| **Position - Location:** | 47° 23.260', -120° 15.974' | 47° 23' 15.6", -120° 15' 58.5" | 47.38767, -120.26624 | East Wenatchee |

**Comments:** Kirby Billingsley Hydro Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.

**Location Information**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 lanes, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Yes</td>
<td>3 bars/3G</td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>120,000 SqFt</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>100%</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>8</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>30</td>
</tr>
<tr>
<td>Power</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Flush</td>
<td>2</td>
</tr>
<tr>
<td>User Fee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Trash Receptacle</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**GRP Response Strategies Served:**

UCR-462.7, UCR-458.9
Kirby Billingsley Hydro Park

SA-UCR-462.9 Photo: Looking SE toward boat ramp and dock. Photo is oriented downriver.

**Site Contact**

**Chelan County Public Utility District**
Land/Property Contact: Dispatch
509-661-4000

**Chelan County Public Utilities District**
Land/Property Owner: Main Office
509-663-8121

**Nearest Address**

1430 WA-28 S
East Wenatchee, WA 98802

**Driving Directions**

1. Start at I-90 George
2. Go on I-90 E toward 149 (0.13 miles)
3. At exit 149 take ramp on the right to WA-281 N toward Quincy / Wenatchee (0.23 miles)
4. Turn left on WA-281 (State Route 281 N) toward Quincy / Wenatchee (10.62 miles)
5. Turn left on WA-28 (F St SW) (27.72 miles)
6. Finish at 1430 WA-28 S, 98802, on the left
Wenatchee Riverfront Park

SA-UCR-466.3

### Staging Area

**Position - Location:** 47° 25.530', -120° 18.364'
47° 25' 31.8", -120° 18' 21.9"  
47.42550, -120.30607  

**Wenatchee**

**Comments:** Wenatchee Confluence State Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.

---

### Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 lanes, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td>75,000 SqFt</td>
<td></td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>80%</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>15</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>20</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td>200v</td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Flush</td>
<td>2</td>
</tr>
<tr>
<td>User Fee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>User Fee</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

---

### GRP Response Strategies Served:

UCR-466.9, UCR-466.8, UCR-467.8b, UCR-467.6, UCR-468.3
Wenatchee Riverfront Park

SA-UCR-466.3 Photo: Looking SSW from top of boat ramp toward end of boat dock.

Site Contact

Chelan County Public Utility District
Land/Property Contact: Dispatch
Wenatchee, WA 98801
509-661-4000

Nearest Address

3 N Worthen St
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Finish at 3 N Worthen St, 98801, on the right
10. Turn right into park and follow road to boat launch behind Pybus Public Market
**Wenatchee Confluence State Park**  
**SA-UCR-468.8**

**Staging Area**

| Position - Location: | 47° 27.748', -120° 19.303' | 47° 27' 44.9", -120° 19' 18.2" | 47.46246, -120.32172 |

**Comments:** Wenatchee Confluence State Park is managed by the Washington State Parks and Recreation Commission. Coordinate staging with the commission; call 509-664-6373.

---

**Location Information**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 lanes, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Yes</td>
<td>2 bars/3G</td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>120,000 SqFt</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td></td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>30</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>60</td>
</tr>
<tr>
<td>Power</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Flush</td>
<td>4</td>
</tr>
<tr>
<td>User Fee</td>
<td>Yes</td>
<td>Discover Pass</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Trash Receptacle</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**GRP Response Strategies Served:**  
WENA-0.8, WENA-0.7, UCR-472.8, UCR-468.6
Wenatchee Confluence State Park

SA-UCR-468.8 Photo: Looking SE down boat ramps and dock. Water flows from left to right.

Site Contact

Washington State Parks and Recreation Commission
Land/Property Contact: Wenatchee Confluence State Park

Wenatchee, WA 98801
509-664-6373

Nearest Address

333 Olds Station Rd
Wenatchee, WA 98801

Driving Directions

1. Go north on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW)
3. Turn left on US-2 (US-97) (1.02 miles)
4. Take ramp on the right to US-97-ALT N toward Entiat / Chelan (0.24 miles)
5. Turn left on US-97-ALT (State Highway 97A) (0.15 miles)
6. Continue on Euclid Ave (0.36 miles)
7. Turn left at Penny Rd to stay on Euclid Ave (0.05 miles)
8. Turn right on Isenhart Ave (0.23 miles)
9. Turn right on Olds Station Rd (0.03 miles)
10. Finish at 333 Olds Station Rd, 98801, on the left
APPENDIX 4D

