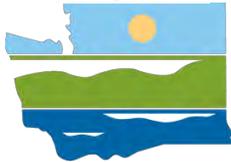




State of Oregon
Department of
Environmental
Quality



DEPARTMENT OF
ECOLOGY
State of Washington



MIDDLE COLUMBIA RIVER

BONNEVILLE POOL

Geographic Response Plan (MCRB-GRP)



MIDDLE COLUMBIA RIVER

BONNEVILLE POOL

Geographic Response Plan

(MCRB-GRP)

October 2015

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Spill Response Contact Sheet

Required Notifications for Oil Spills and Hazardous Substance Releases	
Federal Notification - National Response Center	(800) 424-8802*
State Notification – Oregon Emergency Response System	(800) 452-0311*
State Notification - Washington Emergency Management Division	(800) 258-5990*
USACE Dam Operators - Emergency Contact - Dam Control Room	
Bonneville Lock and Dam - River Mile: 145.4	(541) 374-8338*
The Dalles Lock and Dam - River Mile: 192.7	(541) 298-7505*
John Day Lock and Dam - River Mile: 216.5	(541) 298-9712*
McNary Lock and Dam - River Mile: 292.55	(541) 922-2231*
Ice Harbor Lock and Dam - (Snake) River Mile: 9.6	(509) 547-7783*
U.S. Environmental Protection Agency	
Region 10 - Spill Response	(206) 553-1263*
- Washington Ops Office	(360) 753-9437
- Oregon Ops Office	(503) 326-3250
- RCRA/CERCLA Hotline	(800) 424-9346
- Public Affairs	(206) 553-1203
U.S. Coast Guard	
Sector Columbia River - Emergency/Watchstander	(503) 861-2242*
Sector Columbia River - Command Center	(503) 861-6211*
Sector Columbia River - Incident Management Division	(503) 861-6477
13th Coast Guard District	(800) 982-8813
National Strike Force Coordination Center	(252) 331-6000
- Pacific Strike Team	(415) 883-3311
National Oceanic Atmospheric Administration	
Scientific Support Coordinator	(206) 526-6829
Weather	(503) 261-9246
NOAA HAZMAT	(206) 526-4911*
Other Federal Agencies	
U.S. DOI Fish and Wildlife Service (pager)	(360) 534-9313*
U.S. DOI Office of Environmental P and C	(503) 720-1212*
USACE Portland District Office	(503) 784-7469*
U.S. Forest Service, Columbia River Gorge National Scenic Area	(541) 308-1700
Tribal Contacts	
Columbia River Inter-Tribal Fisheries Commission	(541) 386-6363*
Cowlitz Indian Tribe, Cultural Resources Director	(360) 577-6962
Nez Perce Tribe, Spill Responder and Water Quality	(208) 621-3893
Confederated Tribes of the Umatilla Indian Reservation	(541) 377-2959*
Warm Springs Confederated Tribes	(541) 553-1171*
Confederated Tribes of the Yakama Indian Nation	(509) 865-5121
Confederated Tribes of the Colville Reservation, THPO	(509) 634-2695
Northwest Indian Fisheries Commission	(360) 438-1180
Railroads	
BNSF Railway	(800) 832-5452*
Union Pacific Railroad	(888) 877-7267*

* Contact Numbers staffed 24-hour/day

Oregon State Agencies	
OR Dept of Environmental Quality	(800) 452-0311*
OR Fish and Wildlife	(800) 720-ODFW
OR State Historic Preservation Office	(503) 986-0690
OR Parks and Recreation Department	(503) 986-0690
OR State Patrol, The Dalles Area Command	(541) 296-9646
Washington State Agencies	
WA Dept of Archaeology and Historic Preservation	(360) 586-3065
Washington Department of Ecology - ECY Headquarters - Spills	(360) 407-7455
Washington Department of Ecology - Southwest Regional Spill Response Team	(360) 407-6300*
Washington Department of Ecology - Central Region Spill Response Team	(509) 575-2490*
Washington Department of Fish and Wildlife - Region 5	(360) 696-6211
Washington Department of Fish and Wildlife - Oil Spill Team	(360) 534-8233*
Washington Department of Fish and Wildlife - Emergency HPA	(360) 534-8233*
WA Dept of Health - Drinking H2O Program	(887) 481-4901
WA Dept of Health - Drinking H2O Program (Afterhours)	(800) 521-0323
WA Dept of Natural Resources - Aquatic Lands (M-Th) daytime)	(360) 902-1064
WA Dept of Natural Resources - Aquatic Lands (Nights/Weekends)	(360) 556-3921
WA Dept of Transportation	(360) 705-7000
Washington State Patrol - District #3	(509) 575-2320
Washington State Patrol - District #5	(360) 449-7909
Response Contractors	
Cowlitz Clean Sweep	(888) 423-6316*
Global Diving and Salvage	(800) 441-3483*
Marine Spill Response Corporation (MSRC)	(425) 252-1300*
NRC Environmental Services	(800) 337-7455*
Able Clean-Up	(866) 466-5255*
Ballard Marine Construction	(866) 782-6750
Big Sky Industrial	(800) 582-4949
Clean Harbors Environmental Services	(800) 645-8265*
Clean Rivers Cooperative	(503) 220-2040*
Moran Environmental	(888) 233-5338*
NWFF Environmental	(800) 942-4614*
West Coast Marine Cleaning	(877) 926-2462

* Contact Numbers staffed 24-hour/day

Local Government - Bonneville Pool	
City of Bingen Police Department	(509) 493-2660
City of Bingen Fire Department	(509) 493-2122
City of Cascade Locks Fire/EMS	(541) 374-8510
City of Cascade Locks Police	(541) 374-8619
City of Carson, WA-Fire District 1	(509) 427-8698
City of Dallesport, WA-Fire District 6	(509) 767-1252
City of Hood River Police Department	(541) 386-3942
City of Hood River Fire Department	(541) 386-3939
Port of Hood River	(541) 386-1645
City of Lyle, WA-Fire District 4	(509) 365-2500
City of Mosier, OR-Volunteer Fire Department	(541) 478-3333
City of North Bonneville, WA-Fire Department	(509) 427-5235
City of Stevenson Police Department	(509) 427-8185
City of Stevenson City Fire Hall	(509) 427-5552
City of Stevenson Fire District #2	(509) 427-5456
The Dalles Police Department	(541) 296-2233
Middle Columbia Fire and Rescue	(541) 296-9445
Port of The Dalles	(541) 298-4148
The Dalles Irrigation District	(541) 296-3366
Underwood Fire District 3	(509) 493-1710
City of White Salmon Police Department	(509) 493-2660
City of White Salmon Fire Department	(509) 493-1135
City of Hood River Police Department	(541) 386-2121
Hood River County Emergency Management	(541) 386-1213
Hood River County Environmental Health	(541) 387-7130
Hood River County Sheriff	(509) 386-2711
Klickitat County Sheriff	(509) 493-1811
Klickitat County Emergency Management	(509) 250-0528
Klickitat County Fire District 6 (Dallesport)	(509) 767-1252
Port of Klickitat, WA	(509) 493-1655
North Sherman County Rural Fire District	(541) 442-5252
Sherman County Sheriff	(541) 565-3622
Skamania County Sheriff	(509) 427-5626
Port of Skamania, WA	(509) 427-5484
Skamania County Emergency Management	(509) 427-8076
Skamania County Fire District 2	(509) 427-5970
Wasco County Mid-Columbia Fire and Rescue	(541) 296-9445
Wasco County Sheriff	(541) 506-2580

* Contact Numbers staffed 24-hour/day

Before you print this document

Chapter 4 with appendices (pages 35 - 327) and Appendix 6A (pages 340 - 342) of this document are provided in “landscape” page orientation; all other chapters and appendices are oriented in “portrait.” The appendices in Chapter 4 (pages 97 - 327) 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 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.

After a spill occurs, efforts to control and contain the spill at or near the source should be a top priority. Beyond those efforts, the booming and notification strategies provided in Chapter 4 should be implemented as soon as possible using the priority tables in Section 4.3, unless overflight information, spill trajectory models, or circumstances unique to a particular spill situation dictate otherwise. Changes to the order listed in the priority tables may be made if approved by the Incident Commander or Unified Command.

Information meant to support initial Environmental Unit functions can be found in Chapter 6 (Resources at Risk). The chapter and its appendix provide specific information about the type and location of natural and economic resources in the area. Cultural resource locations were considered in the development of this plan but, because of the sensitive nature of the information, specifics about the location of those resources aren't included in this document.

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CHAPTER 1

Introduction

This plan focuses on sensitive resource protection after an oil spill occurs. It serves as the federal and state on-scene-coordinators' orders during the initial phase of an oil spill response in the Nisqually River area. It has been approved by Regional Response Team 10 and the Chairs and Co-Chairs of the Northwest Area Committee. Changes to this document are expected as more testing is conducted through drills, site visits, and actual use in spill situations. 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.

This GRP has been developed for the Bonneville Pool of the Middle Columbia River (MCRB-GRP). The Columbia River provides a border between Oregon and Washington from the river's mouth to river mile 310 where it continues on through Washington State until reaching its origin in Canada. The MCRB-GRP planning area includes 46 miles of the Columbia River, extending from the Bonneville Dam at river mile 145 to the base of The Dalles Dam at river mile 191.6. Numerous cities and towns are located on the banks of the Columbia River within the Bonneville Pool area, including: Cascade Locks, Hood River, Mosier, and The Dalles in Oregon, and Stevenson, White Salmon, Bingen, Lyle, and Dallesport, in Washington. Additional information about the planning area, including physical features, hydrology, climate and winds, tides and currents, and 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. It provides information on tactical response strategies and the order they should be implemented, based on potential spill origin points and their proximity to sensitive resources. 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 of an oil spill 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. It's important to note that 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 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 or Unified Command.

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 persistent oils that float on water and may not be suitable for other petroleum products or hazardous substances. For hazardous substance spills, refer to the [Northwest Area Contingency Plan \(NWACP\)](#), Chapter 7000.

Information meant to support initial Environmental Unit functions can be found in Chapter 6 of this document (Resources at Risk). Chapter 6 and its appendix provide specific information about the type and location of natural and economic resources in the area. Specific information about the location of cultural sites in the GRP area were taken into consideration in the development of this plan but such information cannot be provided in this document due to the confidential nature of the resources.

1.1 GRP CHAPTERS AND APPENDICES

Chapter 1	Introduction
Appendix 1A	GRP Comment Form
Chapter 2	Site Description
Chapter 3	Response Options and Considerations
Chapter 4	Response Strategies and Priorities
Appendix 4A	Response Strategies (2-Pagers)
Appendix 4B	Notification Strategies (2-Pagers)
Appendix 4C	Staging Areas (2-Pagers)
Appendix 4D	Boat Launch Locations (2-Pagers)
Chapter 5	Reserved
Chapter 6	Resources at Risk
Appendix 6A	List of Economic Resources

1.2 GEOGRAPHIC RESPONSE PLAN DEVELOPMENT PROCESS

GRPs are part of the [Northwest Area Contingency Plan](#), revised and distributed separately. They've been developed for the marine and inland waters of Washington, Oregon, and Idaho. The plans are prepared through the efforts of, and in cooperation with, Washington Department of Ecology, Oregon Department of Environmental Quality, Idaho State Emergency Response Commission, U.S. Coast Guard, U.S. Environmental Protection Agency, as well as other state and federal agencies, tribal and local governments, response organizations, emergency responders, and communities. GRPs are developed through workshops and meetings with representatives of these organizations,

as well as local oil spill emergency response experts, industry, environmental and conservation organizations, ports, and pilots, among others. Participants identify resources that may be at risk of injury from spills and attempt 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 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 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.

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APPENDIX 1A

Comments, Corrections, or Suggestions

We value your input and hope that you'll 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 a description of the physical features, hydrology, climate, and winds, found along the Middle Columbia River (MCR) corridor and includes an overview of the oil spill risks in the region. The Columbia River travels 1,243 miles, originating in British Columbia, Canada and running through Washington, providing a border between Washington and Oregon before eventually entering the Pacific Ocean. Although the Columbia River originates in Canada, the NOAA river mile system used in these GRPs begins at the confluence of the river with the Pacific. The Lower Columbia River Geographic Response Plan (LCR-GRP) starts at river mile one and ends at the base of the U.S. Army Corps of Engineers (USACE) Bonneville Lock and Dam located at river mile 145.4. The Middle Columbia Region begins at river mile 145.4 on the upstream side of the Bonneville Lock and Dam and is subdivided into four separate GRPs, each a specific pool created by one of four USACE dams in the region: Bonneville, The Dalles, John Day, and McNary.

The MCRB-GRP encompasses the Bonneville Pool (a.k.a. Lake Bonneville), and covers a 46 mile reach of the Columbia River, running east from the Bonneville Lock and Dam (located at river mile B-145.4) to The Dalles Lock and Dam (located at river mile D-191.6). In Washington, the Columbia River shoreline adjacent to the Bonneville Pool is located in Skamania and Klickitat counties. On the Oregon side, the shoreline resides in Multnomah, Hood River, and Wasco counties.

2.2 PHYSICAL FEATURES

Volcanic activity built up a stratum of mud, ash, and lava in the geologic column in the area now known as eastern and central Washington and Oregon 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.^{1 2} Basalt flows then covered the area in layers, forming a strong foundation of basaltic rock. Subsequent lava and ash eruptions raised the Cascade Mountains during the Miocene Epoch, and the mountains began to lift when hundreds of volcanoes erupted during the Pleistocene Epoch (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) the Missoula floods battered the gorge over 100 times when the Missoula Lake was repeatedly breached, releasing high velocity debris-filled waters to a height of 900 feet and scouring the landscape with a discharge of 10 million

¹ http://www.columbiariverhighway.com/columbia_river_geologic_history.htm

² <http://www.ucmp.berkeley.edu/cenozoic/cenozoic.php>

cubic feet per second. This intense geomorphic action formed the sheer basalt cliffs that are now emblematic of the Columbia River Gorge National Scenic Area.³ This series of events has been described as one of the greatest flood occurrences in the history of the earth.⁴

The nearly vertical cliffs of the Gorge are vulnerable to landslides, four of which occurred approximately 500 years ago, covering five square miles near Bonneville where they blocked the Columbia River and created a land bridge. The land bridge was located in the area of the current bridge known as “The Bridge of the Gods” and was perhaps the origin of the name, having been passed down through oral tradition. The dam formed by the land bridge created a lake of approximately the same size as the modern day Bonneville Pool, although within a few months the Columbia River breached this natural dam creating a flood 100 feet deep at Troutdale, OR. The Gorge is still susceptible to landslides; in 1984 two children were killed in a slide along Interstate 84 near Cascade Locks. In 1990 four highway workers were injured near Troutdale during a landslide, and in 1996 a landslide in the Dodeson/Warrendale area of Oregon destroyed numerous homes, before sweeping across the railroad line and Interstate 84.⁵ The features of this area continue to be shaped by landslides and the geomorphology of the Columbia River’s flow.

The river runs through the eastern plateau/steppe and then cuts through the Cascade and Coastal Mountain Ranges before entering the Pacific Ocean with much of the Middle Columbia located within the Columbia River Gorge National Scenic Area. As a result of the changing landscape, the climate surrounding the river changes drastically. The western side of the Gorge includes rainforests with an average annual rainfall of 75 inches. It is a place rich in wildlife, with forests, lakes, streams, wetlands, and more waterfalls than any other part of the country. The eastern Gorge 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.

Humans have also had an impact on the Columbia River. Archaeological evidence shows that nomads were staying in the Gorge over 14,500 years ago, and that settlements were established as early as 11,230 years ago.⁶ Well before the establishment of white settlements, the Native people had developed the largest trading center in the Northwest at the Long Narrows of The Dalles/Celilo Falls area. Celilo is believed to be the oldest continuously inhabited community on the North American continent.⁷ The center linked a trade network that extended along the entire Pacific Coast and inland to the Great Plains. Native people living on the Columbia River received a variety of trade goods from all across the region, much of it received in return for one of their most prized

³ <http://inside.mines.edu/UserFiles/File/Geology/Missoula.pdf> pg. 16

⁴ <http://www.dnr.wa.gov/ResearchScience/Topics/GeologyofWashington/Pages/columbia.aspx>

⁵ <http://www.oregongeology.org/sub/DERT/LandslideExamples.pdf>

⁶ Bureau of Indian Affairs, 2013.

⁷ Dietrich, William (1995). *Northwest Passage: The Great Columbia River*. Seattle, Washington: University of Washington Press. p. 52. ISBN 0-295-97546-6.

resources — salmon. Salmon were central to the culture of the region's peoples, a part of their religious belief system, providing sustenance and trade goods.⁸

Europeans and Americans began exploring and trading in the Pacific Northwest in the late 18th and early 19th centuries. In 1792 Captain Robert Gray explored the lower river and named it for his ship, the Columbia Rediva.⁹ In 1805 the Lewis and Clark Expedition traveled down the Snake and into the Columbia River, arriving at The Dalles/Celilo Falls area, which Clark noted as being a “great mart of trade”.¹⁰ Within the next 50 years numerous white settlements were established along the river by people following the Oregon Trail or arriving by ship via the Pacific Ocean. The earliest treaties were negotiated with the region’s Native peoples in 1855, and by 1859 Oregon had become a state; Washington followed, with statehood granted in 1889. The first salmon cannery was established on the river in 1866. In 1873 the USACE began modifying the river to aid navigation by removing obstructions, and from 1876-1915 building canals.¹¹

The USACE further shaped the Middle Columbia River into its current form through the construction of dams, beginning with the Bonneville Lock and Dam started in 1934 and completed in 1938, to the McNary Lock and Dam finished in 1957, The Dalles Lock and Dam finished in 1960, and the John Day Lock and Dam, completed in 1971.¹² The dams tamed the river’s once notorious rapids and created the sub-sectional pools of the area. Fish lost due to the creation of the dams were ensured by the Mitchell Act (1938) to be replenished by the creation of hatcheries. The dams inundated many of the Native American’s traditional fishing areas and in 1939, In-Lieu sites were promised to the affected Tribes to compensate for their losses.¹³ The USACE began constructing In-Lieu sites in 1953 and as of the publishing of this document in 2015 there are 31 sites located in the area covered within the MCR.¹⁴

By taming the rapids, the dams allowed the river to function as an industrial transportation corridor, with ships running import containers and autos east from Portland, OR and Vancouver, WA through a series of locks up to the Tri-Cities area (Kennewick, Pasco, and Richland, WA), before continuing east via the Snake River to Lewiston, Idaho, where they eventually travel on to 43 states.¹⁵ As of 2014, more than 4 million tons of petroleum products are received at terminals in

⁸ Ulrich, R. (2007). Empty nets: Indians, dams, and the Columbia River (2nd ed).

⁹ Lewis and Clarks Journals <http://frontiers.loc.gov/cgi-bin/query> (2:527).

¹⁰ Lewis and Clarks Journals <http://frontiers.loc.gov/cgi-bin/query> (2:527).

¹¹ Bureau of Indian Affairs, 2013.

¹² <https://www.nwcouncil.org/energy/powersupply/dam-guide/dam>

¹³ Bureau of Indian Affairs, 2013.

¹⁴ <http://www.critfc.org/for-tribal-fishers/in-lieutreaty-fishing-access-sites/>

¹⁵ http://www.pnwa.net/new/Articles/Lower_Columbia_River_Ports.pdf

Portland each year with approximately half of that volume barged upriver to inland ports.¹⁶ The river corridor also provides a route for the transport of grain from farms in the interior of the county to the river's gateway at the Pacific Ocean. The Columbia River is the number one export route in the nation for wheat and barley, number two for soybeans, and the third largest grain export gateway in the world.¹⁷

The dams also provide irrigation and flood control, important to an area with substantial farmland (grains and livestock), as well as hydroelectric power to Oregon and Washington. In addition, the Columbia River Gorge, renowned for its stunning beauty and spectacular history, supports tourism in the area, providing a wealth of recreational opportunities such as hiking, fishing, mountain biking, windsurfing, and kayaking.

Within the MCR, each pool has its own unique attributes and communities. The Bonneville Pool is 46 miles long, and has a capacity of 537,000 acre/feet.¹⁸¹⁹ The area around the reservoir is rural with a handful of towns and unincorporated communities. On the Washington side, these include: Stevenson, Carson, White Salmon, Bingen, Lyle, and Dallesport. Towns on the Oregon side of the river include: Cascade Locks, Hood River, Mosier, Chenoweth, and The Dalles. There are three bridges connecting the two sides within the Bonneville Pool: the Bridge of the Gods, the Hood River Bridge, and The Dalles Bridge.

Despite the diverse change in scenery surrounding the river through each of its various pools, the shoreline habitats remain relatively consistent over the course of the MCR. They can be characterized as: exposed rocky headlands, wave-cut platforms, pocket beaches along exposed rocky shores, sand beaches, sand and gravel beaches, sand and cobble beaches, sheltered rocky shores, and sheltered marshes.²⁰

2.3 HYDROLOGY

The Columbia River is the fourth largest river in North America and the largest in the Pacific Northwest. It originates in Columbia Lake, high in the Canadian Rockies, where it first travels northwest, and then turns south entering the US in Washington, where it eventually turns west and forms the border between Washington and Oregon before flowing into the Pacific Ocean.²¹ The river travels a total of 1,243 miles, providing drainage for approximately 258,000 sq. miles of the

¹⁶ http://graphics.thomsonreuters.com/F/12/US_CSFACT1210.pdf

¹⁷ http://www.portoflongview.com/Portals/0/Documents/Columbia_River_Channel_Deepening.pdf

¹⁸ <http://www.nwp.usace.army.mil/Portals/24/docs/pubs/pamphlets/BonnevilleBrochure.pdf>

¹⁹ <http://www.ecy.wa.gov/programs/wr/cwp/images/pdf/wtrbud/bonneville.pdf>

²⁰ http://response.restoration.noaa.gov/sites/default/files/shoreline_countermeasures_tropical.pdf

²¹ http://geonames.usgs.gov/apex/f?p=gnispq:3:0::NO::P3_FID:1140014

Western United States and British Columbia, with numerous tributaries, both rivers and creeks, adding to the flow along the way.²²

The flow of water in the MCR-GRP's 200 mile reach of the Columbia River is controlled by dam outflows within each pool. The Bonneville Pool has an average elevation of 76.5 feet above mean sea level during normal dam operations. Tributary rivers entering into the Bonneville Pool include the Wind (WA), Little White Salmon (WA), White Salmon (WA), Hood (OR), and Klickitat (WA) Rivers.²³ The flows from these tributaries into the Bonneville Pool on the Washington side of the river are included as part of both the Wind-White Salmon Water Resources Inventory Area (WRIA) 29, and the Klickitat Watershed WRIA 30.²⁴ On the Oregon side, the Bonneville Pool is adjacent to the Hood River watershed.

2.4 CLIMATE AND WINDS

The West-East corridor of the Columbia Gorge through the Cascade mountain range creates a climate interaction between the Washington/Oregon coasts and the interior of the states. Due to the geologic formations and the atmospheric pressure imbalance surrounding this area, strong wind is frequently channeled through the Gorge year round. These conditions, in addition to the scenic surroundings, have made the Gorge a renowned sporting destination for windsurfing.²⁵ In the summer, the wind comes predominately from the west, while during the winter it will oscillate between east and west. This channeled Gorge wind is a conduit for air temperature in the surrounding regions as it funnels warm maritime air inland, and cold interior wind towards the coast.²⁶

Western winds carrying moisture in the air from the Pacific are pushed up against the Coast Range, the Olympic Mountains, and finally the Cascade mountains, creating a phenomenon known as a rain shadow. A rain shadow is an area on the leeward side of the mountains which is sheltered from the rain, creating a distinct shift in climate.²⁷ As the air rises to pass over the mountains it expands and cools, releasing moisture in the form of precipitation on the western flanks. By the time these winds pass over the Cascades there is little moisture remaining, creating the shrub steppe ecosystem that is emblematic of Eastern Washington.

²² <http://pubs.usgs.gov/of/1987/ofr87-242/>

²³ http://www.nwp.usace.army.mil/Portals/24/docs/locations/bonneville/Bonneville_FS.pdf

²⁴ <http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm>

²⁵ <http://www.nwp.usace.army.mil/Portals/24/docs/pubs/pamphlets/TDJDWCBrochure.pdf>

²⁶ http://www.ocs.oregonstate.edu/county_climate/Morrow_files/Morrow.html

²⁷ <http://usatoday30.usatoday.com/weather/tg/wrnshdw/wrnshdw.htm>

The Bonneville Pool is in the transition zone between the temperate maritime climate west of the Cascade Mountains and the dry continental climate to the east. The Hood River weather station, located at 500 feet above mean sea level, reports that the mean annual temperature in the area is 51°F, ranging from an average low of 34°F in January, to an average high of 68°F in July. Recorded temperature extremes are -12°F and 108°F. Mean precipitation is 32 inches, with two-thirds occurring between November and February. Annual snowfall is 34 inches, with almost half occurring in January.

2.5 TIDES AND CURRENTS

There are no tidally influenced areas within the MCR area. The river's flow is governed strictly by the various dams, with the USACE determining exactly when and how much water is allowed to pass through the spillways; there are no free-flowing waters.

2.6 RISK ASSESSMENT

The Columbia River is one of the principal resources found in the Pacific Northwest with a plethora of natural, cultural, and economic resources intrinsically connected to the river, all at risk of injury from oil spills. Potential risks to these resources include large commercial vessels, pipelines, roads, rail systems, and other factors.

Large Commercial Vessel Traffic

There is significant commercial movement through the Middle Columbia corridor which offers six separate port facilities, including the Ports of: Arlington, Hood River, The Dalles, Kennewick, Klickitat, and Skamania. The Dalles Lock reports "an average of 8 million tons of cargo, mostly grain and petroleum products, passing through each year."²⁸ Future oil movement along the Columbia River Vessel Route is estimated to reach 566 million gallons/yr (based on best annual estimates and 2013 data).²⁹ The potential for vessel collisions or groundings presents a significant spill risk. Large commercial vessels typically carry significant amounts of heavy and blended fuel oils and other petroleum products, increasing the risk for sensitive resources to be impacted if an oil spill were to occur.

Road Systems

Vehicle traffic on roadways pose an oil spill risk in areas where they run adjacent to the shoreline, or cross over lakes, rivers, creeks, and ditches, that drain into the Columbia River. Several main highways run parallel to the river, including Highway 14 in Washington and Interstate-84 in

²⁸ <http://www.nwp.usace.army.mil/Portals/24/docs/pubs/pamphlets/TDJDWCBrochure.pdf> pg. 3

²⁹ <https://fortress.wa.gov/ecy/publications/publications/1508010.pdf>

Oregon. Within the MCR area there are six major highway bridges that cross the Columbia River, two that cross the Yakima River, and one that crosses the Snake River. In addition, there are approximately 30 smaller bridges or causeways where vehicles cross tributaries or small lakes on the shores of the Columbia. A vehicle spill onto one of these bridges or roadways can cause fuel or oil to flow from hardened surfaces into the 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 material that would pose a risk to the environment. Smaller vehicle accidents pose a risk as well — commensurate to the volume of fuel and oil they carry.

Rail Transportation and Facilities

Similar to the highways systems that run along much of the Columbia River, rail transportation runs closely parallel to the river banks throughout the Lower and Middle Columbia River areas. BNSF Railroad's Fallbridge Subdivision runs along the Columbia River on the Washington side, while Union Pacific's Portland Subdivision runs along the opposing bank in Oregon. These two major railroad companies employ mixed cargo trains that can carry hazardous materials on both of these lines, including Bakken crude oil from the east to refineries along the coast.

The majority of the transportation of oil by rail into Washington and Oregon enters Washington at the border with Idaho near Spokane. Once in Washington, oil trains cross the Spokane River, travel to Pasco, and then continue westward along the Columbia River through the Columbia River Gorge to Portland, OR and Vancouver, WA. After reaching the coast, oil trains are heading north through Tacoma and Seattle, WA towards refineries in Anacortes and Ferndale, WA near the Canadian border.³⁰ Prior to 2012, there was little to no transport of crude oil by rail to Washington or Oregon, as oil was traditionally transported by water via tanker or barge.³¹ With the surge in production at the North Dakota Bakken oil fields, and oil sands coming from Canada, rail has become an option for transporting crude to refineries throughout the country.

Locomotives by themselves typically hold several thousand gallons of diesel fuel plus large quantities of lube and motor oils. Individual tank cars can contain just over 30,000 gallons of crude oil or other petroleum products. Trains can carry 3,000,000 gallons of oil in a unit train of 100 tank cars; at 42 gallons per barrel that equates to 71,428 barrels. In 2013, approximately 17 million barrels were shipped through Washington, increasing to somewhere in the vicinity of 55 million

³⁰ <https://fortress.wa.gov/ecy/publications/publications/1508010.pdf> (320)

³¹ Ecology data; rail data estimated based on refinery throughput data, ANT data, pipeline throughput for refineries, predicted volume transported by rail reported by refineries, and estimated increases in total crude transported through the state.

barrels in 2014.³² These numbers are only predicted to rise as facilities are improved or increased.³³

The NuStar Energy facility in Vancouver, WA is planning on adding rail-offload capability and converting a 120,000 barrel methanol tank to store oil instead, allowing it to handle one crude-by-rail train approximately every three days.³⁴ Vancouver Energy is a facility proposed for the Port of Vancouver, which if approved, would initially handle one to two crude-by-rail trains per day, and would be capable of receiving up to four per day. When oil is transported by train it is usually carried by crude-by-rail unit trains, trains carrying 100 oil tank cars or more. Unit trains carrying crude oil are now commonly found travelling along the Columbia River. As of June 2014, nineteen loaded unit trains with Bakken oil were passing through the Middle Columbia River weekly.³⁵

Oil Pipelines

Two pipeline terminals are located in the MCR area. The Tidewater pipeline terminal and the Tesoro Logistics NW pipeline terminal are both situated in the McNary Pool, on the eastern shore of the Snake River near the its confluence with the Columbia in Pasco, Washington. These facilities receive, store and distribute bulk liquid products such as gasoline, diesel, bio-fuels, fertilizer, and industrial/agricultural chemicals.³⁶ Along with the pipelines, the facilities are accessible by barge, rail, and truck. A spill from a pipeline, or one of the other associated modes of transporting petroleum products, has the potential to significantly impact sensitive resources in the area.

Aircraft

Several airports are located within the MCR area including the: Cascade Locks State Airport, Columbia Gorge Airport, Arlington Municipal Airport, and Tri-Cities Airport. Landing strips at these airports are used for recreational, commercial, and transit purposes. With airports in the area, the potential exists for aircraft failures during inbound or outbound flights that could result in a spill with a release of jet fuel to the Columbia River or its tributaries.

Recreational Boating

Accidents involving recreational water craft on the Columbia River have the potential to result in spills of anywhere from a few gallons of gasoline, up to hundreds of gallons of diesel fuel. Examples of such accidents include: collisions, a vessel grounding, catching on fire, sinking, or exploding.

³² <http://www.Statesmanjournal.com/story/news/2014/05/26/west-coast-oil-trains/9605759/>

³³ <https://fortress.wa.gov/ecy/publications/publications/1508010.pdf> (460)

³⁴ <https://fortress.wa.gov/ecy/publications/publications/1508010.pdf> (317)

³⁵ <https://fortress.wa.gov/ecy/publications/publications/1508010.pdf> (320)

³⁶ <http://tidewater.com/pasco>

These types of accidents, as well as problems with bilge discharges and refueling operations, the most typical types of spills to occur, have a negative impact on sensitive river resources.

Other Spill Risks

Other potential oil spill risks in the area include: dam turbine mechanical failures, road run-off during rain events, on-shore or near shore construction activities where heavy equipment is being operated, and the migration of spilled oil through soil on lands adjacent to the river or along creek or stream banks.

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<p style="text-align: center;">CHAPTER 3</p> <p style="text-align: center;">BONNEVILLE POOL</p> <p style="text-align: center;">Spill Response Options and Considerations</p>		Location				
		Cascade Locks	Wind River	Hood River/ Bingen	Lyle	Dallesport/ The Dalles
Waterbody	Rivers	•	•	•	•	•
	Creeks	•	•	•	•	•
	Lakes	•	•	•	•	
	Pool Area formed by Dam	•	•	•	•	•
	Tidally Influenced Areas					
	Wetland Area(s)	•	•	•	•	•
	Intermittent Streams (Seasonal Flow)	•	•	•	•	•
Potential Response Options	Source Control and Containment Activities	•	•	•	•	•
	Aerial / Vessel Surveillance Activities	•	•	•	•	•
	Wildlife Rescue and Rehabilitation Activities	•	•	•	•	•
	Collection for Skimming Operations <i>(Note: 1)</i>	•	•	•	•	•
	Vessel Based Skimming Operations <i>(Note: 2)</i>	•	•	•	•	•
	Shore Based Skimming Operations <i>(Note: 3)</i>	•	•	•	•	•
	Shoreside Protection Booming <i>(Note: 4)</i>	•	•	•	•	•
	Shoreside Cleanup Activities <i>(Note: 5)</i>	•	•	•	•	•
	In-Situ Burning <u>Areas not pre-approved (Note: 8)</u>					
Dispersant Use <u>Areas not pre-approved (Note: 9)</u>						
Considerations	Shoreside Access can be Limited by Private Property	•		•	•	•
	State or National Wildlife Refuge / Recreation Area	•	•	•	•	•
	Threatened/Endangered Terrestrial Species <i>(Note: 6)</i>	•	•	•	•	•
	Public or Commercial Marina(s) in Area	•		•		•
	Commercial Vessel Movement / Port Area	•	•	•	•	•
	Recreational Boat Traffic	•	•	•	•	•
	Tribal Lands or U and A Interests <i>(Note: 7)</i>	•	•	•	•	•
	Historic / Cultural District(s) in Area	•	•	•	•	•
	Dam(s) in Area	•				•
	Interstate Highway Corridor	•	•	•	•	•
	Oil Movement by Rail in Area	•	•	•	•	•
	Oil Pipeline(s) in Area					

Note 1: Collection for Skimming Operations response options should include use of enhanced skimming using a U-boom, V – boom, or J – boom configuration in waters large enough for boats to maneuver (e.g., lake, large river).

Note 2: Vessel Based Skimming Operations response options should include use of advancing skimmers: weir, belt, brush, drum, or other skimmer types.

Note 3: Shore Based Skimming Operations response options should include use of fixed skimmers: weir, belt, brush, drum, or other skimmer types.

Note 4: Shoreline Protection should include the deployment of response strategies (boom) to divert and collect oil off of the water before shoreline areas are impacted, or deflect and exclude oil away from shoreline areas. These strategies include those published in this document (GRP response strategies), those provided in other plans (e.g., facility contingency plans), and “ad-hoc” strategies developed during the spill itself. A culvert block or underflow dam might be installed to aid in the recovery of spilled oil in small streams or those with intermittent flow.

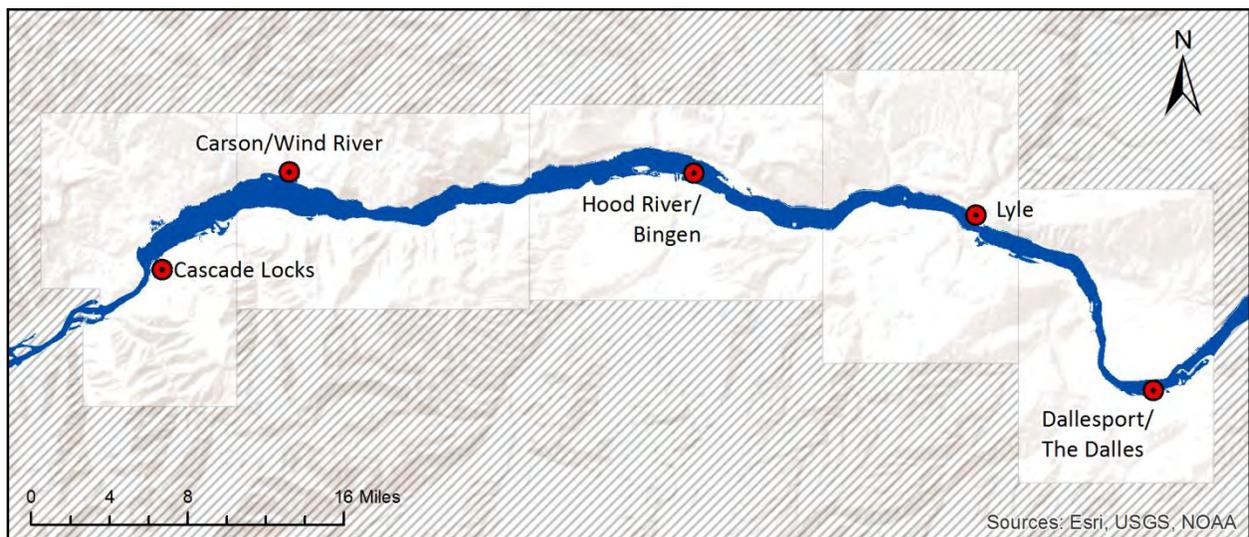
Note 5: Shoreside Cleanup options depend on safe and efficient access to locations and the type of river, creek, or stream bank present. Potential activities could include flooding, flushing, manual removal, vacuum, mechanical removal, sorbents, vegetation cutting, mechanical tilling/aeration, and/or sediment reworking/surf washing.

Note 6: More information available in Chapter 6. Response and cleanup in these areas may require coordination with Federal or State Fish and Wildlife staff to reduce disturbances to upland species.

Note 7: This sheet doesn’t represent all locations where Tribes and Tribal Nations have lands or areas of specific interest (including lands established by treaty or rights to Usual and Accustom areas). Early coordination with tribal governments is highly recommended during a response, regardless of the spill location or potential impact areas.

Note 8: These areas are not pre-approved for the use of in-situ burning. Refer to the Northwest Area Contingency Plan for the dispersant Policy.

Note 9: These areas are not pre-approved for the use of dispersants. Refer to the Northwest Area Contingency Plan for the dispersant Policy.



MIDDLE COLUMBIA RIVER

BONNEVILLE POOL

Geographic Response Plan

(MCRB-GRP)

CHAPTER 4

Response Strategies and Priorities

OCTOBER 2015

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 each pool’s response strategies, notification strategies, staging areas, and boat launch locations in appendices 4A through 4D (pages 97 - 327) 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 (priority) they should be implemented based on Potential Oil Spill Origin Points (POSOPs), and the proximity of sensitive resources to them. 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 movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting implementation priorities. Response equipment type and location information can be found on the Western Response Resource List (WRRL). The WRRL is available online at <http://www.wrrl.us>. Information on protection techniques can be found in Appendix A. 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.rtt10nwac.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 could or should be done during a response to lessen the chance of injury to natural, cultural, and economic resources at risk from oil spills. 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 or Unified Command.

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? Source control and containment of the spill at or near the source of a spill 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, the Oregon State Police, or local, county, municipal, or tribal police for assistance. At minimum, [Washington Department of Transportation \(WADOT\) guidelines](#) for work zone traffic control should be followed when working on or near a roadway.
 - Washington State Patrol District #3 509-575-2320
 - Washington State Patrol District #5 360-449-7909
 - Oregon State Patrol, The Dalles Area 541-296-9646
 - See Local Government Contact Sheets [Spill Response Contact Sheet1](#)

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.
- Oil containment boom must be free of twists, gaps, and debris in order to remain effective.
- 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.

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.
- Although designed for implementation during the initial phase of an oil spill, GRP strategies may continue to be deployed and implemented throughout the entire lifespan of a response, as determined appropriate and necessary by the Incident Commander or Unified Command.

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

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

Source: *Oil Spill Response in Fast Currents. A Field Guide. U.S. Coast Guard Research and Development Center. October, 2001*

4.1.2 Historical River Streamflow Ranges

Gage/stream-flow data from U.S. Geological Survey (USGS) was used to determine the mean monthly river discharge for the Columbia River and its tributaries. River discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph). Table 4.1 provides information that can be used to calculate river velocities 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 on calculating river velocities can be found in the [Northwest Area Contingency Plan Section 9302](#). Information on USGS river gauge readings can be found online at <http://maps.waterdata.usgs.gov/mapper/index.html>.

Table 4-2: Historical River Streamflow Ranges

Monthly Average Flow in Cubic Feet per Second (cfs)						
	Priest Rapids USGS 12472800	The Dalles USGS 14105700	Walla Walla USGS 14018500	Yakima USGS 12510500	Klickitat USGS 14113000	White Salmon USGS 14123500
Jan	114,000	168,000	1,120	4,190	2,090	1,510
Feb	109,000	171,000	1,250	4,820	2,400	1,600
Mar	104,000	180,000	1,390	4,920	2,370	1,610
Apr	126,000	224,000	1,280	5,140	2,340	1,540
May	164,000	285,000	880	5,800	2,500	1,590
Jun	187,000	295,000	402	4,460	1,920	1,300
Jul	148,000	202,000	52	1,760	1,190	919
Aug	111,000	148,000	23	1,560	846	723
Sep	75,300	105,000	43	1,850	749	636
Oct	78,100	109,000	71	2,170	792	652
Nov	93,100	128,000	308	3,020	1,040	868
Dec	110,000	153,000	771	3,530	1,450	1,180
Annual	118,292	180,667	633	3,602	1,641	1,177
MPH	0.5 mph	1.0 mph		3.5 mph		

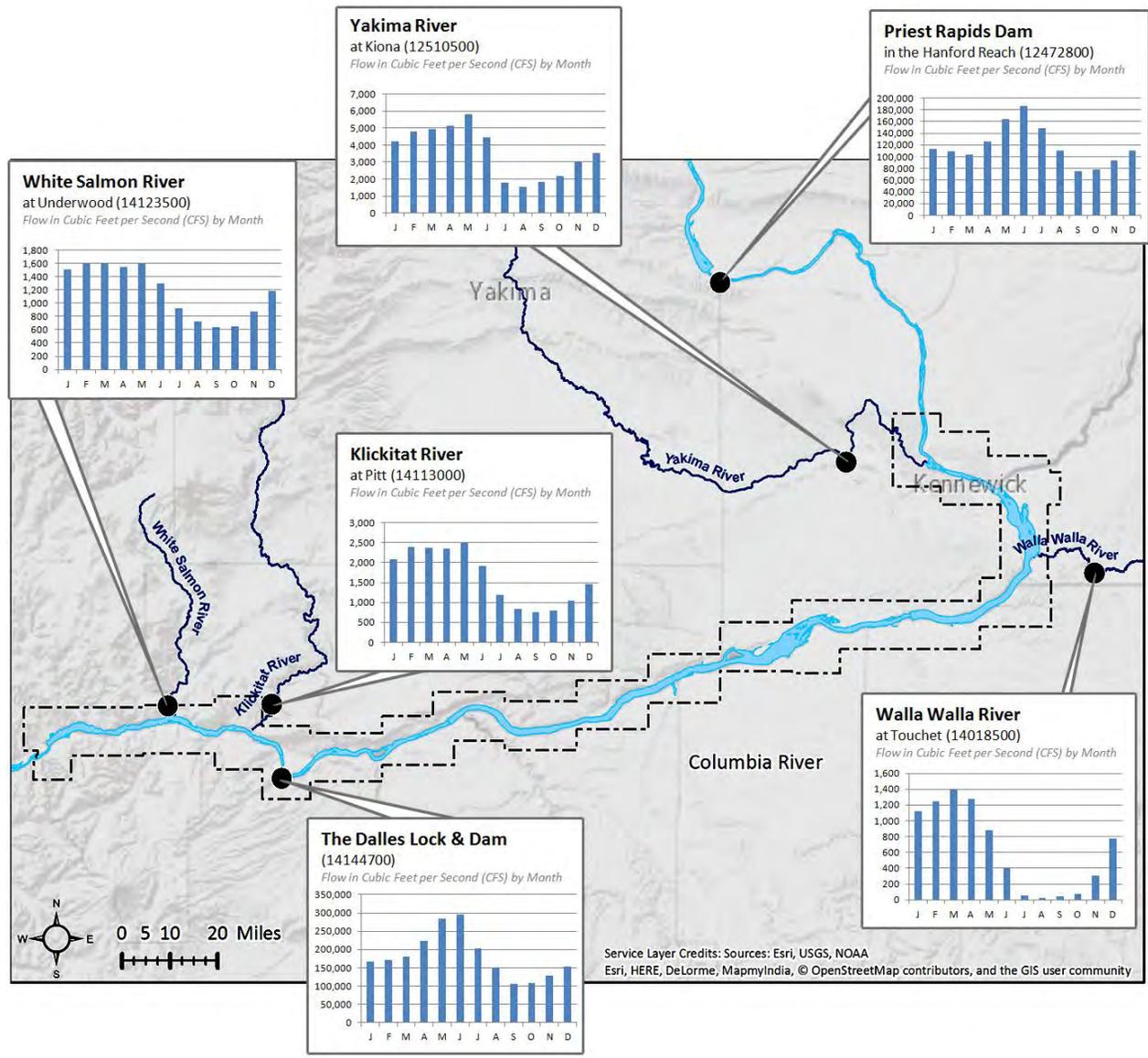


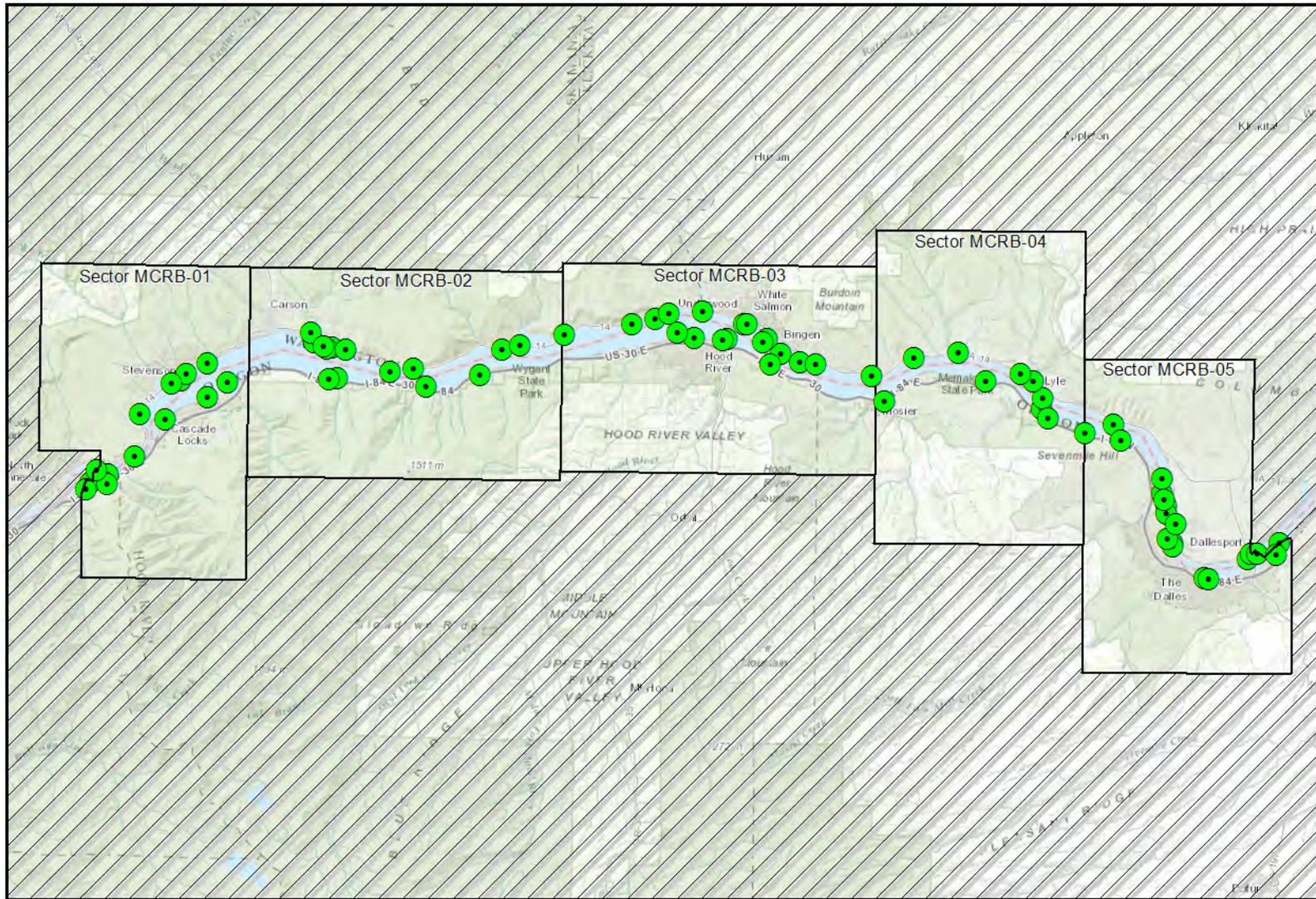
Figure 4-1: USGS Mean Monthly Discharge Measurements for the Columbia River and Tributaries

4.2 AREA OVERVIEW MAPS

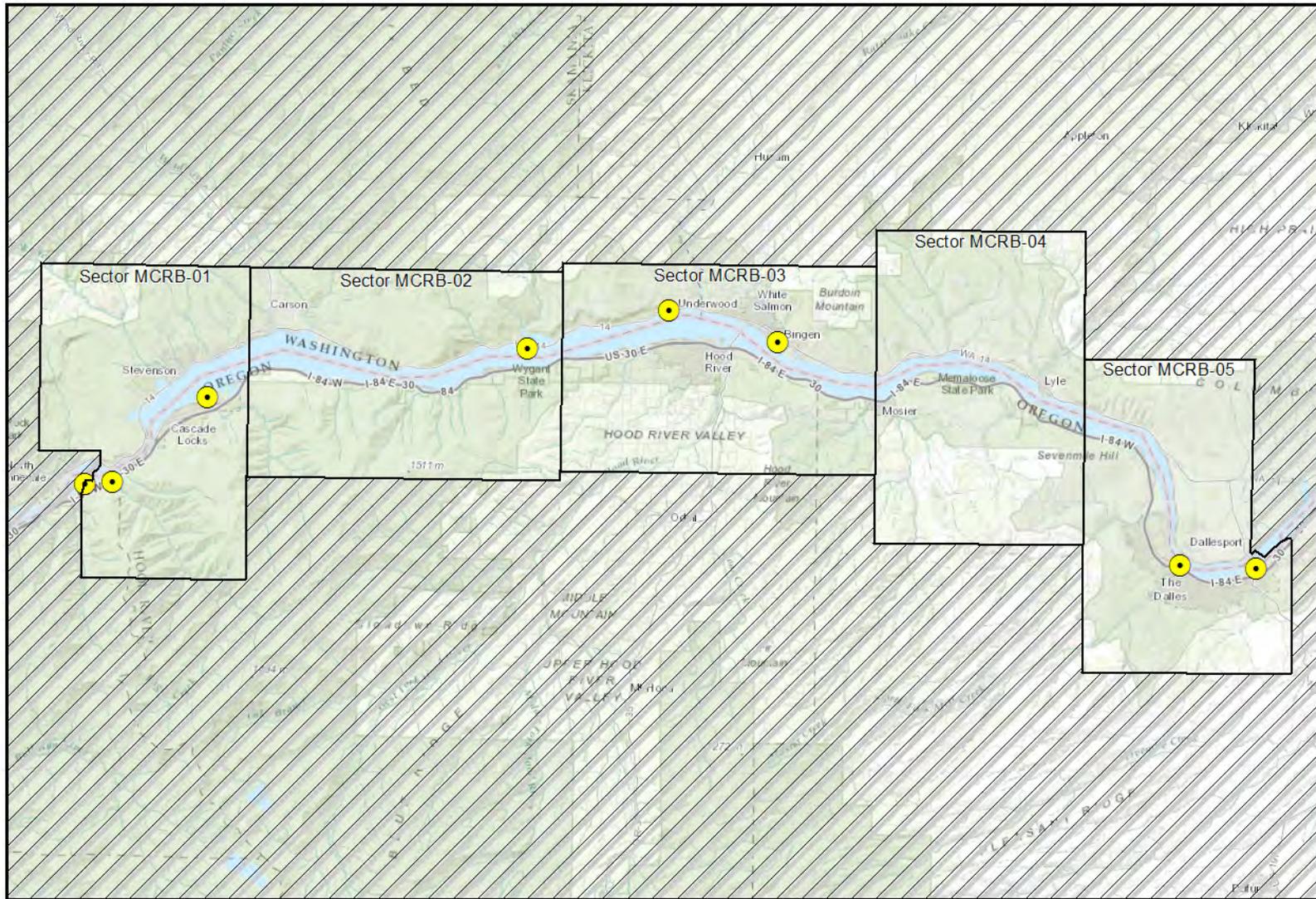
The following maps provide a geographic overview of the Middle Columbia River GRP area by pool. Sector maps in Section 4.4 of this chapter provide more detail on the location of response strategies, notification strategies, staging areas, boat launch locations, and POSOPs. Detailed information for each 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, by pool, for reference:

