State of Oregon
Department of
Environmental
Quality

DEPARTMENT OF
ECOLOGY
State of Washington

MIDDLE COLUMBIA RIVER
JOHN DAY POOL
Geographic Response Plan
(MCRJ-GRP)

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MIDDLE COLUMBIA RIVER

JOHN DAY POOL

Geographic Response Plan

(MCRJ-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*
USACE Walla Walla District Office	(541) 922-2231*
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
Pipeline Companies and Railroads	
BNSF Railway	(800) 832-5452*
Union Pacific Railroad	(888) 877-7267*
Tesoro Logistics Operations	(509) 543-6100*
Tidewater Terminal Company	(509)-547-7701

* 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 - Central Region Spill Response Team	(509) 575-2490*
Washing Department of Fish and Wildlife - Region 5	(360) 696-6211
Washing Department of Fish and Wildlife - Oil Spill Team	(360) 534-8233*
Washing 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
Washing 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
Local Government - John Day Pool	
Arlington Fire Department	(541) 454-2900
Port of Arlington, OR	(541) 454-2868
City of Hermiston Police	(541) 567-5519
City of Irrigon, OR Rural Fire Protection District	(541) 922-3133
Benton County, WA Sheriff	(509) 875-2275
Benton County Emergency Services	(509) 628-2600
Benton County Fire Protection District 2	(509) 588-3212
Gilliam County, OR Sheriff	(541) 384-2080
Klickitat County Sheriff	(509) 493-1811
Klickitat County Emergency Management	(509) 250-0528
Klickitat County Fire District 6 (Dallesport)	(509) 767-1252
Klickitat County Fire District 9 (Roosevelt)	(509) 384-5192
Port of Klickitat, WA	(509) 493-1655
North Sherman County Rural Fire District	(541) 442-5252
Sherman County Sheriff	(541) 565-3622
Umatilla County Sheriff	(541) 966-3651
Umatilla Fire Department	(541) 922-2770

* Contact Numbers staffed 24-hour/day

Before you print this document

Chapter 4 with appendices (pages 35-326) and Appendix 6A (pages 339-341) of this document are provided in "landscape" page orientation; all other chapters and appendices are oriented in "portrait." The appendices in Chapter 4 (pages 103-326) 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.

Record of Changes

Date	Change Number	Summary of Changes	Name of Person Making Change
June 1, 2002	MCR-GRP 002	Comprehensive review and update of Chapter 4	N/A
May 1, 2004	MCR-GRP 003	Comprehensive review and update of all chapters.	N/A
June 30, 2015	MCR 004 John Day Pool-GRP (MCRJ-GRP)	Separation of the MCR-GRP into four individual GRPs based on pool areas, including the: Bonneville Pool, The Dalles Pool, John Day Pool, and McNary Pool. Conducted comprehensive reviews and updates of all chapters, with significant changes to Chapter 4.	Susan Vezeau, PhD
October 1, 2015	MCR 005 John Day Pool-GRP	Update of Purpose and Use, Chapter 1, Chapter 3, Chapter 4, and Chapter 6. Removal of Protection Techniques and GRP Contributors from appendices. Moved Appendix C to 1A.	Susan Vezeau, PhD

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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 John Day Pool of the Middle Columbia River (MCRJ-GRP). The Columbia River provides a border between Oregon and Washington from the river's mouth, through the John Day-GRP area, to river mile 310 where it leaves Oregon and continues on through Washington State until reaching its origin in Canada. The MCRJ-GRP planning area covers 76 miles of the Columbia River, extending from the John Day Dam at river mile 216.4 to the base of the McNary Dam at river mile 292.5. Numerous cities and towns are located on the banks of the Columbia River within the John Day Pool, including: Arlington, Boardman, Irrigon, and Umatilla, Oregon, with the towns of Paterson and Plymouth on the opposite shore 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

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

Today's Date: _____

Your Name: _____

Title: _____

Company/Agency: _____

Address: _____

City: _____

State/Province: _____ Zip: _____

Email: _____ Ph: _____

GRP Page Number: _____ Section or Paragraph: _____

Comment(s): _____

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 MCRJ-GRP encompasses the John Day Pool (a.k.a. Lake Umatilla), and covers a 76 mile reach of the Columbia River, stretching east from the upstream side of the John Day Lock and Dam (located at river mile J-216.4) to the McNary Dam (located at river mile M-292.5). The John Day Pool borders Klickitat and Benton counties in Washington, and four counties in Oregon: Sherman, Gilliam, Morrow, and Umatilla.