Boat Launch 2-Pagers
# BOAT LAUNCHES - LIST

<table>
<thead>
<tr>
<th>BL-UCR-448.8</th>
<th>BL-UCR-462.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL-UCR-466.3</td>
<td>BL-UCR-468.8</td>
</tr>
</tbody>
</table>
YoYo Rock WDFW Water Access Site

**BL-UCR-448.8**

**Boat Launch Location**

| Position - Location: | 47° 16.880', -120° 5.570' | 47° 16.528", -120° 5' 34.2" | 47.28134, -120.09283 | Malaga |

**Comments:** YoYo Rock WDFW Water Access Site is managed by the Washington Department of Fish & Wildlife. Coordinate staging with WDFW Region 2 (Wenatchee District Office); call 509-662-0452.

**Location Information**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>1 lane, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td>16,000 SqFt</td>
<td></td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Dirt/Gravel</td>
<td>100%</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Gravel</td>
<td>5</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Gravel</td>
<td>2</td>
</tr>
<tr>
<td>Power</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Vault</td>
<td>1</td>
</tr>
<tr>
<td>User Fee</td>
<td>Yes</td>
<td>Discover Pass</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**GRP Response Strategies Served:**

UCR-440.8b, UCR-448.8, UCR-440.8a
YoYo Rock WDFW Water Access Site

SA-UCR-448.8 Photo: Looking south across Staging Area/Boat Launch parking lot.

Site Contact

Washington Department of Fish & Wildlife
Land/Property Contact: Region 2 - Wenatchee District Office

Wenatchee, WA 98801
509-662-0452

Nearest Address

7800 Tarpiscan Rd
Malaga, WA 98828

Driving Directions

1. Start in Wenatchee
2. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
3. Make sharp left on S Wenatchee Ave (1.01 miles)
4. Continue on Malaga Alcoa Hwy (2.55 miles)
5. At fork keep left on Malaga Alcoa Hwy (Malaga Hwy) (7.65 miles)
6. Continue on Colockum Rd (2.84 miles)
7. Bear left on Tarpiscan Rd (0.67 miles)
8. Turn right to stay on Tarpiscan Rd (0.75 miles)
9. Finish at 7800 Tarpiscan Rd, 98828, on the right
**Kirby Billingsley Hydro Park**

**Boat Launch Location**

<table>
<thead>
<tr>
<th>Position - Location</th>
<th>47° 23.260', -120° 15.974'</th>
<th>47° 23' 15.6&quot;, -120° 15' 58.5&quot;</th>
<th>47.38767, -120.26624</th>
<th>East Wenatchee</th>
</tr>
</thead>
</table>

**Comments:** Kirby Billingsley Hydro Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.

---

**Location Information**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 lanes, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Yes</td>
<td>3 bars/3G</td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>120,000 SqFt</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>100%</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>8</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>30</td>
</tr>
<tr>
<td>Power</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Flush</td>
<td>2</td>
</tr>
<tr>
<td>User Fee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Trash Receptacle</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

---

**GRP Response Strategies Served:**

UCR-462.7, UCR-458.9
Kirby Billingsley Hydro Park

**SA-UCR-462.9**

Photo: Looking SE toward boat ramp and dock. Photo is oriented downriver.

### Site Contact

**Chelan County Public Utility District**
Land/Property Contact: Dispatch
509-661-4000

**Chelan County Public Utilities District**
Land/Property Owner: Main Office
509-663-8121

### Nearest Address

1430 WA-28 S
East Wenatchee, WA 98802

### Driving Directions

1. Start at I-90 George
2. Go on I-90 E toward 149 (0.13 miles)
3. At exit 149 take ramp on the right to WA-281 N toward Quincy / Wenatchee (0.23 miles)
4. Turn left on WA-281 (State Route 281 N) toward Quincy / Wenatchee (10.62 miles)
5. Turn left on WA-28 (F St SW) (27.72 miles)
6. Finish at 1430 WA-28 S, 98802, on the left
## Wenatchee Riverfront Park

### Boat Launch Location

| Position - Location: | 47° 25.530', -120° 18.364' | 47° 25' 31.8", -120° 18' 21.9" | 47.42550, -120.30607 | Wenatchee |

### Comments:

Wenatchee Confluence State Park is managed by the Chelan County Public Utility District. Coordinate staging with Chelan P.U.D.; call 509-661-4000.

### Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 lanes, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>75,000 SqFt</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>80%</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>15</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>20</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td>200v</td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Flush</td>
<td>2</td>
</tr>
<tr>
<td>User Fee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>User Fee</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

### GRP Response Strategies Served:

UCR-466.9, UCR-466.8, UCR-467.8b, UCR-467.6, UCR-468.3
Wenatchee Riverfront Park

SA-UCR-466.3 Photo: Looking SSW from top of boat ramp toward end of boat dock.

Site Contact

Chelan County Public Utility District
Land/Property Contact: Dispatch

Wenatchee, WA 98801
509-661-4000

Nearest Address

3 N Worthen St
Wenatchee, WA 98801

Driving Directions

TO STAGING AREA/BOAT LAUNCH at Wenatchee Riverfront Park (SA-UCR-466.3 & BL-UCR-466.3):
1. Go north on WA-281 (State Route 281 N)
2. Turn right on WA-28 (F St SW) (29.59 miles)
3. Keep left to proceed on WA-285 N toward Wenatchee (0.48 miles)
4. Bear right onto ramp toward US-2 BUSINESS / City Center (0.1 miles)
5. Bear right on S Wenatchee Ave (0.36 miles)
6. Turn left on Peachey St (Peachy St) (0.07 miles)
7. Turn right on S Mission St (WA-285) (0.63 miles)
8. Turn right on Orondo Ave (0.23 miles)
9. Finish at 3 N Worthen St, 98801, on the right
10. Turn right into park and follow road to boat launch behind Pybus Public Market
# Wenatchee Confluence State Park

**BL-UCR-468.8**

## Boat Launch Location

| Position - Location | 47° 27.748', -120° 19.303' | 47° 27' 44.9", -120° 19' 18.2" | 47.46246, -120.32172 | Wenatchee |

## Comments:

Wenatchee Confluence State Park is managed by the Washington State Parks and Recreation Commission. Coordinate staging with the commission; call 509-664-6373.

## Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 lanes, 6 degree grade</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Yes</td>
<td>2 bars/3G</td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>120,000 SqFt</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td></td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>30</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>60</td>
</tr>
<tr>
<td>Power</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - Flush</td>
<td>4</td>
</tr>
<tr>
<td>User Fee</td>
<td>Yes</td>
<td>Discover Pass</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Trash Receptacle</td>
<td></td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

## GRP Response Strategies Served:

WENA-0.8, WENA-0.7, UCR-472.8, UCR-468.6
SA-UCR-468.8 Photo: Looking SE down boat ramps and dock. Water flows from left to right.

**Site Contact**

**Washington State Parks and Recreation Commission**
Land/Property Contact: Wenatchee Confluence State Park

Wenatchee, WA  98801
509-664-6373

**Nearest Address**

333 Olds Station Rd
Wenatchee, WA  98801

**Driving Directions**

1. Go north on WA-281 (State Route 281 N)
2. Turn left on WA-28 (F St SW)
3. Turn left on US-2 (US-97) (1.02 miles)
4. Take ramp on the right to US-97-ALT N toward Entiat / Chelan (0.24 miles)
5. Turn left on US-97-ALT (State Highway 97A) (0.15 miles)
6. Continue on Euclid Ave (0.36 miles)
7. Turn left at Penny Rd to stay on Euclid Ave (0.05 miles)
8. Turn right on Isenhart Ave (0.23 miles)
9. Turn right on Olds Station Rd (0.03 miles)
10. Finish at 333 Olds Station Rd, 98801, on the left
CHAPTER 5
(Reserved)
CHAPTER 6

Resources at Risk

6.1 CHAPTER INTRODUCTION

This chapter provides a summary of natural, cultural, and economic resources at risk in the planning area. It provides general information on habitat, fish, and wildlife resources, and locations in the area where sensitive natural resource concerns exist. It offers a summary of cultural resources that include fundamental procedures for the discovery of cultural artifacts and human skeletal remains. General information about flight restrictions, wildlife deterrence, and oiled wildlife can be found near the end of this chapter. A list of economic resources in the area is provided in the chapter’s appendix.

This chapter is purposely broad in scope and should not be considered comprehensive. Some of the sensitive resources described in this chapter cannot be addressed in Chapter 4 (Response Strategies and Priorities) because it’s not possible to conduct effective response activities in these locations. Additional information from private organizations or federal, state, tribal, and local government agencies should also be sought during spills.

This material is presented with enough detail to give general information about the area during the first phase of a spill response. During an actual incident, more information about resources at risk will be available from the Environmental Unit in the Planning Section.