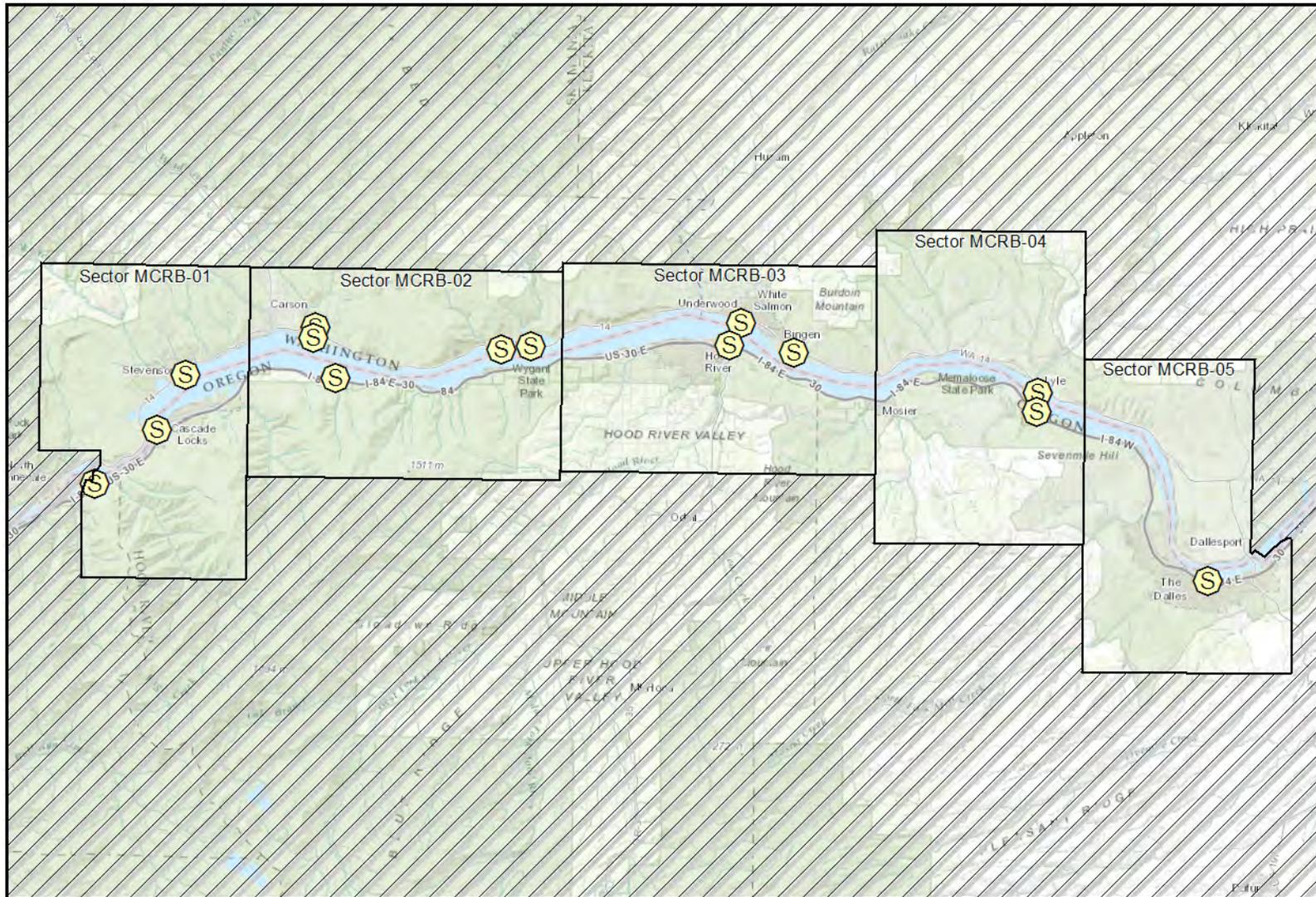
- Response Strategy Locations
- Notification Strategy Locations
- Staging Areas
- Boat Launch Locations
- Potential Oil Spill Origin Points



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,

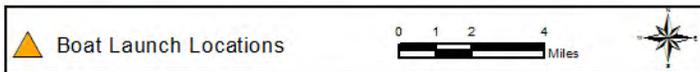
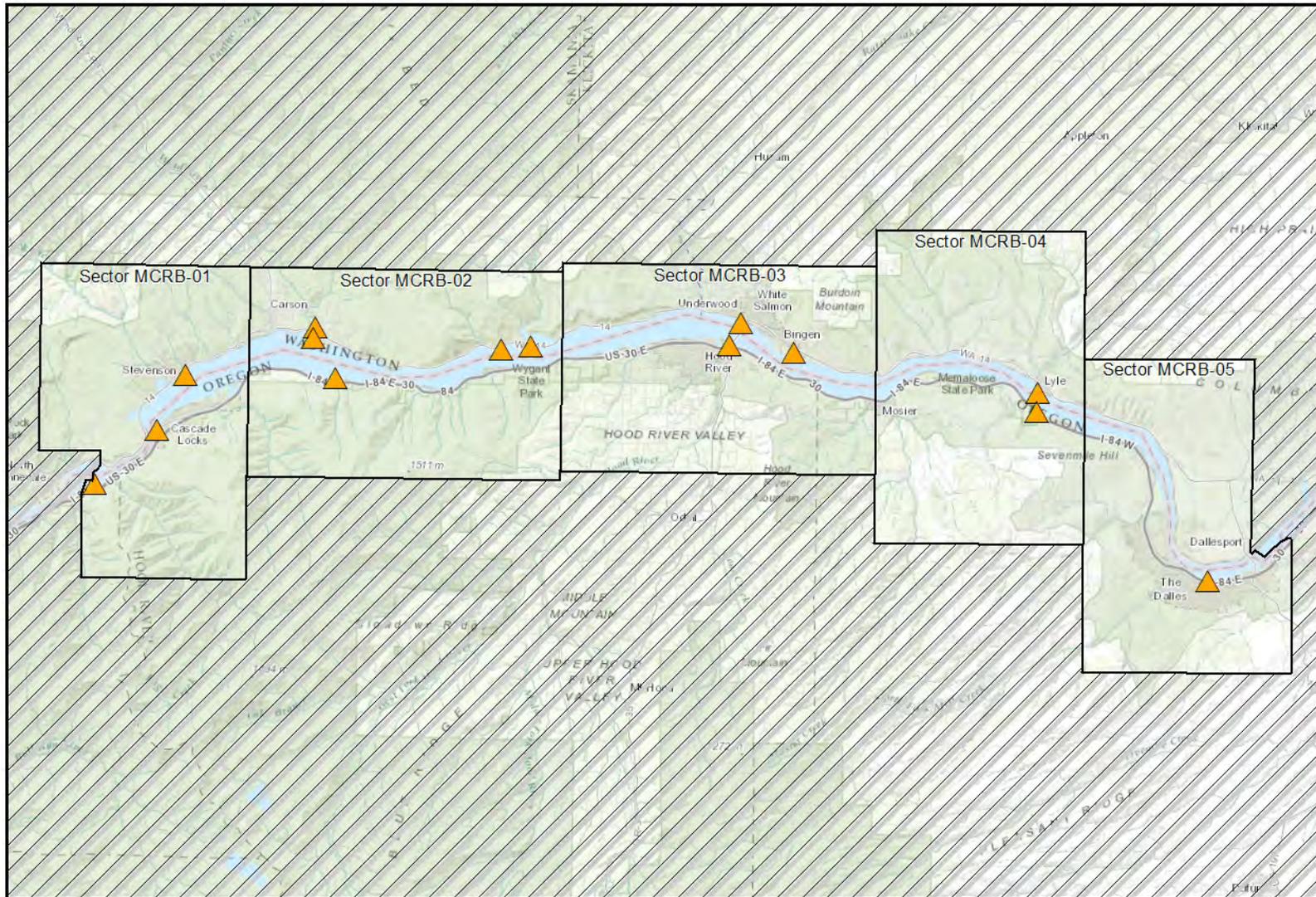


 Staging Area Locations

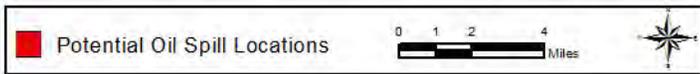
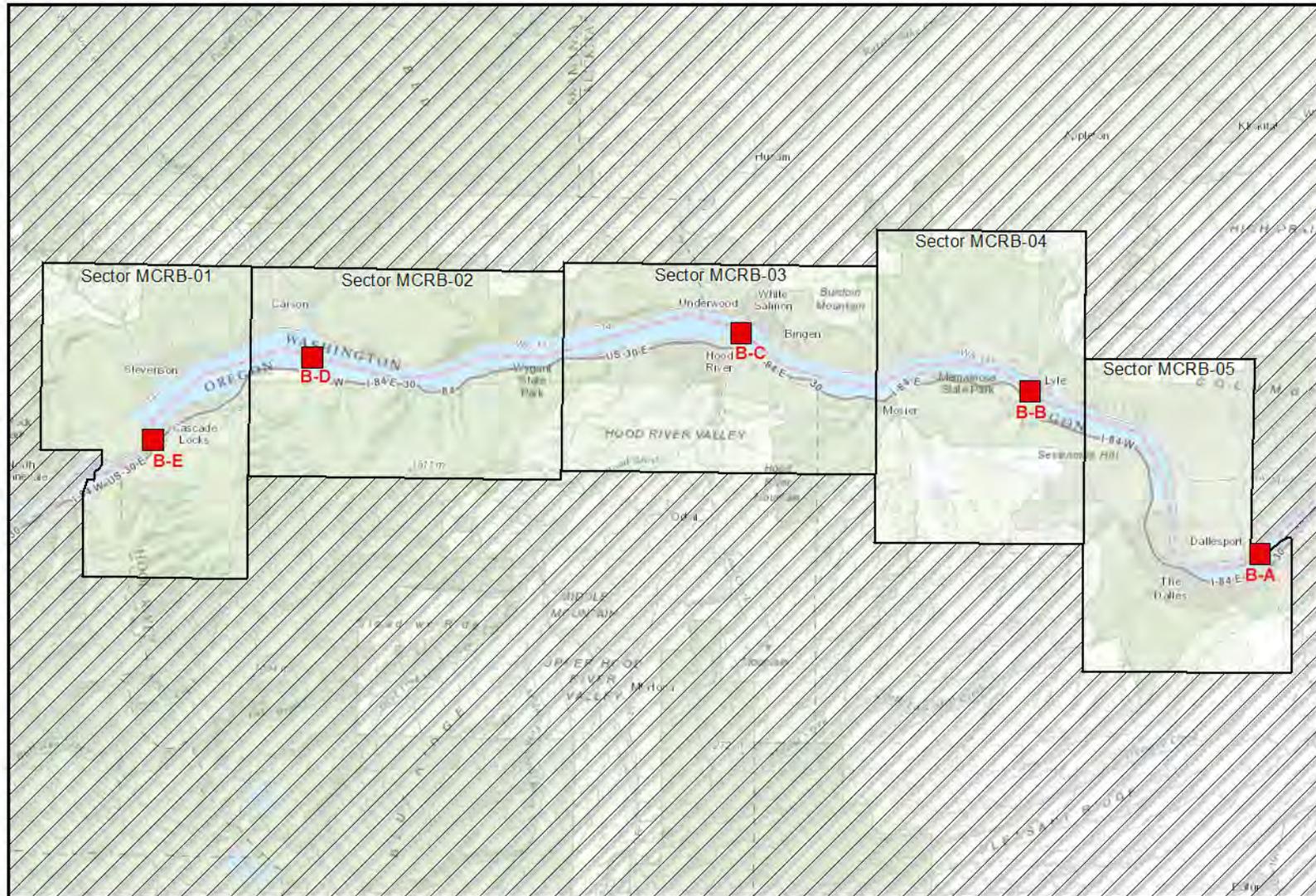
0 1 2 4 Miles



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,

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 Bonneville Pool.

1. Safety is always the number one priority. Do not implement GRP strategies or take actions that will unduly jeopardize public, worker, or personal safety.
2. Notify local public health and safety personnel.
3. 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.
4. 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).
5. As response resources become available, implement the GRP Strategies in order of priority.
6. In Washington State, if strategy implementation reduces, interrupts, or diverts the flow of water in streams, including the installation of a culvert block or underflow dam, an Emergency HPA must be obtained from WDFW (24-hour pager: (360) 534-8233).

4.3.2 Strategy Priorities based on Potential Oil Spill Origin Points

POSOPs are geographic locations that have a defined list of response strategy implementation priorities are provided in a table within Section 4.3. The placement of each POSOP is often based on spill risks in the area, including oil pipelines, railways, highways/roadways, tributaries, and vessel movements. Intersections of two or more of these risk locations typically represent a higher spill risk than any one individually, increasing the probability of an oil spill. 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 response 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, 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. PSOPs are alphabetically designated.

The following tables provide the strategy implementation order for Potential Oil Spill Origin Points in the Bonneville Pool-GRP; example include, points B-A, B-B, B-C and B-D. These priority tables were determined using a combination of variables, including: notification time, travel time for responders and equipment, average and seasonal flow rates, average winds, tides or currents, deployment time, proximity to the spill source, and other considerations.

“Source control and containment are a higher priority than GRP strategy implementation”

Table 4-3: “ A (The Dalles Lock and Dam ~B-192.7)

“ A (The Dalles Lock and Dam ~B-192.7)				
Implementation Priority	Strategy Number	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)
1	B-187.7R	59	79	225
2	B-188.2L	59	80	227
3	B-188.4R	59	80	229
4	B-188.5R	59	80	231
5	B-190L	59	80	233
6	B-190.1L	59	81	235
7	B-191.4R	59	81	237

Table 4-4: “ B (Klickitat River Confluence ~B-180.5)

“ B (Klickitat River Confluence ~B-180.5)				
Implementation Priority	Strategy Number	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)
1	B-176.2R	58	74	193
2	B-177.8R	58	75	195
3	B-178.7L	58	75	197
4	B-179.9R	58	75	199
5	B-180.5R	58	76	201

Table 4-5: “ C (Hood River Bridge, Confluence of Hood and White Salmon Rivers ~B-170)

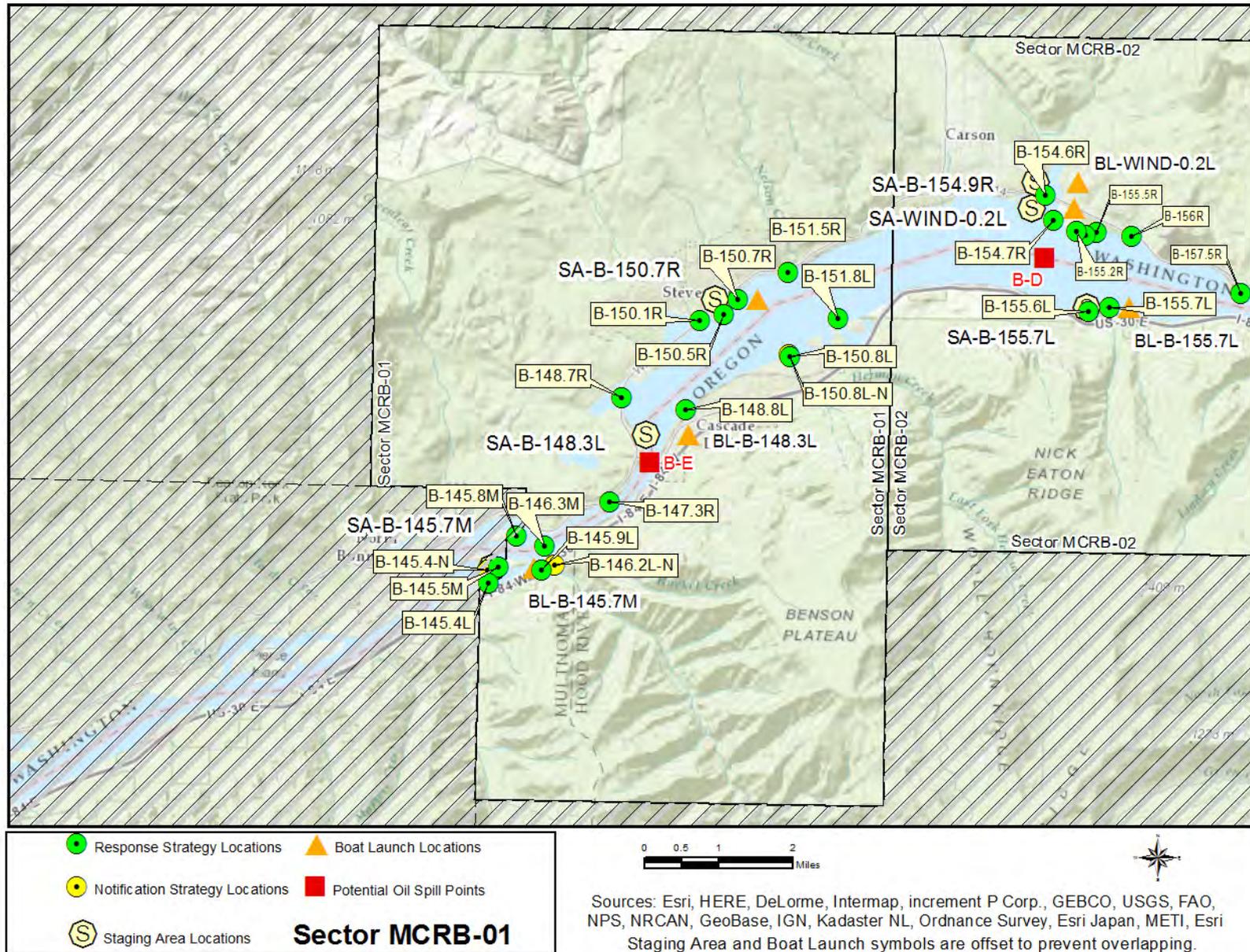
“ C (Hood River Bridge, Confluence of Hood and White Salmon Rivers ~B-170)				
Implementation Priority	Strategy Number	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)
1	B-166R	57	69	157
2	B-167R	57	70	159
3	B-167.4L	57	70	161
4	B-167.4R	57	70	163
5	B-168.4L	57	70	165
6	B-168.5R	57	71	167
7	B-169.6L	57	71	169
8	B-169.7L	57	72	171

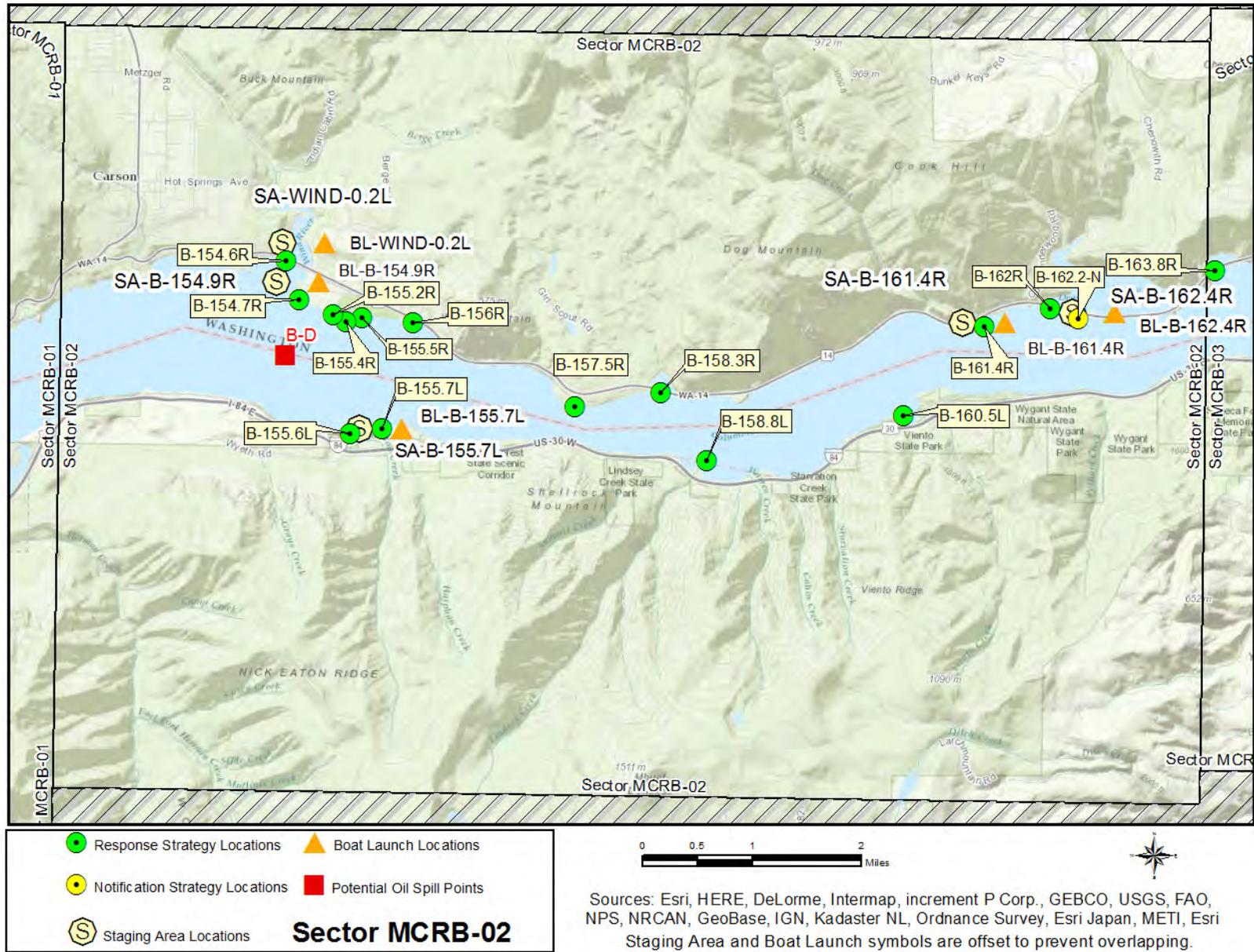
Table 4-6: “ D (Wind River Confluence ~B-154.7)

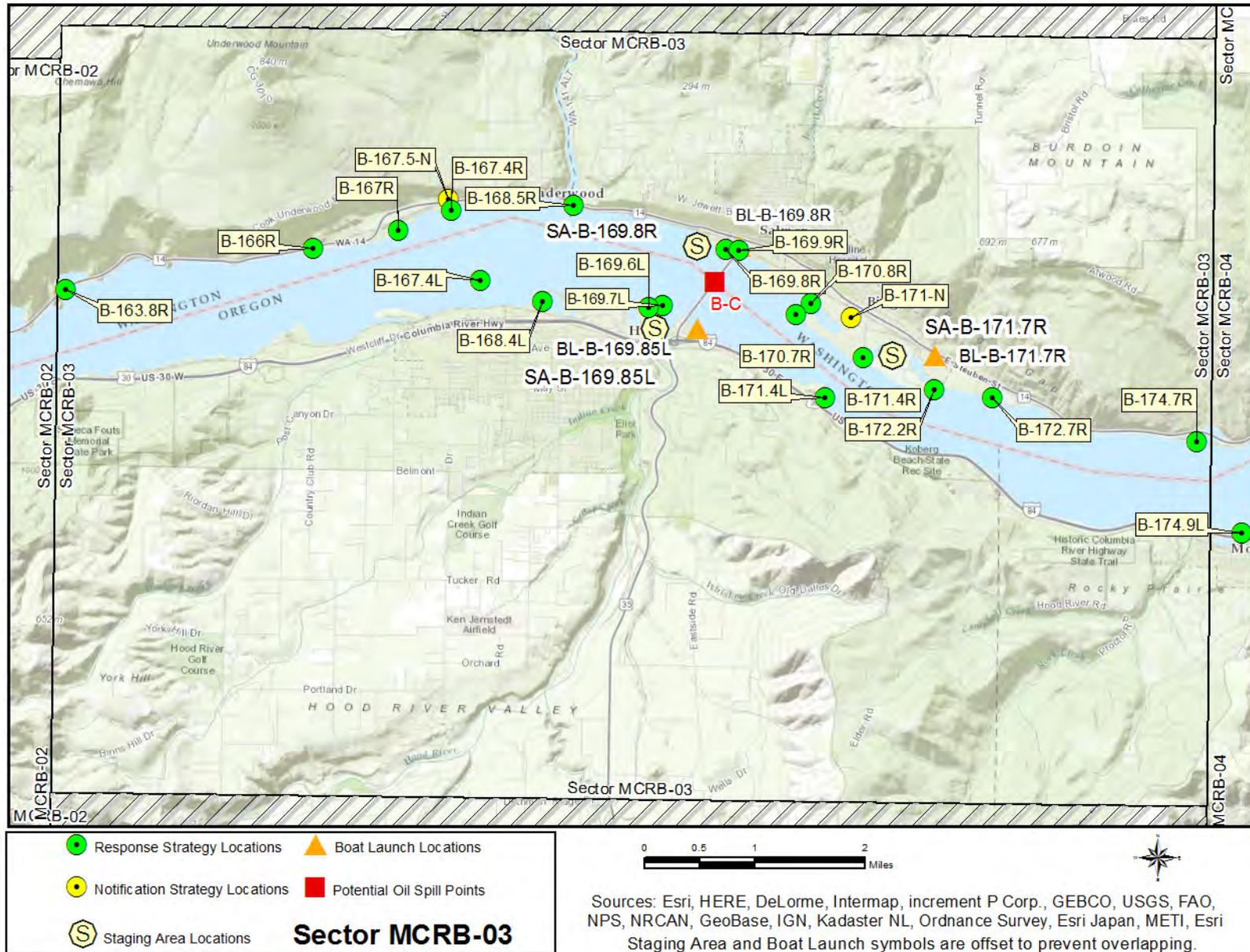
“ D (Wind River Confluence ~B-154.7)				
Implementation Priority	Strategy Number	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)
1	B-150.1R	55	63	115
2	B-150.5R	55	64	117
3	B-150.7R	55	64	119
4	B-150.8L	55	64	121
5	B-151.5R	55	64	123
6	B-151.8L	55	65	125
7	B-154.6R	56	65	127
8	B-154.7R	56	65	129

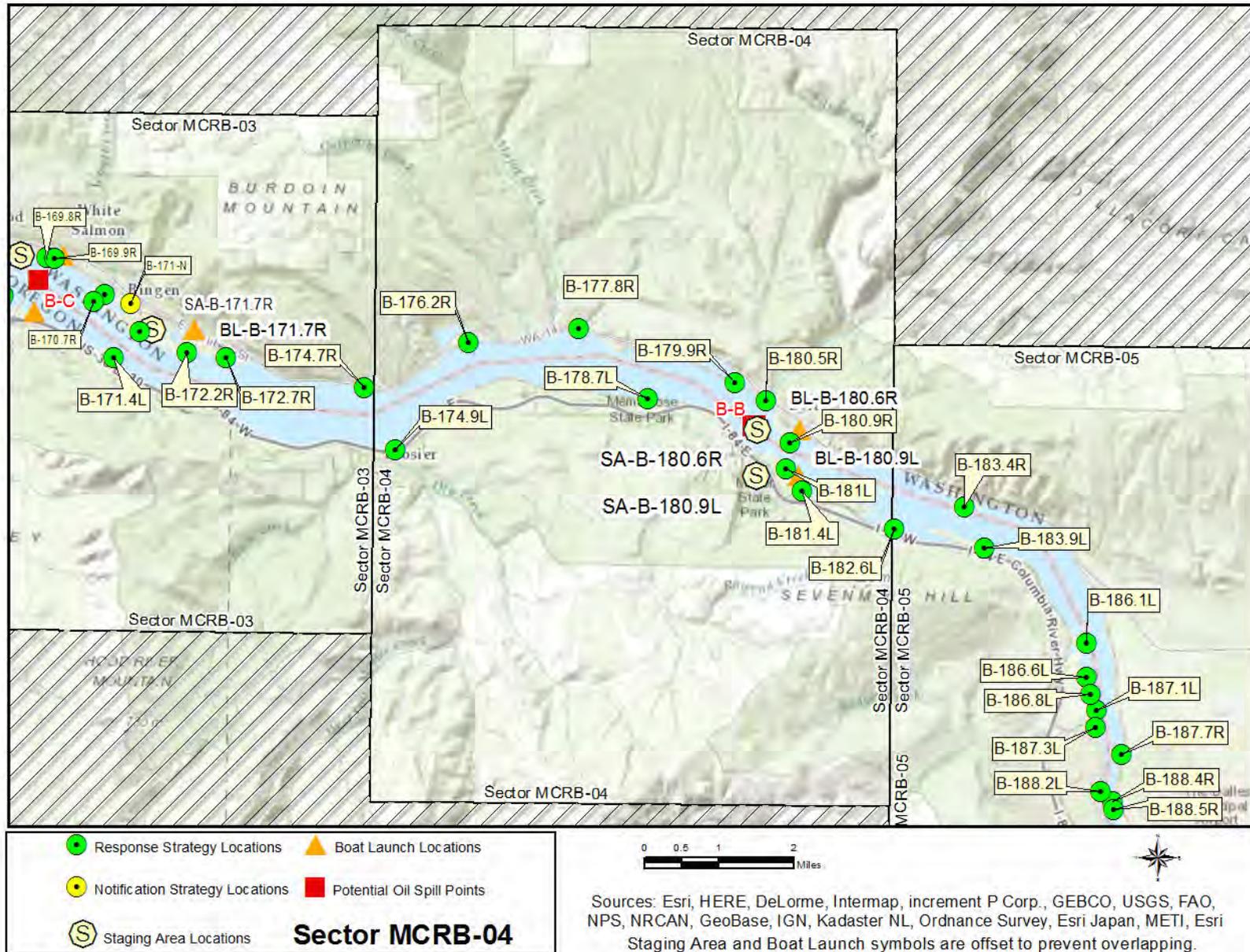
Table 4-7: ~ E (Bridge of the Gods ~B-147.7)

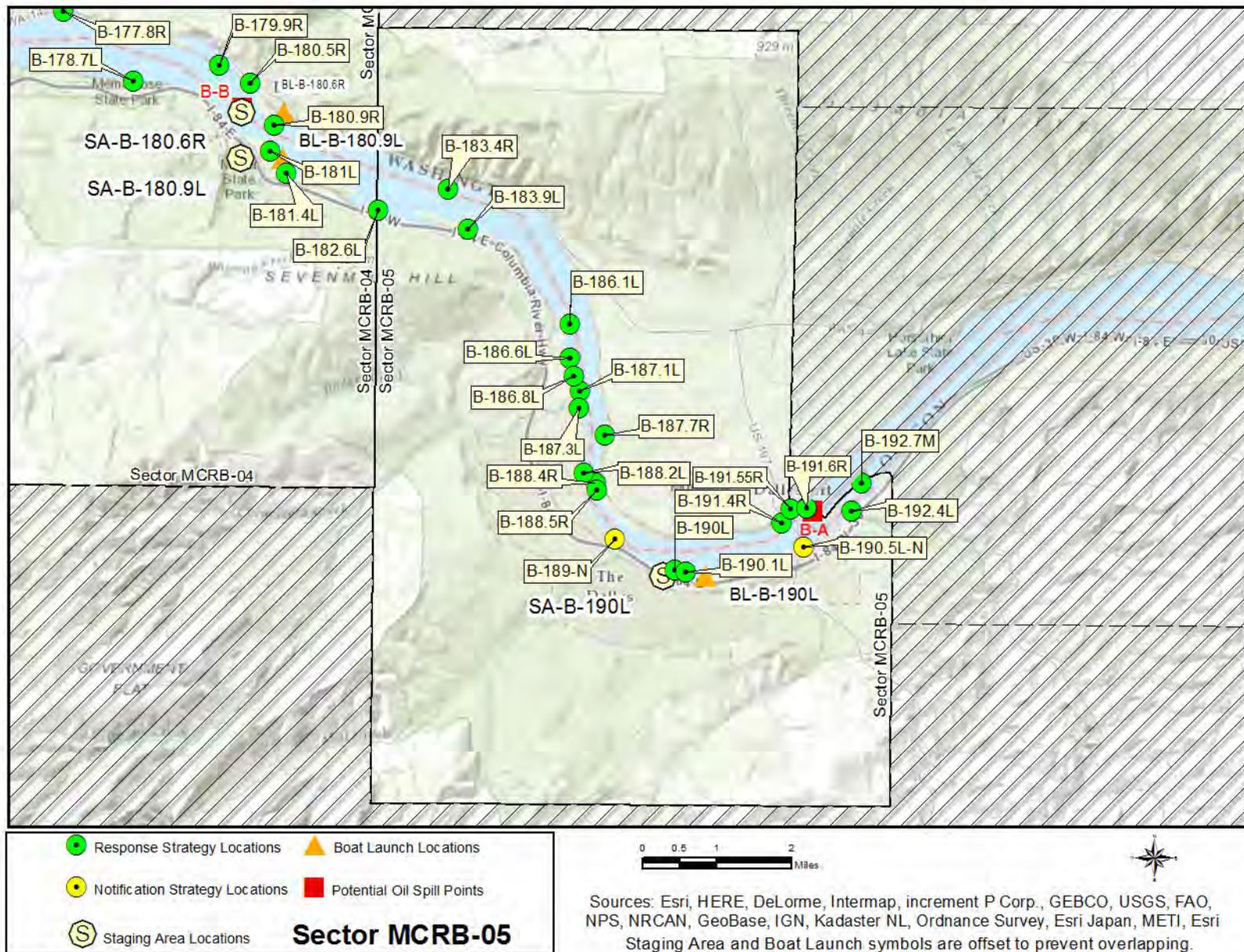
B-E (Bridge of the Gods ~B-147.7)				
Implementation Priority	Strategy Number	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)
1	B-145.4L	55	61	99
2	B-145.5M	55	61	101
3	B-145.8M	55	61	103
4	B-145.9L	55	62	105
5	B-146.3M	55	62	107
6	B-147.3R	55	62	109











4.5.2 Response Strategy Matrices

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-145.4L	Bonneville Lock 45.63776 -121.94612	Collection	Boom 200ft	Yes	Onsite Stage next to the lock on USACE restricted property call Bonneville Dam control room at (541) 374-8338 to access area	Downstream Resources, Lock and Dam	Launch at BL-B-145.7M/ USACE Bradford Island; must contact Bonneville Dam control room at (541) 374-8338 to access area	55	99
B-145.5M	Bradford Island Fish Ladder 45.64092 -121.94322	Exclusion	Boom 200ft	No	Onsite Stage at Bradford Island parking lot; contact the Bonneville Dam Control Room at (541) 374-8338 to gain access	Fish Ladder(s)	Should be able to do without a boat, however, if one is needed, launch at BL-B-145.7M/ USACE Bradford Island. Must contact the Booneville Dam Control Room at (541) 374-8338 to gain access	55	101
B-145.8M	Bonneville Dam Fry Gate 45.64715 -121.93846	Collection	Boom 700ft	Yes	Onsite Must contact Bonneville Dam Control Room at (541) 374-8338. Stage next to fry gate.	Downstream Resources, Lock and Dam	Must contact Bonneville Dam Control Room at (541) 374-8338. Launch at BL-B-145.7M/ USACE Bradford Island	55	103

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-145.9L	Eagle Creek 45.64050 -121.93114	Exclusion	Boom 700ft	Yes	Onsite Stage on site, parking with water access on Eagle Creek	Federally Protected Area/Lands, Recreational Shoreline Area, Waterfowl and Salmonid Concentrations and Habitat	Hand launch from shore, at the Eagle Creek Overlook Group Campground, creek may be shallow at times. Bring bolt cutters in case campground is closed (off season).	55	105
B-146.3M	Picture Rock Island 45.64524 -121.93040	Diversion	Boom 1000ft	Yes	Remote Stage at SA-B-148.3L/ Thunder Island (Port of Cascade Locks)	Downstream Resources, Lock and Dam	Launch at BL-B-148.3L/ Thunder Island (Port of Cascade Locks)	55	107
B-147.3R	E of Ft Raines 45.65411 -121.91267	Deflection	Boom 800ft	Yes	Remote Stage at SA-B-148.3L/ Thunder Island (Port of Cascade Locks)	Downstream Resources, Sensitive Resources Nearby	Launch at BL-B-148.3L/ Thunder Island (Port of Cascade Locks)	55	109

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-148.7R	Ashes Lake culvert 45.67463 -121.90959	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-148.3L/ Thunder Island (Port of Cascade Locks)	Migratory Waterfowl, Osprey Nest(s), Salmonid Concentrations and Habitat, Wetland Habitat, Wintering Waterfowl	Launch at BL-B-148.3L/ Thunder Island (Port of Cascade Locks)	55	111
B-148.8L	Thunder Island Marine Park 45.67235 -121.89173	Exclusion	Boom 1000ft	Yes	Onsite Stage onsite at the N end of SA-B-148.3L/ Thunder Island (Port of Cascade Locks)	Boat Basin/Marina, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat	Launch on site at BL-B-148.3L/ Thunder Island (Port of Cascade Locks)	55	113
B-150.1R	Rock Cove 45.68998 -121.88825	Exclusion	Boom 400ft	Yes	Remote Stage at SA-B-150.7R/ Stevenson Cascade boat launch	Osprey Nest(s), Waterfowl (Wintering and Production), Waterfowl and Salmonid Concentrations and Habitat, Wetland Habitat	Launch at BL-B-150.7R/ Stevenson Cascade boat launch	55	115

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-150.5R	Stevenson Pier 45.69118 -121.88162	Exclusion	Boom 1000ft	Yes	Onsite Stage at the Port of Skamania parking lot at the intersection of SW Cascade AV and Leavens St.	Economic Resource, Fish and Waterfowl Concentrations	Launch at BL-B-150.7R/ Stevenson Cascade boat launch.	55	117
B-150.7R	Stevenson Cascade Boat Launch 45.69428 -121.87782	Collection	Boom 1000ft	Yes	Onsite Stage on site at SA-B-150.7R/ Stevenson Cascade boat launch	Boat Launch/Ramp, Downstream Resources	Launch on site at BL-B-150.7R/ Stevenson Cascade boat launch	55	119
B-150.8L	Herman Creek 45.68321 -121.86282	Exclusion	Boom 700ft	Yes	Onsite Stage on-site, paved parking area, ramp and floating dock.	Creek Habitat, Recreational Fishery, Waterfowl and Salmonid Concentrations and Habitat	Launch on-site, will need a shallow draft vessel. Bring bolt cutters as sign says gate opens at 7:00am closes at 4:30pm.	55	121
B-151.5R	Spit of land W of Nelson Creek, Skamania County 45.69975 -121.86370	Diversion	Boom 600ft	Yes	Remote Stage at SA-B-150.7R/ Stevenson Cascade boat launch	Downstream Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-150.7R/ Stevenson Cascade boat launch. Anchor point at Rock Cove is on private property, must be accessed by boat.	55	123

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-151.8L	Government Cove 45.69086 -121.84954	Deflection	Boom 1000ft	Yes	Remote Stage at SA-B-150.7R/ Stevenson Cascade Boat Launch (only 1.3 miles from site across the river)	Waterfowl and Salmonid Concentrations and Habitat	Launch from BL-B-150.7R/ Stevenson Cascade boat launch. Rocky shoreline at the site	55	125
B-154.6R	Wind River 45.71572 -121.79229	Exclusion	Boom 300ft	Yes	Remote Stage at SA-WIND-0.2L/ Old Hatchery Rd	Boat Launch/Ramp, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-WIND-0.2L/ Old Hatchery Rd	56	127
B-154.7R	WKO Lumber West End 45.71069 -121.78969	Deflection	Boom 800ft	Yes	Remote Stage at SA-B-154.9R/ WKO Lumber if launch is clear, if not go to SA-WIND-0.2L/ Old Hatchery Rd	Sensitive Nesting Species, Sensitive Shoreline, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-154.9R/ WKO Lumber if launch is clear, if not go to BL-WIND-0.2L/ Old Hatchery Rd. Bring bolt cutters in case WKO gate is locked.	56	129

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-155.2R	WKO Lumber 45.70874 -121.78325	Deflection	Boom 800ft	Yes	Remote Stage at SA-B-154.9R/ WKO Lumber if possible, otherwise use SA-WIND-0.2L/ Old Hatchery Rd	Sensitive Shoreline, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-154.9R/ WKO Lumber if boat launch is clear, otherwise use BL-WIND-0.2L/ Old Hatchery Rd - bring bolt cutters in case gate is locked.	56	131
B-155.4R	Home Valley Park 45.70787 -121.78085	Exclusion	Boom 400ft	Yes	Onsite Stage on site (bathrooms and showers), bring bolt cutters as gate may be locked or post removed	Public Recreation Site/Area, Waterfowl and Salmonid Concentrations and Habitat	Can hand launch a boat on site, if not use BL-WIND-0.2L/ Old Hatchery Rd	56	133
B-155.5R	Home Valley Park 45.70843 -121.77779	Deflection	Boom 600ft	Yes	Onsite Stage at Home Valley Park (bathrooms and showers), may need to cut lock on gate for access	Public Recreation Site/Area, Waterfowl and Salmonid Concentrations and Habitat	Hand launch at beach on site, or launch at BL-WIND-0.2L/ Old Hatchery Rd.	56	135
B-155.6L	Gorton Creek Area 45.69306 -121.77959	Exclusion	Boom 200ft	Yes	Remote Stage at SA-B-155.7L Wyeth In-Lieu site	Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-155.7L Wyeth In-Lieu BL	56	137

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-155.7L	Wyeth In-Lieu Site 45.69378 -121.77371	Deflection	Boom 1000ft	Yes	Onsite Stage at SA-B-155.7L/ Wyeth In-Lieu Site	Boat Launch/Ramp, Downstream Resources, Recreational Use Area, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat	Launch at NEW BL-B-155.7L/ Wyeth In-Lieu Site	56	139
B-156R	Home Valley Park E 45.70783 -121.76802	Deflection	Boom 800ft	Yes	Remote Stage at SA-B-154.9R/ WKO Lumber	Public Recreation Site/Area, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-154.9R/ WKO Lumber	56	141
B-157.5R	Aid to Navigation: Dolphin 23 45.69707 -121.73725	Deflection	Boom 700ft	Yes	Remote Stage at SA-B-155.7L/ Wyeth In-Lieu Site	Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-155.7L/ Wyeth In-Lieu Site	56	143

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-158.3R	Grant Lake 45.69908 -121.72110	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-161.4R/ Cook's Inlet	Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-161.4R/ Cook's Inlet	56	145
B-158.8L	Lindsey Lake 45.69016 -121.71217	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-155.7L/ Wyeth In-Lieu Site	Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat	Launch from BL-B-155.7L/ Wyeth In-Lieu Site	56	147
B-160.5L	Viento Creek 45.69648 -121.67518	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-161.4R/ Cook's Inlet	Creek Estuary, Recreational Use Area, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-161.4R/ Cook's Inlet	56	149
B-161.4R	Cook's Inlet In-Lieu Site (FBS MP-65.8) 45.70852 -121.66011	Collection	Boom 1000ft	Yes	Onsite Stage on site at SA-B-161.4R/ Cook's Inlet	Downstream Resources, Tribal Lands/Resources	Launch on site at BL-B-161.4R/ Cook's Inlet	56	151

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-162R	Drano Lake 45.71103 -121.64771	Exclusion	Boom 400ft	Yes	Onsite Stage at SA-B-162.4R	Boat Launch/Ramp, Fish Hatchery, Recreational Use Area, Sensitive Nesting Species, Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-162.4R/ Drano Lake	56	153
B-163.8R	Tunnel Lake 45.71627 -121.61667	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-162.4R/ Drano Lake	Bald Eagle, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-162.4R/ Drano Lake	57	155
B-166R	Swell City, inlet W of Finks Rd 45.72212 -121.57031	Collection	Boom 1000ft	Yes	Onsite Recreational beach used by windsurfers, plenty of parking and easy access to water. May be crowded during summer.	Downstream Resources, Recreational Use Area	Steep gravel drive to the water, vac truck should be able to access. Hand launch a boat on site, if not possible then launch at BL-B-162.4R/ Drano Lake	57	157

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-167R	Spring Creek State Park 45.72460 -121.55445	Deflection	Boom 1000ft	Yes	Onsite Large parking area at entrance to park, may need to drive off road to the W of the bathroom to get boom to water.	State Park, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-169.85L/ Port of Hood River	57	159
B-167.4L	Wells Island 45.71820 -121.53884	Deflection	Boom 1000ft	Yes	Remote Stage at SA-B-169.85L/ Port of Hood River	Migratory Bird Populations, Raptors, Recreational Boating, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-169.85L/ Port of Hood River	57	161
B-167.4R	Spring Creek Fish Hatchery 45.72735 -121.54449	Exclusion	Boom 700ft	Yes	Onsite Stage at Spring Creek Fish Hatchery	Fish Hatchery	Launch at BL-B-169.85L/ Port of Hood River	57	163

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-168.4L	The Hook to Wells Island 45.71554 -121.52705	Exclusion	Boom 900ft	Yes	Remote Stage at SA-B-169.85L/ Port of Hood River	Migratory Waterfowl, Raptors, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-169.85L/ Port of Hood River	57	165
B-168.5R	White Salmon River 45.72828 -121.52144	Exclusion	Boom 200ft	Yes	Remote Stage at SA-B-169.85L/ Port of Hood River	Migratory Waterfowl, Raptors, Sensitive Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-169.85L/ Port of Hood River	57	167
B-169.6L	Hood River 45.71496 -121.50710	Collection	Boom 400ft	Yes	Onsite Stage on site, or across the boat basin at SA-B-169.85L/ Port of Hood River	Migratory Bird Populations, Raptors, Recreational Use Area, Riparian Habitat, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-169.85L/ Port of Hood River	57	169

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-169.7L	Hood River Marina 45.71526 -121.50455	Collection	Boom 1000ft	Yes	Onsite Stage at SA-B-169.85L/ Port of Hood River	Boat Basin/Marina, Downstream Resources, Recreational Boating, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-169.85L/ Port of Hood River	57	171
B-169.8R	White Salmon In-Lieu 45.72273 -121.49288	Collection	Boom 1000ft	Yes	Onsite Tribal In-lieu Fishing Site, gates may be closed but should be unlocked.	Downstream Resources, Tribal Lands/Resources	Launch on site	57	173
B-169.9R	E shore of the White Salmon In-Lieu Site 45.72253 -121.49046	Exclusion	Boom 600ft	Yes	Remote Stage on site at SA-B-169.8R White Salmon In-Lieu site	Sensitive Resources Nearby, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-169.8R White Salmon In-Lieu boat ramp	57	175
B-170.7R	SDS Lumber Co peninsula 45.71430 -121.47948	Deflection	Boom 800ft	Yes	Remote Stage at SA-B-171.7R/ Bingen Marina	Economic Resource, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-171.7R/ Bingen Marina	57	177

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-170.8R	SDS Lumber Co 45.71568 -121.47662	Exclusion	Boom 600ft	Yes	Onsite SDS Lumber requires escort and full PPE when on property. Call Safety and Environmental Mgr (541) 490-3299	Economic Resource, Waterfowl and Salmonid Concentrations and Habitat	SDS Lumber has boat and boom to deploy strategy. If assistance is needed launch at BL-B-171.7R/ Bingen Marina	57	179
B-171.4L	Stanley Rock In-Lieu Site/Koberg Slough 45.70339 -121.47384	Collection	Boom 1000ft	Yes	Onsite Stage at Stanley Rock In-Lieu Site, parking and bathrooms.	Boat Launch/Ramp, Downstream Resources, Raptors, Sensitive Nesting Species, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch on-site at Stanley Rock In- Lieu boat launch, may need machetes to clear vegetation on the south side of the pier for the vac truck or skimmer hose to reach the water.	57	181
B-171.4R	S Maple St and Industrial Way 45.70864 -121.46674	Exclusion	Boom 1000ft	Yes	Onsite Should be able to park along the roadside, there is a pull off and a gravel drive to park at	Downstream Resources, Riparian Habitat, Waterfowl and Salmonid Concentrations and Habitat, Wetlands	Launch at BL-B-171.7R/ Bingen Marina	57	183

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-172.2R	Bingen Marina 45.70456 -121.45346	Deflection	Boom 300ft	Yes	Onsite Stage on site at SA-B-171.7R/ Bingen Marina	Boat Basin/Marina	Launch on site at BL-B-171.7R/ Bingen Marina	57	185
B-172.7R	Dickeys Farm 45.70359 -121.44253	Collection	Boom 1000ft	Yes	Onsite Stage on-site at the end of the easternmost peninsula off Dickey Farms Road	Downstream Resources, Economic Resource, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-171.7R/ Bingen Marina	57	187
B-174.7R	Look Lake 45.69809 -121.40392	Exclusion	Boom 100ft	Yes	Remote Stage from SA-B-171.7R/ Bingen Marina	Sensitive Nesting Species	Launch from BL-B-171.7R/ Bingen Marina	57	189
B-174.9L	Mosier Creek 45.68616 -121.39529	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-171.7R/ Bingen Marina	Creek Habitat, Raptors, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-171.7R/ Bingen Marina	58	191
B-176.2R	Rowland Lake 45.70723 -121.37511	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-180.6R/ Lyle boat launch	Sensitive Nesting Species, Waterfowl Concentrations	Launch at BL-B-180.6R/ Lyle boat launch	58	193

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-177.8R	Hewitt Lake 45.71007 -121.34458	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-180.6R/ Lyle boat launch	Raptors, Sensitive Nesting Species, Waterfowl Concentrations	Launch at BL-B-180.6R/ Lyle boat launch	58	195
B-178.7L	McClure Lake 45.69651 -121.32500	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-180.9L/ Mayer State Park	Bald Eagle, Resident Fish, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-180.9L/ Mayer State Park	58	197
B-179.9R	Chamberlain Lake 45.69987 -121.30103	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-180.6R/ Lyle boat launch	Bald Eagle, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-180.6R/ Lyle boat launch	58	199

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-180.5R	Mouth of the Klickatat River 45.69644 -121.29214	Exclusion	Boom 200ft	Yes	Remote Stage at SA-B-180.6R/ Lyle boat launch	Sensitive Nesting Species, Sensitive Shoreline, Waterfowl (Wintering), Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-180.6R/ Lyle boat launch	58	201
B-180.9R	Old Ferry Crossing (FBS MP-85.5) 45.68830 -121.28541	Collection	Boom 1000ft	Yes	Onsite Stage at SA-B-180.6R/ Lyle boat launch	Downstream Resources	Launch at BL-B-180.6R/ Lyle boat launch	58	203
B-181L	Mayer State Park, Salisbury Slough 45.68317 -121.28649	Deflection	Boom 1000ft	Yes	Remote Stage at SA-B-180.9L/ Mayer State Park	Bald Eagle, Boat Launch/Ramp, Resident Fish, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-180.9L/ Mayer State Park	58	205

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-181.4L	Mayer State Park Boat Launch 45.67884 -121.28190	Exclusion	Boom 1000ft	Yes	Onsite Stage on site at SA-B-180.9L/ Mayer State Park	Bald Eagle, Boat Launch/Ramp, Resident Fish, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch on site at BL-B-180.9L/ Mayer State Park	58	207
B-182.6L	West of Tooley Lake 45.67172 -121.25617	Deflection	Boom 1000ft	Yes	Remote Stage at SA-B-180.9L/ Mayer State Park	Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-180.9L/ Mayer State Park	59	209
B-183.4R	Doug's Beach State Park 45.67612 -121.23678	Deflection	Boom 400ft	Yes	Remote Stage at SA-B-180.6R, Doug's Beach is an area with shallow water and sand, difficult for staging.	Recreational Swimming Area, State Park, Waterfowl and Salmonid Concentrations and Habitat	Launch from BL-B-180.6R/ Lyle boat launch. Doug's Beach is a popular public beach - heavily used in the summer months.	59	211

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-183.9L	North of Tooley Lake 45.66822 -121.23121	Deflection	Boom 1000ft	Yes	Remote Stage at SA-B-180.9L/ Mayer State Park	Raptors, Resident Fish, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch at BL-B-180.9L/ Mayer State Park	59	213
B-186.1L	Rocky Island North 45.64985 -121.20232	Deflection	Boom 400ft	Yes	Remote Stage at SA-B-190L/ Port of The Dalles Marina	Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-190L/ Port of The Dalles Marina	59	215
B-186.6L	South of Rocky Island 45.64318 -121.20248	Exclusion	Boom 800ft	Yes	Remote Stage at SA-B-190L/ Port of The Dalles Marina	Sensitive Nesting Species, Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-190L/ Port of The Dalles Marina	59	217

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-186.8L	Southeast of Taylor Lake 45.63982 -121.20119	Deflection	Boom 800ft	Yes	Remote Stage at SA-B-190L /Port of The Dalles Marina	Raptors, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-190L /Port of The Dalles Marina	59	219
B-187.1L	Riverfront Trail at River Rd 45.63672 -121.19945	Collection	Boom 1000ft	Yes	Onsite Stage off of River Rd on Riverfront Trail beside small cove at collection point	Downstream Resources	Launch at BL-B-190L /Port of The Dalles Marina	59	221
B-187.3L	Chenoweth Creek 45.63346 -121.19963	Exclusion	Boom 900ft	Yes	Remote BL-B-190L /Port of The Dalles Marina	Creek Estuary, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-B-190L /Port of The Dalles Marina	59	223
B-187.7R	1/2 Mile upstream of Squaw Islands (FBS MP-92.5) 45.62823 -121.19243	Collection	Boom 1000ft	Yes	Onsite 75' x 75' gravel/dirt area to park between the river, a gravel road and the railroad tracks	Downstream Resources	Launch at BL-B-190L /Port of The Dalles Marina	59	225

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-188.2L	Riverfront Trail Water Intake Facility 45.62080 -121.19828	Deflection	Boom 1000ft	Yes	Remote Stage at SA-B-190L /Port of The Dalles Marina	Downstream Resources, Recreational Shoreline Area, Water Intakes	Launch at BL-B-190L /Port of The Dalles Marina	59	227
B-188.4R	Dallesport In-Lieu Sandy Beach 45.61896 -121.19489	Exclusion	Boom 200ft	Yes	Onsite Stage at the boat launch area there at the Dallesport In-Lieu site	Federally Protected Area/Lands, Sensitive Back-Beach, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat	Beach is just downstream of the boat launch, take path from parking circle.	59	229
B-188.5R	Dallesport Tribal In-Lieu 45.61746 -121.19464	Collection	Boom 1000ft	Yes	Onsite Dallesport In-Lieu site (new) with boat launch, water, power, restrooms, covered space.	Downstream Resources, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch on site at in-lieu boat ramp	59	231
B-190L	Port of The Dalles Marina 45.60206 -121.17269	Exclusion	Boom 400ft	Yes	Onsite Stage at SA-B-190L /Port of The Dalles Marina	Boat Basin/Marina, Recreational Boating	Launch on site at BL-B-190L /Port of The Dalles Marina	59	233

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-190.1L	Riverfront Park 45.60170 -121.16963	Exclusion	Boom 1200ft	Yes	Onsite Stage at SA-B-190L /Port of The Dalles Marina	Boat Launch/Ramp, Downstream Resources, Recreational Shoreline Area, Sensitive Resources	Launch on site at BL-B-190L /Port of The Dalles Marina	59	235
B-191.4R	Below WA side of the US Hwy 197 Bridge 45.61138 -121.14307	Collection	Boom 400ft	Yes	Onsite Stage on USACE property at end of peninsula. Call The Dalles Dam Control Room at (541) 298-7505 to close lock.	Downstream Resources, Economic Resource, Lock and Dam	Launch at BL-B-190L /Port of The Dalles Marina	59	237
B-191.55R	The Dalles Lock downstream 45.61407 -121.14046	Collection	Boom 300ft	Yes	Onsite Call The Dalles Dam Control office at (541) 298-7505 to get access to the area.	Downstream Resources, Economic Resource, Lock and Dam	Launch at BL-B-190L /Port of The Dalles Marina	59	239
B-191.6R	The Dalles W Fishladder in/out take downstream 45.61435 -121.13609	Exclusion	Boom 100ft	Yes	Onsite Stage at The Dalles Dam (contact The Dalles Dam Control Room for access (541) 298-7505)	Fish Ladder(s)	Launch at BL-B-190L /Port of The Dalles Marina	59	241