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 cubic feet per second. This intense geomorphic action formed the sheer basalt cliffs that are now

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

[2] http://www.ucmp.berkeley.edu/cenozoic/cenozoic.php

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, 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 NW 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 Portland each year with approximately half of that volume barged upriver to inland ports.[16] The

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[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

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

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 John Day Pool is 76 miles long, has a capacity of 2,530,000 acres/feet.[18] This is the last west-east section of the river before the upstream course veers significantly north. The western half of the reservoir has very little development surrounding it, while the eastern half has a significant amount of farmland lining the river on both sides. Communities on the river include: Roosevelt, Paterson, and Plymouth, Washington as well as: Arlington, Boardman, Irrigon, Umatilla, and McNary, Oregon. Interstate-82 crosses the river toward between Plymouth and Umatilla connecting eastern Washington to eastern Oregon.

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.[19]

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.[20] The river travels a total of 1,243 miles, providing drainage for approximately 258,000 sq. miles of the Western United States and British Columbia, with numerous tributaries, both rivers and creeks, adding to the flow along the way. [21]

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

[18] http://www.ecy.wa.gov/programs/wr/cwp/images/pdf/wtrbud/johnday.pdf

[19] http://response.restoration.noaa.gov/sites/default/files/shoreline_countermeasures_tropical.pdf

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

[21] http://pubs.usgs.gov/of/1987/ofr87-242/

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 John Day Pool has a normal elevation of 262 feet above mean sea level.[22] Tributary rivers within the John Day Pool include the John Day River (OR) and the Umatilla River (OR) basins. On the Washington side, creeks entering the reservoir are part of the Rock/Glade watershed, WRIA 31.[23] On the Oregon side, the John Day Pool is adjacent to the John Day and Umatilla watersheds.

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.[24] 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.[25]

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.[26] 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.

The John Day Pool lies just outside of the transition zone to the east of the mountains and has the dry continental climate common east of the Cascade Mountains. The mean annual temperature in Arlington, Oregon, elevation 280 feet above sea level, is 54° F, ranging from an average low of 34° F in January, to an average high of 76° F in July. Recorded temperature extremes include a low of -9° F and a high of 111° F. Mean annual precipitation is 9 inches with more than three quarters occurring between November and February. Annual snowfall is 8 inches, with more than half occurring in December and January.

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[22] http://www.nwp.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2043/Article/492594/john-day-lock-and-dam.aspx

[23] http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm

[24] http://www.nwp.usace.army.mil/Portals/24/docs/pubs/pamphlets/TDJDWCBrochure.pdf

[25] http://www.ocs.oregonstate.edu/county_climate/Morrow_files/Morrow.html

[26] http://usatoday30.usatoday.com/weather/tg/wrnshdw/wrnshdw.htm

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."[27] 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).[28] 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 incident 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 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 trunks, 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.

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[27] http://www.nwp.usace.army.mil/Portals/24/docs/pubs/pamphlets/TDJDWCBrochure.pdf pg. 3

[28] https://fortress.wa.gov/ecy/publications/publications/1508010.pdf

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.[29] 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.[30] 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 barrels in 2014.[31] These numbers are only predicted to rise as facilities are improved or increased.[32]

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.[33] 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

[29] https://fortress.wa.gov/ecy/publications/publications/1508010.pdf (320)

[30] 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.

[31] http://www.Statesmanjournal.com/story/news/2014/05/26/west-coast-oil-trains/9605759/

[32] https://fortress.wa.gov/ecy/publications/publications/1508010.pdf (460)

[33] https://fortress.wa.gov/ecy/publications/publications/1508010.pdf (317)

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.[34]

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.[35] 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. 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.

Landslides, Earthquakes, Weather and Wildfire

Oil spill risk factors include accidents near waterways due to natural events, including landslides, earthquakes, weather and wildfire. Landslides commonly occur on slopes and in areas where they have taken place before, and historically, the Columbia River Gorge is one of the areas that have been most active in the recent past.[36] A U.S. Geological Survey study (Blakely et al., 2011) presented geologic and paleoseismic evidence that the potential for large magnitude earthquakes (greater than M 7) could be much greater for eastern Washington than previously

[34] https://fortress.wa.gov/ecy/publications/publications/1508010.pdf (320)

[35] http://tidewater.com/pasco

[36] http://mil.wa.gov/uploads/pdf/HAZ%20MIT%20PLAN/Landslide_Hazard_Profile.pdf (4)

assumed.37 The MCR has its fair share of severe weather with the possibility of strong winds all year long, snow and ice in the winter, heavy rains in the western side of the Gorge, and thunderstorms throughout the area, which also place the region at risk of weather related wildfire.