The information provided in this chapter can be used in:

- Assisting the Environmental Unit (EU) and Operations in developing additional response strategies beyond those found in Chapter 4.

- Providing resource-at-risk “context” to responders, clean-up workers, and others during the initial phase of a spill response in the GRP area.

- Briefing responders and incident command staff that may be unfamiliar with sensitive resource concerns in the GRP area.

- Providing background information for personnel involved in media presentations and public outreach during a spill incident.
6.2 NATURAL RESOURCES AT RISK - SUMMARY

Most biological communities are susceptible to the effects of oil spills. Plant communities on land, aquatic plants; microscopic plants and animals; and larger animals, such as fish, amphibians and reptiles, birds, mammals, and a wide variety of invertebrates, are all potentially at risk from smothering, acute toxicity, and/or the chronic long-term effects that may result from being exposed to spilled oil.

The Upper Columbia River basin includes a wide variety of aquatic, riparian, and upland habitats. The area provides habitat to many of Washington's anadromous salmonid species and affords a variety of habitat to many bird species as well. These varied habitats support a complex diversity of wildlife species, including large and small mammals; passerine (song) birds, raptors, upland birds, and waterfowl; reptiles; and amphibians. Due to their life histories and/or behaviors, some of these species are unlikely to be directly oiled during a spill incident but may be disturbed by other operations such as cleanup, reconnaissance, or fire suppression activities. Some of the bird species are resident throughout the year, but many others seasonally migrate outside the basin. A number of the species found in this area are classified as threatened or endangered under the federal Endangered Species Act or Washington State guidelines.

Classification types are listed below, with the abbreviation of each type provided in the brackets (to the right of the classification).

- Federal Endangered (FE)
- Federal Threatened (FT)
- State Endangered (SE)
- State Threatened (ST)
- State Sensitive (SS)

Federal and State Threatened and Endangered species that may occur within this area, at some time of year, include:

*Birds:*

- Northern spotted owl [FT]*
- Ferruginous Hawk [ST]*
- Greater sage-grouse [ST]*
- Yellow-billed cuckoo [FT]*
**Mammals:**

- Canada lynx [FT]*
- Columbia Basin pygmy rabbit [FE/SE]*
- Gray wolf [FT/SE]*
- Grizzly bear [FT/SE]*

**Fish:**

- Bull trout [FT]
- Chinook salmon [FT]
- Steelhead [FT]

**Plants:**

- Whitebark pine [candidate for federal listing]

*Unlikely to be directly oiled during a spill incident.

### 6.2.1 General Resource Concerns

#### 6.2.1a Habitats

- Many **rivers and streams** throughout this region provide spawning and rearing habitat for a variety of salmonid species (including Chinook, sockeye, and coho salmon, as well as western slope cutthroat, rainbow, and steelhead trout). Passerine birds commonly nest in riparian habitat during the spring and summer. The Wenatchee and Columbia River waterways throughout this GRP are designated critical habitat for bull trout and Chinook salmon.

- **Wetlands** in this region range from freshwater emergent, freshwater forested, freshwater ponds and lakes. All wetland types support a diverse array of bird, insect and fish and wildlife species. The floodplain along the Wenatchee River contains numerous small wetland and ponds that attract waterfowl.

- **Shrub-steppe** habitat in this region supports many species of wildlife, including some that can only be found in these semi-arid communities – such as greater sage-grouse, sage sparrow, and sage thrasher.

- **Agriculture, rangeland, and mixed environs** are interspersed with the shrub-steppe habitat. This mix of agriculture, range, and shrub-steppe habitats dominate the area adjacent to the riparian zone along the Wenatchee River from approximately Leavenworth to its confluence with the Columbia River.
6.2.1b Fish

- Northwest salmonid species are present throughout this region, with spawning occurring in the Columbia River and its assorted tributaries. Juvenile salmonids use these streams for feeding, rearing, and migration corridors.

- Resident species including trout (cutthroat and rainbow) and various warm water species are also present throughout this area.

6.2.1c Wildlife

- Waterfowl concentrations of various species may be found throughout the region on rivers, creeks and ponds.

- Sensitive nesting species in the region include bald eagles, golden eagles, peregrine falcons, great blue herons, and passerine birds.

- Resident and migratory songbirds heavily utilize riparian habitats year-round and are susceptible to oiling/oil ingestion if riparian vegetation and shorelines become contaminated.