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-192.4L	15 Mile Creek 45.61389 -121.12345	Exclusion	Boom 100ft	Yes	Remote Stage at SA-B-190L /Port of The Dalles Marina	Creek Habitat, Downstream Resources, Salmon Concentrations and Habitat, Sensitive Resources Nearby	Launch from BL-B-190L /Port of The Dalles Marina	59	243
B-192.7M	The Dalles Dam downstream E fishladder 45.61932 -121.12083	Exclusion	Boom 200ft	Yes	Remote Stage on-site at Paterson Park beside fish ladder	Fish Ladder(s)	Launch at BL-B-190L /Port of The Dalles Marina	59	245

4.5.3 Notification Strategy Matrices

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-145.4-N	Bonneville Lock and Dam Notification 45.64024 -121.94630	Notification	Lock and Dam	Notify project management and take action to protect USACE property and resources, including the deployment, by USACE staff or response contractors, of GRP strategies. Strategies on the upstream side of the dam include: B-145.5M (exclusion strategy at Bradford Island fish ladder exit), B-145.8M (collection strategy by intake for fry), and B-145.9L (exclusion/collection at upstream entrance to lock). On the downstream side of the dam is a collection strategy, LCR-144.9L, at the end of the lock - it is listed in the LCR-GRP.	Protection of fish ladders, lock and/or spillway closure, deployment of GRP strategies	55	249
B-146.2L-N	Cascade Hatchery 45.64154 -121.92773	Notification	Fish Hatchery	Call Hatchery Manager at (503) 801-3713 so they can determine if evacuation is needed or if they should shut down circulation pumps	Keep hatchery employees and fish safe	55	251

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-150.8L-N	City of Cascade Locks Water Intake 45.68362 -121.86310	Notification	Public Health and Safety, Water Intakes	Determine need to shut off water intakes.	Alert to need to monitor and potentially shut off community water system well located less than 500 feet from river bank.	55	253
B-162.2-N	Little White Salmon National Fish Hatchery 45.70967 -121.64235	Notification	Fish Hatchery	Call the hatchery manager to prevent release of fish and assess what threat the spill poses to hatchery facilities (if any).	Prevent fish release	56	255
B-167.5-N	Spring Creek National Fish Hatchery 45.72879 -121.54503	Notification	Fish Hatchery	Take actions in accordance with facility SOP and Spill Prevention Control, and Countermeasure Plan	Protect fish intakes/out flow	57	257

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
B-171-N	SDS Lumber Company 45.71396 -121.46920	Notification	Economic Resource, Waterfowl and Salmonid Concentrations and Habitat	Call SDS Lumber Company's Environmental Health and Safety Manager at (541) 490-3299. Upon notification SDS management will have staff deploy B-170.8R . Once deployed, or if unable to deploy for some reason, a SDS Lumber Co. representative will contact the WA ECY PREP Pager Duty Officer at (360) 923-6020. Implementation of B-170.8R by contractors is an alternative option.	Deploy B-170.8R exclusion strategy	57	259
B-189-N	The Dalles Irrigation District Water Intake 45.60800 -121.18940	Notification	Water Intakes	Call (541) 993-5200 (24 hours), to have them shut off water intake	Shut off water intake	59	261
B-190.5L-N	The Dalles Public Works 45.60677 -121.13683	Notification	Public Health and Safety, Water Intakes	Determine need to shut down water intakes	Alert to need to monitor and potentially shut off large municipal well located less than 500 feet from river bank.	59	263

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
D-191.7-N	The Dalles Lock and Dam Notification 45.61389 -121.13377	Notification	Lock and Dam	Notify Project management and take action to protect USACE property and resources, including the deployment, by USACE staff or response contractors, of GRP strategies. Strategies in The Dalles pool include: D-191.7M and D-192.8L, both exclusion strategies to protect the fish ladders on the upstream side of the dam, and D-191.9R a collection strategy for the E end of the lock; strategies on the downstream side of the dam, in the Bonneville pool, include: B-192.7M and B-191.6R to protect the fish ladders on the downstream side of the dam, as well as B-191.55R collection strategies at the lock.	Protection of fish ladders, closure of lock/spillway, deployment of GRP strategies	59	265

4.5.4 Staging Area Matrices

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-B-145.7M	USACE Bonneville Dam Bradford Island boat launch	45.64074 -121.93916	100 NE Sturgeon Lane Cascade Locks, OR 97014	USACE Bonneville pool Natural Resources Manager Bonneville Dam, OR (541) 374-8344		Bonneville Dam, restricted access, staging area and primitive boat launch	55	269
SA-B-148.3L	Port of Cascade Locks Marina	45.66741 -121.89665	355 Wa Na Pa St Cascade Locks, OR 97014	Port of Cascade Locks Property Owner OR (541) 374-8535	B-147.3R , B-148.7R , B-146.3M , B-148.8L	Parking lot and small marina facilities near the boat launch	55	271
SA-B-150.7R	Cascade boat launch	45.69419 -121.87806	11 SW Cascade Ave Stevenson, WA 98648	Port of Skamania Manages Cascade boat launch in Stevenson 212 SW Cascade Stevenson, WA 98468 (509) 427-5484	B-150.1R , B-151.5R , B-151.8L , B-150.7R	Good lighted, paved staging area with concrete ramp 6.2 degree grade	55	273
SA-B-154.9R	WKO Inc. Lumber Co. primitive boat launch	45.71304 -121.78985	Home Valley Park Rd Stevenson, WA 98648	WKO Inc. Lumber Company Environmental Manager 2022 Wind River Hwy Carson, WA 98610 (541) 490-8035	B-154.7R , B-156R , B-155.2R	Private lumber company (limited activity), gravel staging area, with a primitive gravel boat launch with newer floating docks	56	275

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-B-155.7L	Wyeth In-Lieu Site boat launch	45.69378 -121.77288	9015 Wyeth Rd Cascade Locks, OR 97014	Columbia River Inter-Tribal Fish Commission Fishing Treaty In-lieu Site - Law Enforcement (800) 487-3474 Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702	B-155.6L , B-157.5R , B-158.8L , B-155.7L	Paved, fish cleaning station, water, bathrooms	56	277
SA-B-161.4R	Cook's In-Lieu Site boat launch	45.70900 -121.66017	100 Cook-Underwood Rd Cook, WA 98605	Columbia River Inter-Tribal Fish Commission Fishing Treaty In-lieu Site - Law Enforcement (800) 487-3474 Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702	B-160.5L , B-158.3R , B-161.4R	Lighted staging area with two concrete ramps, 8 degree grade. Make sure to notify CRITFC and BIA	56	279
SA-B-162.4R	Drano Lake boat launch	45.71047 -121.63927	100 Jackson Road Cook, WA 98605	Skamania County Manages boat launches (Stevenson and Drano Lake) 710 Rock Creek Dr Stevenson, WA 98648 (509) 427-3980	B-163.8R , B-162R	Paved staging area with two concrete, 8.5 and 7.5 degree, ramps	56	281

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-B-169.8R	White Salmon In-Lieu Site	45.72310 -121.49407	100 Hood Vista Dr White Salmon, WA 98672	Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702 Columbia River Inter- Tribal Fish Commission Fishing Treaty In-lieu Site - Law Enforcement 800-487-3474	B-169.9R	In-lieu site with parking, water, power, trash, boat launch w/ 8 degree grade and two floating docks	57	283
SA-B-169.85L	Hood River Marina	45.71222 -121.50194	1000 E Port Marina Drive Hood River, OR 97031	Port of Hood River Marina Property Manager WA (541) 386-1645	B-168.4L , B-169.7L , B-167.4R , B-168.5R	Good staging area associated with the marina	57	285
SA-B-171.7R	Port of Klickitat Bingen Marina boat launch	45.70899 -121.45720	E Bingen Marina Loop Rd Bingen, WA 98605	Port of Klickitat Manages Port of Klickitat Property 154 E Bingen Point Way Ste. A Bingen, WA 98605 (509) 493-1655	B-174.7R , B-172.2R , B-170.7R , B-174.9L	Excellent lighted staging area with two concrete ramps 9 degree grade	57	287
SA-B-180.6R	Lyle boat launch	45.69083 -121.28858	Cove Rd Lyle, WA 98635	USACE Bonneville pool Natural Resources Manager Bonneville Dam, OR (541) 374-8344	B-183.4R , B-180.5R , B-181L , B-176.2R , B-179.9R , B-177.8R	Gravel lot with double gravel ramp 5 degree grade, no amenities	58	289

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-B-180.9L	Mayer State Park	45.68175 -121.28874	6000 Rowena River Road The Dalles, OR 97058	Mayer State Park Property managers WA (541) 478-3008	B-178.7L , B-181.4L , B-182.6L , B-183.9L	Parking lot associated with Mayer State Park boat launch.	58	291
SA-B-190L	Port of The Dalles Marina	45.60077 -121.16976	Brewery Overpass Road and Highway 84 The Dalles, OR 97058	Port of the Dalles Marina owner OR (541) 298-4148	B-192.7M , B-190.1L , B-186.6L , B-192.4L , B-190L , B-186.8L , B-188.2L , B-186.1L , B-187.3L	Good staging area at the Port of Dalles Marina	59	293
SA-WIND-0.2L	Old Hatchery Road boat launch	45.71814 -121.78896	Old Hatchery Road Stevenson, WA 98648	Skamania County Manages boat launches (Stevenson and Drano Lake) 710 Rock Creek Dr Stevenson, WA 98648 (509) 427-3980	B-154.6R	Paved, lighted staging area, double concrete ramp 7.7 degree grade with floating dock \$7 launch fee required	56	295

4.5.5 Boat Launch Matrices

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-B-145.7M	USACE Bonneville Dam Bradford Island boat launch	45.64074 -121.93916	100 NE Sturgeon Lane Cascade Locks, OR 97014	USACE Bonneville pool Natural Resources Manager Bonneville Dam, OR (541) 374-8344	B-145.8M , B-145.5M , B-145.4L	Bonneville Dam, restricted access, staging area and primitive boat launch	55	299
BL-B-148.3L	Port of Cascade Locks Marina	45.66741 -121.89665	355 Wa Na Pa St Cascade Locks, OR 97014	Port of Cascade Locks Property Owner OR (541) 374-8535	B-147.3R , B-148.7R , B-146.3M , B-148.8L	Well maintained boat launch on the Columbia River.	55	301
BL-B-150.7R	Cascade boat launch	45.69419 -121.87806	11 SW Cascade Ave Stevenson, WA 98648	Port of Skamania Manages Cascade boat launch in Stevenson 212 SW Cascade Stevenson, WA 98468 (509) 427-5484	B-150.1R , B-150.5R , B-151.5R , B-151.8L , B-150.7R	Good lighted, paved staging area with concrete ramp 6.2 degree grade	55	303
BL-B-154.9R	WKO Inc. Lumber Co. primitive boat launch	45.71304 -121.78985	Home Valley Park Rd Stevenson, WA 98648	WKO Inc. Lumber Company Environmental Manager 2022 Wind River Hwy Carson, WA 98610 (541) 490-8035	B-154.7R , B-156R , B-155.2R	Private lumber company (limited activity), gravel staging area, with a primitive boat launch with newer floating docks	56	305

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-B-155.7L	Wyeth In-Lieu Site boat launch	45.69378 -121.77388	9015 Wyeth Rd Cascade Locks, OR 97014	Columbia River Inter-Tribal Fish Commission Fishing Treaty In-lieu Site - Law Enforcement (800) 487-3474 Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702	B-155.6L , B-157.5R , B-158.8L , B-155.7L	Single concrete ramp, floating dock, paved, fish cleaning station, water, bathrooms	56	307
BL-B-161.4R	Cook's In-Lieu Site boat launch	45.70900 -121.66017	100 Cook-Underwood Rd Cook, WA 98605	Columbia River Inter-Tribal Fish Commission Fishing Treaty In-lieu Site - Law Enforcement (800) 487-3474 Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702	B-160.5L , B-158.3R , B-161.4R	Lighted staging area with two concrete ramps, 8 degree grade. Make sure notify to CRITFC and BIA	56	309
BL-B-162.4R	Drano Lake boat launch	45.71047 -121.63927	100 Jackson Road Cook, WA 98605	Skamania County Manages boat launches (Stevenson and Drano Lake) 710 Rock Creek Dr Stevenson, WA 98648 (509) 427-3980	B-163.8R , B-162R	Paved staging area with two concrete, 8.5 and 7.5 degree, ramps	56	311

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-B-169.8R	White Salmon In-Lieu Site	45.72310 -121.49407	100 Hood Vista Dr White Salmon, WA 98672	Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702 Columbia River Inter- Tribal Fish Commission Fishing Treaty In-lieu Site - Law Enforcement (800) 487-3474	B-169.9R	In-lieu site with parking, water, power, trash, boat launch w/ 8 degree grade and two floating docks	57	313
BL-B-169.85L	Hood River Marina	45.71222 -121.50194	1000 E Port Marina Drive Hood River, OR 97031	Port of Hood River Marina Property Manager WA (541) 386-1645	B-167R, B-167.4L, B-169.6L, B-168.4L, B-169.7L, B-167.4L, B-168.5R	Well maintained boat launch	57	315
BL-B-171.7R	Port of Klickitat Bingen Marina boat launch	45.70899 -121.45720	E Bingen Marina Loop Rd Bingen, WA 98605	Port of Klickitat Manages Port of Klickitat Property 154 E Bingen Point Way Ste. A Bingen, WA 98605 (509) 493-1655	B-172.7R, B-171.4R, B-174.7R, B-170.8R, B-172.2R, B-170.7R, B-174.9L	Excellent lighted staging area with two concrete ramps 9 degree grade	57	317

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-B-180.6R	Lyle boat launch	45.69083 -121.28858	Cove Rd Lyle, WA 98635	USACE Bonneville pool Natural Resources Manager Bonneville Dam, OR (541) 374-8344	B-183.4R, B-180.5R, B-181L, B-180.9R, B-176.2R, B-179.9R, B-177.8R	Gravel lot with double gravel ramp 5 degree grade, no amenities	58	319
BL-B-180.9L	Mayer State Park	45.68175 -121.28874	6000 Rowena River Road The Dalles, OR 97058	Mayer State Park Property managers WA (541) 478-3008	B-178.7L, B-181.4L, B-182.6L, B-183.9L	Boat launch at Mayer State Park with access to the Columbia River	58	321
BL-B-190L	Port of The Dalles Marina	45.60077 -121.16976	Brewery Overpass Road and Highway 84 The Dalles, OR 97058	Port of the Dalles Marina owner OR (541) 298-4148	B-192.7M, B-187.1L, B-190.1L, B-186.6L, B-192.4L, B-190L, B-186.8L, B-188.2L, B-186.1L, B-187.3L, B-187.7R, B-191.6R, B-191.4R, B-191.55R	Nice, well maintained boat launch at the Port of Dalles Marina.	59	323

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-WIND-0.2L	Old Hatchery Road boat launch	45.71814 -121.78896	Old Hatchery Road Stevenson, WA 98648	Skamania County Manages boat launches (Stevenson and Drano Lake) 710 Rock Creek Dr Stevenson, WA 98648 (509) 427-3980	B-154.6R	Paved, lighted staging area, double concrete ramp 7.7 degree grade with floating dock \$7 launch fee required	56	325

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APPENDIX 4A
Response Strategy 2-Pagers

RESPONSE STRATEGIES – LIST

B-145.4L	B-145.5M	B-145.8M	B-145.9L	B-146.3M
B-147.3R	B-148.7R	B-148.8L	B-150.1R	B-150.5R
B-150.7R	B-150.8L	B-151.5R	B-151.8L	B-154.6R
B-154.7R	B-155.2R	B-155.4R	B-155.5R	B-155.6L
B-155.7L	B-156R	B-157.5R	B-158.3R	B-158.8L
B-160.5L	B-161.4R	B-162R	B-163.8R	B-166R
B-167R	B-167.4L	B-167.4R	B-168.4L	B-168.5R
B-169.6L	B-169.7L	B-169.8R	B-169.9R	B-170.7R
B-170.8R	B-171.4L	B-171.4R	B-172.2R	B-172.7R
B-174.7R	B-174.9L	B-176.2R	B-177.8R	B-178.7L
B-179.9R	B-180.5R	B-180.9R	B-181L	B-181.4L
B-182.6L	B-183.4R	B-183.9L	B-186.1L	B-186.6L
B-186.8L	B-187.1L	B-187.3L	B-187.7R	B-188.2L
B-188.4R	B-188.5R	B-190L	B-190.1L	B-191.4R
B-191.55R	B-191.6R	B-192.4L	B-192.7M	

Bonneville Lock **B-145.4L**

Position - Location: 45° 38.266', -121° 56.767' 45° 38' 15.9", -121° 56' 46.0" 45.63776, -121.94612 Cascade Locks

Strategy Objective: Collection : Remove oil from Bonneville Lock

Implementation: Anchor 200' of boom on the S side of the lock wall, E of the upstream gate, then anchor the boom on the opposite side of the lock angled to the NW close to a location where a vac truck (skimmer/portable storage) can get access to the water). Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

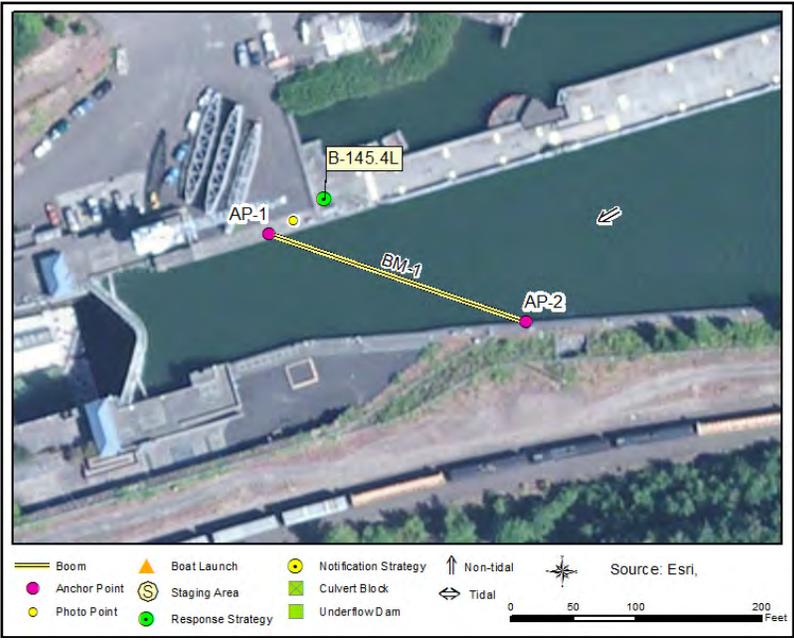
Staging Area: Onsite: Stage next to the lock on USACE restricted property call Bonneville Dam control room at 541-374-8338 to access area

Site Safety: Dam and lock, water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-145.7M/USACE Bradford Island; must contact Bonneville Dam control room at 541-374-8338 to access area

Watercourse: River - Above a Dam - NE Bonneville Way

Resources at Risk: Downstream Resources, Lock and Dam



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

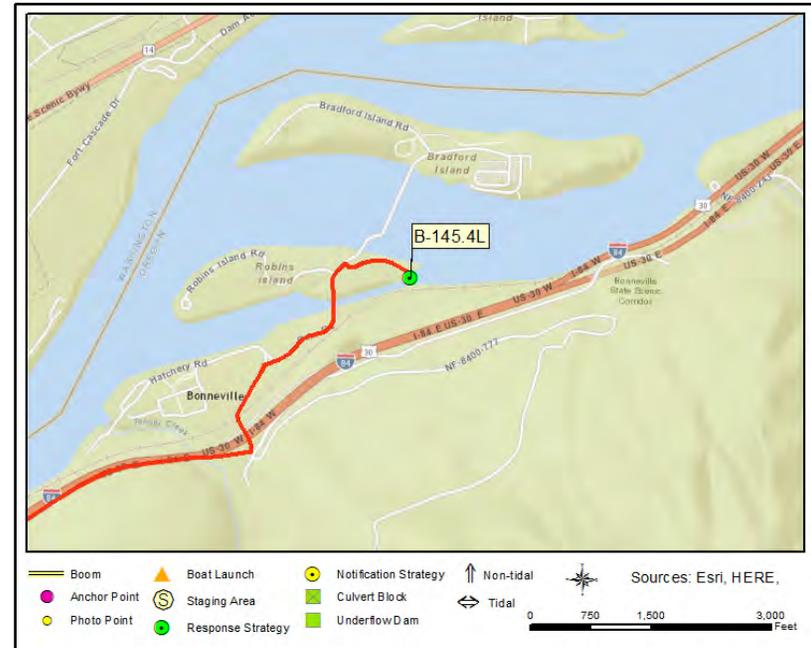
1	Boat Operator
2	Laborer

Bonneville Lock

B-145.4L



B-145.4L Photo: View of the location for a vac truck to be parked on the N side of the upstream end of the Bonneville Lock



Site Contact

USACE Bonneville Dam Control Room
 Pre-Notification Required : Emergency contact and to gain access to the dam

OR
 541-374-8338

Nearest Address

70700 NE Sturgeon Ln
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-145.7M/Bonneville Dam Bradford Island boat launch, starting at I-84 E
2. Take exit 40 ramp to Tanner Creek Rd (0.15 miles)
3. Turn left on NE Bonneville Way (0.5 miles)
4. Continue onto Star Route (0.6 miles)
5. Report to USACE Security Office/Gate for escort

Bradford Island Fish Ladder **B-145.5M**

Position - Location: 45° 38.455', -121° 56.593' 45° 38' 27.3", -121° 56' 35.6" 45.64092, -121.94322 Cascade Locks

Strategy Objective: Exclusion : Keep oil out of fish ladder

Implementation: Boom is permanently deployed in this area. Anchor an additional 200' of boom in a chevron formation on either side of the fish ladder. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

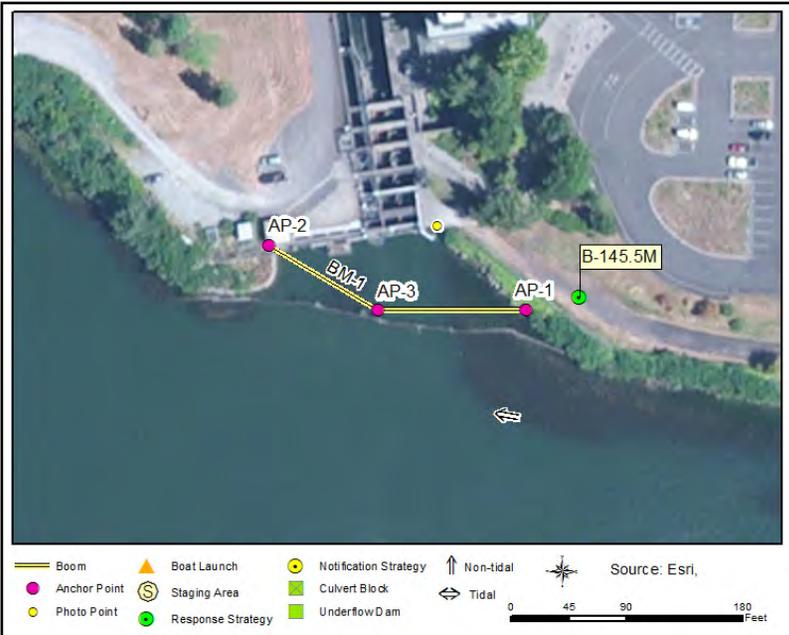
Staging Area: Onsite: Stage at Bradford Island parking lot; contact the Bonneville Dam Control Room at 541-374-8338 to gain access

Site Safety: Dam, heavy equipment, water hazard, slips, trips & falls.

Field Notes: Should be able to do without a boat, however, if one is needed, launch at BL-B-145.7M/USACE Bradford Island. Must contact the Booneville Dam Control Room at 541-374-8338 to gain access

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Fish Ladder(s)



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
300	Feet	Line - 3/8" poly line
1	Each	Line throwing gun(s) or device(s)

Recommended Personnel

2	Laborer
1	Supervisor

Bradford Island Fish Ladder **B-145.5M**



B-145.5M Photo: View from shore of the existing boom at the Bradford Island Fishladder



Site Contact

USACE Bonneville Dam Control Room
 Pre-Notification Required : Emergency contact and to gain access to the dam

 OR
 541-374-8338

Nearest Address

100 NE Sturgeon Way
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-145.7M/Bonneville Dam Bradford Island boat launch, starting at I-84 E
2. Take exit 40 ramp to Tanner Creek Rd (0.15 miles)
3. Turn left on NE Bonneville Way (0.5 miles)
4. Continue onto Star Route (0.6 miles)
5. Report to USACE Security Office/Gate for escort

Bonneville Dam Fry Gate **B-145.8M**

Position - Location: 45° 38.829', -121° 56.308' 45° 38' 49.8", -121° 56' 18.5" 45.64715, -121.93846 Cascade Locks

Strategy Objective: Collection : Divert oil to corner of dam by fry gate for collection

Implementation: Move aside any existing boom, close fry gate, anchor 700' of boom to corner near fry gate, where a vac truck can get access to the water, and tow out to the NE to anchor off shore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Onsite: Must contact Bonneville Dam Control Room at 541-374-8338. Stage next to fry gate.

Site Safety: Dam, heavy equipment, water hazard, slips, trips & falls.

Field Notes: Must contact Bonneville Dam Control Room at 541-374-8338. Launch at BL-B-145.7M/USACE Bradford Island

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Lock and Dam



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

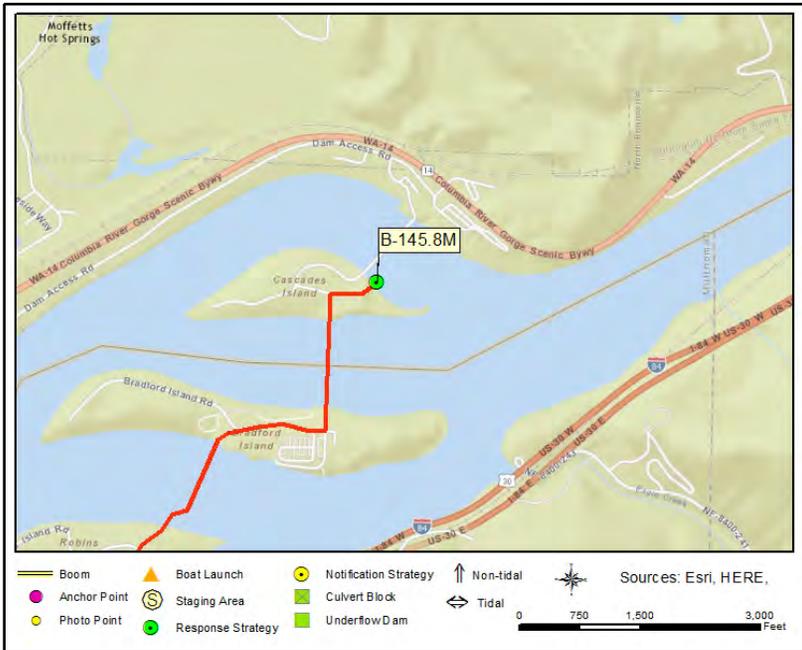
Recommended Personnel

1	Boat Operator
3	Laborer
1	Supervisor

Bonneville Dam Fry Gate **B-145.8M**



B-145.8M Photo: Aerial view of the Bonneville Dam over the location of the fry gate



Site Contact

USACE Bonneville Dam Control Room
 Pre-Notification Required : Emergency contact and to gain access to the dam
 OR
 541-374-8338

Nearest Address

1 NE Sturgeon Way
 Cascade Locks, OR 97014

Driving Directions

1. Directions to staging area for B-145.8M at Bonneville Dam near the fry gate, starting at I-84 E
2. Take exit 40 ramp to Tanner Creek Rd (0.15 miles)
3. Turn left on NE Bonneville Way (0.5 miles)
4. Continue onto Star Route (0.6 miles)
5. Report to USACE Security Office/Gate for escort

Eagle Creek **B-145.9L**

Position - Location: 45° 38.430', -121° 55.868' 45° 38' 25.8", -121° 55' 52.1" 45.64050, -121.93114 Cascade Locks

Strategy Objective: Exclusion : Keep oil from passing between the Columbia River and Eagle Creek

Implementation: Deploy 300' of boom(BM-2) from one side of Eagle Creek to the other E of the eastbound I-84 bridge, and 500' of boom (BM-1) from one side of the mouth of Eagle Creek to the other W of the westbound I-84 bridge. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Waders may be needed in shallow waters near shore.

Staging Area: Onsite: Stage on site, parking with water access on Eagle Creek

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Hand launch from shore, at the Eagle Creek Overlook Group Campground, creek may be shallow at times. Bring bolt cutters in case campground is closed (off season).

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Federally Protected Area/Lands, Recreational Shoreline Area, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

3	Each	Anchor - Danforth (or other appropriate type)
4	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - (hand-launch)

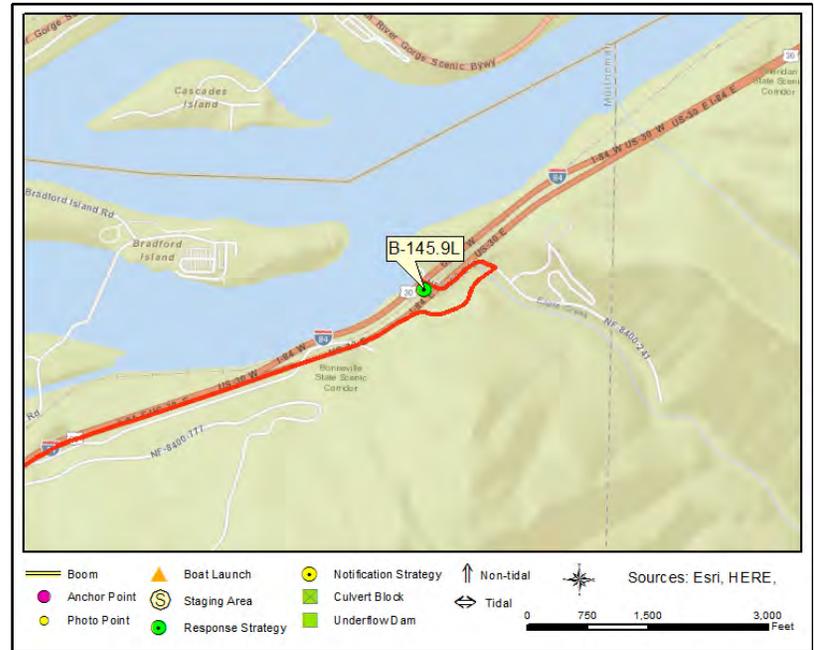
Recommended Personnel

1	Boat Operator
3	Laborer

Eagle Creek **B-145.9L**



B-145.9L Photo: Eagle Creek



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager
 541-374-8344

USDA Forest Service
 Land/Property Owner : Columbia River Gorge National Scenic Area
 541-308-1700

Nearest Address

N E Eagle Creek Loop
 Cascade Locks, OR 97014

Driving Directions

1. Start at Interstate 84, Portland, OR 97218
2. Go west on I-84 (Columbia River Hwy) toward 1 (0.28 miles)
3. At exit 1 take ramp on the right to Lloyd Center (0.24 miles)
4. Continue (0.07 miles)
5. Make sharp left on NE 12th Ave (0.09 miles)
6. Turn left on NE Irving St (0.2 miles)
7. Turn left onto ramp and go east on I-84 (Columbia River Hwy) (38.07 miles)
8. At exit 41 take ramp to NE Eagle Creek Loop (0.28 miles)
9. Turn left on NE Eagle Creek Loop (NF-8400-240) (0.05 miles)
10. Turn left again to stay on N E Eagle Creek Loop, parking area is on the left after crossing under the bridges (0.2 miles)

Picture Rock Island **B-146.3M**

Position - Location: 45° 38.714', -121° 55.824' 45° 38' 42.9", -121° 55' 49.4" 45.64524, -121.93040 Cascade Locks

Strategy Objective: Diversion : Keep oil from going through center spillway, divert toward collection points

Implementation: Anchor two 500' sections of boom in a chevron formation to Picture Rock on the downstream side, tow one section to the NW and one to the SW, each at an angle to divert oil toward collection points downstream. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Contact Bonneville Dam Control at 541-374-8338 discuss water flow conditions prior to implementing strategy.

Staging Area: Remote: Stage at SA-B-148.3L/Thunder Island (Port of Cascade Locks)

Site Safety: Strategy may not be feasible in high flow conditions. Water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-148.3L/Thunder Island (Port of Cascade Locks)

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Lock and Dam



Recommended Equipment

6	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

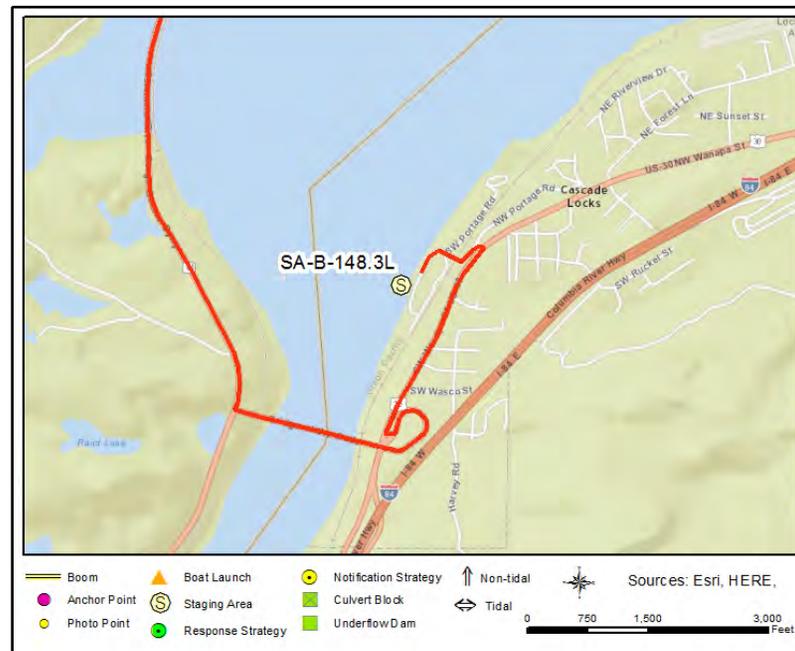
1	Boat Operator
4	Laborer

Picture Rock Island

B-146.3M



B-146.3M Photo: Aerial view of the Bonneville Dam showing Picture Rock Island



Site Contact

USACE Bonneville Dam Control Room
 Pre-Notification Required : Emergency contact and to gain access to the dam
 541-374-8338

Port of Cascade Locks
 Land/Property Owner : Property Owner
 541-374-8535

Nearest Address

355 Wa Na Pa St
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-148.3L/Thunder Island (Port of Cascade Locks), starting at 47479 State Hwy 14 Stevenson, WA
2. Go southwest on WA-14 (State Road 14)
3. Turn left on Bridge Of The Gods
4. Bear right
5. Make sharp right on US-30 (Wa-Na-Pa St)
6. Turn left at 355 Wa Na Pa St, 97014, to enter the parking area for the boat launch.

E of Ft Raines **B-147.3R**

Position - Location: 45° 39.247', -121° 54.760' 45° 39' 14.8", -121° 54' 45.6" 45.65411, -121.91267 Cascade Locks

Strategy Objective: Deflection : Keep away from WA shoreline

Implementation: Anchor 800' of boom to shore and tow boom out to the SW to anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-148.3L/Thunder Island (Port of Cascade Locks)

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-148.3L/Thunder Island (Port of Cascade Locks)

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Downstream Resources, Sensitive Resources Nearby



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

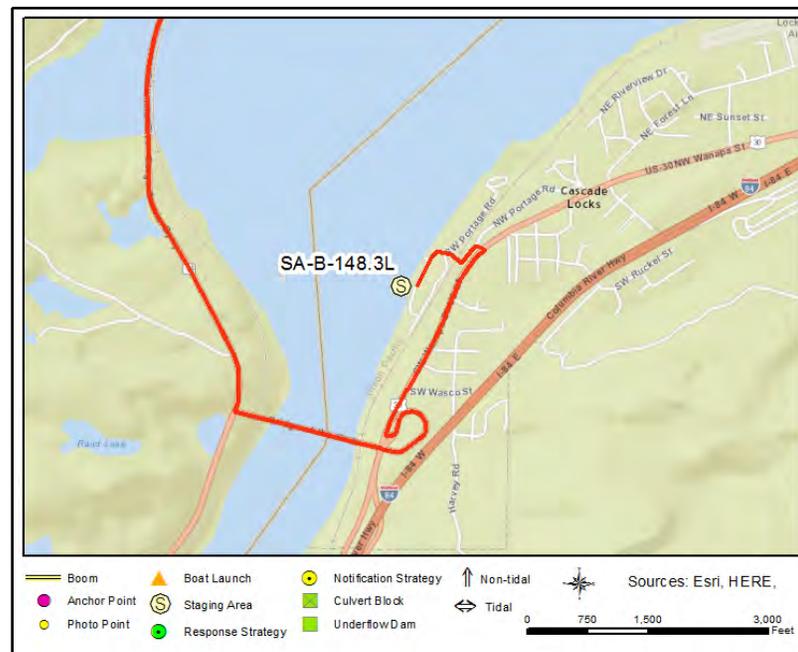
1	Boat Operator
3	Laborer

E of Ft Raines

B-147.3R



B-147.3R Photo: Aerial view of the shoreline at Fort Raines, WA



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

355 Wa Na Pa St
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-148.3L/Thunder Island (Port of Cascade Locks), starting at 47479 State Hwy 14 Stevenson, WA
2. Go southwest on WA-14 (State Road 14)
3. Turn left on Bridge Of The Gods
4. Bear right
5. Make sharp right on US-30 (Wa-Na-Pa St)
6. Turn left at 355 Wa Na Pa St, 97014, to enter the parking area for the boat launch.

Ashes Lake culvert B-148.7R

Position - Location: 45° 40.478', -121° 54.575' 45° 40' 28.7", -121° 54' 34.5" 45.67463, -121.90959 Cascade Locks

Strategy Objective: Exclusion : Keep oil from moving between Ashes Lake and the Columbia River

Implementation: Deploy 100' of boom in a chevron formation around the culvert at Ashes Lake

Staging Area: Remote: Stage at SA-B-148.3L/Thunder Island (Port of Cascade Locks)

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-148.3L/Thunder Island (Port of Cascade Locks)

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Migratory Waterfowl, Osprey Nest(s), Salmonid Concentrations and Habitat, Wetland Habitat, Wintering Waterfowl



Recommended Equipment

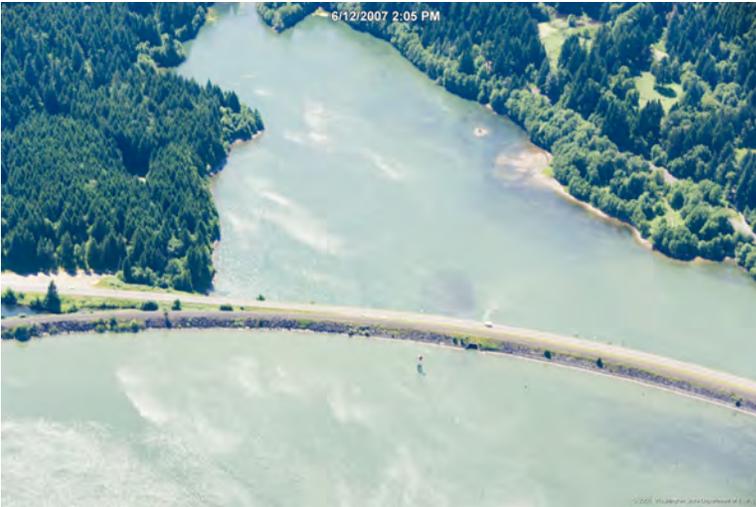
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

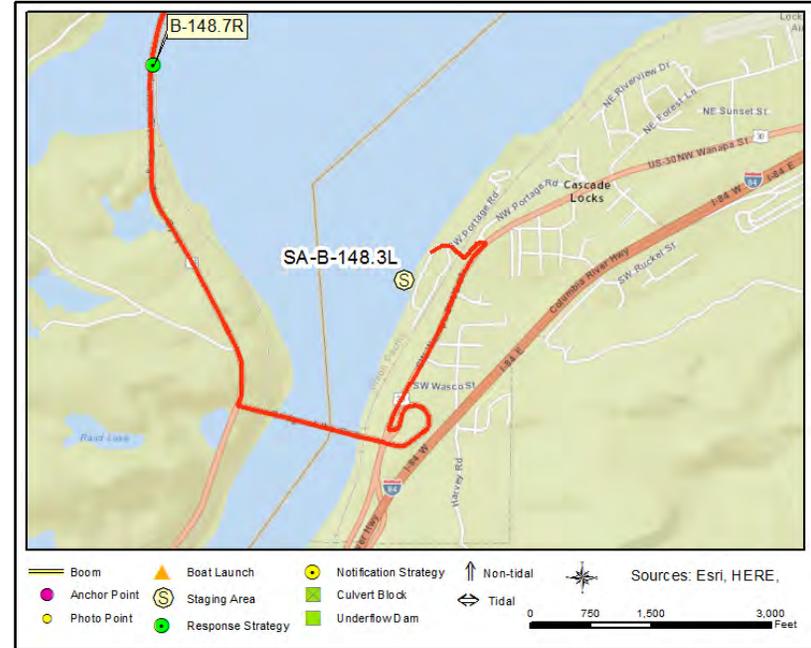
1	Boat Operator
1	Laborer

Ashes Lake culvert

B-148.7R



B-148.7R Photo: Aerial view of Ashes Lake showing culvert to the NW of navigation marker



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager
 541-374-8344

Port of Cascade Locks
 Secondary Contact : Property Owner
 541-374-8535

Nearest Address

355 Wa Na Pa St
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-148.3L/Thunder Island (Port of Cascade Locks), starting at 47479 State Hwy 14 Stevenson, WA
2. Go southwest on WA-14 (State Road 14)
3. Turn left on Bridge Of The Gods
4. Bear right
5. Make sharp right on US-30 (Wa-Na-Pa St)
6. Turn left at 355 Wa Na Pa St, 97014, to enter the parking area for the boat launch.

Thunder Island Marine Park **B-148.8L**

Position - Location: 45° 40.341', -121° 53.504' 45° 40' 20.5", -121° 53' 30.2" 45.67235, -121.89173 Cascade Locks

Strategy Objective: Exclusion : Keep oil out of Thunder Island Marine Park

Implementation: Anchor 1000' of boom to the NE corner of Thunder Island Marine Park and tow boom to the W side of the tip of Thunder Island (leave room for boats to pass - close only if necessary and then anchor to tip of Thunder Island). Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

Staging Area: Onsite: Stage onsite at the N end of SA-B-148.3L/Thunder Island (Port of Cascade Locks)

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch on site at BL-B-148.3L/Thunder Island (Port of Cascade Locks)

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Basin/Marina, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

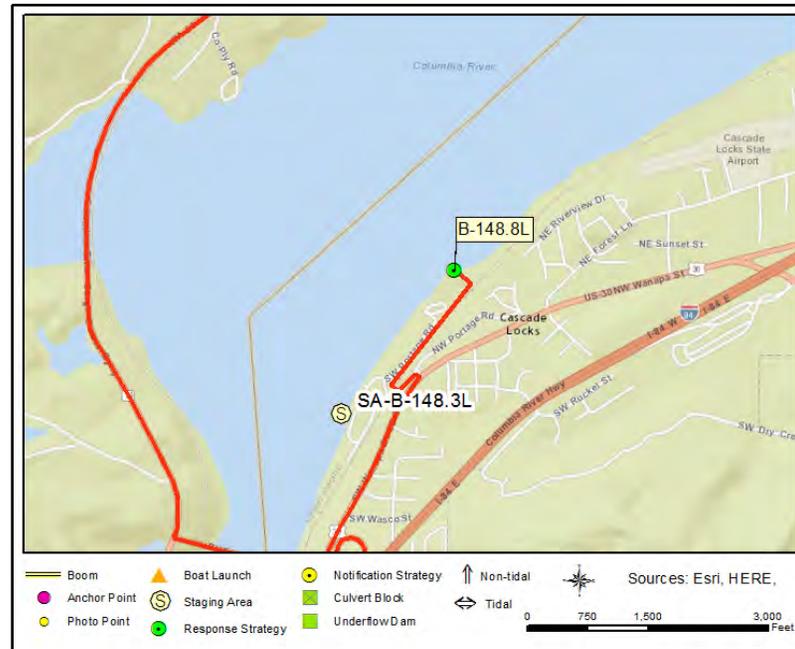
1	Boat Operator
4	Laborer

Thunder Island Marine Park

B-148.8L



B-148.8L Photo: Aerial view of Cascade Locks Marina



Site Contact

Port of Cascade Locks
 Land/Property Owner : Property Owner

 OR
 541-374-8535

Nearest Address

355 Wa Na Pa St
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-148.3L/Thunder Island (Port of Cascade Locks), starting at 47479 State Hwy 14 Stevenson, WA
2. Go southwest on WA-14 (State Road 14)
3. Turn left on Bridge Of The Gods
4. Bear right
5. Make sharp right on US-30 (Wa-Na-Pa St)
6. Turn left at 355 Wa Na Pa St and bear right after crossing the railroad tracks. Take road to the end to stage for B-148.8L

Rock Cove **B-150.1R**

Position - Location: 45° 41.399', -121° 53.295' 45° 41' 23.9", -121° 53' 17.7" 45.68998, -121.88825 Stevenson

Strategy Objective: Exclusion : Keep oil from passing between the Columbia River and Rock Cove

Implementation: Anchor 200' of boom across the inlet on the NW side of the Hwy bridge and 200' of boom across the inlet on the SE side of the railroad bridge. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Shallow water, may need waders to access shore.

Staging Area: Remote: Stage at SA-B-150.7R/Stevenson Cascade boat launch

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-150.7R/Stevenson Cascade boat launch

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Osprey Nest(s), Waterfowl (Wintering and Production), Waterfowl and Salmonid Concentrations and Habitat, Wetland Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
5	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Rock Cove **B-150.1R**



B-150.1R Photo: Aerial view of Rock Cove showing both the Hwy and railroad bridges



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager
 541-374-8344

Port of Skamania
 Land/Property Contact : Manages Cascade boat launch in Stevenson
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-150.7R/Stevenson Cascades boat launch, starting at the Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
4. Continue on 1st St (0.07 miles)
5. Bear right (0.13 miles)
6. Continue on Railroad St (0.08 miles)
7. Turn right on Russell Ave (0.03 miles)
8. Turn left on Cascade Ave (0.09 miles)
9. Finish at 2 SW Cascade Ave, 98648, on the right

Stevenson Pier **B-150.5R**

Position - Location: 45° 41.471', -121° 52.897' 45° 41' 28.2", -121° 52' 53.8" 45.69118, -121.88162 Stevenson

Strategy Objective: Exclusion : Keep oil off Stevenson shoreline and pier

Implementation: Anchor 1000' of boom to shore at the end of the spit of land off Leavens St, tow it out to the SW and anchor it to the pilings on either side of the pier, and then tow it downstream to the SW and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. If there is a vessel stranded at the Stevenson Pier deploy boom around it.

Staging Area: Onsite: Stage at the Port of Skamania parking lot at the intersection of SW Cascade AV and Leavens St.

Site Safety: Water hazard, slips trips & falls.

Field Notes: Launch at BL-B-150.7R/Stevenson Cascade boat launch.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Economic Resource, Fish and Waterfowl Concentrations



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
2	Each	Bridle(s) - Piling (appropriately sized for boom)
1	Each	Workboat(s) - of adequate size for type and amount of boom

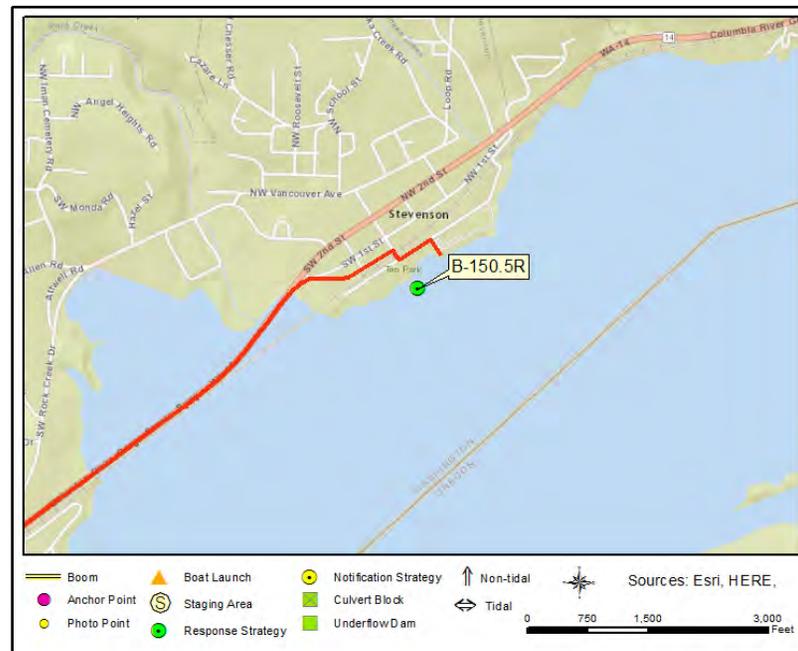
Recommended Personnel

1	Boat Operator
3	Laborer

Stevenson Pier **B-150.5R**



B-150.5R Photo: Aerial photo of Stevenson Pier and shoreline



Site Contact

Port of Skamania
 Land/Property Contact : Manages Cascade boat launch in Stevenson
 212 SW Cascade
 Stevenson, WA 98468
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98648

Driving Directions

1. Directions to Port of Skamania office, staging area for B-150.5R, starting at the Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
4. Continue on 1st St (0.07 miles)
5. Bear right (0.13 miles)
6. Continue on Railroad St (0.08 miles)
7. Turn right on Russell Ave (0.03 miles)
8. Turn left on Cascade Ave (0.08 miles)
9. Right into the parking lot at 11 SW Cascade Ave, 98648

Stevenson Cascade Boat Launch B-150.7R

Position - Location: 45° 41.657', -121° 52.669' 45° 41' 39.4", -121° 52' 40.1" 45.69428, -121.87782 Stevenson

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 200' of boom ~50' upstream of the pier and run it N across the shoreline, then tow the remaining 800' of boom out to the NE, attaching it to the N corner of the floating dock en route, and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

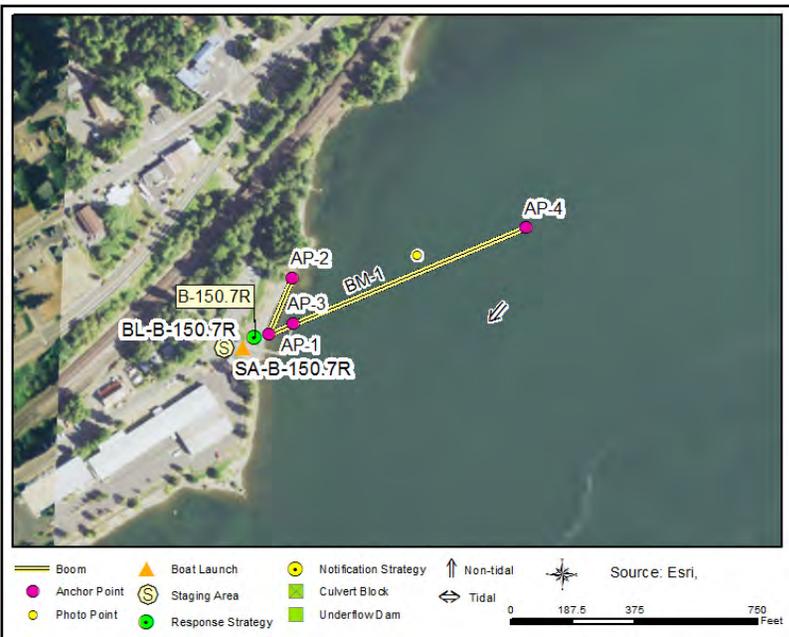
Staging Area: Onsite: Stage on site at SA-B-150.7R/Stevenson Cascade boat launch

Site Safety: Water hazard, active boat launch, slips, trips and falls.

Field Notes: Launch on site at BL-B-150.7R/Stevenson Cascade boat launch

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Launch/Ramp, Downstream Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
50	Feet	Line - 3/8" poly line
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

Stevenson Cascade Boat Launch

B-150.7R



B-150.7R Photo: Aerial view of the Stevenson Cascade Boat Launch



Site Contact

Port of Skamania
 Land/Property Contact : Manages Cascade boat launch in Stevenson
 212 SW Cascade
 Stevenson, WA 98468
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98468

Driving Directions

1. Directions to SA-B-150.7R/Stevenson Cascades boat launch, starting at the Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
4. Continue on 1st St (0.07 miles)
5. Bear right (0.13 miles)
6. Continue on Railroad St (0.08 miles)
7. Turn right on Russell Ave (0.03 miles)
8. Turn left on Cascade Ave (0.09 miles)
9. Finish at 2 SW Cascade Ave, 98648, on the right

Herman Creek **B-150.8L**

Position - Location: 45° 40.993', -121° 51.769" 45° 40' 59.6", -121° 51' 46.2" 45.68321, -121.86282 Cascade Locks

Strategy Objective: Exclusion : Keep oil from passing between the Columbia River and Herman Creek, keep oil away from water intake.

Implementation: Deploy 300' of boom (BM-1) across the mouth of Herman Creek, anchor on the S side of the boat ramp to keep ramp open and provide access for a vac truck to reach the creek if the spill source is from the road/railroad to the south. Anchor an additional 400' of boom (BM-2) at the end of Herman Creek Lane and tow it to the NNW to anchor on the shoreline of the earthen jetty. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Shallow water with submerged grasses, bring waders.

Staging Area: Onsite: Stage on-site, paved parking area, ramp & floating dock.

Site Safety: Water hazard, slips, trips, falls, gill nets in the water.

Field Notes: Launch on-site, will need a shallow draft vessel. Bring bolt cutters as sign says gate opens at 7:00am closes at 4:30pm.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Creek Habitat, Recreational Fishery, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
5	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
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
3	Laborer

Herman Creek **B-150.8L**



B-150.8L Photo: view of the inlet near the mouth of Herman Creek



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager
 541-374-8344

City of Cascade Locks-Public Works
 Municipality (County/City) : Public Works Foreman
 541-386-2711

Nearest Address

90 Herman Creek Lane
 Cascade Locks, OR 97014

Driving Directions

1. Directions to B-1508L, starting at NE Warrendale Rd, Cascade Locks, OR 97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (5.93 miles)
6. At exit 44 take ramp on the right to US-30 toward Cascade Locks/Stevenson (0.32 miles)
7. Turn left (0.02 miles)
8. Make sharp right on US-30 (Wa-Na-Pa St) (0.11 miles)
9. At fork keep left on US-30 (Wa-Na-Pa St) (1.17 miles)
10. Turn left on NE Hammond Ave (0.15 miles)
11. Turn right on NW Forest Ln (0.53 miles)
12. Turn left on Gravel Pit Rd (0.58 miles)
13. Bear right on NE Herman Creek Ln ()
14. Turn left to finish at 90 Herman Creek Lane, 97014, the ramp is behind the building on the right.