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, as well as security concerns, such as acts of vandalism, sabotage, or terrorism to dams, railroads, or pipelines.

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[37] https://www.nirs.org/reactorwatch/natureandnukes/tolaneqreport1oct31-13.pdf (6)

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CHAPTER 3

JOHN DAY POOL

Spill Response Options and Considerations

		Location				
		John Day Dam	Arlington/ Roosevelt	Crow Butte Park	Irrigon	Plymouth/ Umatilla
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 *(Note: 1)*	●	●	●	●	●
	Vessel Based Skimming Operations *(Note: 2)*	●	●	●	●	●
	Shore Based Skimming Operations *(Note: 3)*	●	●	●	●	●
	Shoreside Protection Booming *(Note: 4)*	●	●	●	●	●
	Shoreside Cleanup Activities *(Note: 5)*	●	●	●	●	●
	In-Situ Burning ***Areas not pre-approved (Note: 8)***					
	Dispersant Use ***Areas not pre-approved(Note: 9)***					
Considerations	Shoreside Access can be Limited by Private Property				●	●
	State or National Wildlife Refuge / Recreation Area		●	●	●	●
	Threatened/Endangered Terrestrial Species *(Note: 6)*			●	●	●
	Public or Commercial Marina(s) in Area		●		●	●
	Commercial Vessel Movement / Port Area	●	●	●	●	●
	Recreational Boat Traffic	●	●	●	●	●
	Tribal Lands or U and A Interests *(Note: 7)*	●	●	●	●	●
	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.

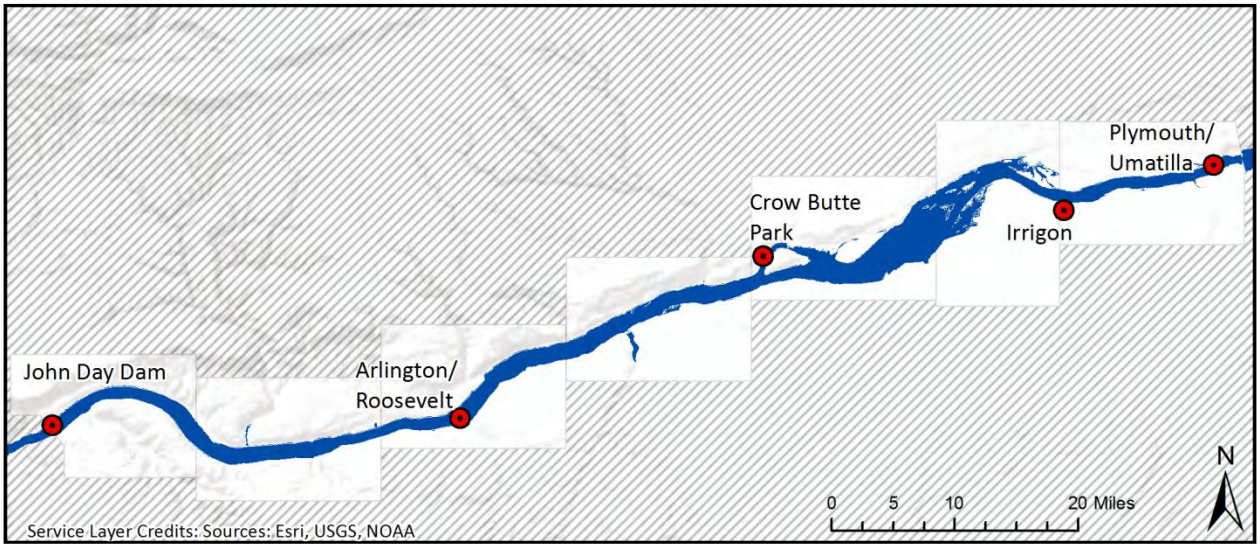
Note 5: Shoreside Cleanup options depend on safe and efficient access to locations and the type of river, creek, or stream bank present. Potential activities could include flooding, flushing, manual removal, vacuum, mechanical removal, sorbents, vegetation cutting, mechanical tilling/aeration, and/or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

JOHN DAY POOL

Geographic Response Plan

(MCRJ-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 though 4D (103-326) 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 their proximity to sensitive resources. Area maps, sector maps, and information on staging areas and boat launch locations are also provided in this chapter. During a spill incident, GRP response strategies should be implemented as soon as possible. Unless circumstances unique to a particular spill situation dictate otherwise, the priority tables in Section 4.3 should be used to decide the order that GRP strategies are deployed. The downstream movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting implementation priorities. Information on resources at risk, sensitive areas, and flight restrictions can be found in Chapter 6 of this plan. Information on 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.rrt10nwac.com/NWACP/Default.aspx.