- Mammals common to the area include deer and elk, bats, and various semi-aquatic species such as muskrat, beaver, river otter, etc. Semi-aquatic mammals are largely dependent on riverine areas, ponds, tributaries, and riparian forests for den sites and foraging areas.

- Amphibians may be present in the undisturbed shallow lakes and emergent wetlands associated with this region.

6.2.2 Specific Geographic Areas of Concern

(Note: Includes sensitive sites in bordering GRP regions)

Northern Portion of GRP Area (See Figure 6-1)

1. Waterfowl - Waterfowl concentration and great blue heron rookery.
2. Wenatchee Confluence State Park - Waterfowl concentration and cavity nesting ducks.
4. Waterfowl - Waterfowl concentration.

Southern Portion of GRP Area (See Figure 6-2)

5. Waterfowl - Waterfowl concentration and great blue heron rookery on island.
6. Waterfowl - Waterfowl concentration including common loons.
7. Wastewater Ponds - Waterfowl concentration including common loons.
8. H Lake, Stan Coffin Lake, Quincy Lake, Dusty Lake, Burke Lake, Flat Lake, Evergreen Reservoir, and nearby ponds - Waterfowl concentration.
Figure 6-1: Upper Columbia River (North) Specific Geographic Areas of Concern
Figure 6-2: Upper Columbia River (South) Specific Geographic Areas of Concern
6.3 CULTURAL RESOURCES AT RISK - SUMMARY

Culturally significant resources are present within the planning area. Information regarding the type and location of cultural resources is maintained by the Washington Department of Archeology and Historic Preservation (WDAHP). This sensitive information is made available to the Washington Department of Ecology for oil spill preparedness and response planning. The Tribal Historic Preservation Offices (THPOs) or Cultural Resource Departments of local tribes (see Table 6-1) may also be able to provide information on cultural resources at risk in the area and should be contacted, along with WDAHP, through normal trustee notification processes when significant oil spills, or smaller spills above reportable thresholds, occur in the area.

During a spill response, after the Unified Command is established, information related to specific archeological concerns will be coordinated through the Environmental Unit. In order to ensure that tactical response strategies do not inadvertently harm culturally sensitive sites, WDAHP should be consulted before disturbing any soil or sediment during a response action. WDAHP and/or the Tribal governments may assign a person, or provide a list of professional archeologists that can be contracted, to monitor response activities and cleanup operations for the protection of cultural resources. Due to the sensitive nature of such information, details regarding the location and type of cultural resources present are not included in this document.

Table 6-1: UCR-GRP Cultural Resource Contacts

<table>
<thead>
<tr>
<th>Contact</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington Department of Archaeology and Historic</td>
<td>(360) 586-3065</td>
<td><a href="mailto:Rob.Whitlam@dahp.wa.gov">Rob.Whitlam@dahp.wa.gov</a></td>
</tr>
<tr>
<td>Preservation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confederated Tribes of the Colville Reservation, THPO</td>
<td>(509) 634-2695</td>
<td><a href="mailto:guy.moura@colvilletribes.com">guy.moura@colvilletribes.com</a></td>
</tr>
<tr>
<td>Nez Perce Tribe</td>
<td>(208) 843-2253</td>
<td><a href="mailto:keithb@nezperce.org">keithb@nezperce.org</a></td>
</tr>
<tr>
<td>Samish Indian Nation, THPO</td>
<td>(360) 293-6404</td>
<td><a href="mailto:jferry@samishtribe.nsn.us">jferry@samishtribe.nsn.us</a></td>
</tr>
<tr>
<td>Spokane Tribe of Indians, THPO</td>
<td>258-4315</td>
<td><a href="mailto:randya@spokanetribe.com">randya@spokanetribe.com</a></td>
</tr>
<tr>
<td>Tulalip Tribes</td>
<td>(425) 239-0182</td>
<td><a href="mailto:ryoung@tulaliptribes-nsn.gov">ryoung@tulaliptribes-nsn.gov</a></td>
</tr>
<tr>
<td>Confederated Tribes of the Umatilla Indian</td>
<td>(541) 276-3447</td>
<td><a href="mailto:tearafarrowferman@ctuir.com">tearafarrowferman@ctuir.com</a></td>
</tr>
<tr>
<td>Reservation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confederated Tribes and Bands of the Yakama Indian</td>
<td>(509) 865-5121</td>
<td><a href="mailto:kate@yakama.com">kate@yakama.com</a></td>
</tr>
<tr>
<td>Village</td>
<td>x4840</td>
<td></td>
</tr>
</tbody>
</table>
6.3.1 Discovery of Human Skeletal Remains

Any human remains, burial sites, or burial-related materials that are discovered during a spill response must be treated with respect at all times (photographing human remains is prohibited to all except the appropriate authorities). Refer to Section 9403 of the Northwest Area Contingency Plan for National Historic Preservation Act Compliance Guidelines during an emergency response.