Spit of land W of Nelson Creek, Skamania County **B-151.5R**

Position - Location: 45° 41.985', -121° 51.822' 45° 41' 59.1", -121° 51' 49.3" 45.69975, -121.86370 Stevenson

Strategy Objective: Diversion : Divert oil to collection point at Stevenson Cascade boat launch while deflecting oil away from Stevenson shoreline

Implementation: Anchor 600' of boom to the spit of land W of Nelson Creek, tow boom out to the SE and anchor off shore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-150.7R/Stevenson Cascade boat launch

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch at BL-B-150.7R/Stevenson Cascade boat launch. Anchor point at Rock Cove is on private property, must be accessed by boat.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

3	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Spit of land W of Nelson Creek, Skamania County

B-151.5R



B-151.5R Photo: View of the anchor point on the shoreline W of Nelson Creek in Skamania County



Site Contact

Port of Skamania
 Land/Property Contact : Manages Cascade boat launch in Stevenson
 212 SW Cascade
 Stevenson, WA 98468
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-150.7R/Stevenson Cascades boat launch, starting at the Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
4. Continue on 1st St (0.07 miles)
5. Bear right (0.13 miles)
6. Continue on Railroad St (0.08 miles)
7. Turn right on Russell Ave (0.03 miles)
8. Turn left on Cascade Ave (0.09 miles)
9. Finish at 2 SW Cascade Ave, 98648, on the right

Government Cove

B-151.8L



B-151.8L Photo: Entrance to Government Cove



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager
 541-374-8344

Port of Skamania
 Land/Property Contact : Manages Cascade boat launch in Stevenson
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-150.7R/Stevenson Cascades boat launch, starting at NE Warrendale Rd, Cascade Locks, OR 97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (5.93 miles)
6. At exit 44 take ramp on the right to US-30 toward Cascade Locks/Stevenson (0.32 miles)
7. Turn left (0.02 miles)
8. Make sharp right on US-30 (Wa-Na-Pa St) (0.11 miles)
9. At fork keep left on US-30 (Wa-Na-Pa St) (0.04 miles)
10. Turn right (0.02 miles)
11. Bear left on Bridge Of The Gods (0.62 miles)
12. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
13. Continue on 1st St (0.07 miles)
14. Bear right (0.13 miles)
15. Continue on Railroad St (0.1 miles)
16. Turn right on Russell Ave (0.03 miles)
17. Turn left on Cascade Ave (0.08 miles)
18. Finish at 11 SW Cascade Ave, 98648, on the left

Wind River **B-154.6R**

Position - Location: 45° 42.943', -121° 47.537' 45° 42' 56.6", -121° 47' 32.2" 45.71572, -121.79229 Stevenson

Strategy Objective: Exclusion : Keep oil from crossing between the Wind and Columbia Rivers

Implementation: Anchor 300' of boom on the SE corner of the shore S of the railroad bridge, tow the boom to the W leaving room for boats to access BL-WIND-0.2L. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Close access if necessary by moving W anchor point to shore.

Staging Area: Remote: Stage at SA-WIND-0.2L/Old Hatchery Rd

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-WIND-0.2L/Old Hatchery Rd

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Launch/Ramp, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Wind River

B-154.6R



B-154.6R Photo: Shoreside view of the SE anchor point for B-154.6R at the mouth of the Wind River



Site Contact

Skamania County
 Land/Property Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

Old Hatchery Road
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-WIND-0.2L/Old Hatchery Rd, starting at Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.11 miles)
4. Turn left on Old Hatchery Rd (0.18 miles)
5. Finish at Old Hatchery Road, 98648, on the right

WKO Lumber West End **B-154.7R**

Position - Location: 45° 42.641', -121° 47.381' 45° 42' 38.5", -121° 47' 22.9" 45.71069, -121.78969 Stevenson

Strategy Objective: Deflection : Keep oil out of Wind River and off shoreline

Implementation: Anchor 800' of boom to the southwest tip of WKO Lumber property and tow to the SW to anchor. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-154.9R/WKO Lumber if launch is clear, if not go to SA-WIND-0.2L/Old Hatchery Rd

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch at BL-B-154.9R/WKO Lumber if launch is clear, if not go to BL-WIND-0.2L/Old Hatchery Rd. Bring bolt cutters in case WKO gate is locked.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Nesting Species, Sensitive Shoreline, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

WKO Lumber West End **B-154.7R**



B-154.7R Photo: Aerial view of the W end of WKO Lumber in Stevenson, WA



Site Contact

Wko Inc. Lumber Company
 Land/Property Owner : Environmental Manager
 2022 Wind River Hwy
 Carson, WA 98610
 541-490-8035

Nearest Address

Home Valley Park Rd
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-154.9R, starting at (toll) Bridge of the Gods, Stevenson, WA98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.53 miles)
4. Make sharp right onto Home Valley Park Rd (0.3 miles)
5. Turn right to go into Wko Lumber Company property (may be gated - call contact but bring bolt cutters)
6. Turn left at the first fork (heading west) and remain straight out to end of the point (0.5 mi), the boat launch is on the right

WKO Lumber

B-155.2R



B-155.2R Photo: Aerial View of WKO Lumber property on the WA side of the Columbia River



Site Contact

Wko Inc. Lumber Company
 Land/Property Owner : Environmental Manager
 2022 Wind River Hwy
 Carson, WA 98610
 541-490-8035

Nearest Address

Home Valley Park Rd
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-154.9R, starting at (toll) Bridge of the Gods, Stevenson, WA98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.53 miles)
4. Make sharp right onto Home Valley Park Rd (0.3 miles)
5. Turn right to go into Wko Lumber Company property (may be gated - call contact but bring bolt cutters)
6. Turn left at the first fork (heading west) and remain straight out to end of the point (0.5 mi), the boat launch is on the right

Home Valley Park **B-155.4R**

Position - Location: 45° 42.472', -121° 46.851' 45° 42' 28.3", -121° 46' 51.0" 45.70787, -121.78085 Home Valley

Strategy Objective: Exclusion : Keep oil out of Home Valley of windsurfer's inlet

Implementation: Use 600' of boom across the mouth of Windsurfer's inlet

Staging Area: Onsite: Stage on site (bathrooms & showers), bring bolt cutters as gate may be locked or post removed

Site Safety: Water hazard, slips, trips and falls.

Field Notes: Can hand launch a boat on site, if not use BL-WIND-0.2L/Old Hatchery Rd

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Public Recreation Site/Area, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

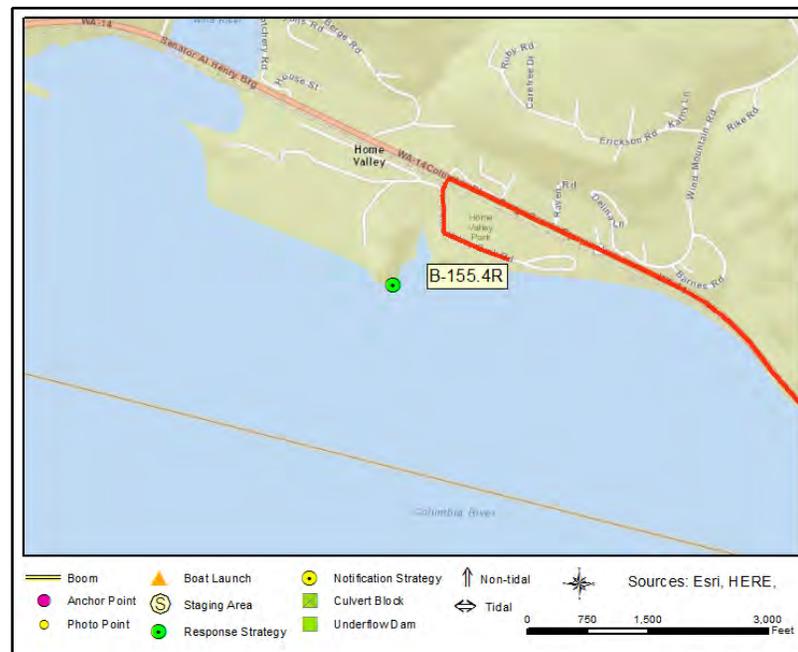
1	Boat Operator
3	Laborer

Home Valley Park

B-155.4R



B-155.4R Photo: Aerial view of Home Valley windsurfer's inlet



Site Contact

Skamania County
 Land/Property Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

Home Valley Park Rd
 Home Valley, WA 98648

Driving Directions

1. Directions to B-155.5R and B-155.4R/Home Valley Park, starting at Hood River Bridge, White Salmon, WA 98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (14.97 miles)
4. Turn left on Home Valley Park Rd (0.3 miles)
5. Finish at Home Valley Park Rd, 98648, on the right

Home Valley Park **B-155.5R**

Position - Location: 45° 42.506', -121° 46.668' 45° 42' 30.4", -121° 46' 40.1" 45.70843, -121.77779 Home Valley

Strategy Objective: Deflection : Keep oil off of park shoreline

Implementation: Anchor 600' of boom to the shore at the E edge of the swim beach, tow it to the SW, anchoring it to the spit of land and continuing off shore before placing the final anchor. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Onsite: Stage at Home Valley Park (bathrooms & showers), may need to cut lock on gate for access

Site Safety: Water hazard, slips, trips and falls

Field Notes: Hand launch at beach on site, or launch at BL-WIND-0.2L/Old Hatchery Rd.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Public Recreation Site/Area, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

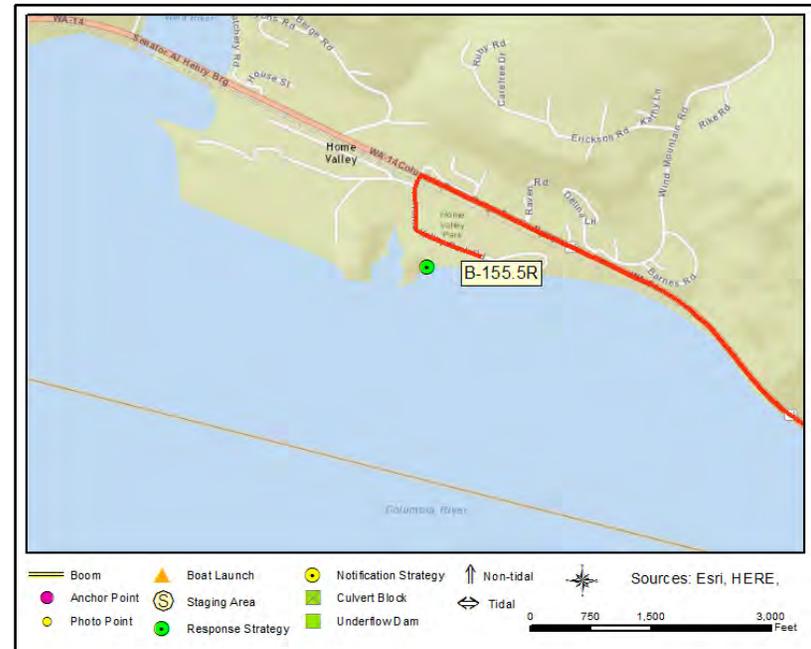
1	Boat Operator
3	Laborer

Home Valley Park

B-155.5R



B-155.5R Photo: Aerial view of Home Valley Park



Site Contact

Skamania County
 Land/Property Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

Home Valley Park Rd
 Home Valley, WA 98648

Driving Directions

1. Directions to B-155.5R and B-155.4R/Home Valley Park, starting at Hood River Bridge, White Salmon, WA 98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (14.97 miles)
4. Turn left on Home Valley Park Rd (0.3 miles)
5. Finish at Home Valley Park Rd, 98648, on the right

Gorton Creek Area **B-155.6L**

Position - Location: 45° 41.584', -121° 46.776' 45° 41' 35.0", -121° 46' 46.5" 45.69306, -121.77959 Cascade Locks

Strategy Objective: Exclusion : Keep oil out of impounded bay in Wyeth State Recreation Area

Implementation: Anchor 200 of boom in a chevron formation on either side of the railroad bridge at inlet to impounded area.

Staging Area: Remote: Stage at SA-B-155.7L Wyeth In-Lieu site

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-155.7L Wyeth In-Lieu BL

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Gorton Creek Area

B-155.6L



B-155.6L Photo: View of the railroad bridge crossing by Gorton Creek



Site Contact

Union Pacific Railroad
 Land/Property Contact :
 888-877-7267

Nearest Address

9015 Wyeth Rd
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-155.7L/Wyeth In-Lieu Site, starting at NE Warrendale Rd, Cascade Locks, OR97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (13.13 miles)
6. At exit 51 take ramp toward Wyeth (0.23 miles)
7. Turn left on Wyeth Rd (0.2 miles)
8. Cross the railroad track and go left (0.2 miles)
9. Boat launch will be on your right.

Wyeth In-Lieu Site **B-155.7L**

Position - Location: 45° 41.627', -121° 46.422' 45° 41' 37.6", -121° 46' 25.3" 45.69378, -121.77371 Cascade Locks

Strategy Objective: Deflection : Divert oil to shore for collection. Keep oil away from boat launch

Implementation: Anchor 1000' of boom to the jetty just upstream of the boat launch, tow it out to the NE and anchor. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Boat launch is NEW & not showing up in photos or maps yet. Keep boat launch open.

Staging Area: Onsite: Stage at SA-B-155.7L/Wyeth In-Lieu Site

Site Safety: Water hazard, slips, trips, & falls

Field Notes: Launch at NEW BL-B-155.7L/Wyeth In-Lieu Site

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Launch/Ramp, Downstream Resources, Recreational Use Area, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
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

Wyeth In-Lieu Site

B-155.7L



B-155.7L Photo: View of the Wyeth In-Lieu boat launch



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

9015 Wyeth Rd
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-155.7L/Wyeth In-Lieu Site, starting at I 84 Cascade Locks
2. Go east on US-30 (Wa-Na-Pa St) toward SW Cascade Ave (0.74 miles)
3. Turn left onto ramp and go on I-84 E (5.51 miles)
4. At exit 51 take ramp toward Wyeth (0.23 miles)
5. Turn left on Wyeth Rd (0.02 miles)
6. Cross the railroad track and go left (0.2 miles)
7. Boat launch will be on the right.

Home Valley Park E **B-156R**

Position - Location: 45° 42.470', -121° 46.081' 45° 42' 28.2", -121° 46' 4.9" 45.70783, -121.76802 Home Valley

Strategy Objective: Deflection : Keep oil off park shoreline

Implementation: Anchor 800' of boom to shore on the far E end of the park. Tow boom to the SW and anchor off shore. Adjust angle of boom, quantity and placement of anchors depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-154.9R/WKO Lumber

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-154.9R/WKO Lumber

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Public Recreation Site/Area, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Home Valley Park E

B-156R



B-156R Photo: Aerial view of Home Valley Park shoreline



Site Contact

Skamania County
 Land/Property Contact : Manages boat launches (Stevenson & Drano Lake)
 509-427-3980

Wko Inc. Lumber Company
 Private Owner : Environmental Manager
 541-490-8035

Nearest Address

Home Valley Park Rd
 Home Valley, WA 98648

Driving Directions

1. Directions to SA-B-154.9R, starting at (toll) Bridge of the Gods, Stevenson, WA98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.53 miles)
4. Make sharp right onto Home Valley Park Rd (0.3 miles)
5. Turn right to go into Wko Lumber Company property (may be gated - call contact but bring bolt cutters)

Aid to Navigation: Dolphin 23 **B-157.5R**

Position - Location: 45° 41.824', -121° 44.235' 45° 41' 49.5", -121° 44' 14.1" 45.69707, -121.73725 Cascade Locks

Strategy Objective: Deflection : Keep oil off of shoreline

Implementation: Anchor 700' of boom on shore near Dolphin 23 aid to navigation, tow boom out to the SW to anchor offshore. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

Staging Area: Remote: Stage at SA-B-155.7L/Wyeth In-Lieu Site

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch at BL-B-155.7L/Wyeth In-Lieu Site

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Aid to Navigation: Dolphin 23

B-157.5R



B-157.5R Photo: View of the shoreline near anchor point for B-157.5R



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

9015 Wyeth Rd
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-155.7L/Wyeth In-Lieu Site, starting at NE Warrendale Rd, Cascade Locks, OR97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (13.13 miles)
6. At exit 51 take ramp toward Wyeth (0.23 miles)
7. Turn left on Wyeth Rd (0.2 miles)
8. Cross the railroad track and go left (0.2 miles)
9. Boat launch will be on your right.

Grant Lake **B-158.3R**

Position - Location: 45° 41.945', -121° 43.266' 45° 41' 56.7", -121° 43' 16.0" 45.69908, -121.72110 Cook

Strategy Objective: Exclusion : Keep oil out of Grant Lake

Implementation: Anchor 100' of boom on either side of the culver in a chevron formation. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-161.4R/Cook's Inlet

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-161.4R/Cook's Inlet

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Grant Lake **B-158.3R**



B-158.3R Photo: Aerial view of Grant Lake



Site Contact

Burlington Northern Santa Fe Railroad
 Land/Property Contact :
 800-832-5452

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

100 Cook-Underwood Rd
 Cook, WA 98605

Driving Directions

1. Directions to SA-161.4R/Cook's Inlet, starting from the Hood River (toll) Bridge, White Salmon, WA 98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Turn left on Cook's Landing Avenue (0.1 miles)
5. Finish at Cook's Inlet In-Lieu Tribal Fishing Site

Lindsey Lake **B-158.8L**

Position - Location: 45° 41.409', -121° 42.730' 45° 41' 24.6", -121° 42' 43.8" 45.69016, -121.71217 Cascade Locks

Strategy Objective: Exclusion : Keep oil from moving in/out of Lindsey Lake

Implementation: Anchor 100' of boom in a chevron formation at the culvert to Lindsey Lake. Adjust angle of boom, quantity and placement of boom, based on conditions of the day.

Staging Area: Remote: Stage at SA-B-155.7L/Wyeth In-Lieu Site

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch from BL-B-155.7L/Wyeth In-Lieu Site

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Lindsey Lake

B-158.8L



B-158.8L Photo: Aerial view of Lindsey Lake east end



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Union Pacific Railroad
 Land/Property Contact :
 888-877-7267

Nearest Address

9015 Wyeth Rd
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-155.7L/Wyeth In-Lieu Site, starting at NE Warrendale Rd, Cascade Locks, OR97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (13.13 miles)
6. At exit 51 take ramp toward Wyeth (0.23 miles)
7. Turn left on Wyeth Rd (0.2 miles)
8. Cross the railroad track and go left (0.2 miles)
9. Boat launch will be on your right.

Viento Creek **B-160.5L**

Position - Location: 45° 41.789', -121° 40.511' 45° 41' 47.3", -121° 40' 30.6" 45.69648, -121.67518 Cook

Strategy Objective: Exclusion : Keep oil out of impounded lake by Viento Creek

Implementation: Anchor 100' of boom in a chevron formation on either side of the culvert at Viento Creek. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Very shallow water, with underwater stumps, skiff access only. Bring waders.

Staging Area: Remote: Stage at SA-B-161.4R/Cook's Inlet

Site Safety: Shallow/Stumps, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not

Field Notes: Launch at BL-B-161.4R/Cook's Inlet

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Creek Estuary, Recreational Use Area, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

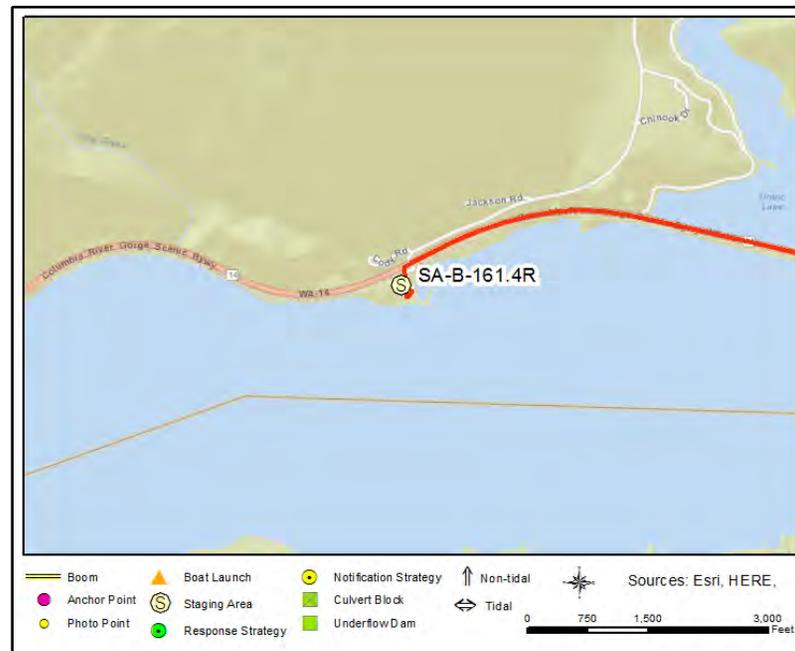
1	Boat Operator
2	Laborer

Viento Creek

B-160.5L



B-160.5L Photo: View of the shoreline & culvert at the impounded lake by Viento Creek



Site Contact

OR State Parks
 Land/Property Contact : Viento State Park
 541-374-8811

Union Pacific Railroad
 Land/Property Contact :
 888-877-7267

Nearest Address

100 Cook-Underwood Rd
 Cook, WA 98605

Driving Directions

1. Directions to SA-161.4R/Cook's Inlet, starting from the Hood River (toll) Bridge, White Salmon, WA 98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Turn left on Cook's Landing Avenue (0.1 miles)
5. Finish at Cook's Inlet In-Lieu Tribal Fishing Site

Cook's Inlet In-Lieu Site (FBS MP-65.8) B-161.4R

Position - Location: 45° 42.511', -121° 39.607' 45° 42' 30.7", -121° 39' 36.4" 45.70852, -121.66011 Cook

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 1000' of boom to the south shore at a point accessible by vac truck, tow the boom out 1000' to the SE to anchor off shore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Booster pump may be needed.

Staging Area: Onsite: Stage on site at SA-B-161.4R/Cook's Inlet

Site Safety: Water hazard, active boat launch, slips, trips, & falls.

Field Notes: Launch on site at BL-B-161.4R/Cook's Inlet

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Tribal Lands/Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

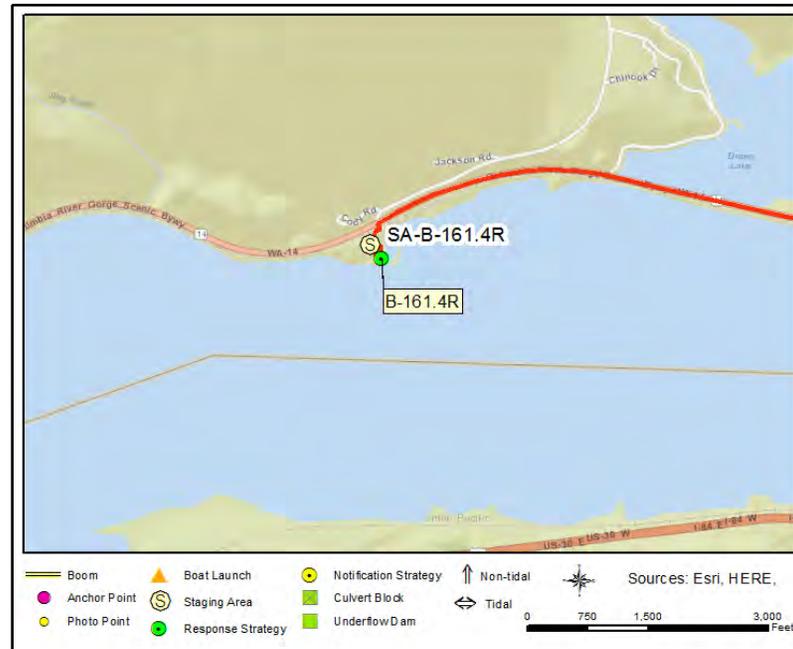
1	Boat Operator
4	Laborer

Cook's Inlet In-Lieu Site (FBS MP-65.8)

B-161.4R



B-161.4R Photo: Shoreside view of anchor point (below beige truck, where vac truck should be) for B-161.4R



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

100 Cook-Underwood Rd
 Cook, WA 98605

Driving Directions

1. Directions to SA-161.4R/Cook's Inlet, starting from the Hood River (toll) Bridge, White Salmon, WA 98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Turn left on Cook's Landing Avenue (0.1 miles)
5. Finish at Cook's Inlet In-Lieu Tribal Fishing Site

Drano Lake **B-162R**

Position - Location: 45° 42.662', -121° 38.863' 45° 42' 39.7", -121° 38' 51.8" 45.71103, -121.64771 Cook

Strategy Objective: Exclusion : Keep oil out of Drano Lake while allowing access for boat traffic if possible

Implementation: Anchor 400' of boom to the shore SE end of the bridges, tow the boom out to the WSW to anchor. Allow enough room for boat traffic to travel through to boat launch. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Anchor to W shore if necessary to exclude oil from the lake.

Staging Area: Onsite: Stage at SA-B-162.4R

Site Safety: Boat Traffic, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-162.4R/Drano Lake

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Launch/Ramp, Fish Hatchery, Recreational Use Area, Sensitive Nesting Species, Sensitive Resources Nearby, Waterfowl and



Recommended Equipment

3	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

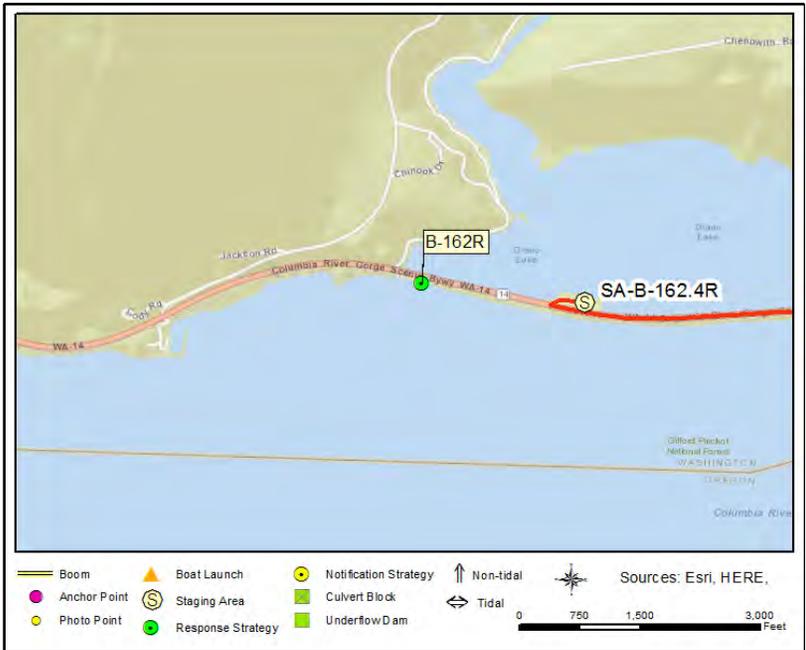
Recommended Personnel

1	Boat Operator
2	Laborer

Drano Lake **B-162R**



B-162R Photo: Aerial view of the bridges at Drano Lake



Site Contact

Skamania County
 Land/Property Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

100 Jackson Road
 Cook, WA 98605

Driving Directions

1. Directions to SA-B-162.4R/Drano Lake, starting at Hood River (toll) Bridge, white salmon, WA98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Finish at Drano Lake boat launch on the right

Tunnel Lake **B-163.8R**

Position - Location: 45° 42.976', -121° 37.000' 45° 42' 58.6", -121° 36' 60.0" 45.71627, -121.61667 Cook

Strategy Objective: Exclusion : Keep oil out of Tunnel Lake

Implementation: Anchor 100' of boom on either side of the culvert in a chevron formation. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

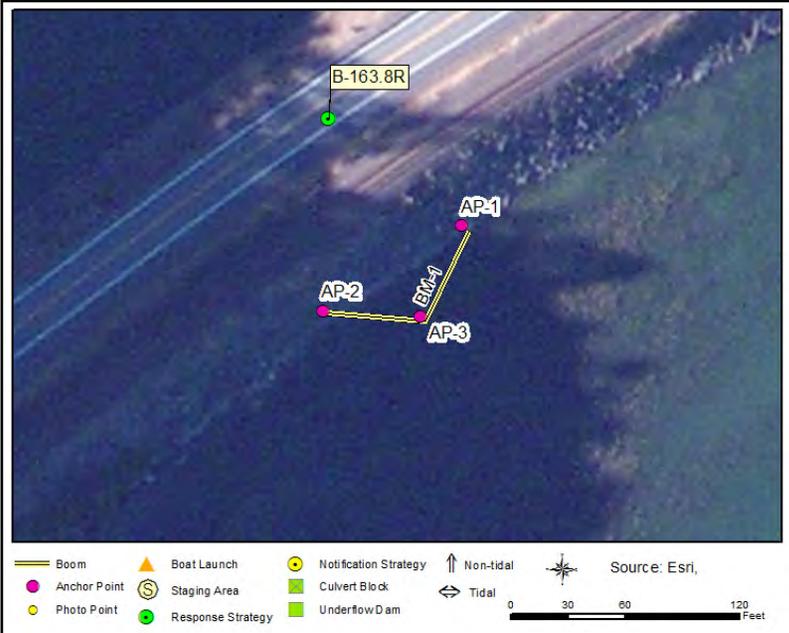
Staging Area: Remote: Stage at SA-B-162.4R/Drano Lake

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-162.4R/Drano Lake

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Bald Eagle, Waterfowl and Salmonid Concentrations and Habitat



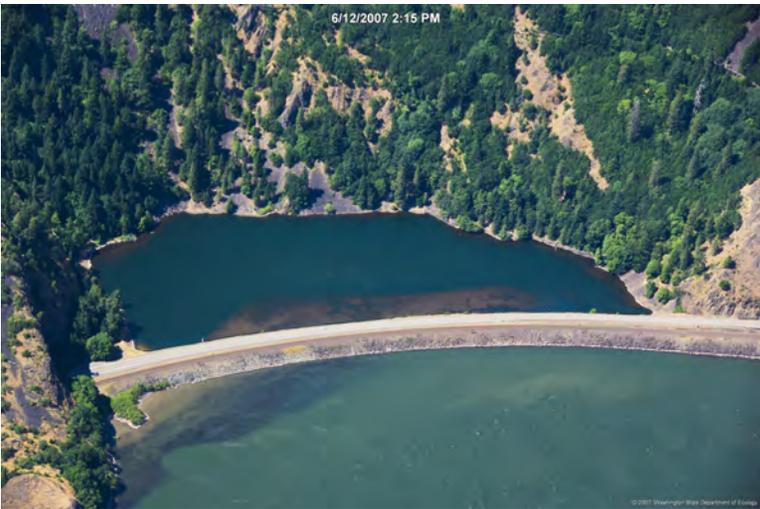
Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

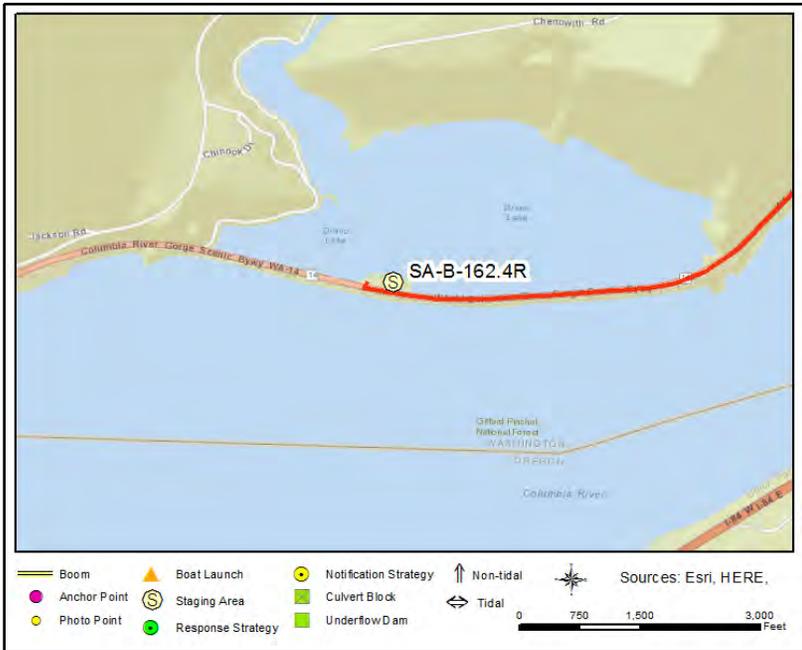
Recommended Personnel

1	Boat Operator
1	Laborer

Tunnel Lake **B-163.8R**



B-163.8R Photo: Aerial view of Tunnel Lake



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

100 Jackson Road
 Cook, WA 98605

Driving Directions

1. Directions to SA-B-162.4R/Drano Lake, starting at Hood River (toll) Bridge, white salmon, WA98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Finish at Drano Lake boat launch on the right

Swell City, inlet W of Finks Rd **B-166R**

Position - Location: 45° 43.327', -121° 34.219' 45° 43' 19.6", -121° 34' 13.1" 45.72212, -121.57031 Underwood

Strategy Objective: Collection : Divert oil to collection point, while keeping oil off of shoreline.

Implementation: Anchor 400' from the W bank across the N shoreline of the inlet, tow the remaining 600' out to the SW to divert oil in for collection. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

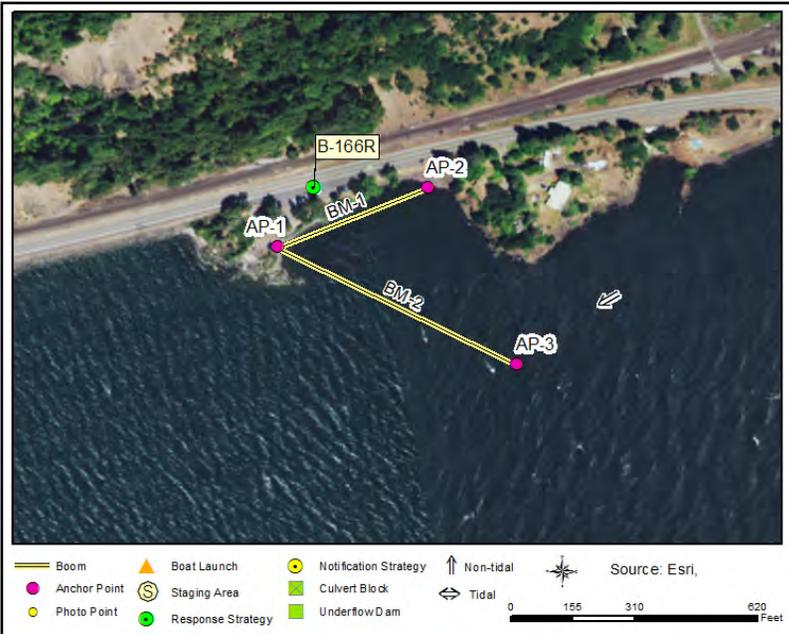
Staging Area: Onsite: Recreational beach used by windsurfers, plenty of parking and easy access to water. May be crowded during summer.

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Steep gravel drive to the water, vac truck should be able to access. Hand launch a boat on site, if not possible then launch at BL-B-162.4R/Drano Lake

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Recreational Use Area



Recommended Equipment

3	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
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

Swell City, inlet W of Finks Rd **B-166R**



B-166R Photo: Inlet W of Finks Rd



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

Finks Rd
 Underwood, WA 98651

Driving Directions

1. Directions to B-166R/Inlet W of Finks Rd., starting at 64128 State Road 14, White Salmon, WA 98672
2. Go west on WA-14 (Highway 14) toward WA-141-ALT (3 miles)
3. Make sharp left at the parking area just past Finks Rd (Fink Rd) (0.1 miles)

Spring Creek State Park **B-167R**

Position - Location: 45° 43.476', -121° 33.267' 45° 43' 28.6", -121° 33' 16.0" 45.72460, -121.55445 Underwood

Strategy Objective: Deflection : Keep oil off park shoreline

Implementation: Deploy two 500' sections of boom, anchor one off of the eastern most spit of land (BM-2), and anchor another off of the central spit (BM-1), tow both out to the SW to deflect oil away from park shoreline. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

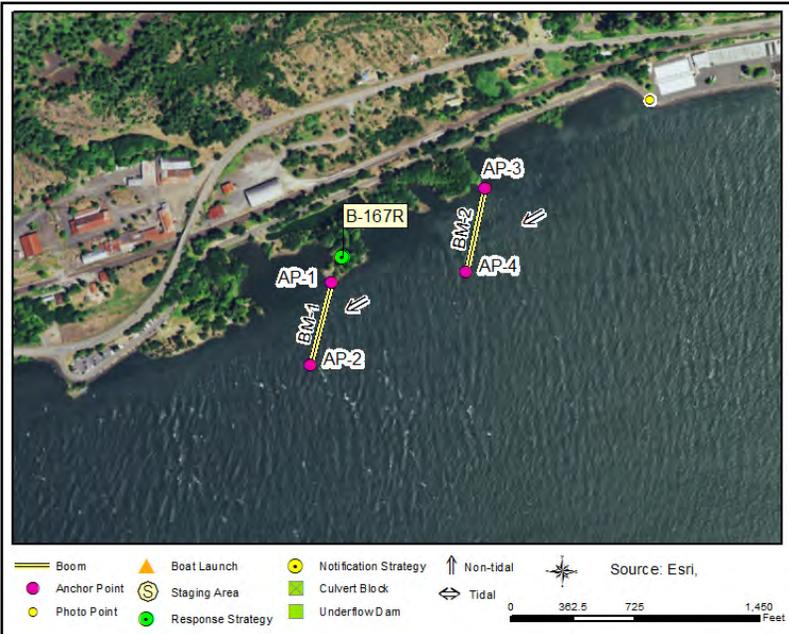
Staging Area: Onsite: Large parking area at entrance to park, may need to drive off road to the W of the bathroom to get boom to water.

Site Safety: Rip rap at shoreline, Water hazard, slips trips & falls

Field Notes: Launch at BL-B-170L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: State Park, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

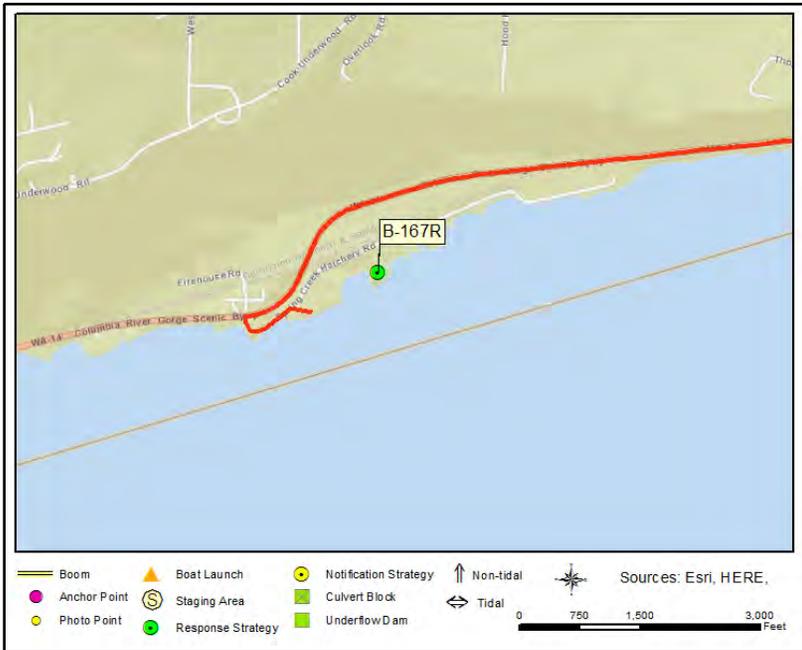
Recommended Personnel

1	Boat Operator
4	Laborer

Spring Creek State Park **B-167R**



B-167R Photo: Shoreside view of the spits of land jutting out from Spring Creek State Park to the west



Site Contact

Washington State Parks and Recreation Commission
 Land/Property Contact : General Number

 360-902-8844

Nearest Address

Spring Creek Hatchery Rd
 Underwood, WA 98651

Driving Directions

1. Directions to B-167R/Spring Creek State Park, starting at 64128 State Road 14, White Salmon, WA 98672
2. Go west on WA-14 (Highway 14) toward WA-141-ALT (2.63 miles)
3. Turn left on Spring Creek Hatchery Rd (0.5 miles)
4. Finish at Spring Creek State Park, 98651, on the right

Wells Island **B-167.4L**

Position - Location: 45° 43.092', -121° 32.331' 45° 43' 5.5", -121° 32' 19.8" 45.71820, -121.53884 Hood River

Strategy Objective: Deflection : keep oil away from shoreline SW of Wells Island

Implementation: Anchor 1000' of boom to the W tip of Wells Island and tow downstream to the W to anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Bring waders for shore access.

Staging Area: Remote: Stage at SA-B-169.85L/Port of Hood River

Site Safety: Water hazards, large woody debris in water, slips, trips & falls

Field Notes: Launch at BL-B-169.85L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Migratory Bird Populations, Raptors, Recreational Boating, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Wells Island

B-167.4L



B-167.4L Photo: View of Wells Island from ~1000' downstream



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Port of Hood River Marina
 Secondary Contact : Property Manager
 541-386-1645

Nearest Address

1000 E Port Marina Drive
 Hood River, OR 97031

Driving Directions

1. Directions to SA-B-169.85L/Port of Hood River, starting at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd
3. Turn right on Hood River Brg
4. Turn right on E Port Marina
5. Turn left to stay on E Port Marina Dr
6. Finish at 1000 E Port Marina Drive, 97031, on the left

Spring Creek Fish Hatchery B-167.4R

Position - Location: 45° 43.641', -121° 32.669' 45° 43' 38.5", -121° 32' 40.2" 45.72735, -121.54449 Underwood

Strategy Objective: Exclusion : Keep oil away from fish ladder in/out takes

Implementation: Anchor 700' of boom to the spit of land which separates the in/out takes for the fish ladder. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

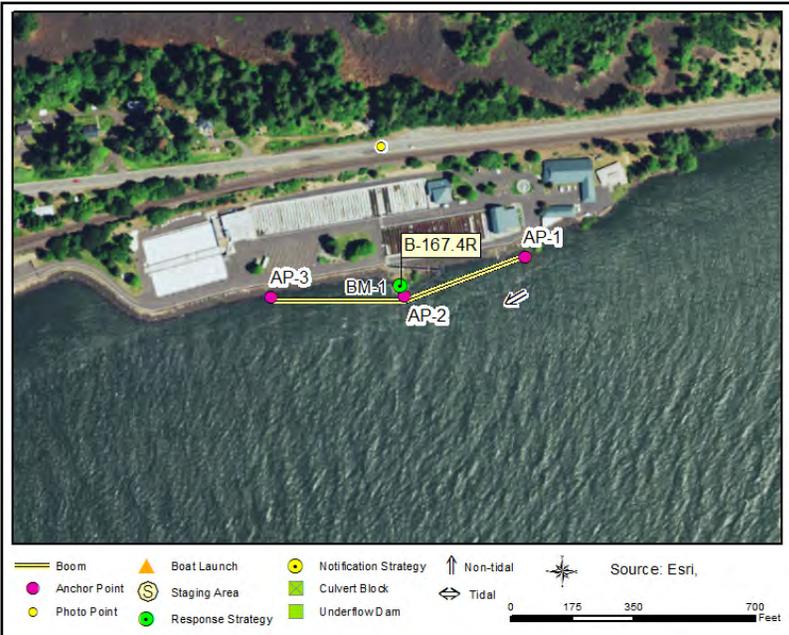
Staging Area: Onsite: Stage at Spring Creek Fish Hatchery

Site Safety: Water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-170L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Fish Hatchery



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
3	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

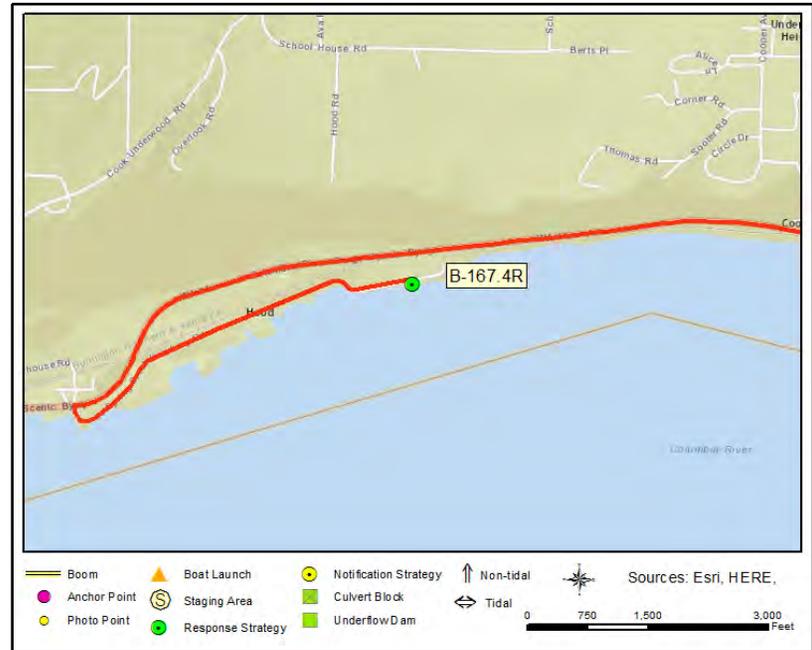
Recommended Personnel

1	Boat Operator
3	Laborer

Spring Creek Fish Hatchery **B-167.4R**



B-167.4R Photo: Aerial view of the Spring Creek Fish Hatchery



Site Contact

Spring Creek National Fish Hatchery
 Primary Contact : Hatchery Manager
 61552 State Rd 14
 Underwood, WA 98651
 509-493-1730

Nearest Address

Spring Creek Hatchery Rd
 Underwood, WA 98651

Driving Directions

1. Directions to B-167.4R/Spring Creek Fish Hatchery, starting at 64128 State Road 14, White Salmon, WA 98672
2. Go west on WA-14 (Highway 14) toward WA-141-ALT (2.63 miles)
3. Turn left on Spring Creek Hatchery Rd (0.5 miles)
4. Finish at the Spring Creek Hatchery at the end of the road.

The Hook to Wells Island B-168.4L

Position - Location: 45° 42.933', -121° 31.623' 45° 42' 56.0", -121° 31' 37.4" 45.71554, -121.52705 Hood River

Strategy Objective: Exclusion : Keep oil off the shoreline S of The Hook and Wells Island

Implementation: Anchor 900' of boom to shore on the W side bottom of The Hook and tow it to the SW shore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Bring waders for shore access.

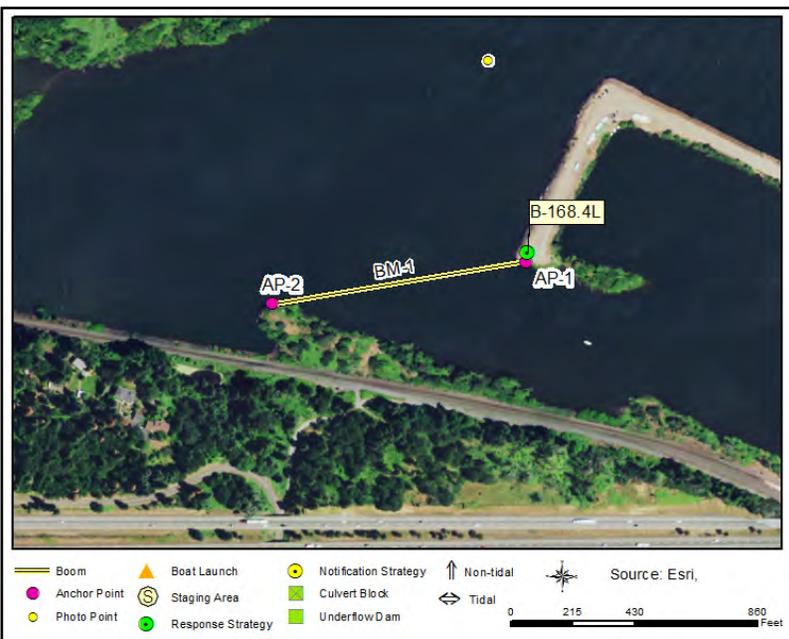
Staging Area: Remote: Stage at SA-B-169.85L/Port of Hood River

Site Safety: Water hazard, shallow water, slips, trips & falls

Field Notes: Launch at BL-B-169.85L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Migratory Waterfowl, Raptors, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
900	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

The Hook to Wells Island

B-168.4L



B-168.4L Photo: View of the location for an anchor point on The Hook



Site Contact

Port of Hood River Marina
 Land/Property Contact : Property Manager
 541-386-1645

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

1000 E Port Marina Drive
 Hood River, OR 97031

Driving Directions

1. Directions to SA-B-169.85L/Port of Hood River, starting at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd
3. Turn right on Hood River Brg
4. Turn right on E Port Marina Dr
5. Turn left to stay on E Port Marina Dr
6. Finish at 1000 E Port Marina Drive, 97031, on the left

White Salmon River **B-168.5R**

Position - Location: 45° 43.697', -121° 31.286' 45° 43' 41.8", -121° 31' 17.2" 45.72828, -121.52144 Hood River

Strategy Objective: Exclusion : Keep oil from passing between the White Salmon and Columbia Rivers

Implementation: Anchor 200' of boom from the E shore of the White Salmon River just S of the railroad bridge, anchor the other end of the boom to the W in the Columbia River, just past the opening of the White Salmon River mouth, allowing room for boats to pass through if possible. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

Staging Area: Remote: Stage at SA-B-169.85L/Port of Hood River

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-169.85L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Migratory Waterfowl, Raptors, Sensitive Resources, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

White Salmon River

B-168.5R



B-168.5R Photo: Aerial view of the mouth of the White Salmon River



Site Contact

Port of Hood River Marina
 Land/Property Contact : Property Manager

WA
 541-386-1645

Nearest Address

1000 E Port Marina Drive
 Hood River, OR 97031

Driving Directions

1. Directions to SA-B-169.85L/Port of Hood River, starting at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd
3. Turn right on Hood River Brg
4. Turn right on E Port Marina Dr
5. Turn left to stay on E Port Marina Dr
6. Finish at 1000 E Port Marina Drive, 97031, on the left

Hood River **B-169.6L**

Position - Location: 45° 42.897', -121° 30.426' 45° 42' 53.8", -121° 30' 25.6" 45.71496, -121.50710 Hood River

Strategy Objective: Collection : Keep oil in/out of the Hood River (collect oil if from a spill source on the Hood River)

Implementation: Place boom across the mouth of the Hood River, anchor at The Spit tow boom to the NE to anchor at the N end of E Port Marina Drive at a spot accessible to a vac truck. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Shallow water, bring waders.

Staging Area: Onsite: Stage on site, or across the boat basin at SA-B-170L/Port of Hood River

Site Safety: Vehicle traffic, water hazard, rip rap, slips, trips & falls

Field Notes: Launch at BL-B-170L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Migratory Bird Populations, Raptors, Recreational Use Area, Riparian Habitat, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
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
3	Laborer

Hood River **B-169.6L**



B-169.6L Photo: View of the entrance to Hood River



Site Contact

Port of Hood River Marina
 Land/Property Contact : Property Manager
 541-386-1645

USACE Bonneville pool
 Secondary Contact : Natural Resources Manager
 541-374-8344

Nearest Address

E Port Marina Dr
 Hood River, OR 97031

Driving Directions

Directions to B-169.6L & B-169.7L

1. Start at Hood River Bridge, White Salmon, WA 98672
2. Go southwest on Hood River Brg toward US-30/64 (0.8 miles)
3. Turn right on E Port Marina Dr (0.02 miles)
4. Turn left to stay on E Port Marina Dr (0.5 miles)
5. Stay to the right to go to the end of the peninsula, finish at E Port Marina Dr, 97031

Hood River Marina **B-169.7L**

Position - Location: 45° 42.916', -121° 30.273' 45° 42' 54.9", -121° 30' 16.4" 45.71526, -121.50455 Hood River

Strategy Objective: Collection : Divert oil moving downstream to shore while keeping boat launch open

Implementation: Need 1000' of boom. Anchor 700'(BM-1) on the end of the spit of land by the bathrooms at 1000 E Port Marina Dr, tow the boom out to the NE and anchor off shore. Anchor 300' of boom(BM-2) on the E side of the opening to the boat basin, tow the end of the boom toward the NW at an angle to deflect oil toward the collection point. Keep the boat launch open. Bring waders to access shore. Adjust angle of booms, quantity and placement of anchors, depeding on conditions of the day.

Staging Area: Onsite: Stage at SA-B-169.85L/Port of Hood River

Site Safety: Boat traffic, vehicle traffic, pedestrians, water hazard, rip rap, slips, trips, & falls

Field Notes: Launch at BL-B-169.85L/Port of Hood River

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Basin/Marina, Downstream Resources, Recreational Boating, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

6	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

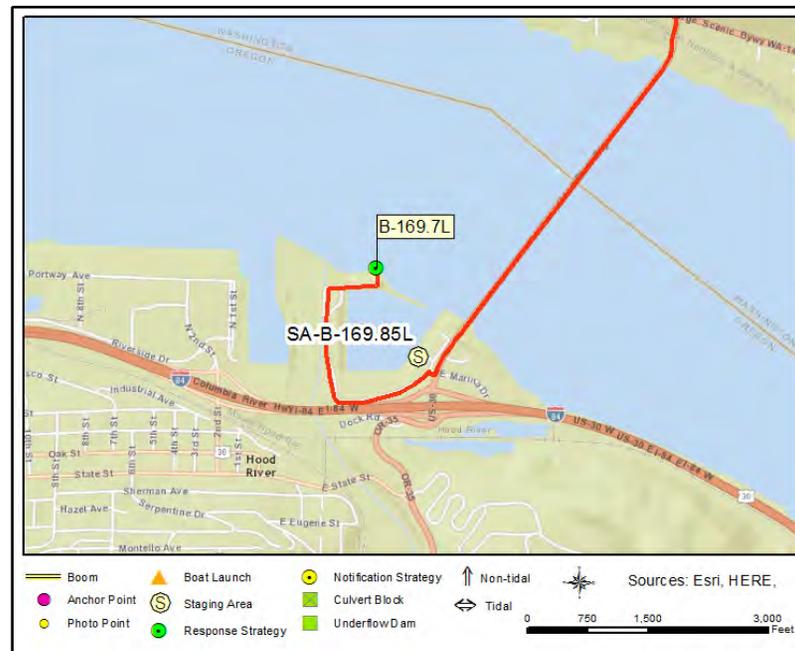
1	Boat Operator
4	Laborer

Hood River Marina

B-169.7L



B-169.7L Photo: View of the Hood River confluence by the Hood River Marina



Site Contact

Port of Hood River Marina
 Land/Property Contact : Property Manager

 WA
 541-386-1645

Nearest Address

1000 E Port Marina Drive
 Hood River, OR 97031

Driving Directions

1. Directions to SA-B-169.85L/Port of Hood River, starting at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd
3. Turn right on Hood River Brg
4. Turn right on E Port Marina Dr
5. Turn left to stay on E Port Marina Dr
6. Finish at 1000 E Port Marina Drive, 97031,

White Salmon In-Lieu B-169.8R

Position - Location: 45° 43.364', -121° 29.573' 45° 43' 21.8", -121° 29' 34.4" 45.72273, -121.49288 White Salmon

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 200' of boom along the shoreline just upstream of the boat ramp, and tow 800' from the E corner of the ramp out to the SE to anchor off the bridge pilings. Adjust angle of boom, quantity and position of anchors, depending on conditions of the day. Try to keep the boat launch open.