6.3.2 Procedures for the Discovery of Cultural Resources

If any person monitoring work activities or involved in spill response believes that they have encountered cultural resources, all work must be stopped immediately and the Incident Commander and Cultural Resource Specialist notified. The area of work stoppage must be adequate to provide for the security, protection, and integrity of the material or artifact(s) discovered.

**Prehistoric Cultural Resources:** (May include, but are not limited to, any of the following items)

- Lithic debitage (stone chips and other tool-making byproducts)
- Flaked or ground stone tools
- Exotic rock, minerals, or quarries
- Concentrations of organically stained sediments, charcoal, or ash
- Fire-modified rock
- Rock alignments or rock structures
- Bone (burned, modified, or in association with other bone, artifacts, or features)
- Shell or shell fragments
- Petroglyphs and pictographs
- Fish weirs, fish traps, and prehistoric water craft
- Culturally modified trees
- Physical locations or features (traditional cultural properties)

**Historic Cultural Material:** (May include any of the following items over 50 years old)

- Bottles, or other glass
- Cans
- Ceramics
- Milled wood, brick, concrete, metal, or other building material
- Trash dumps
- Homesteads, building remains
- Logging, mining, or railroad features
- Piers, wharves, docks, bridges, dams, or shipwrecks
6.4 ECONOMIC RESOURCES AT RISK SUMMARY

Socio-economic sensitive resources are facilities or locations that rely on a body of water to be economically viable. Because of their location, they could be severely impacted if an oil spill were to occur. Economically sensitive resources are separated into three categories: critical infrastructure, water dependent commercial areas, and water dependent recreation areas. Appendix 6A of this chapter provides a list of economic resources for this planning area.

6.5 GENERAL INFORMATION

6.5.1 Flight restriction zones

Flight restriction zones may be recommended by the Environmental Unit (Planning Section) for the purpose of reducing disturbances that could result in injury to wildlife during an oil spill. By keeping a safe distance or altitude from identified sensitive areas, pilots can lessen the risk of aircraft/bird collisions, prevent the accidental hazing of wildlife into oiled areas, and avoid causing the abandonment of nests.

Implementation of Flight Restriction Zones will take place within the Air Operations Branch (Operations Section) after a Unified Command is formed. The Planning Section’s Environmental Unit will work with the Air Ops Branch Director to resolve any potential conflicts with flight activities that are essential to the spill response effort. Typically, the area within a 1,500-foot radius and below 1,000 feet in altitude is restricted to flying in areas that have been identified as sensitive; however, some areas have more restrictive zones. In addition to restrictions associated with wildlife, Tribal authorities may also request notification when overflights are likely to affect culturally sensitive areas within reservations. See Section 9301.3.2 and Section 9301.3.3 of the Northwest Area Contingency Plan for more information on the use of aircraft and helicopters in open water and shoreline responses.

6.5.2 Wildlife Deterrence

After a Unified Command is formed, the Wildlife Branch (Operations Section), in consultation with the appropriate trustee agencies and the Environmental Unit, will evaluate wildlife deterrent options for the purpose of keeping un-oiled birds away from oil during a spill. The “Bird Deterrence Unit” in the Wildlife Branch would participate in operations. Deterrence options might include the use of acoustic or visual deterrent devices, boats, aircraft or other situation-appropriate tools. For more information see the Northwest Wildlife Response Plan (NWACP Section 9310 and Northwest Area Wildlife Deterrence resources (NWACP Section 9311).
6.5.3 Oiled Wildlife

Attempting to capture oiled wildlife can be hazardous to both the animal and the person attempting the capture. Response personnel should not approach or attempt to recover oiled wildlife. Responders should report observations of any oiled wildlife to the Wildlife Branch so appropriate action can be taken. Information provided should include the location, date, and time of the sighting, and the estimated number and kind of animals observed. Early on in the response, before a Unified Command is established, oiled wildlife sightings should be reported to Washington Emergency Management Division. For more information see the Northwest Wildlife Response Plan (NWACP Section 9310).
APPENDIX 6A

List of Economic Resources

(Reserved)