Staging Area: Onsite: Tribal In-lieu Fishing Site, gates may be closed but should be unlocked.

Site Safety: Water hazard, slips, trips & falls.

Field Notes: Launch on site

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Tribal Lands/Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
3	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Bridle(s) - Piling (appropriately sized for boom)
200	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

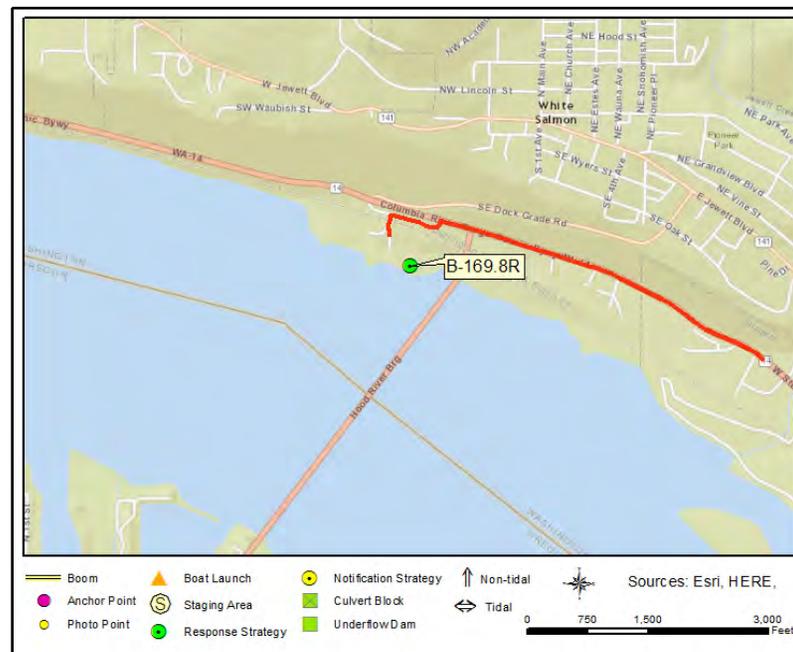
1	Boat Operator
4	Laborer

White Salmon In-Lieu

B-169.8R



B-169.8R Photo: View of the White Salmon In-Lieu boat launch looking toward the bridge



Site Contact

Columbia River Inter-Tribal Fish Commission
 Land/Property Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Owner : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

Hood Vista Dr
 White Salmon, WA 98672

Driving Directions

1. Directions to B-169.8R/the White Salmon In-Lieu site, starting at Hood River Bridge, WA 98605
2. Go west on WA-14 (W Steuben St) toward Charters Ave (0.84 miles)
3. Turn left on Heritage Plz (E Sr141 Pullout Hwy) (0.13 miles)
4. Turn left on S Dock Grade Rd (0.03 miles)
5. Turn left on Hood Vista Dr (0.03 miles)
6. Finish at Hood Vista Dr, 98672, on the left

E shore of the White Salmon In-Lieu Site **B-169.9R**

Position - Location: 45° 43.352', -121° 29.428' 45° 43' 21.1", -121° 29' 25.7" 45.72253, -121.49046 White Salmon

Strategy Objective: Exclusion : Keep oil out of inlet, divert to collection point

Implementation: Anchor 600' of boom to the highway bridge piling and tow across the inlet, anchor to shore but leave ~50 remaining to anchor off-shore to the W to divert oil away from shore.

Staging Area: Remote: Stage on site at SA-B-169.8R White Salmon In-Lieu site

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-169.8R White Salmon In-Lieu boat ramp

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Resources Nearby, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth
2	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Bridle(s) - Piling (appropriately sized for boom)
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

E shore of the White Salmon In-Lieu Site

B-169.9R



B-169.9R Photo: View of the Hood River White Salmon Bridge taken from the White Salmon In-Lieu site showing the inlet on the E shore



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Owner : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

100 Hood Vista Dr
 White Salmon, WA 98672

Driving Directions

1. Directions to the White Salmon In-Lieu site/B-169.8R, starting at the Hood River Bridge, WA 98605
2. Go west on WA-14 (W Steuben St) toward Charters Ave (0.84 miles)
3. Turn left on Heritage Plz (E Sr141 Pullout Hwy) (0.13 miles)
4. Turn left on S Dock Grade Rd (0.03 miles)
5. Turn left on Hood Vista Dr (0.03 miles)
6. Finish at Hood Vista Dr, 98672, on the left

SDS Lumber Co peninsula **B-170.7R**

Position - Location: 45° 42.858', -121° 28.769' 45° 42' 51.5", -121° 28' 46.1" 45.71430, -121.47948 Bingen

Strategy Objective: Deflection : Send oil into main channel to keep away from shallow water habitat

Implementation: Anchor 800' of boom to shore at tip of peninsula and tow out to the NW (aim for collection site B-168.2R downstream if deployed). Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-171.7R/Bingen Marina

Site Safety: Water hazard, slips, trips, & falls, lumber barges.

Field Notes: Launch at BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Economic Resource, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

SDS Lumber Co peninsula

B-170.7R



B-170.7R Photo: Aerial view of the SDS Lumber Co peninsula



Site Contact

Port of Klickitat
 Land/Property Contact : Manages Port of Klickitat Property
 509-493-1655

SDS Lumber Co
 Land/Property Owner : Owner, has boom
 541-490-3299

Nearest Address

E Bingen Marina Loop Rd
 Bingen, WA 98605

Driving Directions

1. Directions to SA-B-171.7R/Bingen Marina, starting at Hood River Bridge (toll bridge), WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.11 miles)
6. Turn left on W Lakeview Blvd (Marina Access Rd) (0.51 miles)
7. Turn right on E Bingen Marina Loop Rd (0.1 miles)
8. Finish at E Bingen Marina Loop Rd, 98605, on the right

SDS Lumber Co **B-170.8R**

Position - Location: 45° 42.941', -121° 28.597' 45° 42' 56.5", -121° 28' 35.8" 45.71568, -121.47662 Bingen

Strategy Objective: Exclusion : Keep oil from entering inlet

Implementation: Call 541-490-3299 SDS Lumber Safety & Environmental Mgr, SDS Lumber employees should be able to deploy this strategy. - Tow 600' of boom out of SDS Lumber Co. trailer and anchor to shore directly across the inlet.

Staging Area: Onsite: SDS Lumber requires escort & full PPE when on property. Call Safety & Environmental Mgr 541-490-3299

Site Safety: Heavy equipment, water hazard, slips, trips & falls

Field Notes: SDS Lumber has boat & boom to deploy strategy. If assistance is needed launch at BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Economic Resource, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

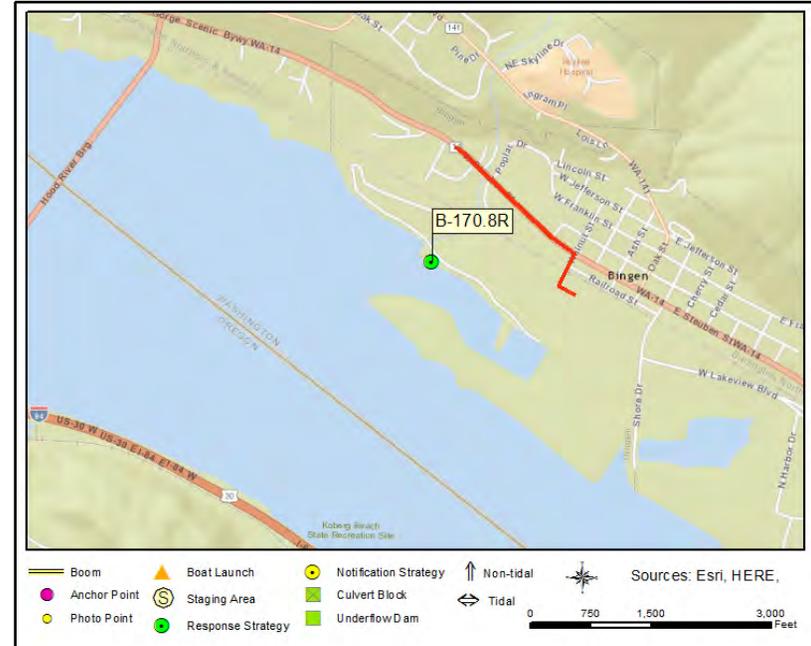
1	Boat Operator
3	Laborer

SDS Lumber Co

B-170.8R



B-170.8R Photo: Aerial view of SDS Lumber Co. showing location of boom trailer near docks.



Site Contact

SDS Lumber Co
 Pre-Notification Required : Owner, has boom
 Depot St
 Bingen, WA 98605
 541-490-3299

Nearest Address

Depot St & Maple St
 Bingen, WA 98605

Driving Directions

1. Directions to SDS Lumber Co, Depot St, Bingen (location of B-170.8R), starting at Hood River Bridge, WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Cross Railroad St (Depot St) and enter SDS Lumber property. The office is to the left.

Stanley Rock In-Lieu Site/Koberg Slough B-171.4L

Position - Location: 45° 42.203', -121° 28.430' 45° 42' 12.2", -121° 28' 25.8" 45.70339, -121.47384 Hood River

Strategy Objective: Collection : Divert oil to collection point while keeping it off the shoreline & keeping boat launch open

Implementation: Anchor two sections of boom, 700' & 300', of boom on the S side of the pier on shore, tow the other end of the 300' section out to the SSE and anchor on shore, tow the other end of the 700' section to the SE, anchoring the first 50' or so to the end of the floating dock, and then adjust the angle toward the E and anchor off shore at as wide an angle as conditions allow. Adjust angle of boom, quantity and placement of anchors, according to conditions of the day.

Staging Area: Onsite: Stage at Stanley Rock In-Lieu Site, parking and bathrooms.

Site Safety: Water hazard, slips, trips & falls, boat launch.

Field Notes: Launch on-site at Stanley Rock In-Lieu boat launch, may need machetes to clear vegetation on the south side of the pier for the vac truck or skimmer hose to reach the water.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Launch/Ramp, Downstream Resources, Raptors, Sensitive Nesting Species, Tribal Lands/Resources, Waterfowl and Salmonid



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
3	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
2	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

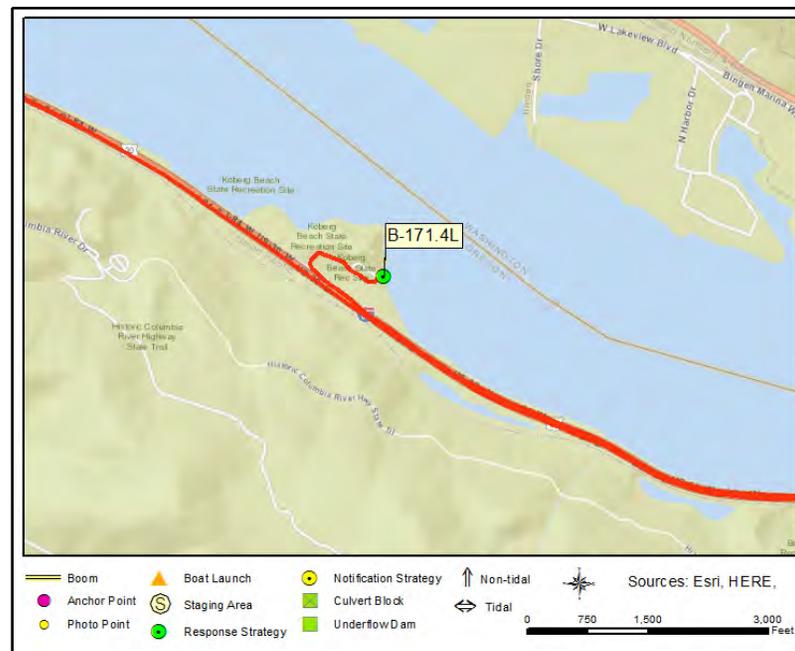
1	Boat Operator
4	Laborer

Stanley Rock In-Lieu Site/Koberg Slough

B-171.4L



B-171.4L Photo: Anchor point at Stanley Rock In-lieu site



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

Koberg Beach State Park
 Hood River, OR 97031

Driving Directions

Directions to B-171.4L at Stanley Rock In-Lieu Site, next door to Koberg Beach State Park

1. Start at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd (1 miles)
3. Turn right on Hood River Brg (1.07 miles)
4. Continue on US-30 (Button Bridge Rd) (0.09 miles)
5. Turn left onto ramp and go on I-84 E/US-30 E toward The Dalles (5.13 miles)
6. At exit 69 take ramp on the right to US-30 toward Mosier (0.04 miles)
7. Take ramp and go west on I-84 (Columbia River Hwy) (4.33 miles)
8. Continue (0.13 miles)
9. Finish at Koberg Beach State Park, 97031, Stanley Rock In-Lieu Site is on the right

S Maple St & Industrial Way B-171.4R

Position - Location: 45° 42.519', -121° 28.004' 45° 42' 31.1", -121° 28' .3" 45.70864, -121.46674 Bingen

Strategy Objective: Exclusion : Keep oil out of wetlands & off shoreline.

Implementation: Anchor 1000' of boom to shore at the intersection of S Maple St & Industrial Way, then tow it to the SW and anchor to the corner of the shoreline at Lumber Company, next tow the remaining 500' of boom out to the SW & anchor off shore to deflect oil away from shoreline. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Contact SDS Lumber of Company escort if you need to access their property.

Staging Area: Onsite: Should be able to park along the roadside, there is a pull off & a gravel drive to park at

Site Safety: Heavy equipment, water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Riparian Habitat, Waterfowl and Salmonid Concentrations and Habitat, Wetlands



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

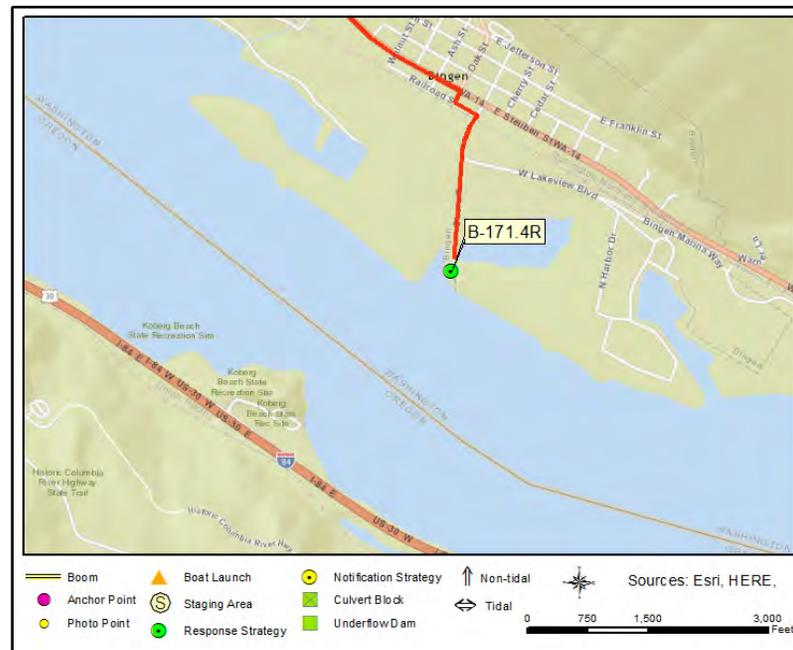
Recommended Personnel

S Maple St & Industrial Way

B-171.4R



B-171.4R Photo: View of the anchor point at S Maple & Industrial Way looking toward the SW



Site Contact

SDS Lumber Co
 Land/Property Contact : Owner, has boom
 541-490-3299

Port of Klickitat
 Land/Property Contact : Manages Port of Klickitat Property
 509-493-1655

Nearest Address

S Maple St & Industrial Way
 Bingen, WA 98605

Driving Directions

1. Directions to B-171.4R, starting at Hood River Bridge, WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.36 miles)
6. Finish at S Maple St & Industrial Way, 98605

Bingen Marina **B-172.2R**

Position - Location: 45° 42.274', -121° 27.208' 45° 42' 16.4", -121° 27' 12.5" 45.70456, -121.45346 Bingen

Strategy Objective: Deflection : Keep oil out of boat basin

Implementation: Anchor 300' of boom to the Eastern spit by mouth of opening to the boat basin, tow boom out to the WSW and anchor, leaving enough room for boats to pass through. (Adjust angle of boom, quantity & placement of anchors, based on conditions of the day. Bring waders, E shoreline is shallow outside channel.

Staging Area: Onsite: Stage on site at SA-B-171.7R/Bingen Marina

Site Safety: Water hazard, slips, trips, & falls.

Field Notes: Launch on site at BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Basin/Marina



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

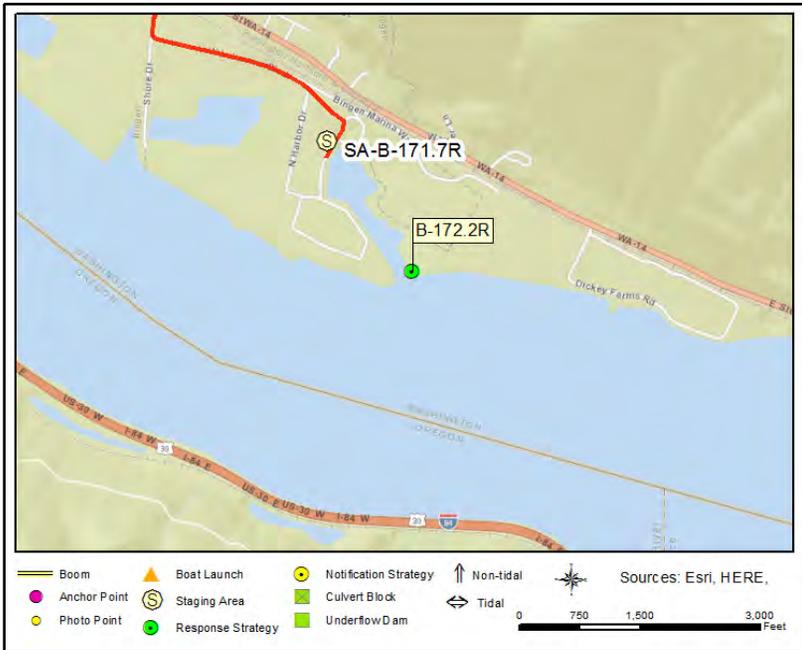
Recommended Personnel

1	Boat Operator
2	Laborer

Bingen Marina **B-172.2R**



B-172.2R Photo: Aerial view of the Bingen Marina



Site Contact

Port of Klickitat
 Land/Property Contact : Manages Port of Klickitat Property
 154 E Bingen Point Way Ste. A
 Bingen, WA 98605
 509-493-1655

Nearest Address

E Bingen Marina Loop Rd
 Bingen, WA 98605

Driving Directions

1. Directions to SA-B-171.7R/Bingen Marina, starting at Hood River Bridge (toll bridge), WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.11 miles)
6. Turn left on W Lakeview Blvd (Marina Access Rd) (0.51 miles)
7. Turn right on E Bingen Marina Loop Rd (0.1 miles)
8. Finish at E Bingen Marina Loop Rd, 98605, on the right

Dickeys Farm **B-172.7R**

Position - Location: 45° 42.215', -121° 26.552' 45° 42' 12.9", -121° 26' 33.1" 45.70359, -121.44253 Bingen

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 100' of 1000' of boom to E shore, and to the shore of the peninsula to form an exclusion boom for the corner of the shoreline before towing the remaining 900' out to the SSE to anchor. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Get vac truck (or portable storage) as close to the water as possible. May need waders to access shore. Bring machetes to rid shoreline of vegetation.

Staging Area: Onsite: Stage on-site at the end of the easternmost peninsula off Dickey Farms Road

Site Safety: Must drive off-road to get close to shore, bank may be steep, water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Downstream Resources, Economic Resource, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
2	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

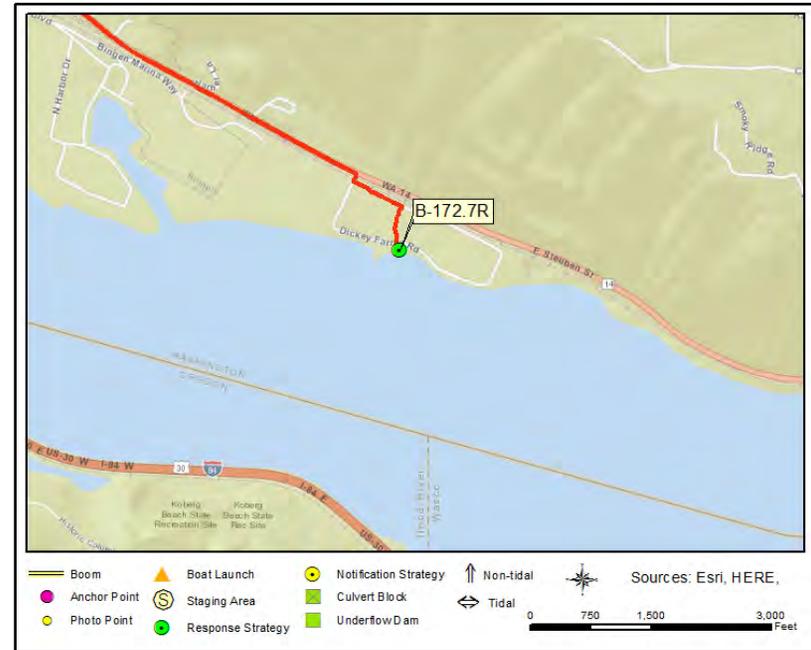
1	Boat Operator
4	Laborer

Dickeys Farm

B-172.7R



B-172.7R Photo: Aerial view of Dickey Farms showing location of B-172.7R



Site Contact

Dickey Farms
 Other : Property Owner
 509-493-2636 ext. 211

Nearest Address

Dickey Farms Rd
 Bingen, WA 98605

Driving Directions

1. Start at Hood River Bridge, WA 98605
2. Go southeast on WA-14 (W Steuben St) (1.77 miles)
3. Turn right on Dickey Farms Rd (0.02 miles)
4. Turn left to stay on Dickey Farms Rd (0.48 miles)
5. Take the first right and cross the next intersection (0.2 miles) to get to the gravel path onto the peninsula, must go off-road to get close to access point for B-172.7R at 45.703593 N, -121.442469 W

Look Lake **B-174.7R**

Position - Location: 45° 41.885', -121° 24.235' 45° 41' 53.1", -121° 24' 14.1" 45.69809, -121.40392 Bingen

Strategy Objective: Exclusion : Close off culvert to Look Lake

Implementation: Use 100' of boom in a chevron formation to close off culvert to Look Lake. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

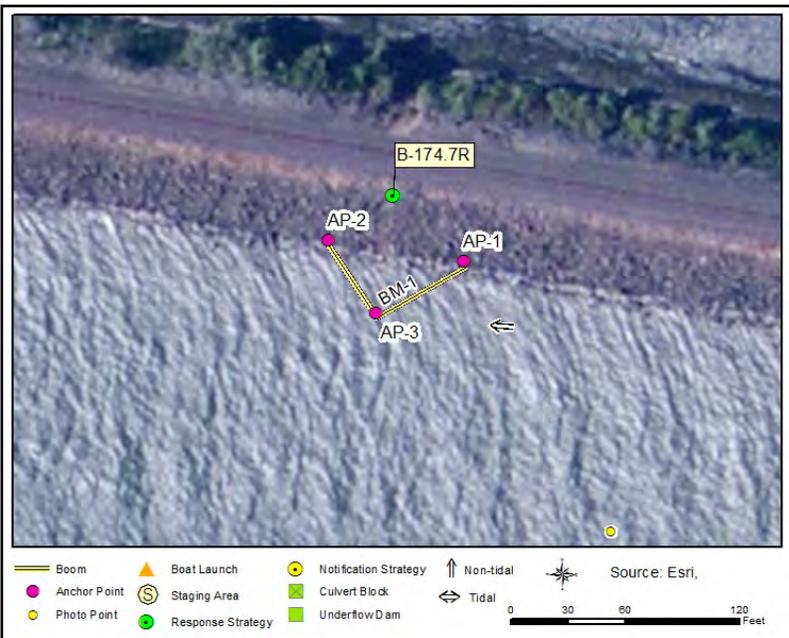
Staging Area: Remote: Stage from SA-B-171.7R/Bingen Marina

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch from BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Nesting Species



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Look Lake

B-174.7R



B-174.7R Photo: Aerial view of Look Lake



Site Contact

Port of Klickitat
 Land/Property Contact : Manages Port of Klickitat Property
 509-493-1655

WDFW Region 5
 Other : Vancouver
 360-696-6211

Nearest Address

E Bingen Marina Loop Rd
 Bingen, WA 98605

Driving Directions

1. Directions to BL-B-171.7R/Bingen Marina, starting at Hood River Bridge (toll bridge), WA98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.11 miles)
6. Turn left on W Lakeview Blvd (Marina Access Rd) (0.51 miles)
7. Turn right on E Bingen Marina Loop Rd (0.1 miles)
8. Finish at E Bingen Marina Loop Rd, 98605, on the right

Mosier Creek **B-174.9L**

Position - Location: 45° 41.170', -121° 23.717' 45° 41' 10.2", -121° 23' 43.0" 45.68616, -121.39529 Bingen

Strategy Objective: Exclusion : Keep oil in/out of Mosier Creek

Implementation: Anchor 100' of boom in a chevron formation at the mouth of Mosier Creek. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Shallow water, bring waders.

Staging Area: Remote: Stage at SA-B-171.7R/Bingen Marina

Site Safety: Shallow water, water hazard, slips, trips, & falls

Field Notes: Launch at BL-B-171.7R/Bingen Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Creek Habitat, Raptors, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

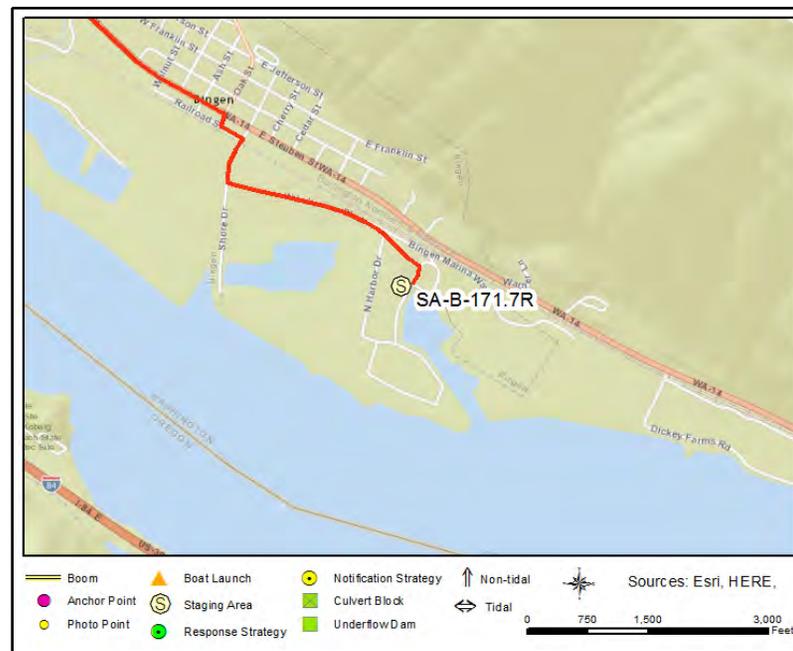
1	Boat Operator
1	Laborer

Mosier Creek

B-174.9L



B-174.9L Photo: Aerial view of the mouth of Mosier Creek



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

E Bingen Marina Loop Rd
 Bingen, WA 98605

Driving Directions

1. Directions to SA-B-171.7R/Bingen Marina, starting at Hood River Bridge (toll bridge), WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.11 miles)
6. Turn left on W Lakeview Blvd (Marina Access Rd) (0.51 miles)
7. Turn right on E Bingen Marina Loop Rd (0.1 miles)
8. Finish at E Bingen Marina Loop Rd, 98605, on the right

Rowland Lake **B-176.2R**

Position - Location: 45° 42.434', -121° 22.507' 45° 42' 26.0", -121° 22' 30.4" 45.70723, -121.37511 Lyle

Strategy Objective: Exclusion : Keep oil out of impounded Rowland Lake

Implementation: Anchor 100' of boom in a chevron formation on either side of the culvert. Adjust boom & anchors according to water height & conditions of the day.

Staging Area: Remote: Stage at SA-B-180.6R/Lyle boat launch

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-180.6R/Lyle boat launch

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Nesting Species, Waterfowl Concentrations



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

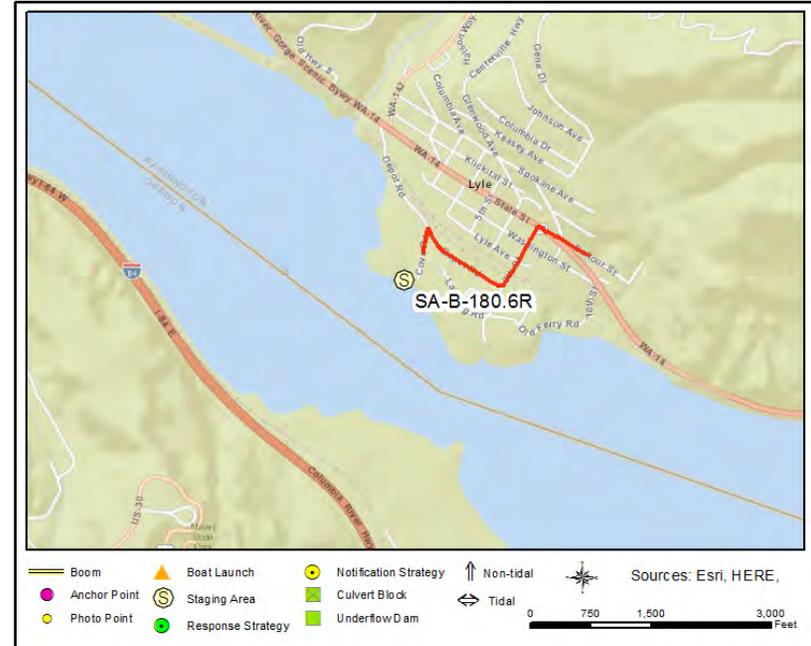
1	Boat Operator
1	Laborer

Rowland Lake

B-176.2R



B-176.2R Photo: Aerial view of Rowland Lake



Site Contact

Burlington Northern Santa Fe Railroad
 Land/Property Contact :
 800-832-5452

WDFW Region 5
 Other : Vancouver
 360-696-6211

Nearest Address

Cove Rd
 Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY14 in Lyle, WA 98635
2. 4. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

Hewitt Lake **B-177.8R**

Position - Location: 45° 42.604', -121° 20.675' 45° 42' 36.3", -121° 20' 40.5" 45.71007, -121.34458 Lyle

Strategy Objective: Exclusion : Keep oil in/out of Hewitt Lake

Implementation: Anchor 100' of boom in a chevron formation on either side of the culvert to Hewitt Lake. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

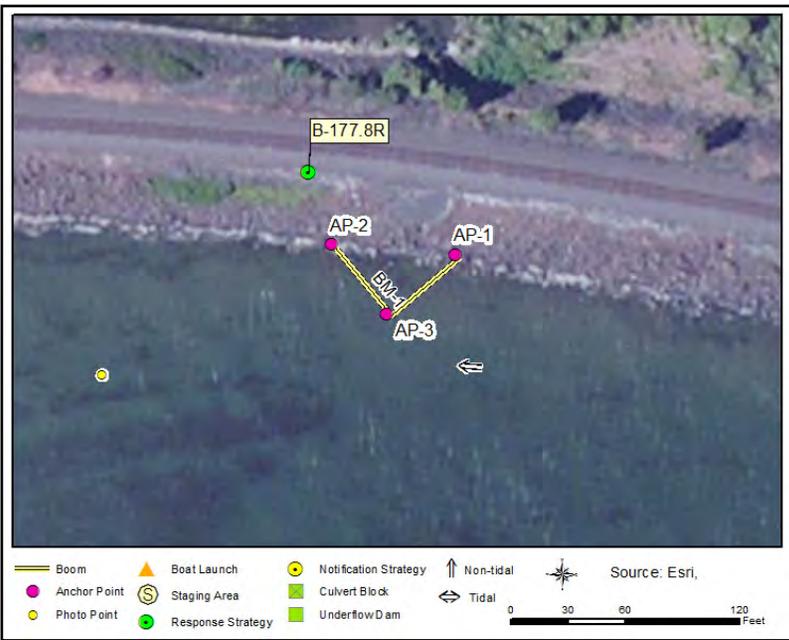
Staging Area: Remote: Stage at SA-B-180.6R/Lyle boat launch

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-180.6R/Lyle boat launch

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Raptors, Sensitive Nesting Species, Waterfowl Concentrations



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

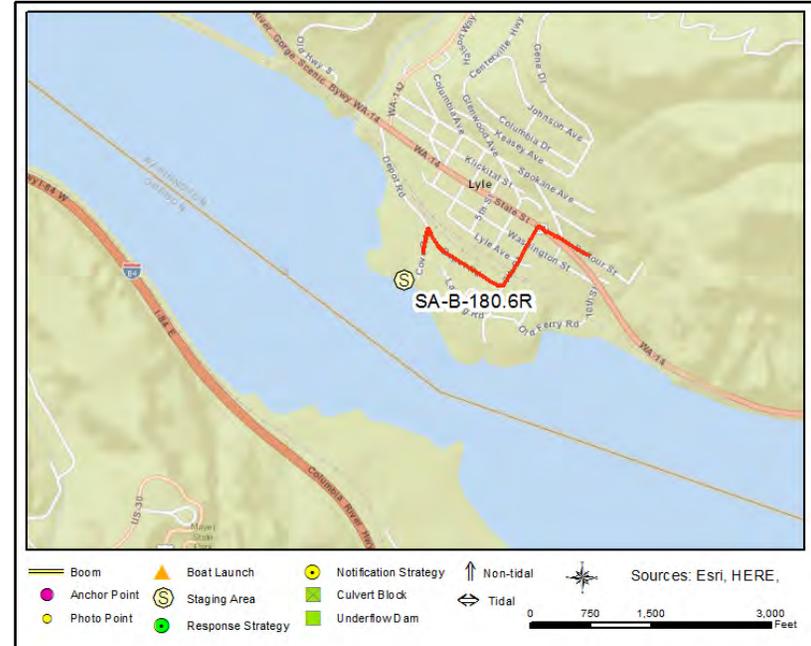
1	Boat Operator
1	Laborer

Hewitt Lake

B-177.8R



B-177.8R Photo: Aerial view of Hewitt Lake showing location of culvert



Site Contact

Burlington Northern Santa Fe Railroad
 Land/Property Contact :
 800-832-5452

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

Cove Rd
 Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY14 in Lyle, WA 98635
2. 4. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

McClure Lake B-178.7L

Position - Location: 45° 41.790', -121° 19.500' 45° 41' 47.4", -121° 19' 30.0" 45.69651, -121.32500 The Dalles

Strategy Objective: Exclusion : Keep oil out of McClure Lake

Implementation: Anchor 100' of boom on either side of the culvert to McClure Lake in a chevron formation. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Culvert may be in a slightly different spot than shown on map.

Staging Area: Remote: Stage at SA-B-180.9L/Mayer State Park

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-180.9L/Mayer State Park

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Bald Eagle, Resident Fish, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

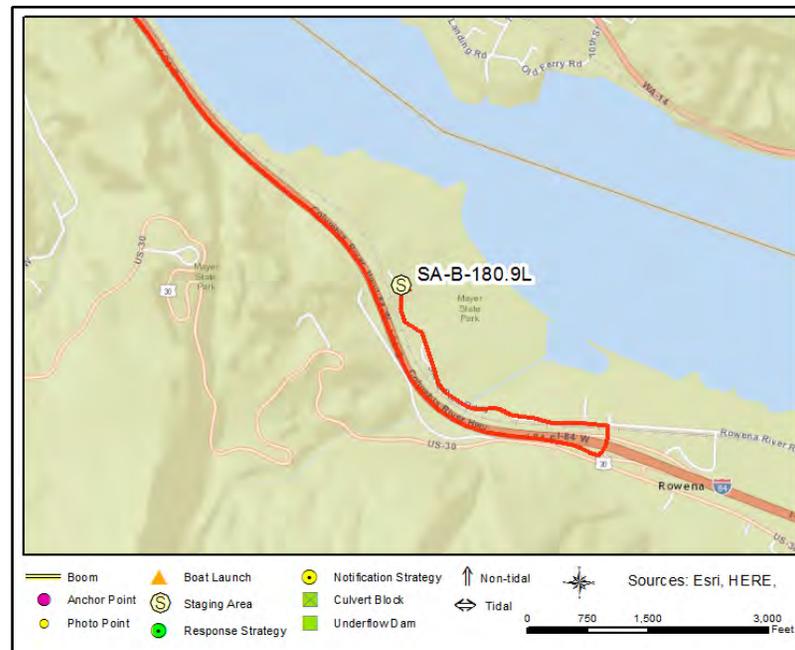
1	Boat Operator
	Laborer

McClure Lake

B-178.7L



B-178.7L Photo: Aerial view of McClure Lake



Site Contact

Union Pacific Railroad
 Land/Property Contact :
 888-877-7267

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

6000 Rowena River Road
 The Dalles, OR 97058

Driving Directions

1. Directions to SA--B-180.9L/Mayer State Park, starting at Hood River Bridge, White Salmon, WA98672
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

Chamberlain Lake B-179.9R

Position - Location: 45° 41.992', -121° 18.062' 45° 41' 59.5", -121° 18' 3.7" 45.69987, -121.30103 Lyle

Strategy Objective: Exclusion : Keep oil in/out of Chamberlain Lake

Implementation: Anchor 100' of boom in a chevron formation on either side of the culvert to Chamberlain Lake. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-180.6R/Lyle boat launch

Site Safety: ASlips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-180.6R/Lyle boat launch

Watercourse: River - Above a Dam - Bonneville Dam

Resources at Risk: Bald Eagle, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

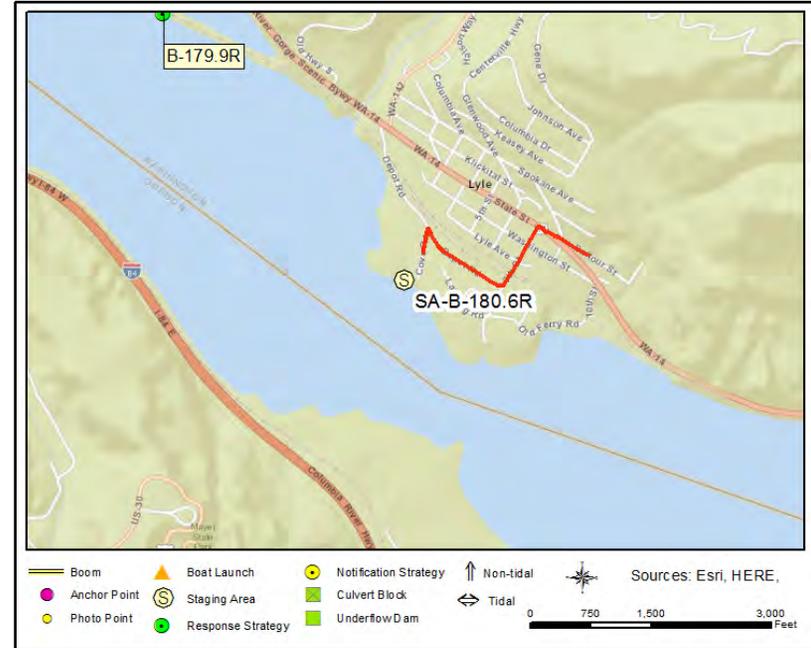
1	Boat Operator
1	Laborer

Chamberlain Lake

B-179.9R



B-179.9R Photo: Aerial view of the eastern end of Chamberlain Lake showing location of culvert



Site Contact

Burlington Northern Santa Fe Railroad
 Land/Property Contact :
 800-832-5452

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

Cove Rd
 Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY14 in Lyle, WA 98635
2. 4. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

Mouth of the Klickatat River **B-180.5R**

Position - Location: 45° 41.787', -121° 17.529' 45° 41' 47.2", -121° 17' 31.7" 45.69644, -121.29214 Lyle

Strategy Objective: Exclusion : Keep oil from passing between the Klickatat & Columbia Rivers

Implementation: Deploy 300' of boom in a chevron configuration across the mouth of the Klickatat River from the W shore to the E shore. Adjust angle of boom, quantity & placement of anchors, based on conditions of the day. Shallow water on either side of the channel, bring waders to access W shore.

Staging Area: Remote: Stage at SA-B-180.6R/Lyle boat launch

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-180.6R/Lyle boat launch

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Sensitive Nesting Species, Sensitive Shoreline, Waterfowl (Wintering), Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

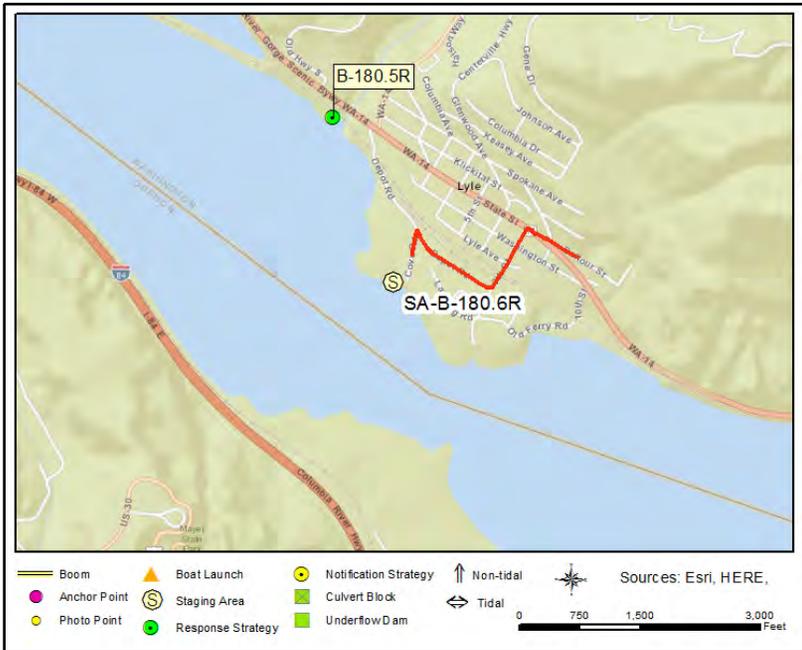
Recommended Personnel

1	Boat Operator
2	Laborer

Mouth of the Klickitat River **B-180.5R**



B-180.5R Photo: View of the mouth of the Klickitat River from N of the railroad bridge



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

Cove Rd
 Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY14 in Lyle, WA 98635
2. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

Old Ferry Crossing (FBS MP-85.5) B-180.9R

Position - Location: 45° 41.298', -121° 17.124' 45° 41' 17.9", -121° 17' 7.5" 45.68830, -121.28541 Lyle

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 1000' of boom at 45.688038 N, -121.285359 W (or the point closest to the water) and tow it out to the SE and anchor. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. May need a booster pump depending on water level.

Staging Area: Onsite: Stage at SA-B-180.6R/Lyle boat launch

Site Safety: Rocky terrain, water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-180.6R/Lyle boat launch

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

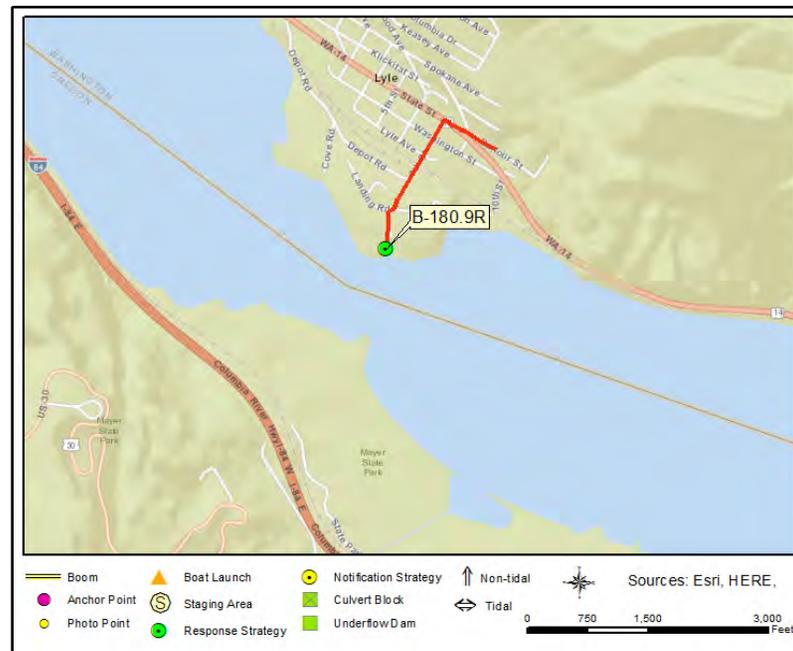
1	Boat Operator
4	Laborer

Old Ferry Crossing (FBS MP-85.5)

B-180.9R



B-180.9R Photo: View of the shore at Old Ferry Crossing



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

7th Street
 Lyle, WA 98635

Driving Directions

1. Start at Balfour St, Lyle, WA 98635
2. Go west on Balfour St toward Dayton St (0.12 miles)
3. Bear right on WA-14 (State St) (0.03 miles)
4. Turn left on 7th St (0.2 miles)
5. Cross 7th onto Old Ferry Crossing, continue onto gravel road to the end of the point then go off rd onto rocky terrain to get as close to the collection point, 45.688045 N, -121.285331 W, as possible (0.1 miles)

Mayer State Park, Salisbury Slough **B-181L**

Position - Location: 45° 40.990', -121° 17.189' 45° 40' 59.4", -121° 17' 11.4" 45.68317, -121.28649 The Dalles

Strategy Objective: Deflection : Keep oil out of Mayer State Park, Salisbury Slough

Implementation: Anchor 1000' of boom to the NW corner of the slough and tow upriver toward the island in the middle of the slough. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Shallow water, bring waders.

Staging Area: Remote: Stage at SA-B-180.9L/Mayer State Park

Site Safety: Water hazard, shallow water, slips, trips & falls

Field Notes: Launch at BL-B-180.9L/Mayer State Park

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Bald Eagle, Boat Launch/Ramp, Resident Fish, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

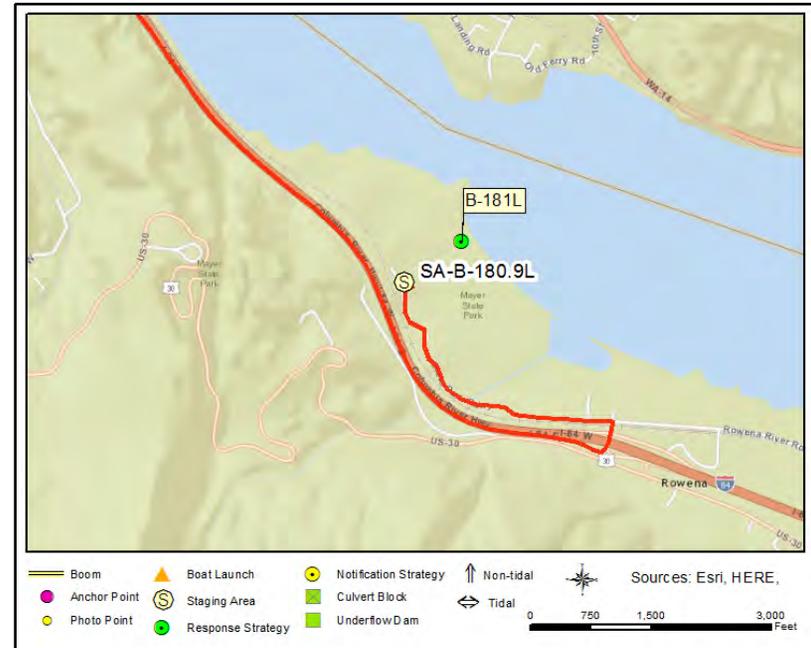
1	Boat Operator
4	Laborer

Mayer State Park, Salisbury Slough

B-181L



B-181L Photo: View of Salisbury Slough from the W side of the boat launch



Site Contact

Mayer State Park
 Land/Property Contact : Property managers

 WA
 541-478-3008

Nearest Address

6000 Rowena River Road
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-180.9L/Mayer State Park, starting at 100 first ave, Mosier, OR97040
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

Mayer State Park Boat Launch B-181.4L

Position - Location: 45° 40.730', -121° 16.914' 45° 40' 43.8", -121° 16' 54.8" 45.67884, -121.28190 The Dalles

Strategy Objective: Exclusion : Keep oil out of slough while keeping boat launch open

Implementation: Anchor 500' of boom to the NE corner of the shoreline and tow it out to the NW to anchor. Anchor another 500' section of boom to the E side of the island and tow it toward the E to anchor. Allow room between where the two sections of boom overlap for boats to pass through. Have the boom coming from the E on the outside. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Shallow water, bring waders.

Staging Area: Onsite: Stage on site at SA-B-180.9L/Mayer State Park

Site Safety: Water hazard, active boat launch, shallow water, slips, trips & falls.

Field Notes: Launch on site at BL-B-180.9L/Mayer State Park

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Bald Eagle, Boat Launch/Ramp, Resident Fish, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and



Recommended Equipment

6	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

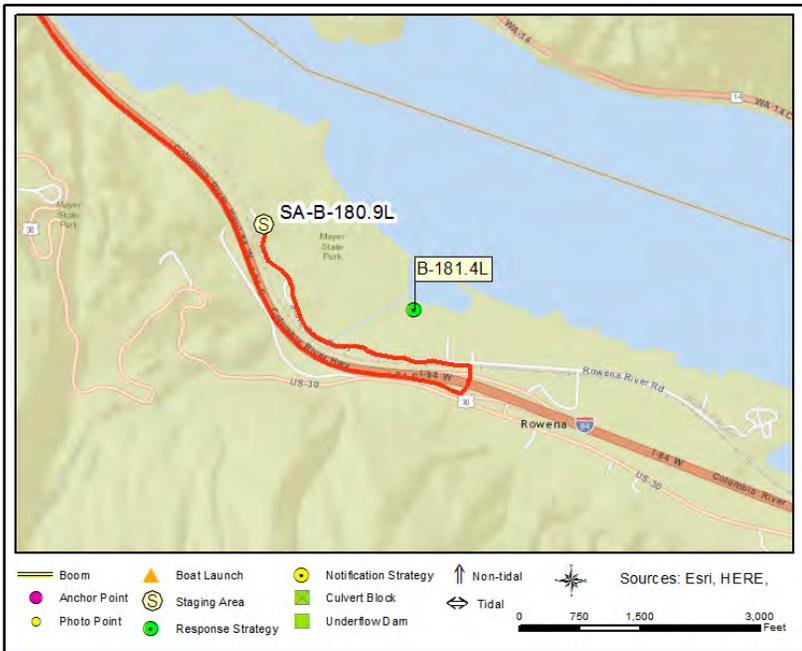
Recommended Personnel

1	Boat Operator
4	Laborer

Mayer State Park Boat Launch **B-181.4L**



B-181.4L Photo: View of small island in the middle of the inlet to Myer State Park boat launch



Site Contact

Mayer State Park
 Land/Property Contact : Property managers

 WA
 541-478-3008

Nearest Address

State Park Roadway
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-180.9L/Mayer State Park, starting at 100 First Ave, Mosier, OR97040
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

West of Tooley Lake **B-182.6L**

Position - Location: 45° 40.303', -121° 15.370' 45° 40' 18.2", -121° 15' 22.2" 45.67172, -121.25617 The Dalles

Strategy Objective: Deflection : Keep oil out of cove

Implementation: Anchor 1000' of boom on the point at 45.672073 N, -121.256652 W, tow boom to the NW to anchor offshore. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

Staging Area: Remote: Stage at SA-B-180.9L/Mayer State Park

Site Safety: Shallow Water, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not

Field Notes: Launch at BL-B-180.9L/Mayer State Park

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

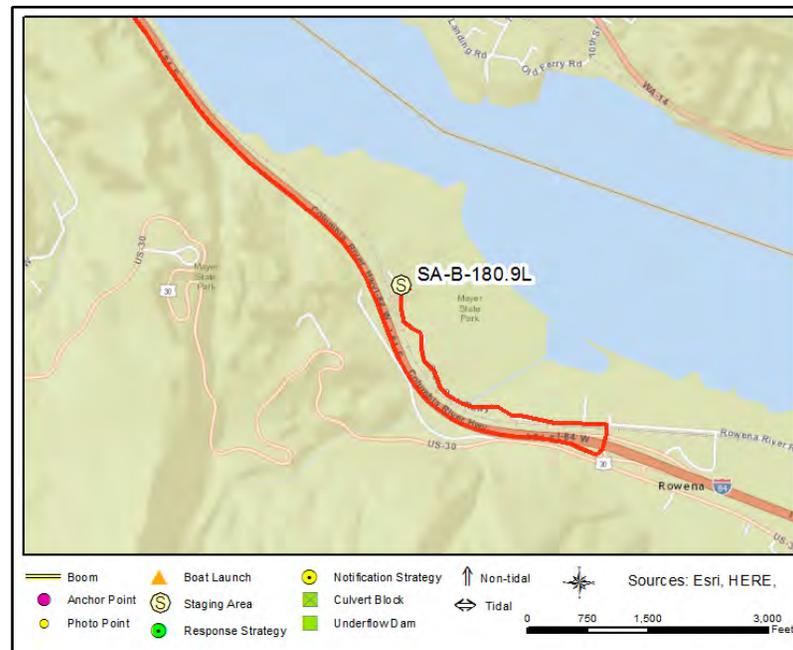
1	Boat Operator
4	Laborer

West of Tooley Lake

B-182.6L



B-182.6L Photo: View of shallow water around inlet W of Tooley Lake



Site Contact

Mayer State Park
 Land/Property Contact : Property managers

 WA
 541-478-3008

Nearest Address

6000 Rowena River Road
 The Dalles 97058

Driving Directions

1. Directions to SA-B-180.9L/Mayer State Park, starting at 100 First Ave, Mosier, OR97040
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

Doug's Beach State Park **B-183.4R**

Position - Location: 45° 40.567', -121° 14.207' 45° 40' 34.0", -121° 14' 12.4" 45.67612, -121.23678 Lyle

Strategy Objective: Deflection : Keep oil off park shoreline

Implementation: Anchor 400' of boom on the point upstream from the beach and tow out to the W to anchor off shore. Adjust angle of boom, quantity and placement of anchors based on conditions of the day.

Staging Area: Remote: Stage at SA-B-180.6R, Doug's Beach is an area with shallow water and sand, difficult for staging.

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch from BL-B-180.6R/Lyle boat launch. Doug's Beach is a popular public beach - heavily used in the summer months.

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Recreational Swimming Area, State Park, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

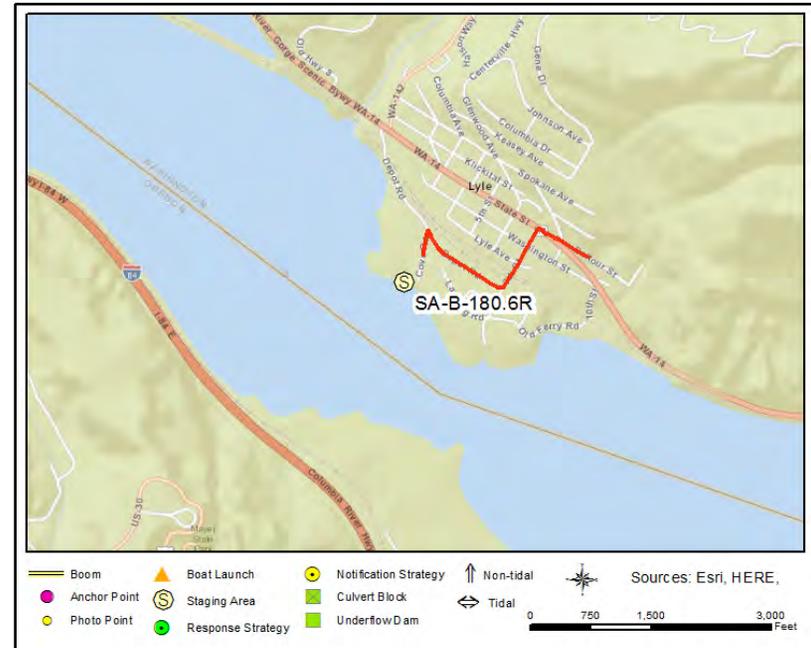
1	Boat Operator
3	Laborer

Doug's Beach State Park

B-183.4R



B-183.4R Photo: Aerial view of Doug's Beach State Park shoreline



Site Contact

Washington State Parks and Recreation Commission
 Land/Property Contact : General Number
 360-902-8844

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Nearest Address

Cove Rd
 Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY14 in Lyle, WA 98635
2. 4. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

North of Tooley Lake **B-183.9L**

Position - Location: 45° 40.093', -121° 13.873' 45° 40' 5.6", -121° 13' 52.4" 45.66822, -121.23121 The Dalles

Strategy Objective: Deflection : Keep oil off the shoreline adjaent to Tooley Lake

Implementation: Anchor 1000' of boom to the shoreline N of Tooley Lake, tow boom to the NW and anhor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Shallow water, bring skiff.

Staging Area: Remote: Stage at SA-B-180.9L/Mayer State Park

Site Safety: Shallow water, water hazard, slips, trips & falls

Field Notes: Launch at BL-B-180.9L/Mayer State Park

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Raptors, Resident Fish, Sensitive Nesting Species, State Park, Waterfowl and Salmonid Concentrations and Habitat, Wintering

Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
4	Laborer

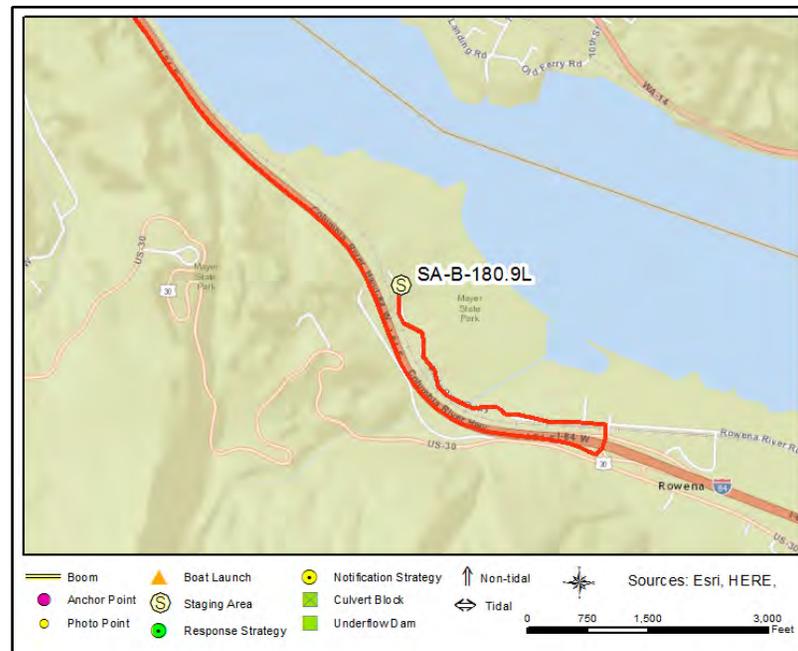


North of Tooley Lake

B-183.9L



B-183.9L Photo: View of shoreline by Tooley Lake from a distance



Site Contact

Mayer State Park
 Land/Property Contact : Property managers

 WA
 541-478-3008

Nearest Address

6000 Rowena River Road
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-180.9L/Mayer State Park, starting at 100 First Ave, Mosier, OR97040
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

Rocky Island North **B-186.1L**

Position - Location: 45° 38.991', -121° 12.139' 45° 38' 59.4", -121° 12' 8.4" 45.64985, -121.20232 The Dalles

Strategy Objective: Deflection : Deflect oil away from shoreline E of Rocky Island

Implementation: Anchor 400' of boom to rock at the tip of Rocky Island, tow boom to the N and anchor off shore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Water Hazards, slips, trips, & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

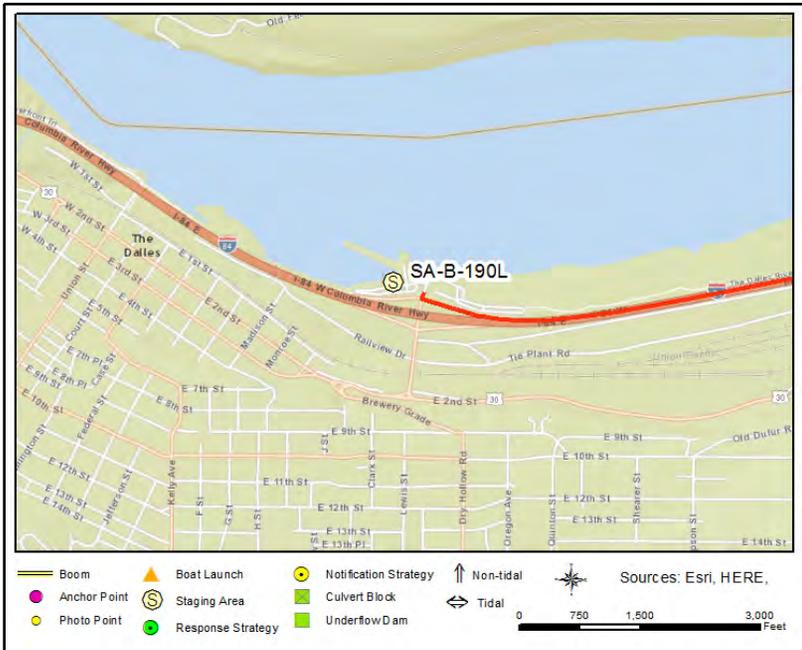
Recommended Personnel

1	Boat Operator
2	Laborer

Rocky Island North **B-186.1L**



B-186.1L Photo: Slightly blurry view of rock face at the tip of Rocky Island with an existing anchor point



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp to the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

South of Rocky Island **B-186.6L**

Position - Location: 45° 38.591', -121° 12.149' 45° 38' 35.4", -121° 12' 8.9" 45.64318, -121.20248 The Dalles

Strategy Objective: Exclusion : Keep oil out of the channel between Rocky Island and Taylor Lake

Implementation: Boom off the inlet going to the W side of Rocky Island. Anchor 600' of boom on the outer bank of Taylor Lake before small cove, and tow boom to the SE corner of Rocky Island to anchor on rocks (may be difficult to anchor here). Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

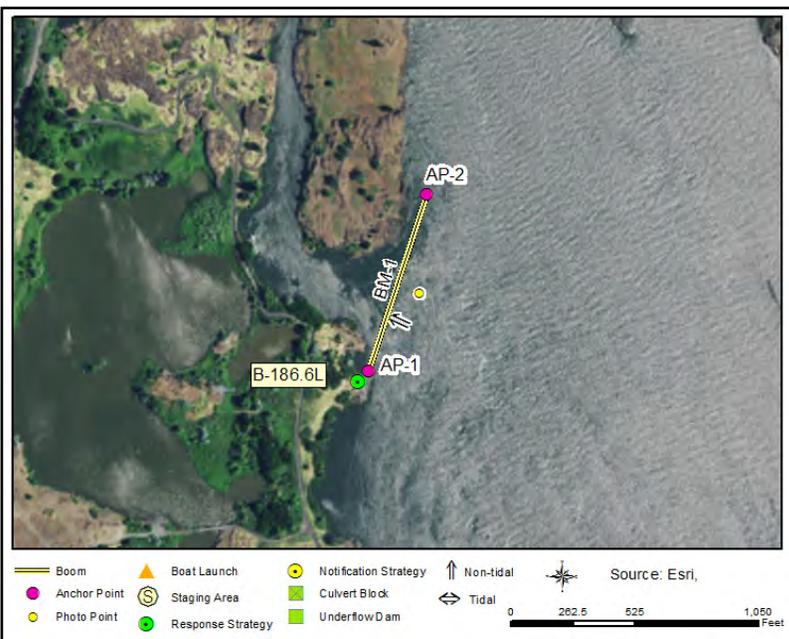
Staging Area: Remote: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Sensitive Nesting Species, Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

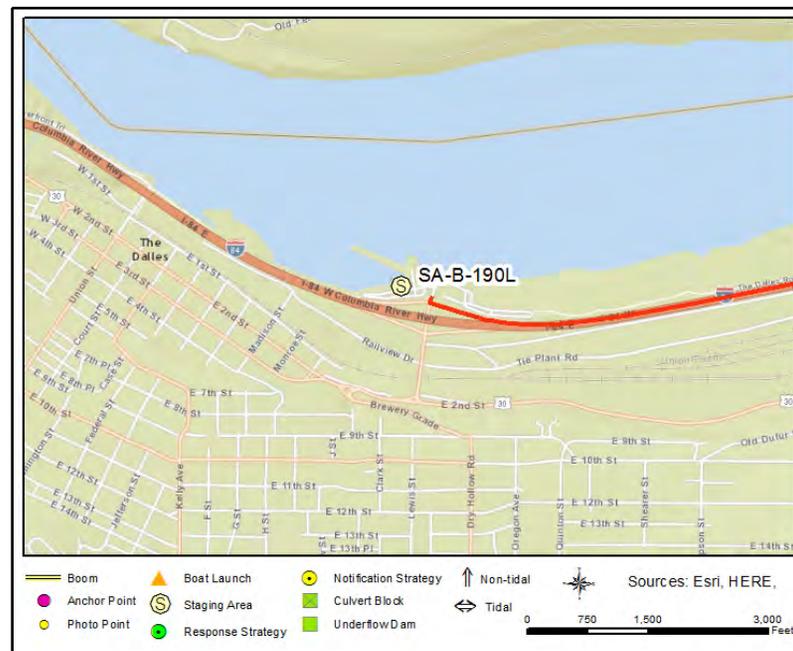
1	Boat Operator
3	Laborer

South of Rocky Island

B-186.6L



B-186.6L Photo: View of inlet at S end of Rocky Island



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Southeast of Taylor Lake **B-186.8L**

Position - Location: 45° 38.389', -121° 12.071' 45° 38' 23.4", -121° 12' 4.3" 45.63982, -121.20119 The Dalles

Strategy Objective: Deflection : Keep oil away from shoreline

Implementation: Anchor 800' of boom to rocky point at 45.640251 N,-121.201561 W, tow boom out to the NNE and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Remote: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Shallow water, water hazard, rocky shoreline, slips, trips & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Raptors, Sensitive Nesting Species, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

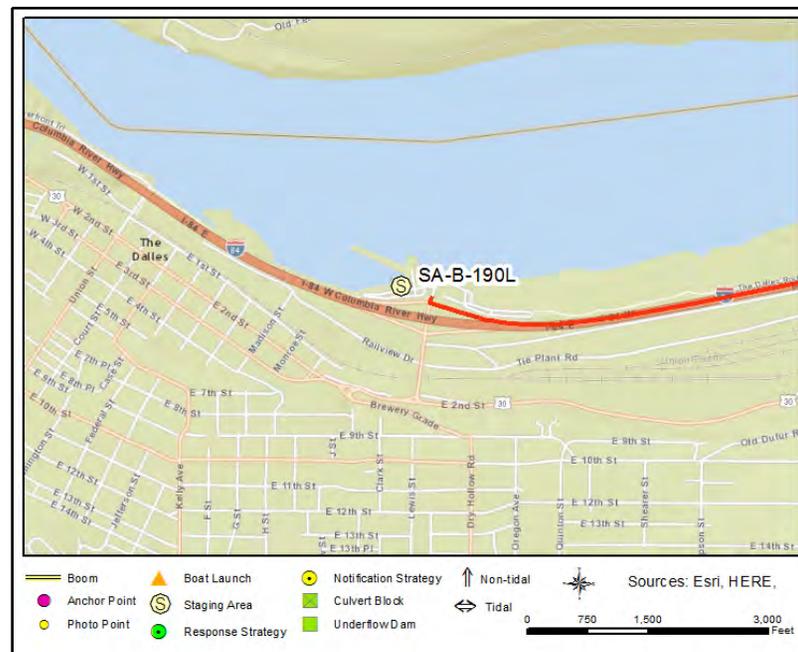
1	Boat Operator
3	Laborer

Southeast of Taylor Lake

B-186.8L



B-186.8L Photo: Aerial view of Taylor Lake E



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Riverfront Trail at River Rd **B-187.1L**

Position - Location: 45° 38.203', -121° 11.967' 45° 38' 12.2", -121° 11' 58.0" 45.63672, -121.19945 The Dalles

Strategy Objective: Collection : Divert oil to small cove for collection

Implementation: Anchor 1000' of boom on the E shore of a small cove just N of Chenoweth Creek. Tow boom out to the SE and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Onsite: Stage off of River Rd on Riverfront Trail beside small cove at collection point

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Downstream Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
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

Riverfront Trail at River Rd **B-187.1L**



B-187.1L Photo: View up stream towards Chenoweth Creek



Site Contact

Nearest Address

4300 River Rd
The Dalles, OR 97058

Driving Directions

1. Directions to B-187.1L, starting at US 197 in Dallesport, WA, head south on US-197 S toward Dallesport Rd. Entering Oregon (1.3 mi)
2. Turn right onto the I-84 W ramp to Portland (0.2 mi)
3. Merge onto I-84 (4.5 mi)
4. Take exit 82 toward Columbia Gorge Discovery Center/Wasco Country Museum (0.2 mi)
5. Turn right onto River Rd (0.2 mi)
6. Turn left to stay on River Rd. Pass the sub-station and take the first right after the curve onto a gravel road (0.4 mi).
7. Once you get close to the river go off road for 75 feet to get on the Riverfront Trail
8. Head N on Riverfront Trail for 350 feet and your destination is on the right.

Chenoweth Creek **B-187.3L**

Position - Location: 45° 38.008', -121° 11.978' 45° 38' .5", -121° 11' 58.7" 45.63346, -121.19963 The Dalles

Strategy Objective: Exclusion : Keep oil out of creek estuary

Implementation: Anchor 900' of boom from the SE corner of the inlet to the NNW corner, directing oil towards B-187.1L collection point as well as excluding it from the creek. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Shallow water, bring waders.

Staging Area: Remote: BL-B-190L/Port of The Dalles Marina

Site Safety: Water hazard, slips, trips & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Creek Estuary, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
900	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

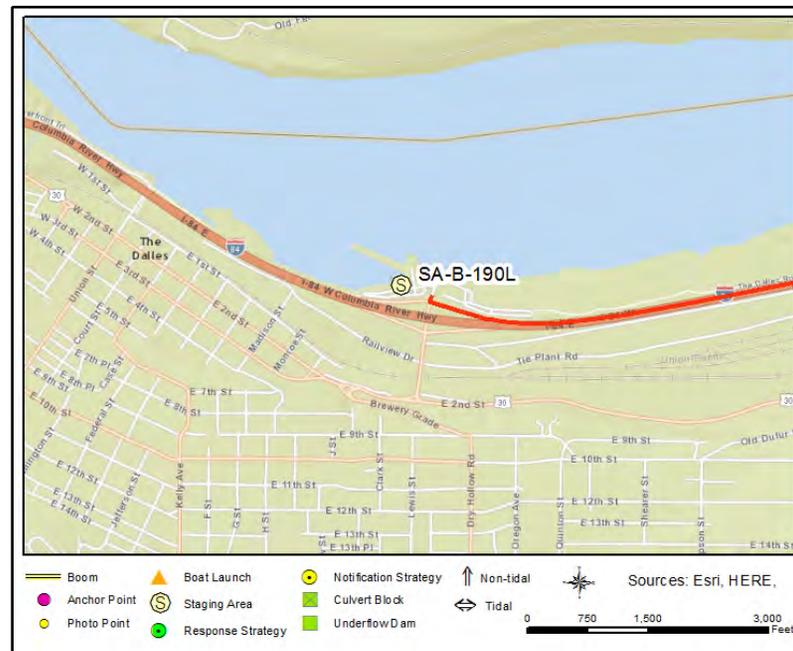
1	Boat Operator
3	Laborer

Chenoweth Creek

B-187.3L



B-187.3L Photo: Mouth of Chenoweth Creek



Site Contact

USACE Bonneville pool
 Land/Property Contact : Natural Resources Manager
 541-374-8344

Port of the Dalles
 Land/Property Contact : Marina owner
 541-298-4148

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

1/2 Mile upstream of Squaw Islands (FBS MP-92.5) B-187.7R

Position - Location: 45° 37.694', -121° 11.546' 45° 37' 41.6", -121° 11' 32.8" 45.62823, -121.19243 Dallesport

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 1000' of boom to the rocky shoreline where a vac truck can reach the water, and tow it out to the SW. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Bring a booster pump in low water conditions.

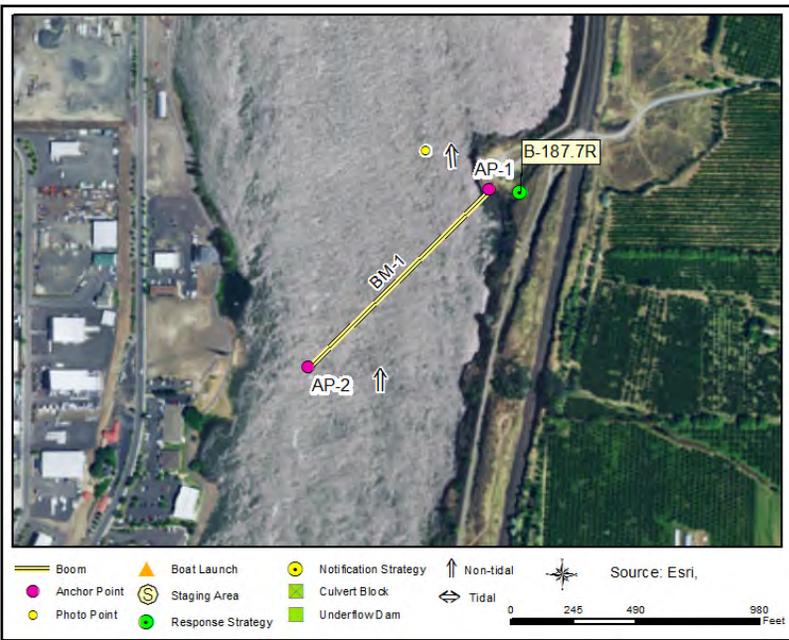
Staging Area: Onsite: 75' x 75' gravel/dirt area to park between the river, a gravel road & the railroad tracks

Site Safety: Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Dam

Resources at Risk: Downstream Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
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

1/2 Mile upstream of Squaw Islands (FBS MP-92.5)

B-187.7R



B-187.7R Photo: Aerial view of the location for B-187.7R



Site Contact

Burlington Northern Santa Fe Railroad
 Land/Property Contact :
 800-832-5452

USACE Bonneville pool
 Other : Natural Resources Manager
 541-374-8344

Nearest Address

Old Ferry Rd and Garden Lane
 Dallesport, WA 98617

Driving Directions

1. Directions to B-187.7R, starting at US Hwy 197 Dallesport, WA 98617
2. Go northwest on US-197 toward Circle T Rd (0.21 miles)
3. Turn left on Circle T Rd (0.22 miles)
4. Turn left on Tidyman Rd (1.31 miles)
5. Continue on Williams St (0.09 miles)
6. Turn right on Dallesport Rd (0.25 miles)
7. Turn left on Garden Ln (0.57 miles)
8. Continue (0.01 miles)
9. Go straight across the railroad tracks and Old Ferry Rd into a cleared parking area.

Riverfront Trail Water Intake Facility **B-188.2L**

Position - Location: 45° 37.248', -121° 11.897' 45° 37' 14.9", -121° 11' 53.8" 45.62080, -121.19828 The Dalles

Strategy Objective: Deflection : Keep oil away from water intake and Riverfront Trail shoreline (divert to collection strategy B-187.7R)

Implementation: Anchor 1000' of boom just upstream from the water intake facility, tow boom out to the NE and anchor where it will divert oil toward boom deployed for B-187.7R. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

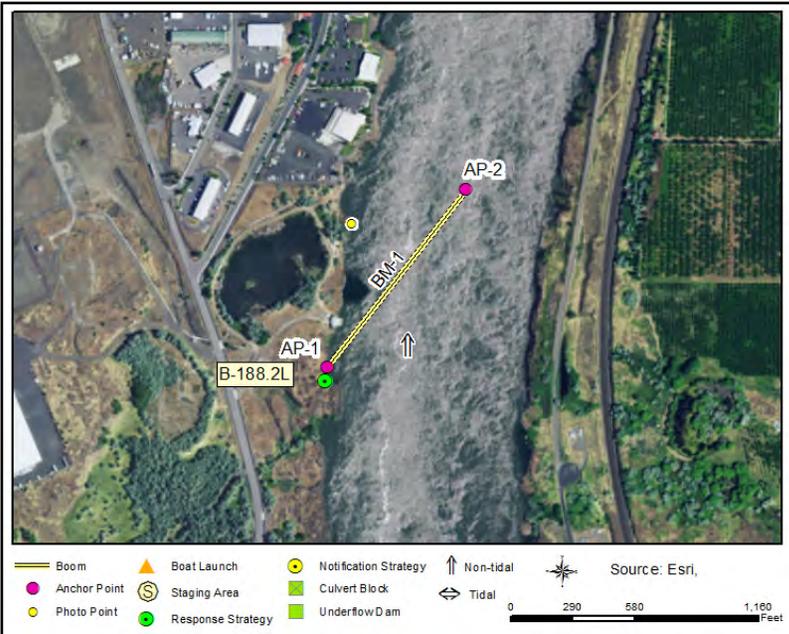
Staging Area: Remote: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Recreational Shoreline Area, Water Intakes



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Riverfront Trail Water Intake Facility

B-188.2L



B-188.2L Photo: View of the shoreline by the water intake facility on Riverfront Trail



Site Contact

Port of the Dalles
 Primary Contact : Marina owner

OR
 541-298-4148

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport
2. Go southeast on US-197 toward Dallesport Rd (1.05 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Dallesport In-Lieu Sandy Beach B-188.4R

Position - Location: 45° 37.138', -121° 11.694' 45° 37' 8.3", -121° 11' 41.6" 45.61896, -121.19489 Dallesport

Strategy Objective: Exclusion : Exclusion - keep oil out of cove with sandy beach

Implementation: Anchor 200' of boom on either side of the opening to cove with sandy beach. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

Staging Area: Onsite: Stage at the boat launch area there at the Dallesport In-Lieu site

Site Safety: Slips, trips, falls, & water hazard.

Field Notes: Beach is just downstream of the boat launch, take path from parking circle.

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Federally Protected Area/Lands, Sensitive Back-Beach, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Dallesport In-Lieu Sandy Beach **B-188.4R**



B-188.4R Photo: View of the beach at the Dallesport In-Lieu site



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

Dallesport Road
 Dallesport, WA 98617

Driving Directions

1. Directions to B-188.4R at the Dallesport Tribe In-Lieu site, starting from Vancouver, Wa
 2. Go east on E Fourth Plain Blvd (0.02 miles)
 3. Turn left onto ramp and go on I-5 N toward Seattle (0.42 miles)
 4. At exit 2 bear right onto ramp to 39th St/WA-500 E (0.19 miles)
 5. Continue on WA-500 toward Orchards (4.4 miles)
 6. Take ramp and go on I-205 S toward Salem (8.2 miles)
 7. At exit 22 bear right onto ramp and go on I-84 E/US-30 E toward The Dalles (78.27 miles)
 8. At exit 87 take ramp on the right to US-197 toward Dufur/Bend (0.21 miles)
 9. Turn left on US-197 (US-30) (1.1 miles)
 10. Turn left on Dallesport Rd (1.6 miles)
 11. Turn left of Old Ferry Rd, follow this road across the railroad tracks, it becomes a gravel drive and continue WEST to the Dallesport In-Lieu Tribal fishing site on the left (1.45 miles)
- There is another way into Old Ferry Rd coming from the west but it is a private drive - please follow these directions.

Dallesport Tribal In-Lieu **B-188.5R**

Position - Location: 45° 37.048', -121° 11.678' 45° 37' 2.9", -121° 11' 40.7" 45.61746, -121.19464 Dallesport

Strategy Objective: Collection : Collection

Implementation: Anchor 1000' of boom to the floating dock on the E side of the boat launch, tow the boom toward the S and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

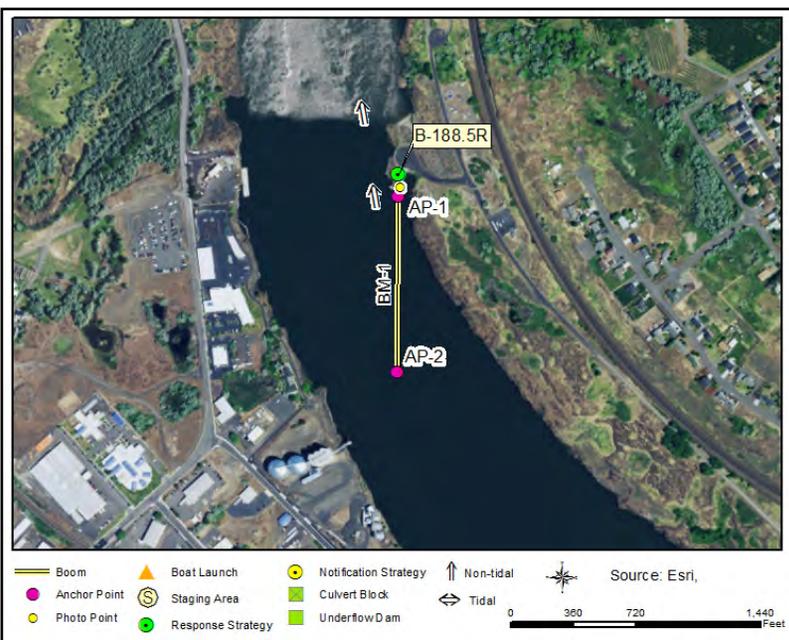
Staging Area: Onsite: Dallesport In-Lieu site (new) with boat launch, water, power, restrooms, covered space.

Site Safety: Slips, trips & falls, water hazard.

Field Notes: Launch on site at in-lieu boat ramp

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Downstream Resources, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

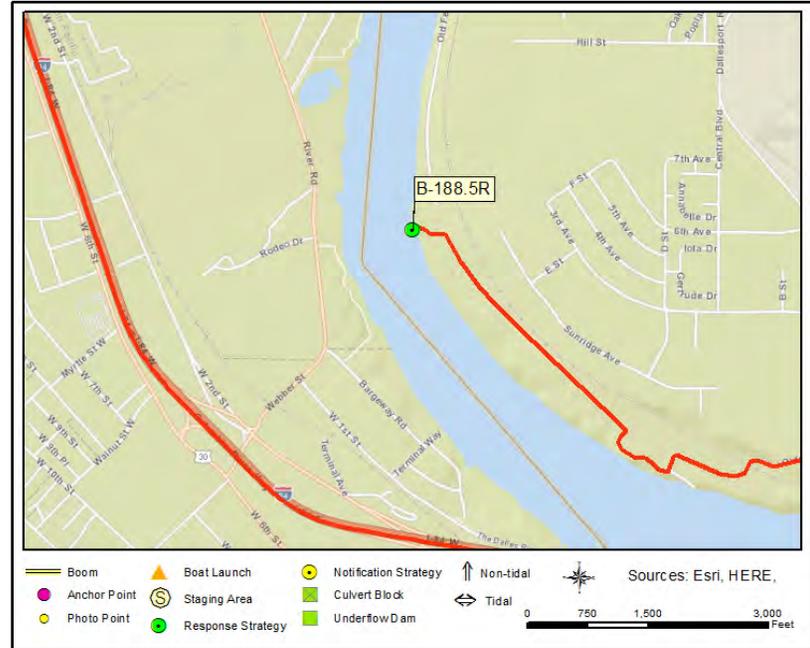
Recommended Personnel

1	Boat Operator
5	Laborer

Dallesport Tribal In-Lieu **B-188.5R**



B-188.5R Photo: Dallesport In-Lieu boat launch



Site Contact

Bureau of Indian Affairs
 Land/Property Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Columbia River Inter-Tribal Fish Commission
 Security Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Nearest Address

Dallesport Road
 Dallesport, WA 98617

Driving Directions

1. Directions to B-188.4R at the Dallesport Tribe In-Lieu site, starting from Vancouver, Wa
 2. Go east on E Fourth Plain Blvd (0.02 miles)
 3. Turn left onto ramp and go on I-5 N toward Seattle (0.42 miles)
 4. At exit 2 bear right onto ramp to 39th St/WA-500 E (0.19 miles)
 5. Continue on WA-500 toward Orchards (4.4 miles)
 6. Take ramp and go on I-205 S toward Salem (8.2 miles)
 7. At exit 22 bear right onto ramp and go on I-84 E/US-30 E toward The Dalles (78.27 miles)
 8. At exit 87 take ramp on the right to US-197 toward Dufur/Bend (0.21 miles)
 9. Turn left on US-197 (US-30) (1.1 miles)
 10. Turn left on Dallesport Rd (1.6 miles)
 11. Turn left of Old Ferry Rd, follow this road across the railroad tracks, it becomes a gravel drive and continue WEST to the Dallesport In-Lieu Tribal fishing site on the left (1.45 miles)
- There is another way into Old Ferry Rd coming from the west but it is a private drive - please follow these directions.

Port of The Dalles Marina **B-190L**

Position - Location: 45° 36.123', -121° 10.361' 45° 36' 7.4", -121° 10' 21.7" 45.60206, -121.17269 The Dalles

Strategy Objective: Exclusion : Keep oil out of marina

Implementation: Anchor 400' of boom to the E jetty and tow to the NW past the breakwater. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Allow room for vessel passage.

Staging Area: Onsite: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Active marina, water hazard, slips, trips & falls

Field Notes: Launch on site at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Boat Basin/Marina, Recreational Boating



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

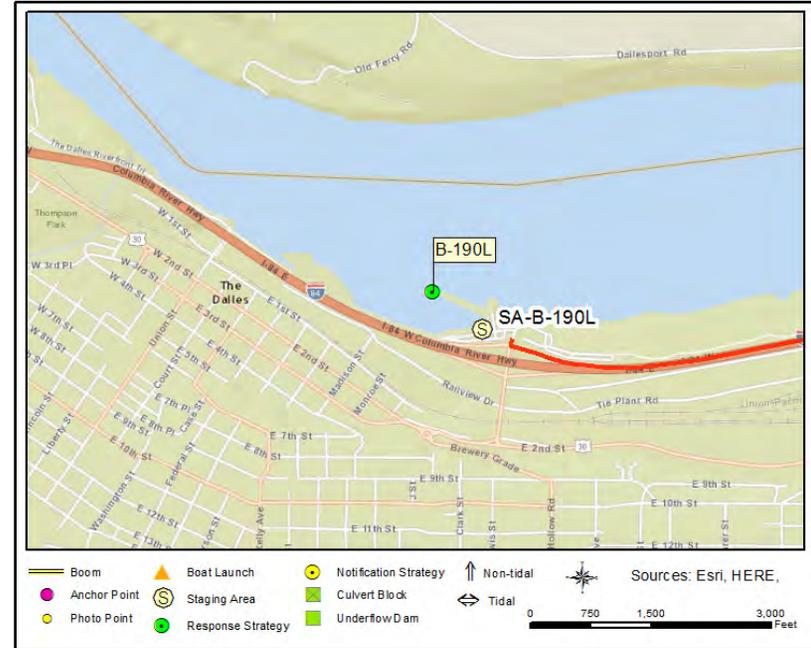
1	Boat Operator
2	Laborer

Port of The Dalles Marina

B-190L



B-190L Photo: Aerial view of River Front Park marina



Site Contact

Port of the Dalles
 Land/Property Contact : Marina owner

 OR
 541-298-4148

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Riverfront Park **B-190.1L**

Position - Location: 45° 36.102', -121° 10.178' 45° 36' 6.1", -121° 10' 10.7" 45.60170, -121.16963 The Dalles

Strategy Objective: Exclusion : Keep oil off shoreline, sandy beach, small pond & sensitive resources.

Implementation: Deploy 1200' of boom anchored to the N end of the jetty on the E side of the boat launch, and to shore on the SE bank beyond the small pond. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.

Staging Area: Onsite: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Boat launch, water hazard, slips, trips & falls.

Field Notes: Launch on site at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Boat Launch/Ramp, Downstream Resources, Recreational Shoreline Area, Sensitive Resources



Recommended Equipment

5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

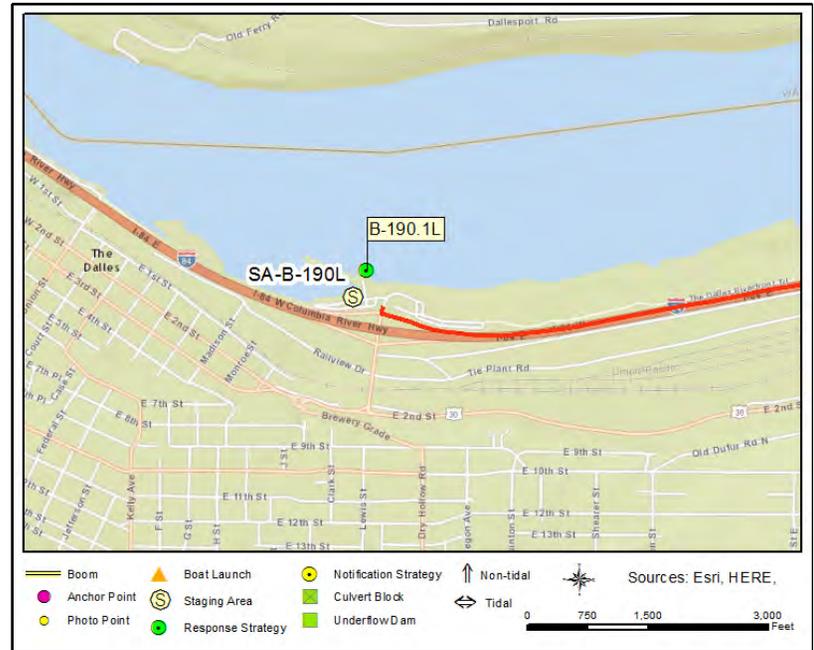
Recommended Personnel

1	Boat Operator
4	Laborer

Riverfront Park **B-190.1L**



B-190.1L Photo: View of the Riverfront Park boat launch and earthen jetty on the E side



Site Contact

Port of the Dalles
 Land/Property Contact : Marina owner

 OR
 541-298-4148

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Below WA side of the US Hwy 197 Bridge **B-191.4R**

Position - Location: 45° 36.683', -121° 8.584' 45° 36' 41.0", -121° 8' 35.1" 45.61138, -121.14307 Dallesport

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Deploy 400' of boom, anchor one end to the N shore at the base of the US Hwy 197 bridge, and the other end on the point of the USACE peninsula where a vac truck can reach the water (bring booster pump for low water conditions). Adjust angle of boom, placement & quantity of anchors, depending on conditions of the day. Pre-notify The Dalles Dam Control Room at 541-298-7505 to access the area.

Staging Area: Onsite: Stage on USACE property at end of peninsula. Call The Dalles Dam Control Room at 541-298-7505 to close lock.

Site Safety: Dam & lock, water hazard, slips, trips & falls.

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Above a Dam - Bonneville pool

Resources at Risk: Downstream Resources, Economic Resource, Lock and Dam



Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

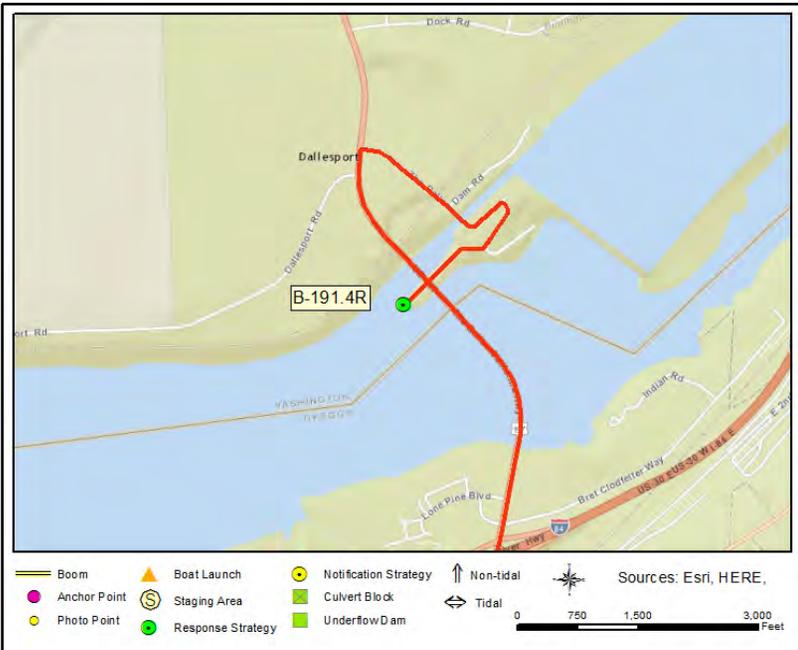
Recommended Personnel

1	Boat Operator
3	Laborer

Below WA side of the US Hwy 197 Bridge **B-191.4R**



B-191.4R Photo: Aerial view of the US Hwy 197 Bridge and The Dalles Lock



Site Contact

USACE The Dalles Dam Control Room
 Pre-Notification Required : Emergency contact & access to dam

541-298-7505

Nearest Address

US Hwy 197
 Dallesport, WA 98617

Driving Directions

1. Directions to the W entrance gate for The Dalles Lock & Dam, starting at Brewery Overpass Road and Highway 84, The Dalles, OR 97058
2. Go northeast on Court St toward US-30 (0.09 miles)
3. Turn right on E 1st St (0.35 miles)
4. Turn left on Madison St (0.07 miles)
5. Turn right on Railview Dr (0.35 miles)
6. Continue (0.18 miles)
7. Make sharp left on Fire Rd (0.07 miles)
8. Continue on Tie Plant Rd (0.12 miles)
9. Turn right (0.02 miles)
10. Turn right onto ramp and go on I-84 E toward Pendleton (1.29 miles)
11. At exit 87 take ramp on the right to US-197 toward Dufur/Bend (0.21 miles)
12. Turn left on US-197 (US-30) (2.09 miles)
13. Take the first right after the bridge and follow to the dam entrance gate (0.4 miles). Once through the gate, stay to the right until reaching the location for B-191.5R at the end of the peninsula.

The Dalles Lock downstream B-191.55R

Position - Location: 45° 36.844', -121° 8.427' 45° 36' 50.6", -121° 8' 25.6" 45.61407, -121.14046 Dallesport

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 300' of boom to the N shore at the base of the bridge below the lock, anchor the downstream end of the boom to the opposite bank where a vac truck can get access. Bring additional pumps for low water conditions. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Contact The Dalles Dam Control office at 541-298-7505 to get access to the area.

Staging Area: Onsite: Call The Dalles Dam Control office at 541-298-7505 to get access to the area.

Site Safety: Dam, lock, water hazard, heavy equipment, slips, trips & falls.

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Below a Dam - The Dalles Dam in the Bonneville pool

Resources at Risk: Downstream Resources, Economic Resource, Lock and Dam



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B3 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

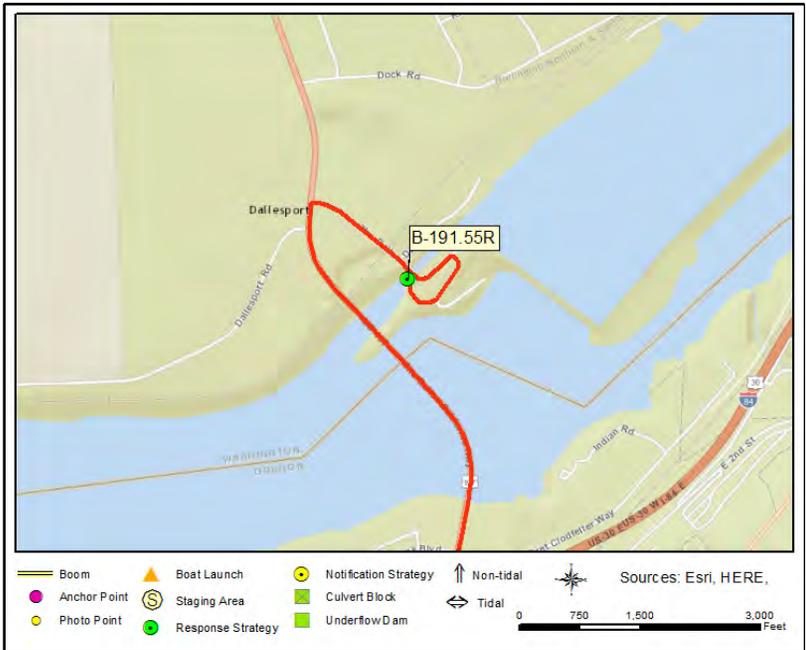
Recommended Personnel

1	Boat Operator
3	Laborer

The Dalles Lock downstream **B-191.55R**



B-191.55R Photo: Aerial view of the downstream end of The Dalles Lock



Site Contact

USACE The Dalles Dam Control Room
 Pre-Notification Required : Emergency contact & access to dam

 541-298-7505

Nearest Address

US Hwy 197
 Dallesport, WA 98617

Driving Directions

1. Directions to the Dalles Dam & Lock, WA entrance gate, starting at Brewery Overpass Road and Highway84, The Dalles, OR 97058
2. Go northeast on Court St toward US-30 (0.09 miles)
3. Turn right on E 1st St (0.35 miles)
4. Turn left on Madison St (0.07 miles)
5. Turn right on Railview Dr (0.35 miles)
6. Continue (0.18 miles)
7. Make sharp left on Fire Rd (0.07 miles)
8. Continue on Tie Plant Rd (0.12 miles)
9. Turn right (0.02 miles)
10. Turn right onto ramp and go on I-84 E toward Pendleton (1.29 miles)
11. At exit 87 take ramp on the right to US-197 toward Dufur/Bend (0.21 miles)
12. Turn left on US-197 (US-30) (2.09 miles)
13. Take the first right after leaving the bridge and follow it to the dam entrance gate (0.4 mi).

The Dalles W Fishladder in/out take downstream B-191.6R

Position - Location: 45° 36.861', -121° 8.166' 45° 36' 51.7", -121° 8' 9.9" 45.61435, -121.13609 Dallesport

Strategy Objective: Exclusion : Keep oil out of the fishladder

Implementation: Anchor 100' of boom across the opening to the fish ladder in a chevron formation, adjust angle of boom & position of anchors based on conditions of the day. Contact The Dalles Dam Control Room at 541-298-7505 to gain access to the area. If impossible to access by boat it may be possible to implement the strategy from shore.

Staging Area: Onsite: Stage at The Dalles Dam (contact The Dalles Dam Control Room for access 541-298-7505)

Site Safety: Dam, water hazard, slips, trips & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Below a Dam - The Dalles Dam in the Bonneville Pool

Resources at Risk: Fish Ladder(s)



Recommended Equipment

3 Each	Anchoring System(s)- Shoreside
100 Feet	Boom - B2 (Contractor Boom) or equivalent
1 Each	Workboat(s) - of adequate size for type and amount of boom

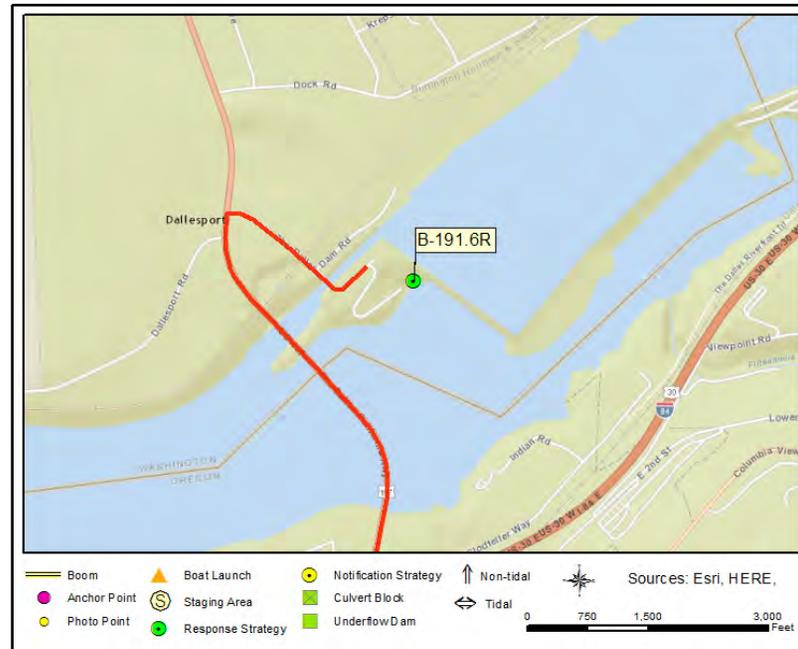
Recommended Personnel

1	Boat Operator
2	Laborer

The Dalles W Fishladder in/out take downstream **B-191.6R**



B-191.6R Photo: Aerial view of The Dalles Dam downstream W fishladder



Site Contact

USACE The Dalles Dam Control Room
 Pre-Notification Required : Emergency contact & access to dam

 541-298-7505

Nearest Address

US 197
 Dallesport, WA 98617

Driving Directions

1. Directions to The Dalles Dam WA access gate, starting at Brewery Overpass Road and Highway84, The Dalles, OR 97058
2. Go northeast on Court St toward US-30 (0.09 miles)
3. Turn right on E 1st St (0.35 miles)
4. Turn left on Madison St (0.07 miles)
5. Turn right on Railview Dr (0.35 miles)
6. Continue (0.18 miles)
7. Make sharp left on Fire Rd (0.07 miles)
8. Continue on Tie Plant Rd (0.12 miles)
9. Turn right (0.02 miles)
10. Turn right onto ramp and go on I-84 E toward Pendleton (1.29 miles)
11. At exit 87 take ramp on the right to US-197 toward Dufur/Bend (0.21 miles)
12. Turn left on US-197 (US-30) (2.09 miles)
13. Take the first right and follow to The Dalles Dam access gate (0.4 m)

15 Mile Creek **B-192.4L**

Position - Location: 45° 36.833', -121° 7.407' 45° 36' 50.0", -121° 7' 24.4" 45.61389, -121.12345 The Dalles

Strategy Objective: Exclusion : Keep oil from passing between the Columbia River and 15 Mile Creek

Implementation: Anchor 100' of boom on both banks at the Northern most point possible at the mouth of the creek. Contact The Dalles Dam Control Room 541-298-7505 to gain access to the area by boat.

Staging Area: Remote: Stage at SA-B-190L/Port of The Dalles Marina

Site Safety: Dam, water hazard, slips, trips & falls

Field Notes: Launch from BL-B-190L/Port of The Dalles Marina

Watercourse: River - Below a Dam - Bonneville Pool but on the E shore near The Dalles Dam

Resources at Risk: Creek Habitat, Downstream Resources, Salmon Concentrations and Habitat, Sensitive Resources Nearby



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

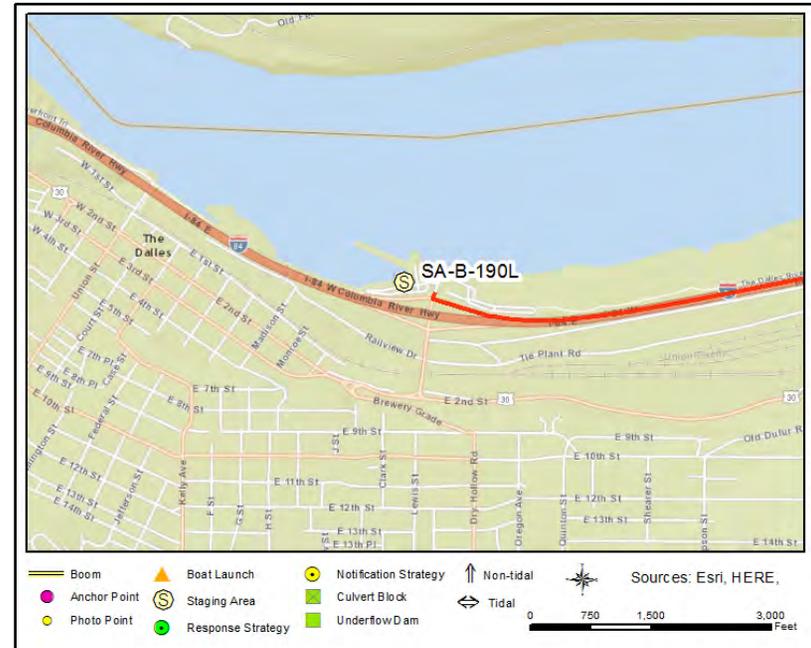
1	Boat Operator
2	Laborer

15 Mile Creek

B-192.4L



B-192.4L Photo: The mouth of 15 Mile Creek



Site Contact

USACE The Dalles Dam Control Room
 Pre-Notification Required : Emergency contact & access to dam

 541-298-7505

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

The Dalles Dam downstream E fishladder B-192.7M

Position - Location: 45° 37.159', -121° 7.250' 45° 37' 9.6", -121° 7' 15.0" 45.61932, -121.12083 The Dalles

Strategy Objective: Exclusion : keep oil away from fishladder

Implementation: Anchor 200 ft of boom to the shore of Memaloose Island SE of the fishladder in/out take, and anchor the other side to the SW wall. Adjust angle of boom depending on conditions of the day. Contact The Dalles Dam Control Room 541-298-7505 prior to deploying strategy.

Staging Area: Remote: Stage on-site at Paterson Park beside fish ladder

Site Safety: Dam, water hazard, slips, trips & falls

Field Notes: Launch at BL-B-190L/Port of The Dalles Marina

Watercourse: River - Below a Dam - Downstream side of The Dalles Dam in the Bonneville pool

Resources at Risk: Fish Ladder(s)



Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

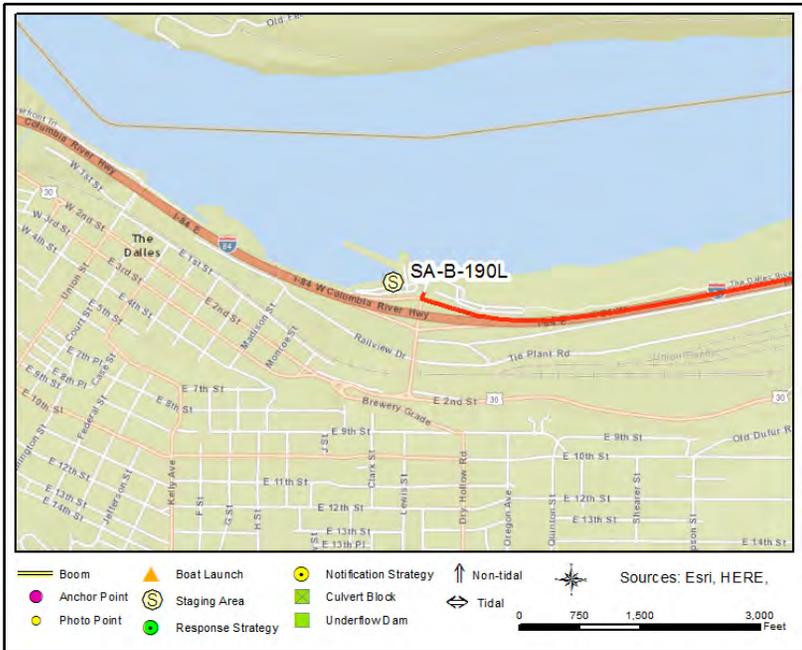
Recommended Personnel

1	Boat Operator
2	Laborer

The Dalles Dam downstream E fishladder **B-192.7M**



B-192.7M Photo: Aerial view of The Dalles Dam E Fishladder



Site Contact

USACE The Dalles Dam Control Room
 Pre-Notification Required : Emergency contact & access to dam

 541-298-7505

Nearest Address

Brewery Overpass Road and Highway 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

APPENDIX 4B
Notification Strategy 2-Pagers

NOTIFICATION STRATEGIES – LIST

B-145.4-N

B-146.2L-N

B-150.8L-N

B-162.2-N

B-167.5-N

B-171-N

B-189-N

B-190.5L-N

D-191.7-N

Bonneville Lock & Dam Notification **B-145.4-N**

Position - Location: 45° 38.415', -121° 56.778' 45° 38' 24.9", -121° 56' 46.7" 45.64024, -121.94630 Cascade Locks

Strategy Objective: Notification : Protection of fish ladders, lock &/or spillway closure, deployment of GRP strategies

Implementation: Notify project management and take action to protect USACE property and resources, including the deployment, by USACE staff or response contractors, of GRP strategies. Strategies on the upstream side of the dam include: B-145.5M (exclusion strategy at Bradford Island fish ladder exit), B-145.8M (collection strategy by intake for fry), & B-145.9L (exclusion/collection at upstream entrance to lock). On the downstream side of the dam is a collection strategy, LCR-144.9L, at the end of the lock - it is listed in the LCR-GRP.

Field Notes: USACE has the facilities to establish an incident command post on site. Responders should work with USACE personnel to gain access to facility property and recreation areas after hours. Those deploying GRP strategies on USACE property will need to be escorted.

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Lock and Dam



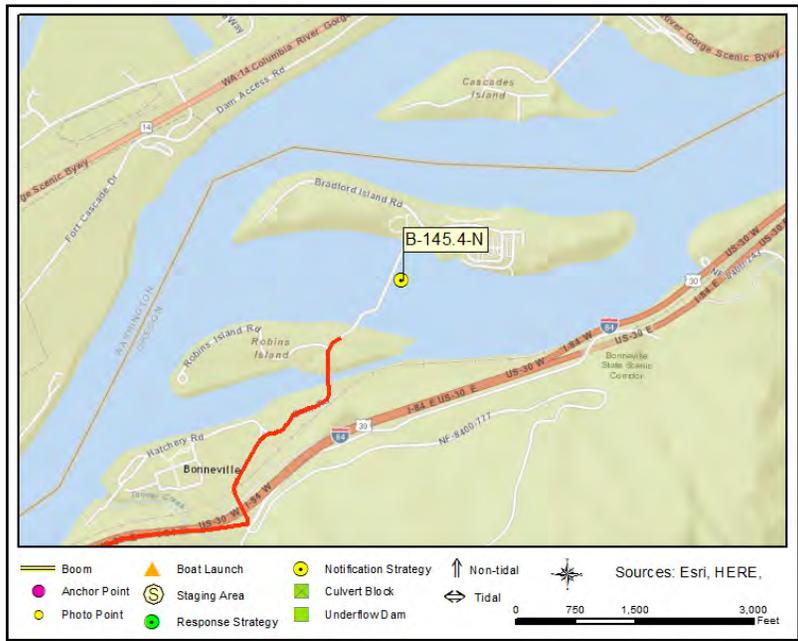
Communication Process and Action:

Call Bonneville Lock & Dam Control Room Operator (24/7) 541-374-8338

Bonneville Lock & Dam Notification **B-145.4-N**



B-145.4-N Photo: Map of Bonneville Lock & Dam



Site Contact

USACE Bonneville Dam Control Room
 Emergency Contact : Emergency contact and to gain access to the dam
 OR
 541-374-8338

Nearest Address

100 NE Sturgeon Lane
 Cascade Locks, OR 97014

Driving Directions

1. Directions to N-B-145.4M/Bonneville Lock & Dam, starting at I-84 E
2. Take exit 40 ramp to Tanner Creek Rd (0.15 miles)
3. Turn left on NE Bonneville Way (0.5 miles)
4. Continue onto Star Route (0.6 miles)
5. Report to USACE Security Office/Gate for escort

Cascade Hatchery **B-146.2L-N**

Position - Location: 45° 38.492', -121° 55.664' 45° 38' 29.5", -121° 55' 39.8" 45.64154, -121.92773 Cascade Locks

Strategy Objective: Notification : Keep hatchery employees and fish safe

Implementation: Call Hatchery Manager at 503-801-3713 so they can determine if evacuation is needed or if they should shut down circulation pumps

Field Notes: Hatchery does not have a water intake in either Eagle Creek or the Columbia River, nor do they release fish to these waterbodies.

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Fish Hatchery

Communication Process and Action:

Call Hatchery Manager at 503-801-3713

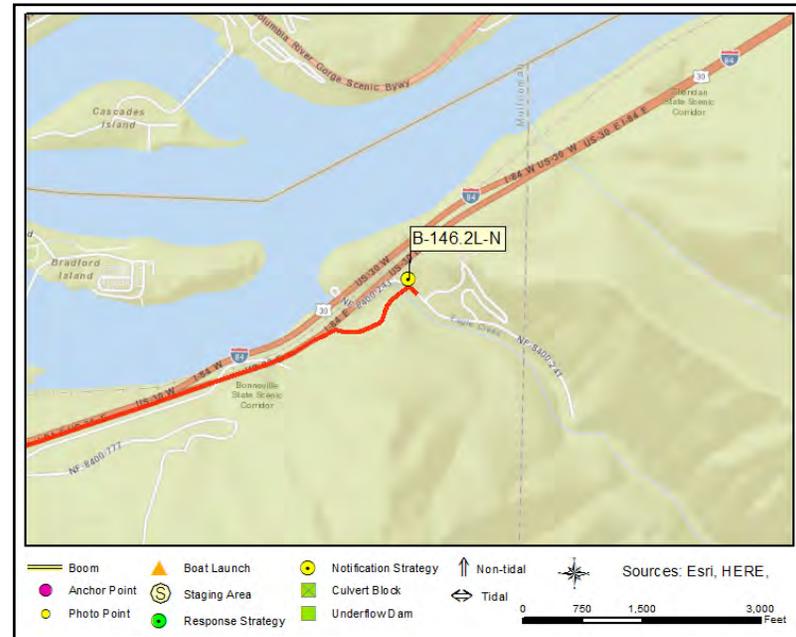


Cascade Hatchery

B-146.2L-N



B-146.2L-N Photo: View of the Cascade Hatchery next to I-5 and the Union Pacific railroad line.



Site Contact

Cascade Hatchery
 Primary Contact : Hatchery Manager
 74152 NE Eagle Creek Loop
 Cascade Locks, OR 97014
 503-801-3713

Nearest Address

74152 NE Eagle Creek Loop
 Cascade Locks, OR 97014

Driving Directions

1. Directions to the Cascade Hatchery, B-146.2L-N, starting from Portland, Or
2. Go north on NW 6th Ave toward NW Couch St (0.02 miles)
3. Turn right on NW Couch St (0.15 miles)
4. Turn right on NW 3rd Ave (0.05 miles)
5. Turn left on W Burnside St (0.2 miles)
6. Continue on Burnside Brg (0.16 miles)
7. Continue on E Burnside St (0.25 miles)
8. Turn left on OR-99E (NE Grand Ave) (0.15 miles)
9. Turn right onto ramp and go on I-84 E/US-30 E toward Portland Airport/The Dalles (38.64 miles)
10. At exit 41 take ramp to NE Eagle Creek Loop (0.28 miles)
11. Turn right on NE Eagle Creek Loop (NF-8400-240) (0.03 miles)
12. Finish at 74152 NE Eagle Creek Loop, 97014, on the left

City of Cascade Locks Water Intake **B-150.8L-N**

Position - Location: 45° 41.017', -121° 51.786' 45° 41' 1.0", -121° 51' 47.2" 45.68362, -121.86310 Cascade Locks

Strategy Objective: Notification : Alert to need to monitor and potentially shut off community water system well located less than 500 feet

Implementation: Determine need to shut off water intakes.

Field Notes: This well is shown as groundwater withdrawal, but may have significant connection to river source. Well serves the city of Cascade Locks.

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Public Health and Safety, Water Intakes

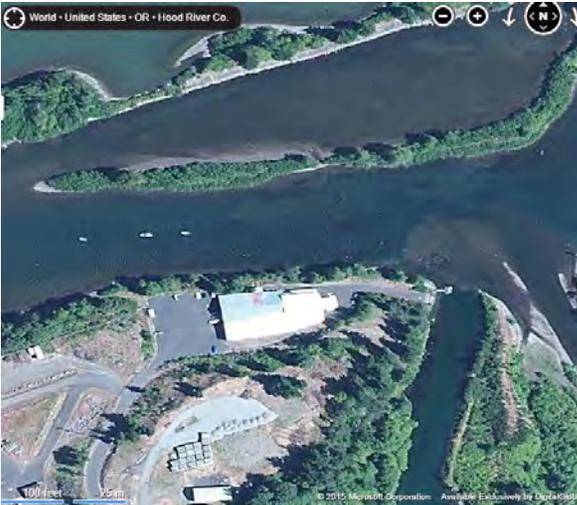


Communication Process and Action:

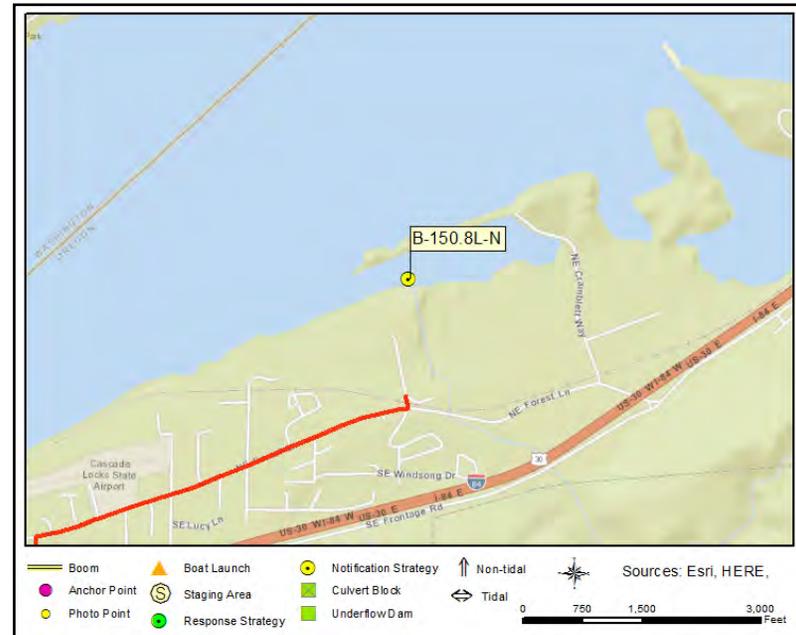
Call Public Works Foreman at 541-386-2711

City of Cascade Locks Water Intake

B-150.8L-N



B-150.8L-N Photo: Aerial view of the Cascade Locks water intake facility



Site Contact

City of Cascade Locks-Public Works
 Municipality (County/City) : Public Works Foreman
 15 Herman Creek Lane
 Cascade Locks, OR 97014
 541-386-2711

Nearest Address

15 Herman Creek Lane
 Cascade Locks, OR 97014

Driving Directions

1. Directions to the City of Cascade Locks water intake/well, starting from Portland, OR
2. Go north on NW 6th Ave toward NW Couch St (0.02 miles)
3. Turn right on NW Couch St (0.15 miles)
4. Turn right on NW 3rd Ave (0.05 miles)
5. Turn left on W Burnside St (0.2 miles)
6. Continue on Burnside Brg (0.16 miles)
7. Continue on E Burnside St (0.25 miles)
8. Turn left on OR-99E (NE Grand Ave) (0.15 miles)
9. Turn right onto ramp and go on I-84 E/US-30 E toward Portland Airport/The Dalles (40.58 miles)
10. At exit 44 take ramp on the right to US-30 toward Cascade Locks/Stevenson (0.32 miles)
11. Turn left (0.02 miles)
12. Make sharp right on US-30 (Wa-Na-Pa St) (0.11 miles)
13. At fork keep left on US-30 (Wa-Na-Pa St) (1.17 miles)
14. Turn left on NE Hammond Ave (0.15 miles)
15. Turn right on NW Forest Ln (0.94 miles)
16. Turn left on NE Herman Creek Ln (0.03 miles)
17. Finish at 15 Herman Creek Lane, 97014, on the left

Little White Salmon National Fish Hatchery **B-162.2-N**

Position - Location: 45° 42.580', -121° 38.541' 45° 42' 34.8", -121° 38' 32.5" 45.70967, -121.64235 Cook

Strategy Objective: Notification : Prevent fish release

Implementation: Call the hatchery manager to prevent release of fish and assess what threat the spill poses to hatchery facilities (if any).

Field Notes: Hatchery is located up the Little White Salmon River which drains into Drano Lake, an impounded lake in the Bonneville Pool

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Fish Hatchery

Communication Process and Action:

Call Acting Manager Mark Ahrens, Work phone 509-493-1730 or Peter Long, Biologist Work phone – 509-538-2755, After hours – 509-538-2674

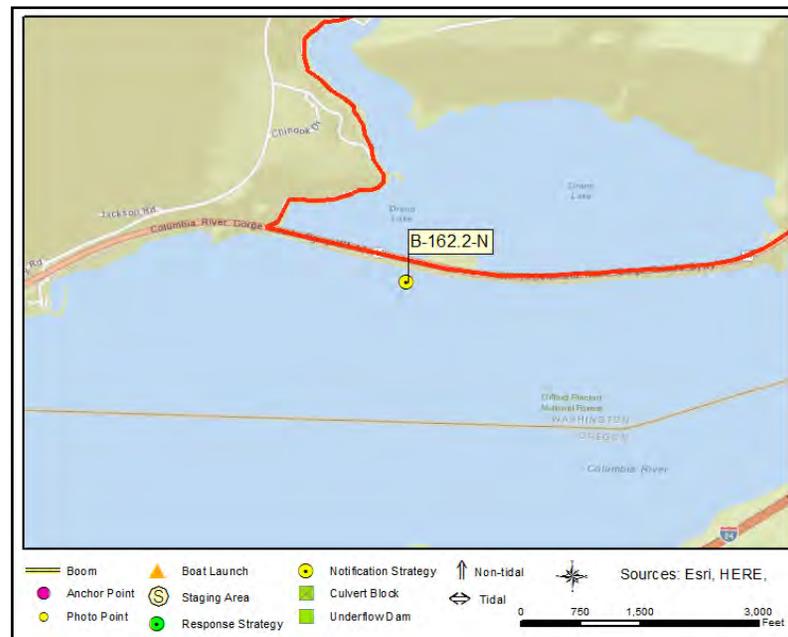


Little White Salmon National Fish Hatchery

B-162.2-N



B-162.2-N Photo: View of the outflow pipe at the Little White Salmon National Fish Hatchery



Site Contact

Spring Creek & Little White Salmon National Fish Hatcheries
 Primary Contact : Acting Manager
 56961 S.R. 14
 Cook, WA 98605
 541-490-2100

Nearest Address

100 Jackson Road
 Cook, WA 98605

Driving Directions

1. Directions to N-B-162.2R/Little White Salmon National Fish Hatchery, starting at Hood River Bridge, white salmon,
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Turn right on Cook-Underwood Rd (0.9 miles)
5. Finish at Little White Salmon National Fish Hatchery.

Spring Creek National Fish Hatchery **B-167.5-N**

Position - Location: 45° 43.728', -121° 32.702' 45° 43' 43.7", -121° 32' 42.1" 45.72879, -121.54503 Underwood

Strategy Objective: Notification : Protect fish intakes/out flow

Implementation: Take actions in accordance with facility SOP and Spill Prevention Control, and Countermeasure Plan

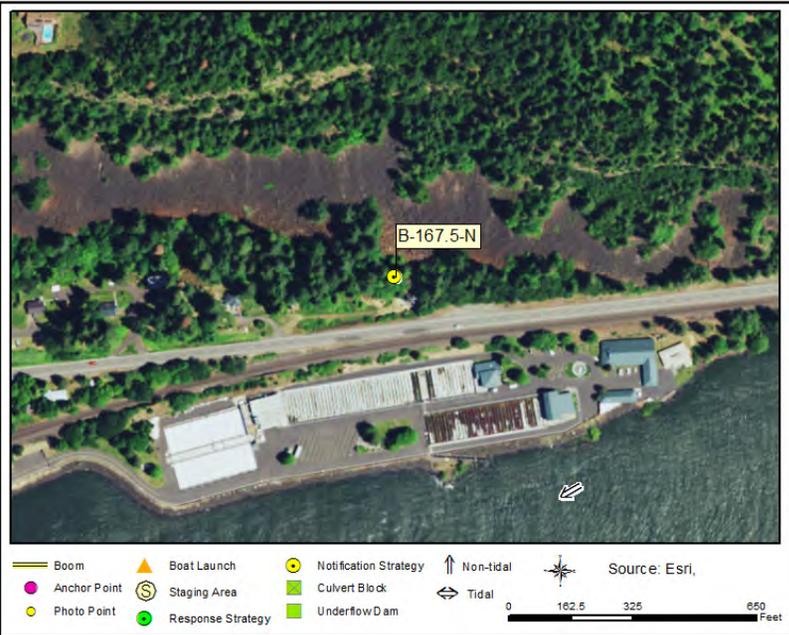
Field Notes: Notify hatchery managers to shut down intakes.

Watercourse: River - Above a Dam - Bonneville Dam

Resources at Risk: Fish Hatchery

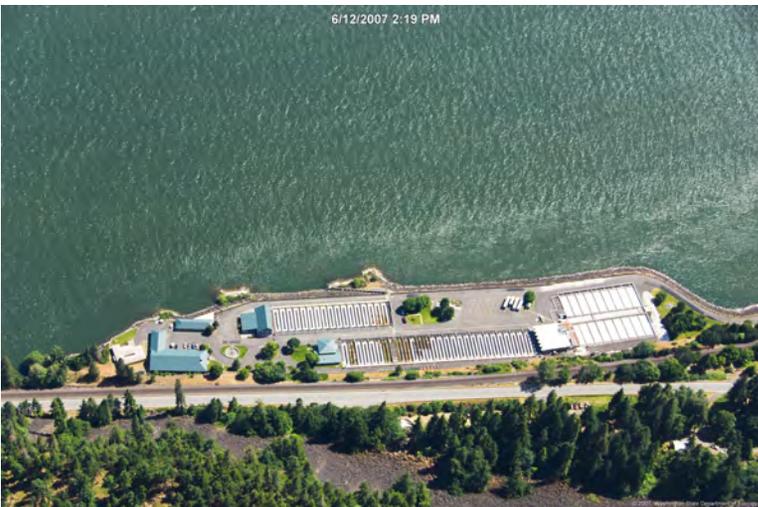
Communication Process and Action:

Call Mark Ahrens, Hatchery Manager, 509-493-1730, after hours 541-490-2100;
 Secondary – Mathew Maxey, Staff Biologist, 509-493-1730, after hours 509-412-2376

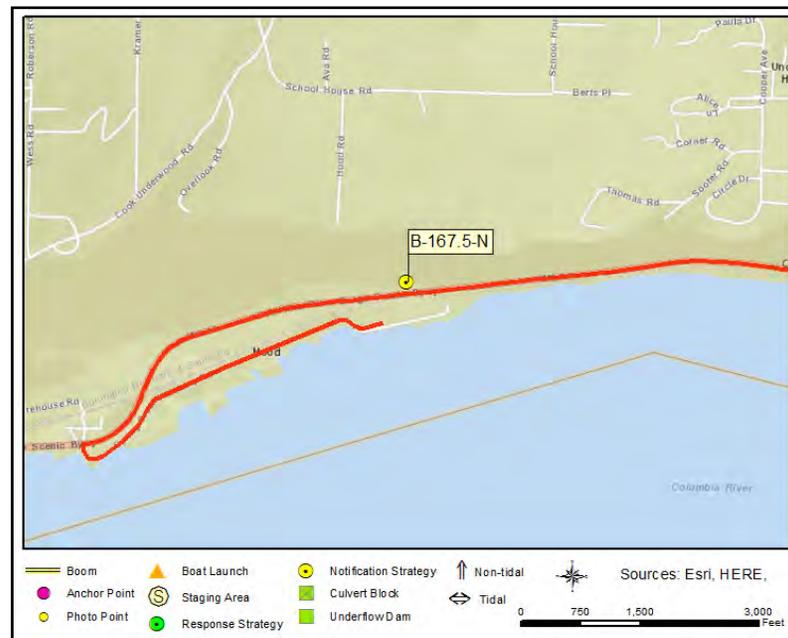


Spring Creek National Fish Hatchery

B-167.5-N



B-167.5-N Photo: Aerial view of the Spring Creek National Fish Hatchery



Site Contact

Spring Creek National Fish Hatchery
 Primary Contact : Hatchery Manager
 61552 State Rd 14
 Underwood, WA 98651
 509-493-1730

Nearest Address

Spring Creek Hatchery Rd
 Underwood, WA 98651

Driving Directions

1. Directions to N-B-167.5R/Spring Creek National Fish Hatchery, starting at 64128 State Road 14, White Salmon, WA 98672
2. Go west on WA-14 (Highway 14) toward WA-141-ALT (2.63 miles)
3. Turn left on Spring Creek Hatchery Rd (0.8 miles)
4. Finish at Spring Creek Hatchery Rd, 98651, on the right

SDS Lumber Company **B-171-N**

Position - Location: 45° 42.838', -121° 28.152' 45° 42' 50.3", -121° 28' 9.1" 45.71396, -121.46920 Bingen

Strategy Objective: Notification : Deploy B-170.8R exclusion strategy

Implementation: Call SDS Lumber Company's Environmental Health & Safety Manager at 541-490-3299. Upon notification SDS management will have staff deploy B-170.8R. Once deployed, or if unable to deploy for some reason, a SDS Lumber Co. representative will contact the WA ECY PREP Pager Duty Officer at 360-923-6020. Implementation of B-170.8R by contractors is an alternative option.

Field Notes: SDS Lumber Co. has equipment & personnel to deploy strategy, however, any others responding should work with SDS personnel to gain access to facility property. Those deploying GRP strategies on SDS Lumber Co. property will need to be escorted if traveling through the

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Economic Resource, Waterfowl and Salmonid Concentrations and Habitat



Communication Process and Action:

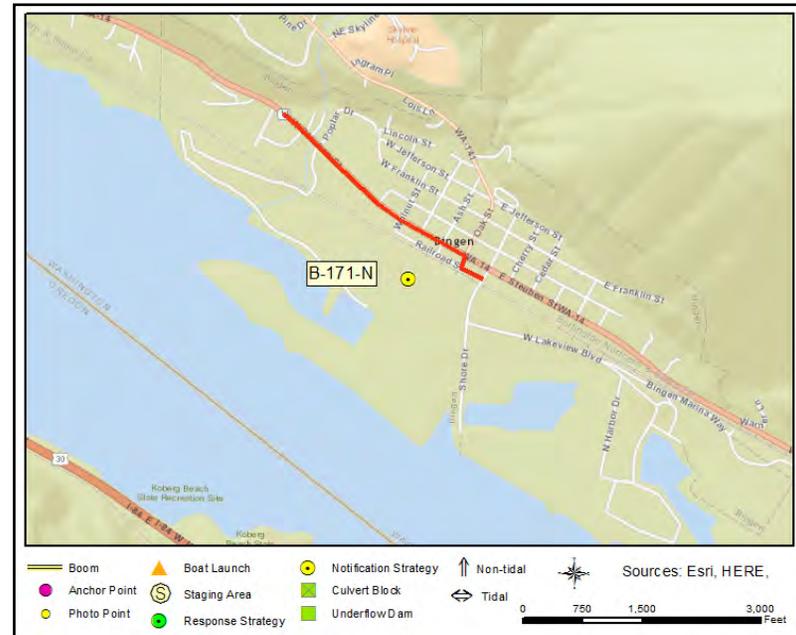
Call SDS Lumber Company's Environmental Health & Safety Manager at 541-490-3299.

SDS Lumber Company

B-171-N



B-171-N Photo: Aerial view of SDS Lumber Co. showing location of boom trailer near docks.



Site Contact

SDS Lumber Co
 Land/Property Owner : Owner, has boom
 Depot St
 Bingen, WA 98605
 541-490-3299

Nearest Address

Depot St & Maple St
 Bingen, WA 98605

Driving Directions

1. Directions to SDS Lumber Co, Depot St, Bingen (location of B-170.8R), starting at Hood River Bridge, WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Cross Railroad St (Depot St) and enter SDS Lumber property. The office is to the left.

The Dalles Irrigation District Water Intake **B-189-N**

Position - Location: 45° 36.480', -121° 11.364' 45° 36' 28.8", -121° 11' 21.8" 45.60800, -121.18940 The Dalles

Strategy Objective: Notification : Shut off water intake

Implementation: Call 541-993-5200 (24 hours), to have them shut off water intake

Field Notes: Water intake pipe is ~30 feet below the surface

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Water Intakes



Communication Process and Action:

Call 541-993-5200 (24 hours)

The Dalles Irrigation District Water Intake

B-189-N



B-189-N Photo: Aerial view of The Dalles Irrigation District water intake facility



Site Contact

The Dalles Irrigation District
 Primary Contact : Water Intake Emergency Contact
 3503 Olney Road
 The Dalles, OR 97058
 541-993-520

Nearest Address

West 1st St.
 The Dalles, OR 97058

Driving Directions

1. Directions to The Dalles Irrigation District Water Intake Facility, starting at the Bridge of the Gods
2. Go east on US-30 (Wa-Na-Pa St) toward SE Venture St (1.31 miles)
3. Turn left onto ramp and go on I-84 E (38.34 miles)
4. At exit 83 take ramp on the right toward West The Dalles (0.14 miles)
5. Turn left on US-30 (W 6th St) (0.15 miles)
6. Turn left at W 6th St to stay on US-30 (Webber St) toward Portland/I-84 (0.12 miles)
7. Continue on Webber St (0.17 miles)
8. Turn right on W 1st St (0.64 miles)
9. Turn left onto gravel road at West1st St., 97058

The Dalles Public Works **B-190.5L-N**

Position - Location: 45° 36.406', -121° 8.210' 45° 36' 24.4", -121° 8' 12.6" 45.60677, -121.13683 The Dalles

Strategy Objective: Notification : Alert to need to monitor and potentially shut off large municipal well located less than 500 feet from river

Implementation: Determine need to shut down water intakes

Field Notes: This well is shown as groundwater withdrawal, but may have significant connection to river source. Well serves the city of The Dalles.

Watercourse: River - Above a Dam - Bonneville Pool

Resources at Risk: Public Health and Safety, Water Intakes



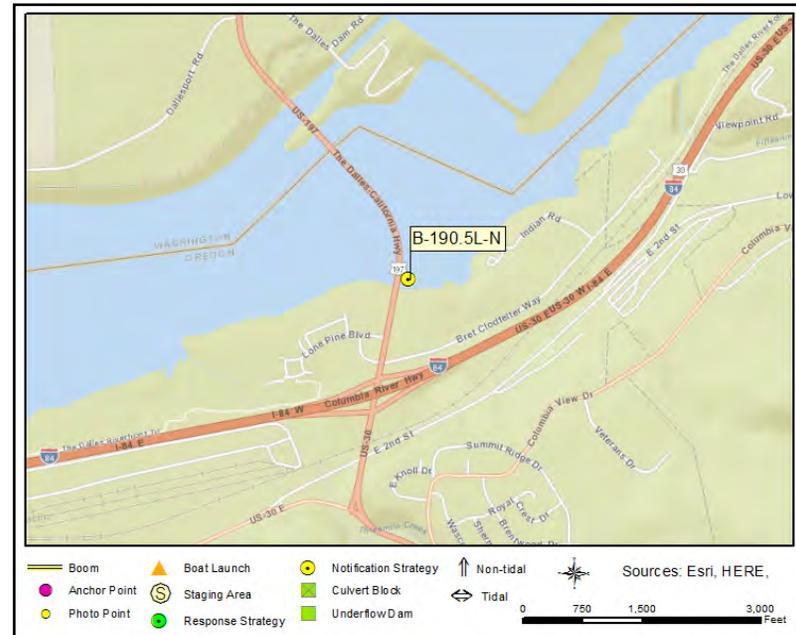
Communication Process and Action:

Call 541-980-7703,
On Call Rotation for Public Works

The Dalles Public Works **B-190.5L-N**



B-190.5L-N Photo: Aerial view of The Dalles water intake/well - notification strategy location



Site Contact

City of The Dalles Public Works Department
 Municipality (County/City) : On Call Rotation for Public Works
 1215 West 1st Street
 The Dalles, OR 97058
 541-980-7703

Nearest Address

1215 West 1st Street
 The Dalles, OR 97058

Driving Directions

1. Directions to the City of The Dalles Public Works Office, starting from Portland, OR
2. Go north on NW 6th Ave toward NW Couch St (0.02 miles)
3. Turn right on NW Couch St (0.15 miles)
4. Turn right on NW 3rd Ave (0.05 miles)
5. Turn left on W Burnside St (0.2 miles)
6. Continue on Burnside Brg (0.16 miles)
7. Continue on E Burnside St (0.25 miles)
8. Turn left on OR-99E (NE Grand Ave) (0.15 miles)
9. Turn right onto ramp and go on I-84 E/US-30 E toward Portland Airport/The Dalles (80.79 miles)
10. At exit 83 take ramp on the right toward West The Dalles (0.14 miles)
11. Turn left on US-30 (W 6th St) (0.15 miles)
12. Turn left at W 6th St to stay on US-30 (Webber St) toward Portland/I-84 (0.12 miles)
13. Continue on Webber St (0.17 miles)
14. Turn right on W 1st St (0.3 miles)
15. Finish at 1215 West 1st Street, 97058, on the left

The Dalles Lock & Dam Notification D-191.7-N

Position - Location: 45° 36.833', -121° 8.026' 45° 36' 50.0", -121° 8' 1.6" 45.61389, -121.13377 The Dalles

Strategy Objective: Notification : Protection of fish ladders, closure of lock/spillway, deployment of GRP strategies

Implementation: Notify Project management and take action to protect USACE property and resources, including the deployment, by USACE staff or response contractors, of GRP strategies. Strategies in The Dalles pool include: D-191.7M and D-192.8L, both exclusion strategies to protect the fish ladders on the upstream side of the dam, and D-191.9R a collection strategy for the E end of the lock; strategies on the downstream side of the dam, in the Bonneville pool, include: B-192.7M and B-191.6R to protect the fish ladders on the downstream side of the dam, as well as B-191.55R collection strategies at the lock.

Field Notes: USACE has the facilities to establish an incident command post on site. Responders should work with USACE personnel to gain access to facility property and recreation areas after hours. Those deploying GRP strategies on USACE property will need to be escorted.

Watercourse: River - Above a Dam - The Dalles Pool

Resources at Risk: Lock and Dam

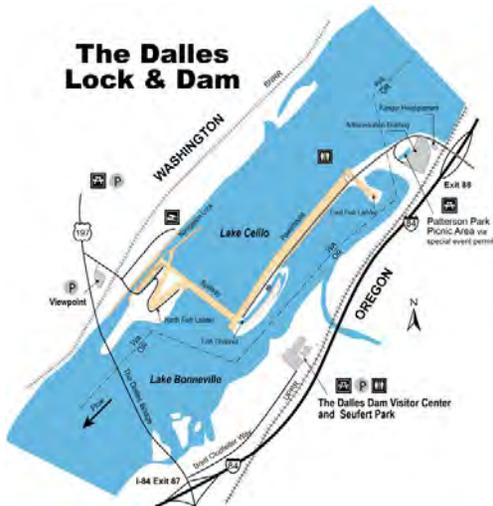


Communication Process and Action:

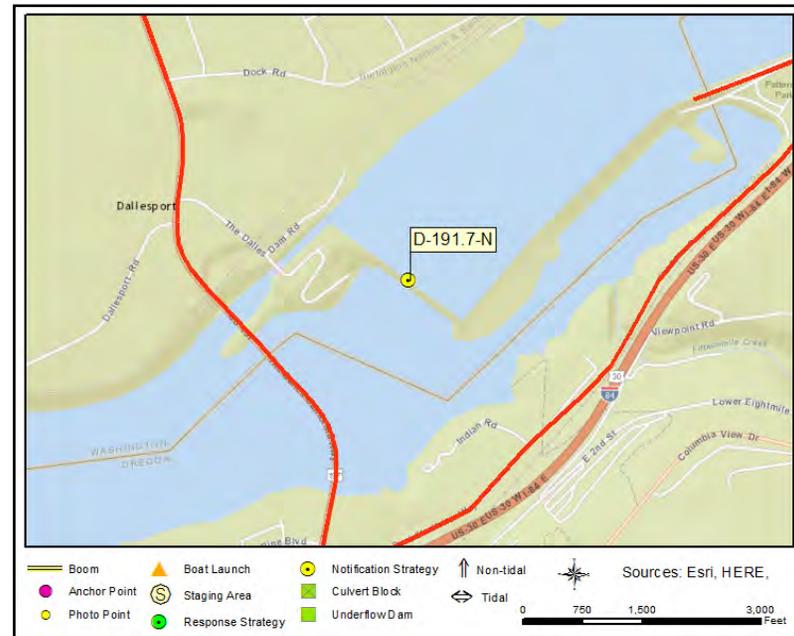
Call Control Room Operator (24/7) 541-298-7505

The Dalles Lock & Dam Notification

D-191.7-N



D-191.7-N Photo: Map of The Dalles Lock & Dam



Site Contact

USACE The Dalles Dam Control Room
 Emergency Contact : Emergency contact & access to dam
 541-298-7505

Nearest Address

3545 Bret Clodfelter Way (Exit 88 on I-84)
 The Dalles, OR 97058

Driving Directions

1. Directions to N-D-191.7M/The Dalles Lock & Dam, starting at US 197, Dallesport, WA 98617
2. Turn left to merge onto I-84E/U.S. 30 E toward US-97S/Arlington(1.7 mi)
3. Take exit 88 toward The Dalles Dam (0.2 mi)
4. Turn left onto Td Dam Dr (220 ft)
5. Continue straight, entering Washington, destination will be on at the end of the road (0.5 mi)

APPENDIX 4C
Staging Area 2-Pagers

STAGING AREAS – LIST

SA-B-145.7M	SA-B-148.3L	SA-B-150.7R	SA-B-154.9R	SA-B-155.7L
SA-B-161.4R	SA-B-162.4R	SA-B-169.8R	SA-B-169.85L	SA-B-171.7R
SA-B-180.6R	SA-B-180.9L	SA-B-190L	SA-WIND-0.2L	

USACE Bonneville Dam Bradford Island boat launch SA-B-145.7M

Staging Area

Position - Location: 45° 38.445', -121° 56.350' 45° 38' 26.7", -121° 56' 21.0" 45.64074, -121.93916 Cascade Locks

Comments: Bonneville Dam, restricted access, staging area and primitive boat launch



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Ramp(s)	Gravel	Single ramp needs 4-wheel drive, shallow
Parking - Car	Gravel	Two lots close, 4 cars, more available
Parking - Trailer	Gravel	Two lots close, 4 cars, more available
Power	Yes	In service building
Water (potable)	Yes	In service building

GRP Response Strategies Served:

USACE Bonneville Dam Bradford Island boat launch

SA-B-145.7M



SA-B-145.7M Photo: USACE Bonneville Dam Bradford Island primitive boat launch



Site Contact

USACE Bonneville pool
 Secondary Contact : Natural Resources Manager

 Bonneville Dam, OR
 541-374-8344

Nearest Address

100 NE Sturgeon Lane
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-145.7M/Bonneville Dam Bradford Island boat launch, starting at I-84 E
2. Take exit 40 ramp to Tanner Creek Rd (0.15 miles)
3. Turn left on NE Bonneville Way (0.5 miles)
4. Continue onto Star Route (0.6 miles)
5. Report to USACE Security Office/Gate for escort

Port of Cascade Locks Marina **SA-B-148.3L**

Staging Area

Position - Location: 45° 40.045', -121° 53.799' 45° 40' 2.7", -121° 53' 47.9" 45.66741, -121.89665 Cascade Locks

Comments: Parking lot and small marina facilities near the boat launch



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	1 small boat dock at boat ramp
Boat Ramp(s)	Concrete, Solid	2 Well maintained boat launch
Cell Phone Coverage	Yes	Verizon good coverage
Parking - Car	Marked	50
Parking - Trailer	Marked	20
Power	Yes	
Restroom	Restroom - Flush	Closed to Public in the Winter
Water (potable)	Yes	

GRP Response Strategies Served:

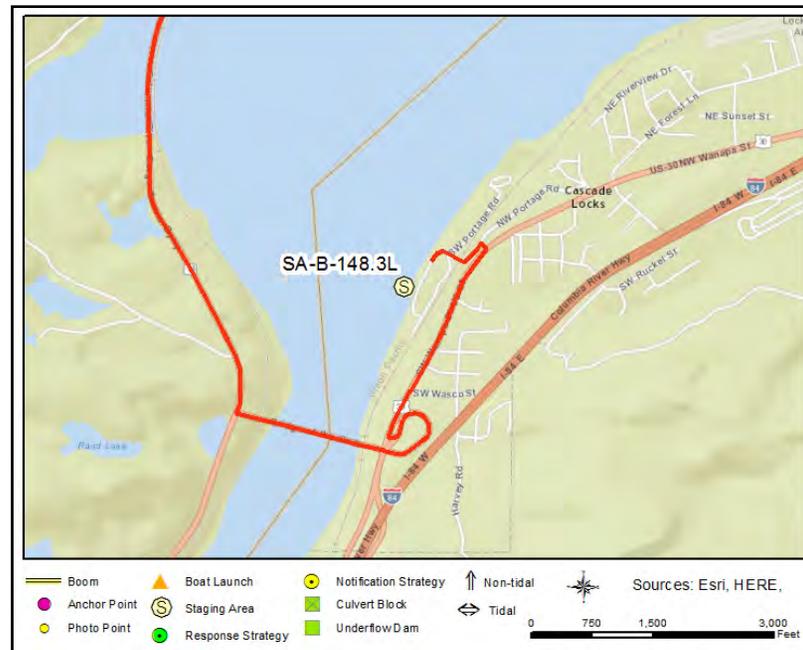
B-147.3R, B-148.7R, B-146.3M, B-148.8L

Port of Cascade Locks Marina

SA-B-148.3L



SA-B-148.3L Photo: Port of Cascade Locks boat launch



Site Contact

Port of Cascade Locks
 Primary Contact : Property Owner

OR
 541-374-8535

Nearest Address

355 Wa Na Pa St
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-148.3L/Thunder Island (Port of Cascade Locks), starting at 47479 State Hwy 14 Stevenson, WA
2. Go southwest on WA-14 (State Road 14)
3. Turn left on Bridge Of The Gods
4. Bear right
5. Make sharp right on US-30 (Wa-Na-Pa St)
6. Turn left at 355 Wa Na Pa St, 97014, to enter the parking area for the boat launch.

Cascade boat launch **SA-B-150.7R**

Staging Area

Position - Location: 45° 41.651', -121° 52.683' 45° 41' 39.1", -121° 52' 41.0" 45.69419, -121.87806 Stevenson

Comments: Good lighted, paved staging area with concrete ramp 6.2 degree grade



Location Information

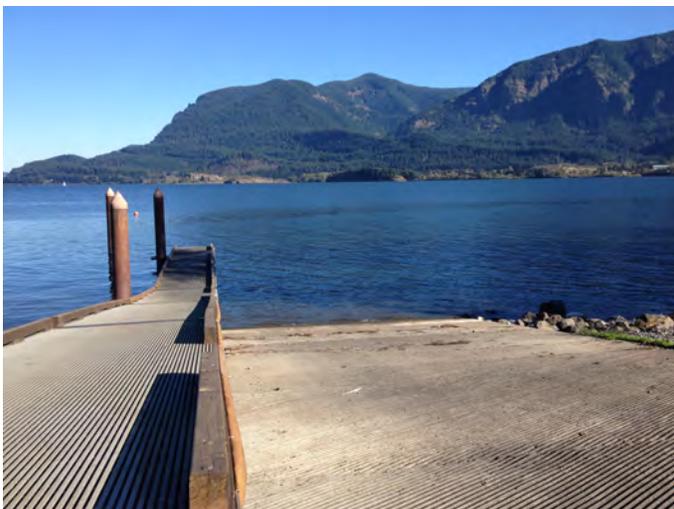
<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	One Floating dock
Boat Ramp(s)	Concrete, Solid	Single concrete ramp 6.2 degree grade
Cell Phone Coverage	Yes	4 G
Estimated Lot Size		70' x 200'=14000 sq ft of paved parking
Parking - Car	Marked	spaces for 7 cars
Parking - Trailer	Marked	Spaces for 15 trailers
Power	Yes	
Restroom	Restroom - Flush	1
User Fee	No	
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

B-150.1R, B-151.5R, B-151.8L, B-150.7R

Cascade boat launch

SA-B-150.7R



SA-B-150.7R Photo: Cascade boat launch in Stevenson, WA



Site Contact

Port of Skamania
 Primary Contact : Manages Cascade boat launch in Stevenson
 212 SW Cascade
 Stevenson, WA 98468
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-150.7R/Stevenson Cascades boat launch, starting at the Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
4. Continue on 1st St (0.07 miles)
5. Bear right (0.13 miles)
6. Continue on Railroad St (0.08 miles)
7. Turn right on Russell Ave (0.03 miles)
8. Turn left on Cascade Ave (0.09 miles)
9. Finish at 2 SW Cascade Ave, 98648, on the right

WKO Inc. Lumber Co. primitive boat launch **SA-B-154.9R**

Staging Area

Position - Location: 45° 42.782', -121° 47.391' 45° 42' 46.9", -121° 47' 23.5" 45.71304, -121.78985 Stevenson

Comments: Private lumber company (limited activity), gravel staging area, with a primitive gravel boat launch with newer floating docks



GRP Response Strategies Served:

B-154.7R, B-156R, B-155.2R

Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	3 Newer floating docks, room for 6 boats
Boat Ramp(s)	Gravel	1 Primitive gravel ramp 5*/woody debris
Cell Phone Coverage	Yes	
Estimated Lot Size		3500 sq ft plus gravel drive
Parking - Car	Gravel	Parking for 6 cars or 4 trailers
Parking - Trailer	Gravel	Parking for 6 cars or 4 trailers
Restroom	Restroom - Portable	1 Located at South side of property

WKO Inc. Lumber Co. primitive boat launch

SA-B-154.9R



SA-B-154.9R Photo: Wko Inc Lumber Co. primitive boat launch



Site Contact

Wko Inc. Lumber Company
 Land/Property Owner : Environmental Manager
 2022 Wind River Hwy
 Carson, WA 98610
 541-490-8035

Nearest Address

Home Valley Park Rd
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-154.9R, starting at (toll) Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.53 miles)
4. Make sharp right onto Home Valley Park Rd (0.3 miles)
5. Turn right to go into Wko Lumber Company property (may be gated - call contact but bring bolt cutters)
6. Turn left at the first fork (heading west) and remain straight out to end of the point (0.5 mi), the boat launch is on the right

Wyeth In-Lieu Site boat launch **SA-B-155.7L**

Staging Area

Position - Location: 45° 41.627', -121° 46.433' 45° 41' 37.6", -121° 46' 26.0" 45.69378, -121.77388 Cascade Locks

Comments: Paved, fish cleaning station, water, bathrooms



Location Information

Asset	Type/Status	Amount/Number
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GRP Response Strategies Served:

B-155.6L, B-157.5R, B-158.8L, B-155.7L

Wyeth In-Lieu Site boat launch

SA-B-155.7L



SA-B-155.7L Photo: View of the boat launch at Wyeth In-Lieu Site



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Owner : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

9015 Wyeth Rd
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-155.7L/Wyeth In-Lieu Site, starting at NE Warrendale Rd, Cascade Locks, OR97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (13.13 miles)
6. At exit 51 take ramp toward Wyeth (0.23 miles)
7. Turn left on Wyeth Rd (0.2 miles)
8. Cross the railroad track and go left (0.2 miles)
9. Boat launch will be on your right.

Cook's In-Lieu Site boat launch **SA-B-161.4R**

Staging Area

Position - Location: 45° 42.540', -121° 39.610' 45° 42' 32.4", -121° 39' 36.6" 45.70900, -121.66017 Cook

Comments: Lighted staging area with two concrete ramps, 8 degree grade. Make sure notify CRITFC & BIA



GRP Response Strategies Served:

B-160.5L, B-158.3R, B-161.4R

Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	Two piers out to docks, space 16 boats
Boat Ramp(s)	Concrete, Solid	Single concrete ramp 8.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Limited space in fishing season 7500'
Parking - Car	Not Marked	10 cars, congested during fishing season
Parking - Trailer	Not Marked	10 trailers, congested in fishing season
Power	Yes	
Restroom	Restroom - Flush	
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

Cook's In-Lieu Site boat launch

SA-B-161.4R



SA-B-161.4R Photo: Cook's In-let In-Lieu Site boat launch



Site Contact

Columbia River Inter-Tribal Fish Commission
 Secondary Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Secondary Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

100 Cook-Underwood Rd
 Cook, WA 98605

Driving Directions

1. Directions to SA-161.4R/Cook's Inlet, starting from the Hood River (toll) Bridge, White Salmon, WA98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Turn left on Cook's Landing Avenue (0.1 miles)
5. Finish at Cook's Inlet In-Lieu Tribal Fishing Site

Drano Lake boat launch **SA-B-162.4R**

Staging Area

Position - Location: 45° 42.628', -121° 38.356' 45° 42' 37.7", -121° 38' 21.4" 45.71047, -121.63927 Cook

Comments: Paved staging area with two concrete, 8.5 and 7.5 degree, ramps



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2 2 floating docks
Boat Ramp(s)	Concrete, Solid	2 2 concrete ramps, 7.5 & 8.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		1 120' x 275' = 33,000 sq ft of parking
Parking - Car	Marked	48 48 spaces for either car or trailer
Parking - Trailer	Marked	48 48 spaces for either car or trailer
Restroom	Restroom - Vault	1
User Fee	Yes	7 & 7 for non-resident, passes are availabl
Waste Disposal	Trash Receptacle	

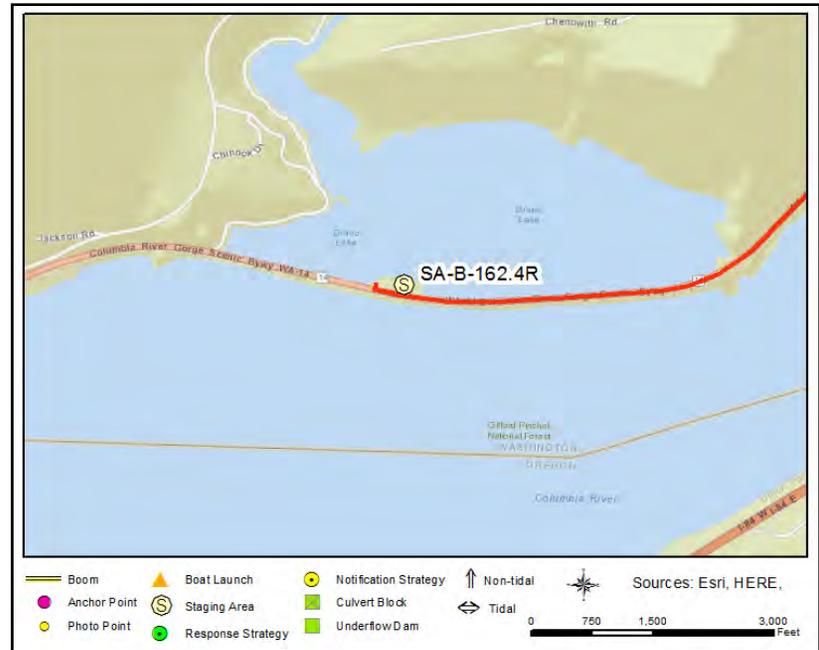
GRP Response Strategies Served:

B-163.8R, B-162R

Drano Lake boat launch SA-B-162.4R



SA-B-162.4R Photo: Drano Lake boat launch



Site Contact

Skamania County
 Primary Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

100 Jackson Road
 Cook, WA 98605

Driving Directions

1. Directions to SA-B-162.4R/Drano Lake, starting at Hood River (toll) Bridge, white salmon, WA98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Finish at Drano Lake boat launch on the right

White Salmon In-Lieu Site **SA-B-169.8R**

Staging Area

Position - Location: 45° 43.386', -121° 29.644' 45° 43' 23.2", -121° 29' 38.6" 45.72310, -121.49407 White Salmon

Comments: In-lieu site with parking, water, power, trash, boat launch w/ 8 degree grade & two floating docks



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2 floating docks
Boat Ramp(s)	Concrete, Solid	1 single ramp 8 degree grade
Covered Spaces	Yes	Gazebo & fish cleaning station
Power	Yes	
Restroom	Restroom - Vault	2
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

B-169.9R

White Salmon In-Lieu Site

SA-B-169.8R



SA-B-169.8R Photo: White Salmon In-lieu boat launch



Site Contact

Bureau of Indian Affairs

Primary Contact : Oversees Tribal In-Lieu Fishing Sites
503-231-6702

Columbia River Inter-Tribal Fish Commission

Security Contact : Fishing Treaty In-lieu Site - Law Enforcement
800-487-3474

Nearest Address

100 Hood Vista Dr
White Salmon, WA 98672

Driving Directions

1. Directions to BL-B-169.8R start from Vancouver, Wa
2. Go east on E Fourth Plain Blvd (0.02 miles)
3. Turn left onto ramp and go on I-5 N toward Seattle (0.42 miles)
4. At exit 2 bear right onto ramp to 39th St/WA-500 E (0.19 miles)
5. Continue on WA-500 toward Orchards (4.4 miles)
6. Take ramp and go on I-205 S toward Salem (8.2 miles)
7. At exit 22 bear right onto ramp and go on I-84 E/US-30 E toward The Dalles (55.53 miles)
8. At exit 64 take ramp on the right toward Mt. Hood Hwy./OR-35/White Salmon/Govt. Camp (0.16 miles)
9. Turn left on US-30 (Button Bridge Rd) toward Bingen (0.07 miles)
10. Continue on Hood River Brg (1.07 miles)
11. Turn left on WA-14 (Highway 14) (0.07 miles)
12. Turn left on Heritage Plz (E Sr141 Pullout Hwy) (0.13 miles)
13. Turn left on S Dock Grade Rd (0.03 miles)
14. Turn left on Hood Vista Dr (0.01 miles)
15. Finish at 100 Hood Vista Dr, 98672, on the left

Hood River Marina **SA-B-169.85L**

Staging Area

Position - Location: 45° 42.733', -121° 30.116' 45° 42' 44.0", -121° 30' 7.0" 45.71222, -121.50194 Hood River

Comments: Good staging area associated with the marina



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2
Boat Ramp(s)	Concrete, Plank	1 Well maintained boat launch
Parking - Car	Marked	100
Parking - Trailer	Marked	50
Power	Yes	
Restroom	Restroom - Flush	
Water (potable)	Yes	

GRP Response Strategies Served:

B-168.4L, B-168.5R, B-169.7L, B-167.4L

Hood River Marina

SA-B-169.85L



SA-B-169.85L Photo: Hood River Marina Boat Launch



Site Contact

Port of Hood River Marina
 Primary Contact : Property Manager

WA
 541-386-1645

Nearest Address

1000 E Port Marina Drive
 Hood River, OR 97031

Driving Directions

1. Directions to SA-B-169.85L/Port of Hood River, starting at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd
3. Turn right on Hood River Brg
4. Turn right on E Port Marina Dr
5. Turn left to stay on E Port Marina Dr
6. Finish at 1000 E Port Marina Drive, 97031, on the left

Port of Klickitat Bingen Marina boat launch SA-B-171.7R

Staging Area

Position - Location: 45° 42.539', -121° 27.432' 45° 42' 32.3", -121° 27' 25.9" 45.70899, -121.45720 Bingen

Comments: Excellent lighted staging area with two concrete ramps 9 degree grade



Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	1 Floating dock
Boat Ramp(s)	Concrete, Solid	2 Two concrete ramps, 9 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		1 2 lots, 1/2 paved 60,000 sq ft total
Parking - Car	Not Marked	2 30 cars and 20 trailers
Parking - Trailer	Not Marked	20 30 cars and 20 trailers
Power	Yes	
Restroom	Restroom - Flush	1
Water (potable)	Yes	

GRP Response Strategies Served:

B-174.7R, B-172.2R, B-170.7R, B-174.9L

Port of Klickitat Bingen Marina boat launch

SA-B-171.7R



SA-B-171.7R Photo: Port of Klickitat Bingen Marina boat launch



Site Contact

Port of Klickitat

Primary Contact : Manages Port of Klickitat Property
 154 E Bingen Point Way Ste. A
 Bingen, WA 98605
 509-493-1655

Nearest Address

E Bingen Marina Loop Rd
 Bingen, WA 98605

Driving Directions

1. Directions to SA-B-171.7R/Bingen Marina, starting at Hood River Bridge (toll bridge), WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.11 miles)
6. Turn left on W Lakeview Blvd (Marina Access Rd) (0.51 miles)
7. Turn right on E Bingen Marina Loop Rd (0.1 miles)
8. Finish at E Bingen Marina Loop Rd, 98605, on the right

Lyle boat launch **SA-B-180.6R**

Staging Area

Position - Location: 45° 41.450', -121° 17.315' 45° 41' 27.0", -121° 17' 18.9" 45.69083, -121.28858 Lyle

Comments: Gravel lot with double gravel ramp 5 degree grade, no amenities



Location Information

Asset	Type/Status	Amount/Number
Boat Ramp(s)	Gravel	2 Double ramp, 5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		1 Gravel 260' x 60' = 15600 sq ft parking

GRP Response Strategies Served:

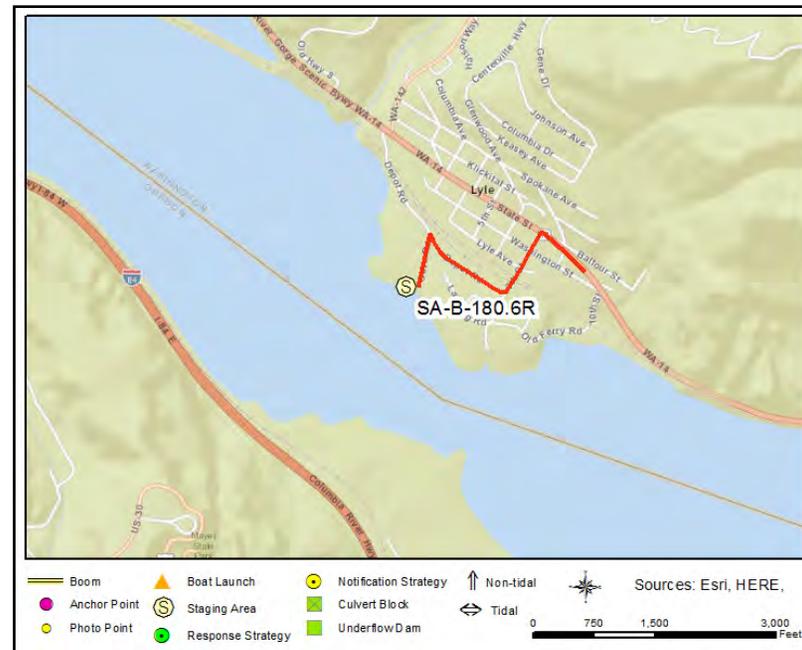
B-183.4R, B-180.5R, B-176.2R, B-179.9R, B-177.8R

Lyle boat launch

SA-B-180.6R



SA-B-180.6R Photo: The Lyle boat launch



Site Contact

USACE Bonneville pool
 Primary Contact : Natural Resources Manager

Bonneville Dam, OR
 541-374-8344

Nearest Address

Cove Rd
 Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY 14 in Lyle, WA 98635
2. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

Mayer State Park **SA-B-180.9L**

Staging Area

Position - Location: 45° 40.905', -121° 17.324' 45° 40' 54.3", -121° 17' 19.5" 45.68175, -121.28874 The Dalles

Comments: Parking lot associated with Mayer State Park boat launch.



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Ramp(s)	Concrete, Plank	1
Parking - Car	Marked	Additional parking around the state park
Parking - Trailer	Marked	30
Restroom	Restroom - Vault	2

GRP Response Strategies Served:

B-183.9L, B-178.7L, B-181L, B-181.4L, B-182.6L

Mayer State Park

SA-B-180.9L



SA-B-180.9L Photo: Mayer State Park Boat Launch



Site Contact

Mayer State Park
 Primary Contact : Property managers

 WA
 541-478-3008

Nearest Address

6000 Rowena River Road
 The Dalles, OR 97058

Driving Directions

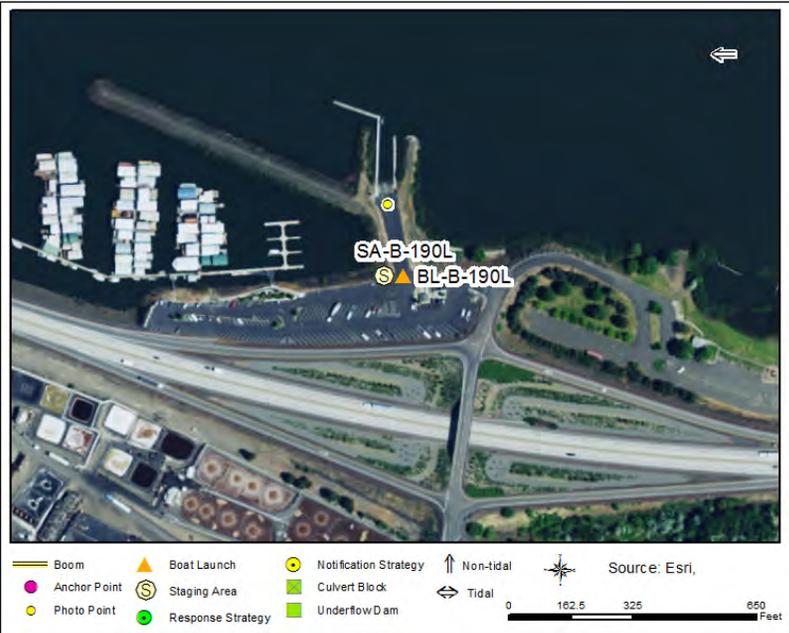
1. Directions to SA-B-180.9L/Mayer State Park, starting at 100 First Ave, Mosier, OR97040
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

Port of The Dalles Marina SA-B-190L

Staging Area

Position - Location: 45° 36.046', -121° 10.185' 45° 36' 2.8", -121° 10' 11.1" 45.60077, -121.16976 The Dalles

Comments: Good staging area at the Port of Dalles Marina



Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	2
Boat Ramp(s)	Asphalt	1 Boat ramp with lots of space to launch.
Fuel	Yes	diesel and gasoline available
Moorage - Trans, Open	Other	30 Guest Moorage available
Parking - Car	Marked	Large parking lot
Parking - Trailer	Marked	50 Large parking area for trailers
Restroom	Restroom - Flush	1

GRP Response Strategies Served:

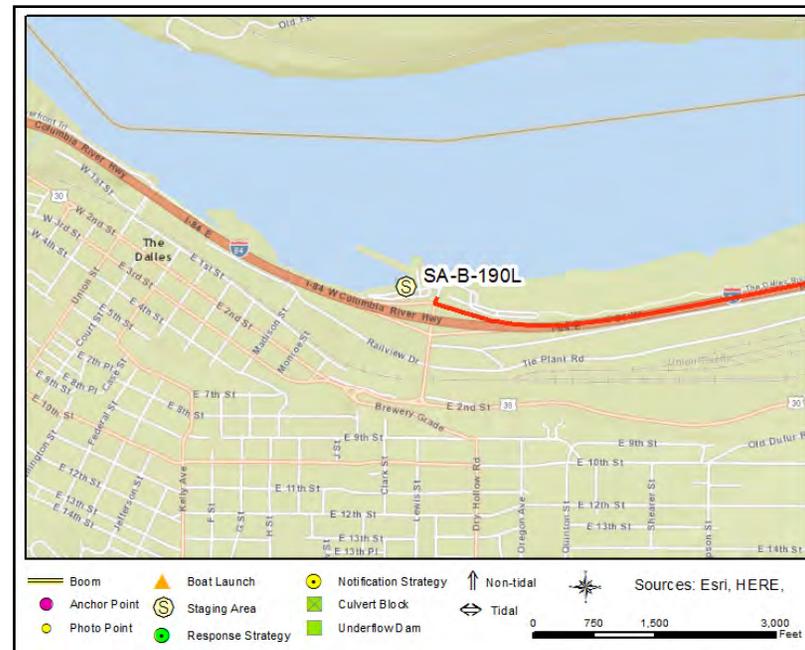
B-192.7M, B-190.1L, B-186.6L, B-192.4L, B-190L, B-186.8L, B-188.2L, B-186.1L, B-187.3L

Port of The Dalles Marina

SA-B-190L



SA-B-190L Photo: The Dalles Marina Boat Launch



Site Contact

Port of the Dalles
 Primary Contact : Marina owner

 OR
 541-298-4148

Nearest Address

Brewery Overpass Road and Highway 84
 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Old Hatchery Road boat launch SA-WIND-0.2L

Staging Area

Position - Location: 45° 43.089', -121° 47.337' 45° 43' 5.3", -121° 47' 20.2" 45.71814, -121.78896 Stevenson

Comments: Paved, lighted staging area, double concrete ramp 7.7 degree grade with floating dock \$7 launch fee required



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	1 Floating dock
Boat Ramp(s)	Concrete, Solid	2 Two concrete ramps 7.7 degree grade
Boathouse	No	
Cell Phone Coverage	Yes	
Estimated Lot Size		1 100' x 135'=13500 sq ft of paved parking
Parking - Car	Marked	9 room for 18 cars or trailers
Parking - Trailer	Marked	9 Spaces for 18 cars or trailers
Power	No	
Restroom	Restroom - Vault	2
Waste Disposal	Trash Receptacle	
Water (potable)	No	

GRP Response Strategies Served:

B-154.6R

Old Hatchery Road boat launch

SA-WIND-0.2L



SA-WIND-0.2L Photo: Old Hatchery Road boat launch



Site Contact

Skamania County
 Primary Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

Old Hatchery Road
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-WIND-0.2L/Old Hatchery Rd, starting at the (toll) Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.11 miles)
4. Turn left on Old Hatchery Rd (0.2 miles)
5. Finish at Old Hatchery Road, 98648, on the right

APPENDIX 4D
Boat Launch 2-Pagers

BOAT LAUNCHES – LIST

BL-B-145.7M

BL-B-148.3L

BL-B-150.7R

BL-B-154.9R

BL-B-155.7L

BL-B-161.4R

BL-B-162.4R

BL-B-169.8R

BL-B-169.85L

BL-B-171.7R

BL-B-180.6R

BL-B-180.9L

BL-B-190L

BL-WIND-0.2L

USACE Bonneville Dam Bradford Island boat launch **BL-B-145.7M**

Boat Launch Location

Position - Location: 45° 38.445', -121° 56.350' 45° 38' 26.7", -121° 56' 21.0" 45.64074, -121.93916 Cascade Locks

Comments: Bonneville Dam, restricted access, staging area and primitive boat launch



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Ramp(s)	Gravel	Single ramp needs 4-wheel drive, shallow
Parking - Car	Gravel	Two lots close, 4 cars, more available
Parking - Trailer	Gravel	Two lots close, 4 cars, more available
Power	Yes	In service building
Water (potable)	Yes	In service building

GRP Response Strategies Served:

B-145.8M, B-145.5M, B-145.4L

USACE Bonneville Dam Bradford Island boat launch

BL-B-145.7M



SA-B-145.7M Photo: USACE Bonneville Dam Bradford Island primitive boat launch



Site Contact

USACE Bonneville pool
 Secondary Contact : Natural Resources Manager

Bonneville Dam, OR
 541-374-8344

Nearest Address

100 NE Sturgeon Lane
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-145.7M/Bonneville Dam Bradford Island boat launch, starting at I-84 E
2. Take exit 40 ramp to Tanner Creek Rd (0.15 miles)
3. Turn left on NE Bonneville Way (0.5 miles)
4. Continue onto Star Route (0.6 miles)
5. Report to USACE Security Office/Gate for escort

Port of Cascade Locks Marina **BL-B-148.3L**

Boat Launch Location

Position - Location: 45° 40.045', -121° 53.799' 45° 40' 2.7", -121° 53' 47.9" 45.66741, -121.89665 Cascade Locks

Comments: Well maintained boat launch on the Columbia River.



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	1 small boat dock at boat ramp
Boat Ramp(s)	Concrete, Solid	2 Well maintained boat launch
Cell Phone Coverage	Yes	Verizon good coverage
Parking - Car	Marked	50
Parking - Trailer	Marked	20
Power	Yes	
Restroom	Restroom - Flush	Closed to Public in the Winter
Water (potable)	Yes	

GRP Response Strategies Served:

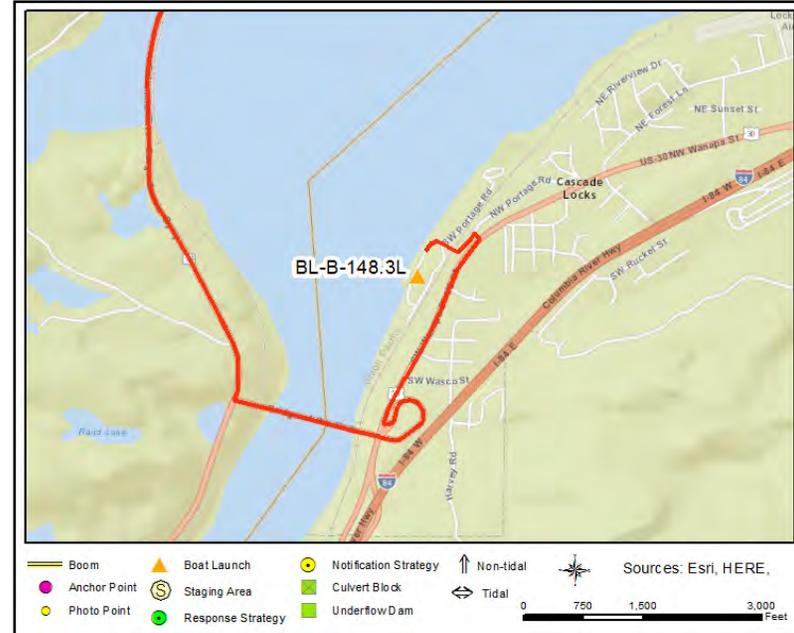
B-147.3R, B-148.7R, B-146.3M, B-148.8L

Port of Cascade Locks Marina

BL-B-148.3L



SA-B-148.3L Photo: Port of Cascade Locks boat launch



Site Contact

Port of Cascade Locks
 Primary Contact : Property Owner

OR
 541-374-8535

Nearest Address

355 Wa Na Pa St
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-148.3L/Thunder Island (Port of Cascade Locks), starting at 47479 State Hwy 14 Stevenson, WA
2. Go southwest on WA-14 (State Road 14)
3. Turn left on Bridge Of The Gods
4. Bear right
5. Make sharp right on US-30 (Wa-Na-Pa St)
6. Turn left at 355 Wa Na Pa St, 97014, to enter the parking area for the boat launch.

Cascade boat launch **BL-B-150.7R**

Boat Launch Location

Position - Location: 45° 41.651', -121° 52.683' 45° 41' 39.1", -121° 52' 41.0" 45.69419, -121.87806 Stevenson

Comments: Good lighted, paved staging area with concrete ramp 6.2 degree grade



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	One Floating dock
Boat Ramp(s)	Concrete, Solid	Single concrete ramp 6.2 degree grade
Cell Phone Coverage	Yes	4 G
Estimated Lot Size		70' x 200'=14000 sq ft of paved parking
Parking - Car	Marked	spaces for 7 cars
Parking - Trailer	Marked	Spaces for 15 trailers
Power	Yes	
Restroom	Restroom - Flush	1
User Fee	No	
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

B-150.1R, B-150.5R, B-151.5R, B-151.8L, B-150.7R

Cascade boat launch

BL-B-150.7R



SA-B-150.7R Photo: Cascade boat launch in Stevenson, WA



Site Contact

Port of Skamania
 Primary Contact : Manages Cascade boat launch in Stevenson
 212 SW Cascade
 Stevenson, WA 98468
 509-427-5484

Nearest Address

11 SW Cascade Ave
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-150.7R/Stevenson Cascades boat launch, starting at the Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (2.43 miles)
4. Continue on 1st St (0.07 miles)
5. Bear right (0.13 miles)
6. Continue on Railroad St (0.08 miles)
7. Turn right on Russell Ave (0.03 miles)
8. Turn left on Cascade Ave (0.09 miles)
9. Finish at 2 SW Cascade Ave, 98648, on the right

WKO Inc. Lumber Co. primitive boat launch **BL-B-154.9R**

Boat Launch Location

Position - Location: 45° 42.782', -121° 47.391' 45° 42' 46.9", -121° 47' 23.5" 45.71304, -121.78985 Stevenson

Comments: Private lumber company (limited activity), gravel staging area, with a primitive boat launch with newer floating docks



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	3 Newer floating docks, room for 6 boats
Boat Ramp(s)	Gravel	1 Primitive gravel ramp 5*/woody debris
Cell Phone Coverage	Yes	
Estimated Lot Size		3500 sq ft plus gravel drive
Parking - Car	Gravel	Parking for 6 cars or 4 trailers
Parking - Trailer	Gravel	Parking for 6 cars or 4 trailers
Restroom	Restroom - Portable	1 Located at South side of property

GRP Response Strategies Served:

B-154.7R, B-156R, B-155.2R

WKO Inc. Lumber Co. primitive boat launch **BL-B-154.9R**



SA-B-154.9R Photo: Wko Inc Lumber Co. primitive boat launch



Site Contact

Wko Inc. Lumber Company
 Land/Property Owner : Environmental Manager
 2022 Wind River Hwy
 Carson, WA 98610
 541-490-8035

Nearest Address

Home Valley Park Rd
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-B-154.9R, starting at (toll) Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.53 miles)
4. Make sharp right onto Home Valley Park Rd (0.3 miles)
5. Turn right to go into Wko Lumber Company property (may be gated - call contact but bring bolt cutters)
6. Turn left at the first fork (heading west) and remain straight out to end of the point (0.5 mi), the boat launch is on the right

Wyeth In-Lieu Site boat launch **BL-B-155.7L**

Boat Launch Location

Position - Location: 45° 41.627', -121° 46.433' 45° 41' 37.6", -121° 46' 26.0" 45.69378, -121.77388 Cascade Locks

Comments: Single concrete ramp, floating dock, paved, fish cleaning station, water, bathrooms



Location Information

Asset	Type/Status	Amount/Number
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GRP Response Strategies Served:

B-155.6L, B-157.5R, B-158.8L, B-155.7L

Wyeth In-Lieu Site boat launch **BL-B-155.7L**



SA-B-155.7L Photo: View of the boat launch at Wyeth In-Lieu Site



Site Contact

Columbia River Inter-Tribal Fish Commission
 Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Land/Property Owner : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

9015 Wyeth Rd
 Cascade Locks, OR 97014

Driving Directions

1. Directions to SA-B-155.7L/Wyeth In-Lieu Site, starting at NE Warrendale Rd, Cascade Locks, OR 97014
2. Go west on NE Warrendale Rd (0.1 miles)
3. Turn left (0.05 miles)
4. Turn left on Historic Columbia River Hwy (NE Frontage Rd) (0.33 miles)
5. Take ramp and go on I-84 E (13.13 miles)
6. At exit 51 take ramp toward Wyeth (0.23 miles)
7. Turn left on Wyeth Rd (0.2 miles)
8. Cross the railroad track and go left (0.2 miles)
9. Boat launch will be on your right.

Cook's In-Lieu Site boat launch **BL-B-161.4R**

Boat Launch Location

Position - Location: 45° 42.540', -121° 39.610' 45° 42' 32.4", -121° 39' 36.6" 45.70900, -121.66017 Cook

Comments: Lighted staging area with two concrete ramps, 8 degree grade. Make sure notify to CRITFC & BIA



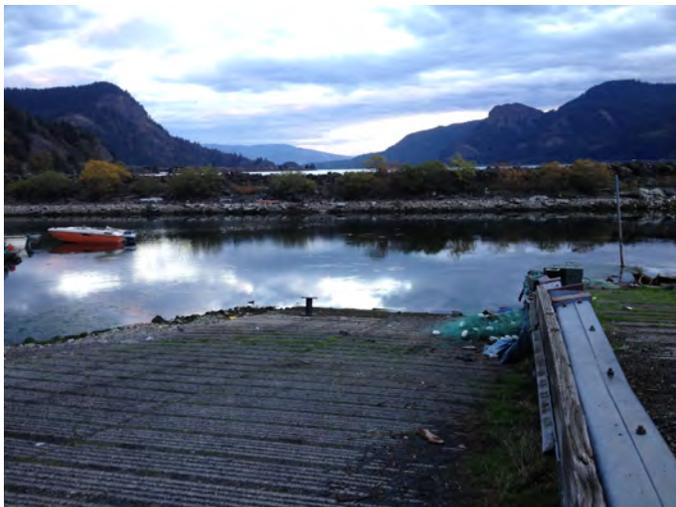
Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	Two piers out to docks, space 16 boats
Boat Ramp(s)	Concrete, Solid	Single concrete ramp 8.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Limited space in fishing season 7500'
Parking - Car	Not Marked	10 cars, congested during fishing season
Parking - Trailer	Not Marked	10 trailers, congested in fishing season
Power	Yes	
Restroom	Restroom - Flush	
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

B-160.5L, B-158.3R, B-161.4R

Cook's In-Lieu Site boat launch **BL-B-161.4R**



SA-B-161.4R Photo: Cook's In-let In-Lieu Site boat launch



Site Contact

Columbia River Inter-Tribal Fish Commission
 Secondary Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Bureau of Indian Affairs
 Secondary Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Nearest Address

100 Cook-Underwood Rd
 Cook, WA 98605

Driving Directions

1. Directions to SA-161.4R/Cook's Inlet, starting from the Hood River (toll) Bridge, White Salmon, WA 98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Turn left on Cook's Landing Avenue (0.1 miles)
5. Finish at Cook's Inlet In-Lieu Tribal Fishing Site

Drano Lake boat launch **BL-B-162.4R**

Boat Launch Location

Position - Location: 45° 42.628', -121° 38.356' 45° 42' 37.7", -121° 38' 21.4" 45.71047, -121.63927 Cook

Comments: Paved staging area with two concrete, 8.5 and 7.5 degree, ramps



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2 2 floating docks
Boat Ramp(s)	Concrete, Solid	2 2 concrete ramps, 7.5 & 8.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		1 120' x 275' = 33,000 sq ft of parking
Parking - Car	Marked	48 48 spaces for either car or trailer
Parking - Trailer	Marked	48 48 spaces for either car or trailer
Restroom	Restroom - Vault	1
User Fee	Yes	7 & 7 for non-resident, passes are availabl
Waste Disposal	Trash Receptacle	

GRP Response Strategies Served:

B-163.8R, B-162R

Drano Lake boat launch BL-B-162.4R



SA-B-162.4R Photo: Drano Lake boat launch



Site Contact

Skamania County
 Primary Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

100 Jackson Road
 Cook, WA 98605

Driving Directions

1. Directions to SA-B-162.4R/Drano Lake, starting at Hood River (toll) Bridge, white salmon, WA98672
2. Go northeast on Hood River Brg toward WA-14 (0.22 miles)
3. Turn left on WA-14 (Highway 14) (8.75 miles)
4. Finish at Drano Lake boat launch on the right

White Salmon In-Lieu Site **BL-B-169.8R**

Boat Launch Location

Position - Location: 45° 43.386', -121° 29.644' 45° 43' 23.2", -121° 29' 38.6" 45.72310, -121.49407 White Salmon

Comments: In-lieu site with parking, water, power, trash, boat launch w/ 8 degree grade & two floating docks



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2 floating docks
Boat Ramp(s)	Concrete, Solid	1 single ramp 8 degree grade
Covered Spaces	Yes	Gazebo & fish cleaning station
Power	Yes	
Restroom	Restroom - Vault	2
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

B-169.9R

White Salmon In-Lieu Site **BL-B-169.8R**



SA-B-169.8R Photo: White Salmon In-lieu boat launch



Site Contact

Bureau of Indian Affairs
 Primary Contact : Oversees Tribal In-Lieu Fishing Sites
 503-231-6702

Columbia River Inter-Tribal Fish Commission
 Security Contact : Fishing Treaty In-lieu Site - Law Enforcement
 800-487-3474

Nearest Address

100 Hood Vista Dr
 White Salmon, WA 98672

Driving Directions

1. Directions to BL-B-169.8R start from Vancouver, Wa
2. Go east on E Fourth Plain Blvd (0.02 miles)
3. Turn left onto ramp and go on I-5 N toward Seattle (0.42 miles)
4. At exit 2 bear right onto ramp to 39th St/WA-500 E (0.19 miles)
5. Continue on WA-500 toward Orchards (4.4 miles)
6. Take ramp and go on I-205 S toward Salem (8.2 miles)
7. At exit 22 bear right onto ramp and go on I-84 E/US-30 E toward The Dalles (55.53 miles)
8. At exit 64 take ramp on the right toward Mt. Hood Hwy./OR-35/White Salmon/Govt. Camp (0.16 miles)
9. Turn left on US-30 (Button Bridge Rd) toward Bingen (0.07 miles)
10. Continue on Hood River Brg (1.07 miles)
11. Turn left on WA-14 (Highway 14) (0.07 miles)
12. Turn left on Heritage Plz (E Sr141 Pullout Hwy) (0.13 miles)
13. Turn left on S Dock Grade Rd (0.03 miles)
14. Turn left on Hood Vista Dr (0.01 miles)
15. Finish at 100 Hood Vista Dr, 98672, on the left

Hood River Marina **BL-B-169.85L**

Boat Launch Location

Position - Location: 45° 42.733', -121° 30.116' 45° 42' 44.0", -121° 30' 7.0" 45.71222, -121.50194 Hood River

Comments: Well maintained boat launch



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2
Boat Ramp(s)	Concrete, Plank	1 Well maintained boat launch
Parking - Car	Marked	100
Parking - Trailer	Marked	50
Power	Yes	
Restroom	Restroom - Flush	
Water (potable)	Yes	

GRP Response Strategies Served:

B-168.4L, B-167R, B-168.5R, B-169.7L, B-167.4L, B-167.4R, B-169.6L

Hood River Marina

BL-B-169.85L



SA-B-169.85L Photo: Hood River Marina Boat Launch



Site Contact

Port of Hood River Marina
 Primary Contact : Property Manager

WA
 541-386-1645

Nearest Address

1000 E Port Marina Drive
 Hood River, OR 97031

Driving Directions

1. Directions to SA-B-169.85L/Port of Hood River, starting at 64128 State Road 14 White Salmon
2. Go east on WA-14 (Highway 14) toward SE Dock Grade Rd
3. Turn right on Hood River Brg
4. Turn right on E Port Marina Dr
5. Turn left to stay on E Port Marina Dr
6. Finish at 1000 E Port Marina Drive, 97031, on the left

Port of Klickitat Bingen Marina boat launch **BL-B-171.7R**

Boat Launch Location

Position - Location: 45° 42.539', -121° 27.432' 45° 42' 32.3", -121° 27' 25.9" 45.70899, -121.45720 Bingen

Comments: Excellent lighted staging area with two concrete ramps 9 degree grade



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	1 Floating dock
Boat Ramp(s)	Concrete, Solid	2 Two concrete ramps, 9 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		1 2 lots, 1/2 paved 60,000 sq ft total
Parking - Car	Not Marked	2 30 cars and 20 trailers
Parking - Trailer	Not Marked	20 30 cars and 20 trailers
Power	Yes	
Restroom	Restroom - Flush	1
Water (potable)	Yes	

GRP Response Strategies Served:

B-172.7R, B-171.4R, B-174.7R, B-170.8R, B-172.2R, B-170.7R, B-174.9L

Port of Klickitat Bingen Marina boat launch **BL-B-171.7R**



SA-B-171.7R Photo: Port of Klickitat Bingen Marina boat launch



Site Contact

Port of Klickitat
 Primary Contact : Manages Port of Klickitat Property
 154 E Bingen Point Way Ste. A
 Bingen, WA 98605
 509-493-1655

Nearest Address

E Bingen Marina Loop Rd
 Bingen, WA 98605

Driving Directions

1. Directions to SA-B-171.7R/Bingen Marina, starting at Hood River Bridge (toll bridge), WA 98605
2. Go southeast on WA-14 (W Steuben St) (0.56 miles)
3. Turn right on WA-141 (Oak St) (0.03 miles)
4. Turn left on Railroad St (Depot St) (0.06 miles)
5. Make sharp right on Maple St Ext (0.11 miles)
6. Turn left on W Lakeview Blvd (Marina Access Rd) (0.51 miles)
7. Turn right on E Bingen Marina Loop Rd (0.1 miles)
8. Finish at E Bingen Marina Loop Rd, 98605, on the right

Lyle boat launch **BL-B-180.6R**

Boat Launch Location

Position - Location: 45° 41.450', -121° 17.315' 45° 41' 27.0", -121° 17' 18.9" 45.69083, -121.28858 Lyle

Comments: Gravel lot with double gravel ramp 5 degree grade, no amenities



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Ramp(s)	Gravel	2 Double ramp, 5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		1 Gravel 260' x 60' = 15600 sq ft parking

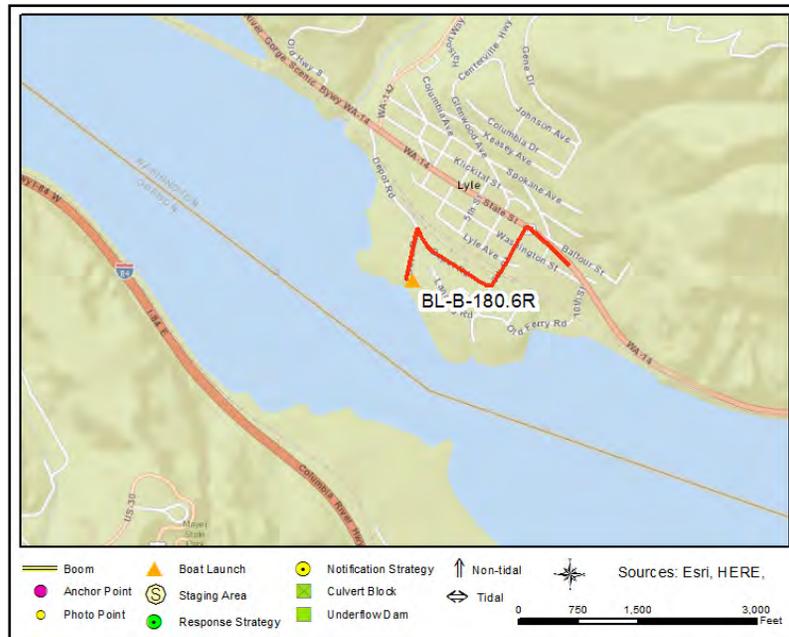
GRP Response Strategies Served:

B-183.4R, B-180.5R, B-180.9R , B-176.2R, B-179.9R, B-177.8R

Lyle boat launch BL-B-180.6R



SA-B-180.6R Photo: The Lyle boat launch



Site Contact

USACE Bonneville pool
Primary Contact : Natural Resources Manager

Bonneville Dam, OR
541-374-8344

Nearest Address

Cove Rd
Lyle, WA 98635

Driving Directions

1. Directions to SA-B-180.6R/Lyle Boat Launch. Start by heading west on WA HWY 14 in Lyle, WA 98635
2. Turn left on 7th St (0.16 miles)
3. Turn right on Depot Rd (0.23 miles)
4. Make sharp left on Cove Rd (0.06 miles)
5. Finish at Cove Rd, 98635, on the left

Mayer State Park **BL-B-180.9L**

Boat Launch Location

Position - Location: 45° 40.905', -121° 17.324' 45° 40' 54.3", -121° 17' 19.5" 45.68175, -121.28874 The Dalles

Comments: Boat launch at Mayer State Park with access to the Columbia River



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Ramp(s)	Concrete, Plank	1
Parking - Car	Marked	Additional parking around the state park
Parking - Trailer	Marked	30
Restroom	Restroom - Vault	2

GRP Response Strategies Served:

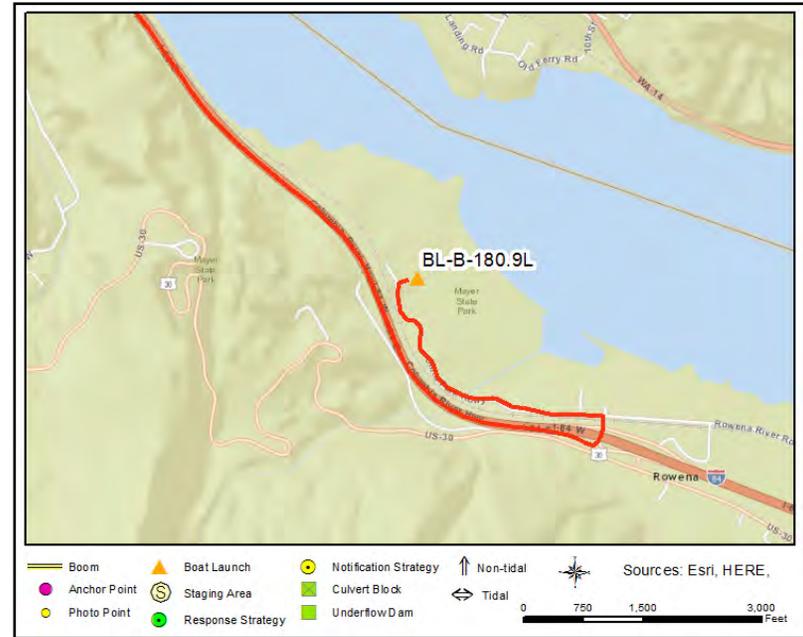
B-183.9L, B-178.7L, B-181L, B-181.4L, B-182.6L

Mayer State Park

BL-B-180.9L



SA-B-180.9L Photo: Mayer State Park Boat Launch



Site Contact

Mayer State Park
 Primary Contact : Property managers

WA
 541-478-3008

Nearest Address

6000 Rowena River Road
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-180.9L/Mayer State Park, starting at 100 First Ave, Mosier, OR97040
2. Go west on US-30 (1st Ave) toward Idaho St (0.46 miles)
3. Turn right onto ramp and go on I-84 E toward The Dalles (6.69 miles)
4. At exit 76 take ramp on the right toward Rowena (0.15 miles)
5. At fork keep left toward Mayer State Park/Hood River (0.02 miles)
6. Bear left on Rowena River Rd (0.03 miles)
7. Make sharp left onto ramp and go on I-84 W toward Hood River (0.47 miles)
8. Finish at State Park Roadway,97058, on the right

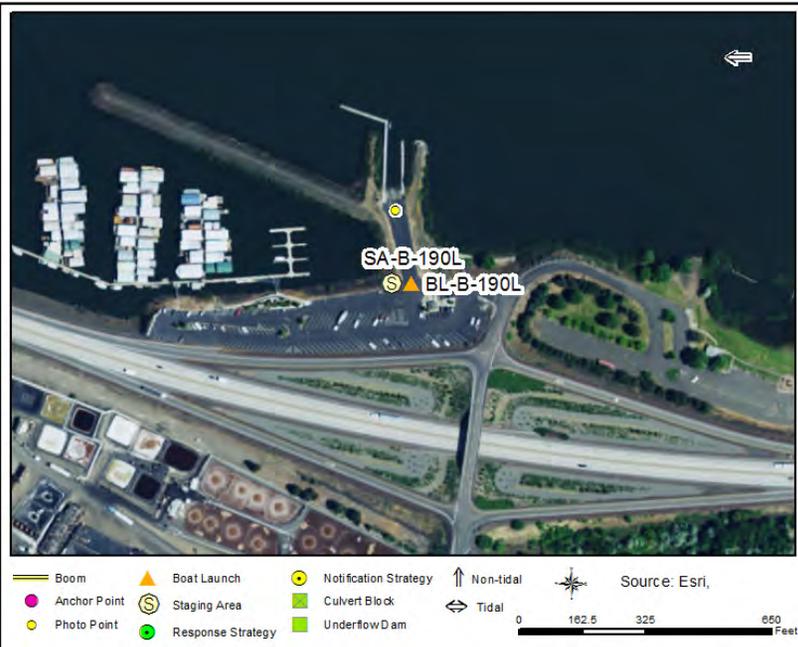
Port of The Dalles Marina

BL-B-190L

Boat Launch Location

Position - Location: 45° 36.046', -121° 10.185' 45° 36' 2.8", -121° 10' 11.1" 45.60077, -121.16976 The Dalles

Comments: Nice, well maintained boat launch at the Port of Dalles Marina.



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	2
Boat Ramp(s)	Asphalt	1 Boat ramp with lots of space to launch.
Fuel	Yes	diesel and gasoline available
Moorage - Trans, Open	Other	30 Guest Moorage available
Parking - Car	Marked	Large parking lot
Parking - Trailer	Marked	50 Large parking area for trailers
Restroom	Restroom - Flush	1

GRP Response Strategies Served:

B-192.7M, B-187.1L, B-190.1L, B-186.6L, B-192.4L, B-190L, B-191.6R, B-191.55R, B-186.8L, B-188.2L, B-186.1L, B-187.3L, B-191.4R, B-187.7R

Port of The Dalles Marina **BL-B-190L**



SA-B-190L Photo: The Dalles Marina Boat Launch



Site Contact

Port of the Dalles
 Primary Contact : Marina owner

 OR
 541-298-4148

Nearest Address

Brewery Overpass Road and Highway
 84
 The Dalles, OR 97058

Driving Directions

1. Directions to SA-B-190L/Port of The Dalles Marina, starting at US 197 Dallesport, WA 98617
2. Go southeast on US-197 toward Dow Rd (2.01 miles)
3. Turn right onto ramp and go on I-84 W toward Portland (1.27 miles)
4. At exit 85 take ramp on the right toward City Center/The Dalles/National Hist. Districts (0.24 miles)
5. Turn right toward Marina (0.02 miles)
6. Finish at Brewery Overpass Road and Highway 84, 97058, on the left

Old Hatchery Road boat launch **BL-WIND-0.2L**

Boat Launch Location

Position - Location: 45° 43.089', -121° 47.337' 45° 43' 5.3", -121° 47' 20.2" 45.71814, -121.78896 Stevenson

Comments: Paved, lighted staging area, double concrete ramp 7.7 degree grade with floating dock \$7 launch fee required



Location Information

<u>Asset</u>	<u>Type/Status</u>	<u>Amount/Number</u>
Boat Dock(s)	Yes	1 Floating dock
Boat Ramp(s)	Concrete, Solid	2 Two concrete ramps 7.7 degree grade
Boathouse	No	
Cell Phone Coverage	Yes	
Estimated Lot Size		1 100' x 135'=13500 sq ft of paved parking
Parking - Car	Marked	9 room for 18 cars or trailers
Parking - Trailer	Marked	9 Spaces for 18 cars or trailers
Power	No	
Restroom	Restroom - Vault	2
Waste Disposal	Trash Receptacle	
Water (potable)	No	

GRP Response Strategies Served:

B-154.6R

Old Hatchery Road boat launch **BL-WIND-0.2L**



SA-WIND-0.2L Photo: Old Hatchery Road boat launch



Site Contact

Skamania County
 Primary Contact : Manages boat launches (Stevenson & Drano Lake)
 710 Rock Creek Dr
 Stevenson, WA 98648
 509-427-3980

Nearest Address

Old Hatchery Road
 Stevenson, WA 98648

Driving Directions

1. Directions to SA-WIND-0.2L/Old Hatchery Rd, starting at the (toll) Bridge of the Gods, Stevenson, WA 98648
2. Go west on Bridge Of The Gods toward WA-14 (0.11 miles)
3. Turn right on WA-14 (Evergreen Hwy) (8.11 miles)
4. Turn left on Old Hatchery Rd (0.2 miles)
5. Finish at Old Hatchery Road, 98648, on the right

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CHAPTER 5
(Reserved)

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CHAPTER 6

Resources at Risk

6.1 CHAPTER INTRODUCTION

This chapter provides a summary of natural, cultural, and economic resources at risk in the Bonneville Pool of the Middle Columbia River 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, hazing, 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 provided in this chapter are listed because they could not be addressed in Chapter 4 (Response Strategies and Priorities). Additional information from private organizations or federal, state, tribal, and local government agencies should also be sought during spills and considered.

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, eelgrass and marsh grasses in estuaries, and kelp beds in the ocean; microscopic plants and animals; and larger animals, such as fish, amphibians and reptiles, birds, mammals, and a wide variety of invertebrates, are all at potentially at risk from smothering, acute toxicity, and/or the chronic long-term effects that may result from being exposed to spilled oil.

The Middle Columbia River subbasin affords a wide variety of aquatic, riparian, and upland habitats. These varied habitats support a complex diversity of wildlife species, including large and

small mammals, song birds, birds of prey, upland birds, and other waterfowl, as well as numerous reptiles and amphibians. Some species are resident throughout the year; others are migratory either within the subbasin or, in numerous cases, seasonally migrate outside the subbasin. Many wildlife species found in the subbasin are classified as threatened, endangered, sensitive, or of special concern under either 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)
- Federal Candidate (FC)
- Federal Species of Concern (FCo)
- State Endangered (SE)
- State Threatened (ST)
- State Candidate (SC)
- State Monitored (SM)
- State Sensitive (SS)

Sensitive species that may occur within this area, at some time of year, include the following federal and state listed species.

Birds:

- American white pelican [SE],
- Bald eagle [SS (WA)],
- Burrowing owl [SC],
- Common loon [SS],
- Flammulated owl [SC],
- Golden eagle [SC (WA)],
- Greater sage-grouse [FC/ST],
- Lewis's woodpecker [SC],
- Loggerhead shrike [SC],
- Northern spotted owl [FT/SE (WA)/ST (OR)],
- Peregrine falcon [FCo/SS (WA)],
- Purple martin [SC (WA)],
- Sage thrasher [SC],
- White-headed woodpecker [SC],
- Yellow-billed cuckoo [FT/SC],
- Vaux's swift [SC (WA)]
- Western grebes [SC].

Mammals:

- Black-tailed jackrabbit [SC],
- Canada lynx [FT/ST],
- Fisher [FC/SE],
- Gray wolf [FE/SE],
- Grizzly bear [FT/SE],
- Pygmy rabbit [FE/SE],
- Townsend's ground squirrel [SC],
- Washington ground squirrel [FC/SC (WA)/SE (OR)],
- Western gray squirrel [ST].

Fish:

- Bull trout [FT/SC (WA)],
- Columbia River chum salmon [FT/SC (WA)],
- Green sturgeon [FT],
- Lower Columbia River Chinook salmon [FT/SC (WA)],
- Lower Columbia River Coho salmon [FT/SE (OR)],
- Lower Columbia River steelhead [FT/SC (WA)],
- Mid-Columbia River steelhead [FT/SC (WA)],
- Pacific lamprey [FCo],
- River lamprey [FCo/SC],
- Snake River fall Chinook salmon [FT/SC (WA)/ST (OR)],
- Snake River sockeye [FE/SC (WA)],
- Snake River spring/summer Chinook [FT/SC (WA)/ST (OR)],
- Snake River steelhead [FT/SC (WA)],
- Upper Columbia River Chinook [FE/SC (WA)],
- Upper Columbia River steelhead [FT/SC (WA)].

Amphibian and Reptile:

- California mountain kingsnake [SC (WA)],
- Common sharp-tailed snake [SC],
- Larch Mountain salamander [SS (WA)],
- Oregon spotted frog [FT/SE (WA)],
- Sagebrush lizard [SC],
- Western (Pacific) pond turtle [SE (WA)],
- Western toad [SC (WA)].

Plants:

- Northern wormwood [FC],
- Ute ladies'-tresses [FT],
- White bark pine [FC],
- White Bluffs bladderpod [FT]

6.2.1 General Resource Concerns**6.2.1a - Habitats:**

- **Wetlands** in this region are all fresh water and range from seasonal open marshes to forested swamps along rivers and streams. All wetland types support a diverse array of amphibian, bird, insect, fish, and wildlife species.
- **Riparian areas** serve as transitional zones between the uplands and the rivers and consequently are heavily used by a variety of wildlife. They also contribute to nearshore fish habitat by providing shade, cover, and food.
- **Side channels and impounded areas** provide feeding and resting areas for a variety of birds, including waterfowl and herons.
- **Islands** provide important nesting habitat for a variety of bird species, as well as habitat for a variety of mammals.
- **Stream mouths** are concentration areas for anadromous fish and are feeding areas for a variety of birds.
- **Human-made structures** such as pilings, rock jetties or log rafts may be used as roosting or nesting areas for a variety of marine birds and raptors.
- Numerous **habitat restoration sites** exist along the Middle Columbia River and its tributaries. Often, significant resources have been invested in these locations to improve stream conditions specific to salmon recovery.

6.2.1b - Fish:

- Various salmonids (both juvenile and adults) are present in the river above Bonneville Dam throughout the year. Millions of juvenile salmonids move downstream past the dam to use estuarine waters as a rearing and foraging area as they prepare for migration to the ocean. Returning adult salmonids of various types and stocks support significant tribal, commercial and recreational fisheries.
- Anadromous fish (other than salmon) in this region include American shad, Green sturgeon [FT], and Pacific lamprey [FCo].
- Resident fish present year-round in the river include White sturgeon, Walleye, Largemouth bass, Crappie, Perch, Bullheads and Northern pike minnow.

6.2.1c - Wildlife:

- Significant **waterfowl concentrations** exist throughout this GRP region from fall through spring. Hundreds of thousands of geese, swans, and dabbling ducks may occupy this region during peak periods. Resident and migratory waterfowl heavily utilize the islands, backwaters, wetlands and adjacent uplands of the region from fall through spring. Numerous islands in this sub-region also provide nesting habitat for resident waterfowl.
- **Bald eagles [SS (WA)] and Great blue herons** are nesting residents and may be found year-round throughout the region. Peregrine falcons [FCo/SS (WA)] are commonly found as winter and spring visitors. Other raptors, including Osprey, Northern harrier, and Burrowing owl [SC] are also regularly found in this area.
- **Resident and migratory songbirds** heavily utilize riparian habitats year-round and are susceptible to oiling if riparian vegetation and shorelines become contaminated.
- **Other small mammals** common to the region include beaver, muskrat, river otter, mink, and raccoon. The black-tailed jackrabbit [SC] and the Townsend's ground squirrel [SC] are also found in this area. Because of their habitat preferences, all of these species are vulnerable to contact with spilled oil.

6.2.2 Specific Geographic Areas of Concern

Middle Columbia River, Bonneville Pool (~RM 146-192). See Figure 6-1

1. **Rock Creek Cove and Ashes Lake (~RM 149).** Extensive wetland and impounded water habitat. Concentration area for migratory and wintering waterfowl. Osprey nests associated with Ashes Lake. Salmonid concentration and breeding area (including Bull trout [FT/SC (WA)]).
2. **Lower Wind River (~RM 154).** Forested wetlands and impounded areas. Salmonid concentrations and habitat (including Steelhead trout [FT/SC (WA)], Chinook salmon [FT/SC (WA)], Harlequin ducks (wintering/ roosting), sensitive nesting species. Purple martin [SC (WA)], nesting area.
3. **Drano Lake (~RM 162).** Shallow water habitat/cultural resource, salmonid concentrations and habitat (including Steelhead trout [FT/SC (WA)] and hatchery fish, waterfowl concentration area, recreational use, sensitive nesting species (including Bald eagle [SS (WA)], and Northern spotted owl [FT/SE (WA)/ST (OR)]). Fish Hatchery.
4. **Lower White Salmon River (~RM 168).** Impounded area. Concentration area for migratory and wintering waterfowl, salmonid concentrations and habitat (including Bull trout [FT/SC (WA)], Steelhead trout [FT/SC (WA)], and Chinook salmon [FT/SC (WA)]). Peregrine falcon [FCo/SS (WA)].
5. **Rowland Lake (~RM 176).** Impounded area. Waterfowl concentration area, sensitive nesting species (including Osprey and Peregrine falcon [FCo/SS (WA)]).

- 6. **Chamberlain Lake/Lower Klickitat River (~RM 180).** Forested wetland and impounded area. Salmonid concentrations and habitat (including Steelhead trout [FT/SC (WA)], Bull trout [FT/SC (WA)], resident fish, waterfowl concentration and wintering area. Sensitive nesting species (Lewis' woodpecker [SC], Bald eagle [SS (WA)]), Mayer State Park.

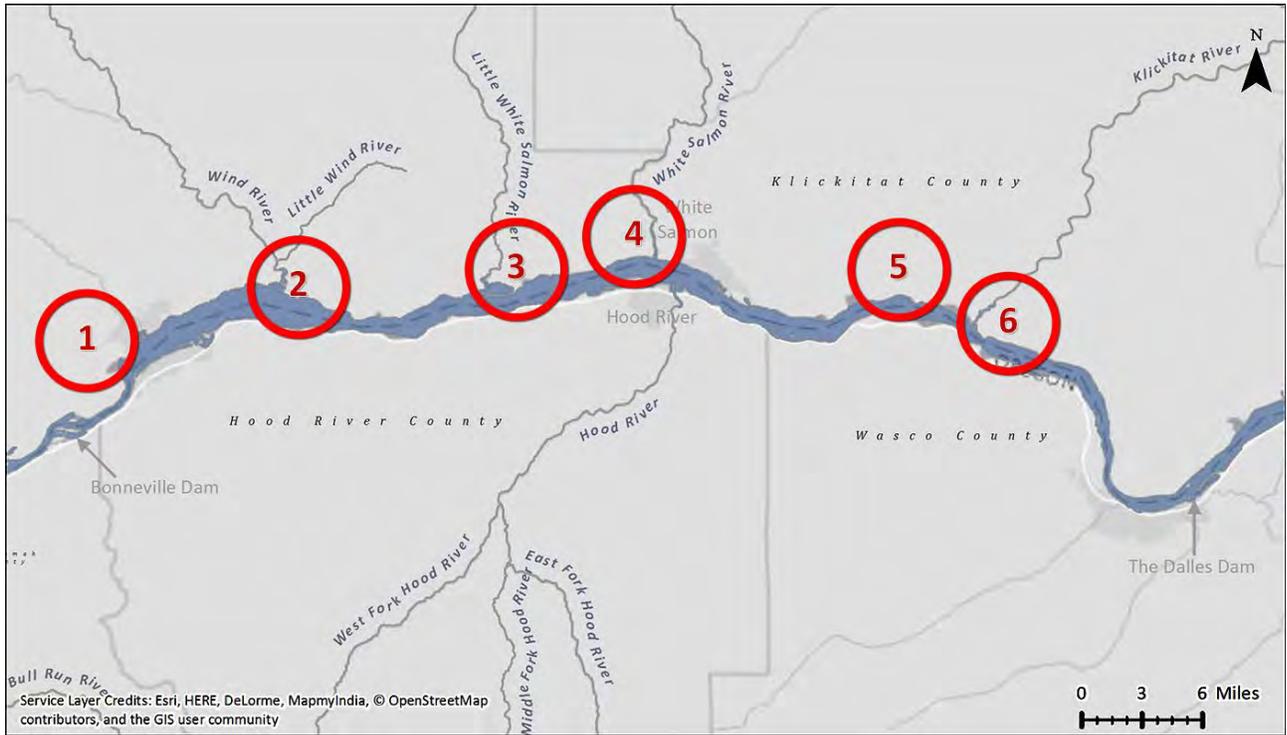


Figure 6-1: Middle Columbia River, Bonneville Pool (~RM 146-192).

6.3 CULTURAL RESOURCES AT RISK - SUMMARY

Culturally significant resources are present within the Middle Columbia River area. Information regarding the types of cultural resources and their locations is maintained by both the Washington Department of Archeology and Historic Preservation (WDAHP) and the Oregon State Historic Preservation Office (OR SHPO). 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) of the Cowlitz, Nez Perce, Umatilla, Warm Springs, Yakama Nation, and the Confederated Tribes of the Colville Reservation, may also be able to provide information on cultural resources at risk in the area and should be contacted, along with WDAHP and the OR SHPO, through normal trustee notification processes when significant oil spills, or smaller spills above reportable thresholds, occur on the Columbia River. 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 and the OR SHPO should be consulted before disturbing any soil or sediment during a response action. WDAHP, the OR SHPO, and/or the Tribes 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 at risk. Due to the sensitive nature of such information, details regarding the location and type of cultural resources present are not included in this document.

WDAHP	360- 586-306	Rob.Whitlam@dahp.wa.gov
OR SHPO	503-986-0674	Dennis.Griffin@oregon.gov
Cowlitz Indian Tribe, Cultural Resources Director	360-577-6962	culture@cowlitz.org
Nez Perce Tribe, Spill Responder and Water Quality	208-621-3893	keithb@nezperce.org
Confederated Tribes of the Umatilla Indian Reservation	541-276-4348	NaturalResources@ctuir.org
Warm Springs Confederated Tribes	541-553-3257	jp.patt@wstribes.org
Confederated Tribes of the Yakama Indian Nation	509-865-5121	kate@yakama.com
Confederated Tribes of the Colville Reservation, THPO	509-634-2695	guy.moura@colvilletribes.com

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 6 A of this chapter provides a list of economic resources for this GRP 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 minimizing disturbance that could result in injury to wildlife during an oil spill. By keeping a safe distance or altitude from identified sensitive areas, pilots can minimize the risk of aircraft/bird collisions, prevent the accidental hazing of wildlife into oiled areas, and avoid causing 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 ft radius and below 1,000 ft 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 Hazing

After a Unified Command is formed, the Wildlife Branch (Operations Section) in consultation with the appropriate trustee agencies and the Environmental Unit will evaluate hazing options for the purpose of keeping un-oiled birds and marine mammals away from oil during a spill. Hazing 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 it. Response personnel should not approach or attempt to recover oiled wildlife. Responders should report their observations of 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

The Bonneville Pool of the Middle Columbia River

List of Economic Resources

Category	Name	Location/Address	Lat/Long	Contact	Phone	Email
A-1 Drinking Water Intakes	City of The Dalles Public Works	1215 W 1st St, The Dalles, OR 97058	45.609954/-121.196228	City of The Dalles Public Works	541-980-7703	
A-1 Drinking Water Intakes	City of Cascade Locks Public Works	15 Herman Creek Lane, Cascade Locks, OR 97014	45.680947/-121.864603	Public Works Foreman	541-386-2711	
A2 - Energy/Power Generation Water Intakes	Bonneville Lock & Dam	100 NE Sturgeon Lane, Cascade Locks, OR 97014	45.64448/-121.940883	Control Room Operator (24/7)	541-374-8338	
B1 - Industrial Intakes	SDS Lumber Company	Depot St & Maple St, Bingen, WA 98605	45.716006/-121.477014	Environmental Health & Safety Manager	541-490-3299.	
B1 - Industrial Intakes	WKO Lumber	74 Lewis and Clark Hwy, Stevenson, WA 98648	45.710488/-121.789863	WKO Inc.	(509) 427-8413	
B2 - Agricultural Irrigation Intakes	The Dalles Irrigation District	West 1st St., The Dalles, OR 97058	45.608004/-121.189484	24 hour emergency number	541-993-5200	
B4 - Marinas	Port of Dalles Marina	3636 Klindt Dr, The Dalles, OR 97058	45.60136/-121.16986	Marina Owner	541-298-4148	
B4 - Marinas	Bingen Marina	E Bingen Marina Loop Rd, Bingen, WA 98605	45.709009/-121.458698	Port of Klickitat	509-493-1655	
B4 - Marinas	Port of Hood River Marina	1000 E Port Marina Dr, Hood River, OR 97031	45.71243/-121.50229	Property Manager	541-386-1645	
B4 - Marinas	Marine Park, Port of Cascade Locks	355 Wa Na Pa St, Cascade Locks, OR 97014	45.6672/-121.89678	Property Owner	541-374-8535	
B6 - Fish Hatcheries	Spring Creek National Fish Hatchery	Spring Creek Hatchery Rd, Underwood, WA 98651	45.727/-121.543	Hatchery Manager	509-493-1730	
B6 - Fish Hatcheries	Little White Salmon Fish Hatchery	100 Jackson Road, Cook, WA 98605	45.709841/-121.64242	Hatchery Manager	509-493-1730	

Category	Name	Location/Address	Lat/Long	Contact	Phone	Email
B6 - Fish Hatcheries	Cascade Hatchery	74152 NE Eagle Creek Loop, Cascade Locks, OR 97014`	45.641538/-121.927684	Hatchery Manager	503-801-3713	
C4 - Parks & Beaches	Mayer State Park	6000 Rowena River Road, The Dalles, OR 97058	45.681593/-121.288519	Oregon State Parks, Mayer State Park	541-478-3008	
C4 - Parks & Beaches	Riverfront Park	Brewery Overpass Road and Highway 84, The Dalles, OR 97058	45.60136/-121.16986	Port of The Dalles	541-298-4148	
C4 - Parks & Beaches	Home Valley Park	50092 Washington 14, Home Valley, WA 98648	45.707665/-121.779	Skamania County Park Department	509-427-3980	
C4 - Parks & Beaches	Spring Creek State Park	Spring Creek Hatchery Rd, Underwood, WA 98651	45.725913/-121.5513	WA State Parks	509-767-1159	
C4 - Parks & Beaches	Doug's Beach State Park	Lewis and Clark Hwy, Lyle, WA 98635	45.676287/-121.2352	WA State Parks	509-767-1159	
C6 - National River Reach	Columbia River Gorge National Scenic Area	Portion of the Columbia River from the mouth of the Sandy River to the mouth of the Deschutes River	45.7047/-121.7917	USDA Forest Service, Columbia River Gorge	541-308-1700	