The GRP strategies provided in this chapter have been created to reduce spilled oil's impact on sensitive resources. They are not everything that should or could be done during a response to lessen the chance of injury to natural, cultural, and economic resources at risk from oil spills. 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, municipality, 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	**The Dalles**	**Walla Walla**	**Yakima**	**Klickitat**	**White Salmon**
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 Average	**118,292**	**180,667**	**633**	**3,602**	**1,641**	**1,177**
MPH	0.5 mph	1.0 mph		3.5 mph		

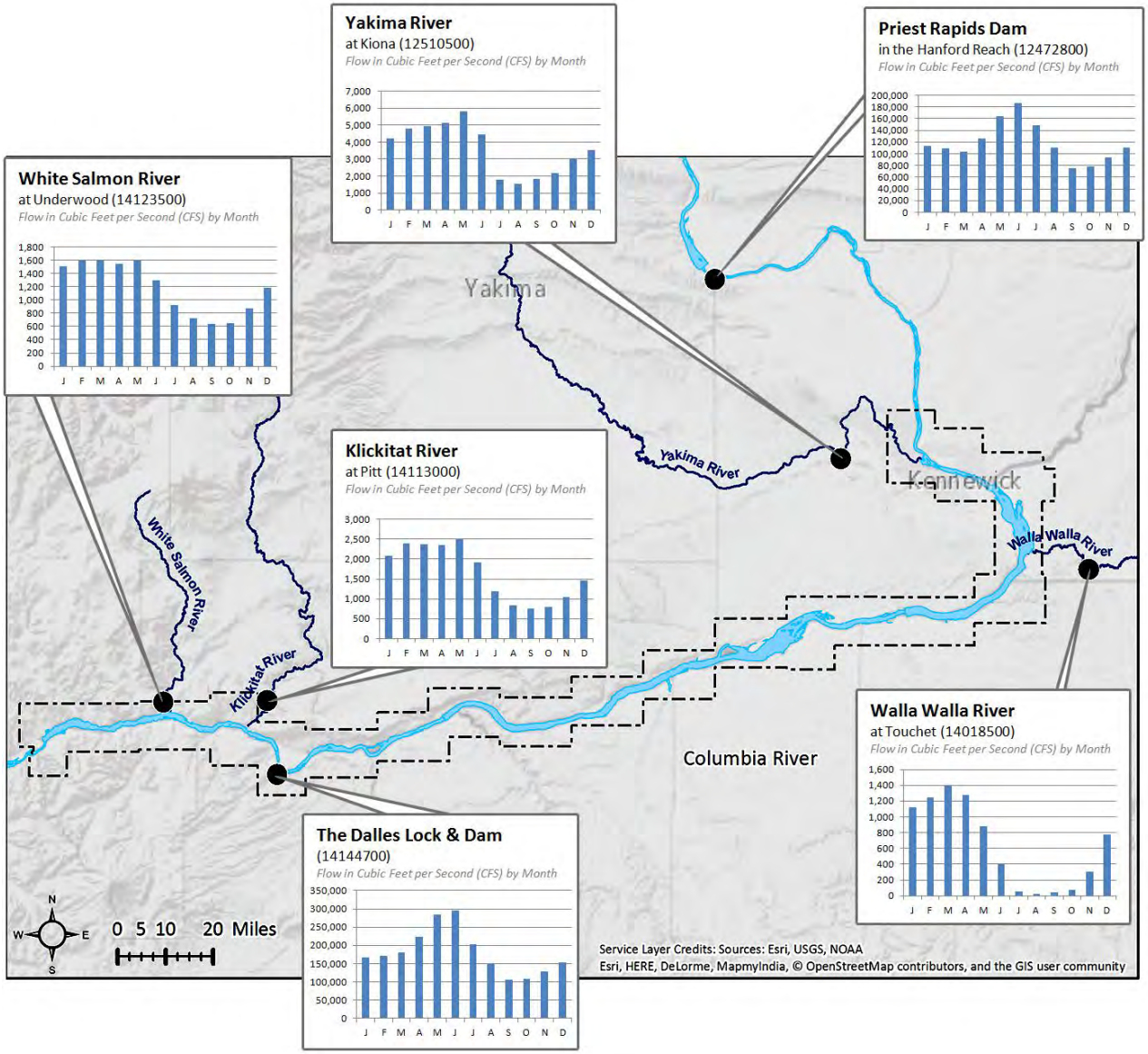


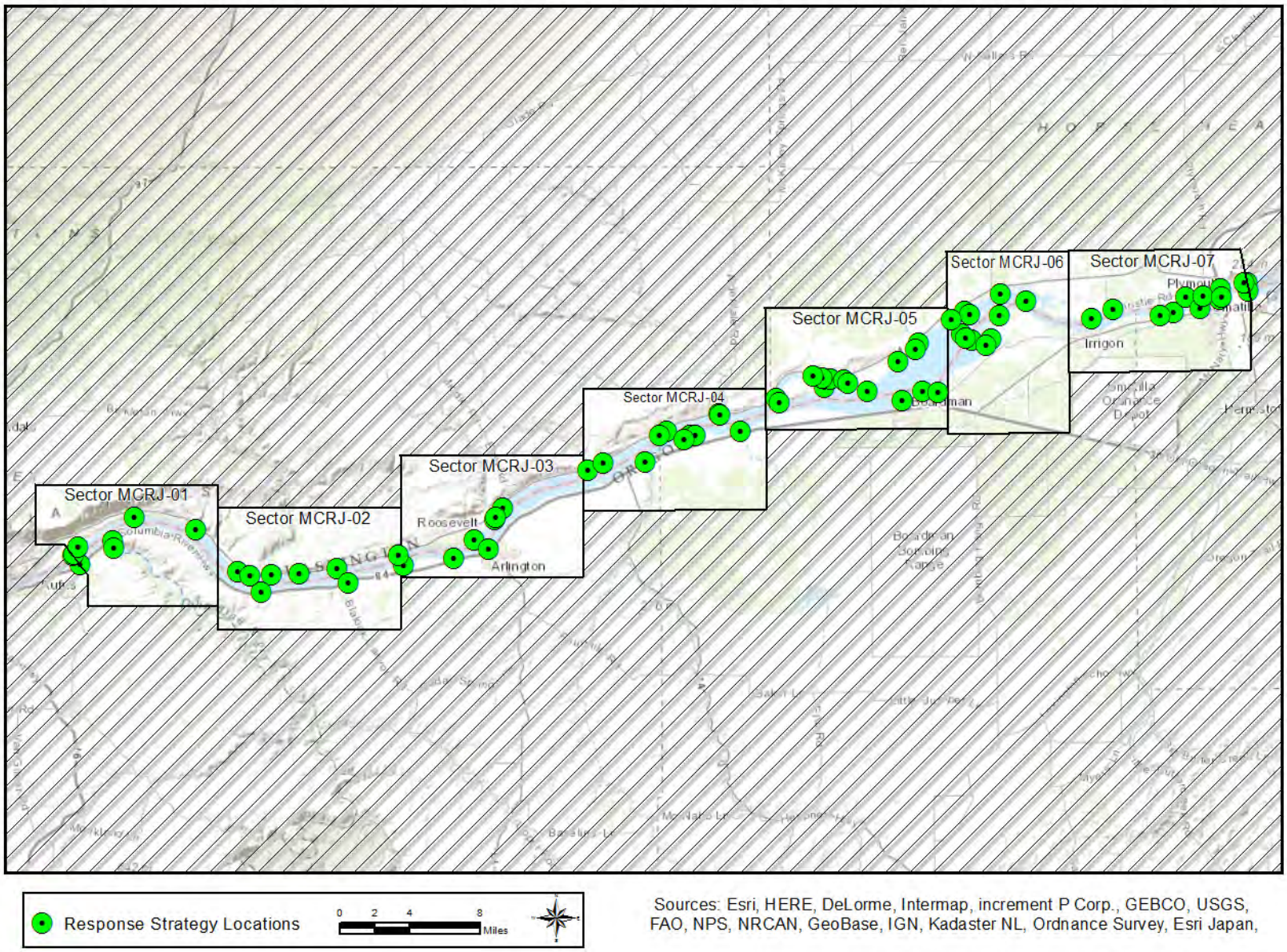
Figure 4-1: USGS Mean Monthly Discharge Measurements for the Columbia River and Tributaries

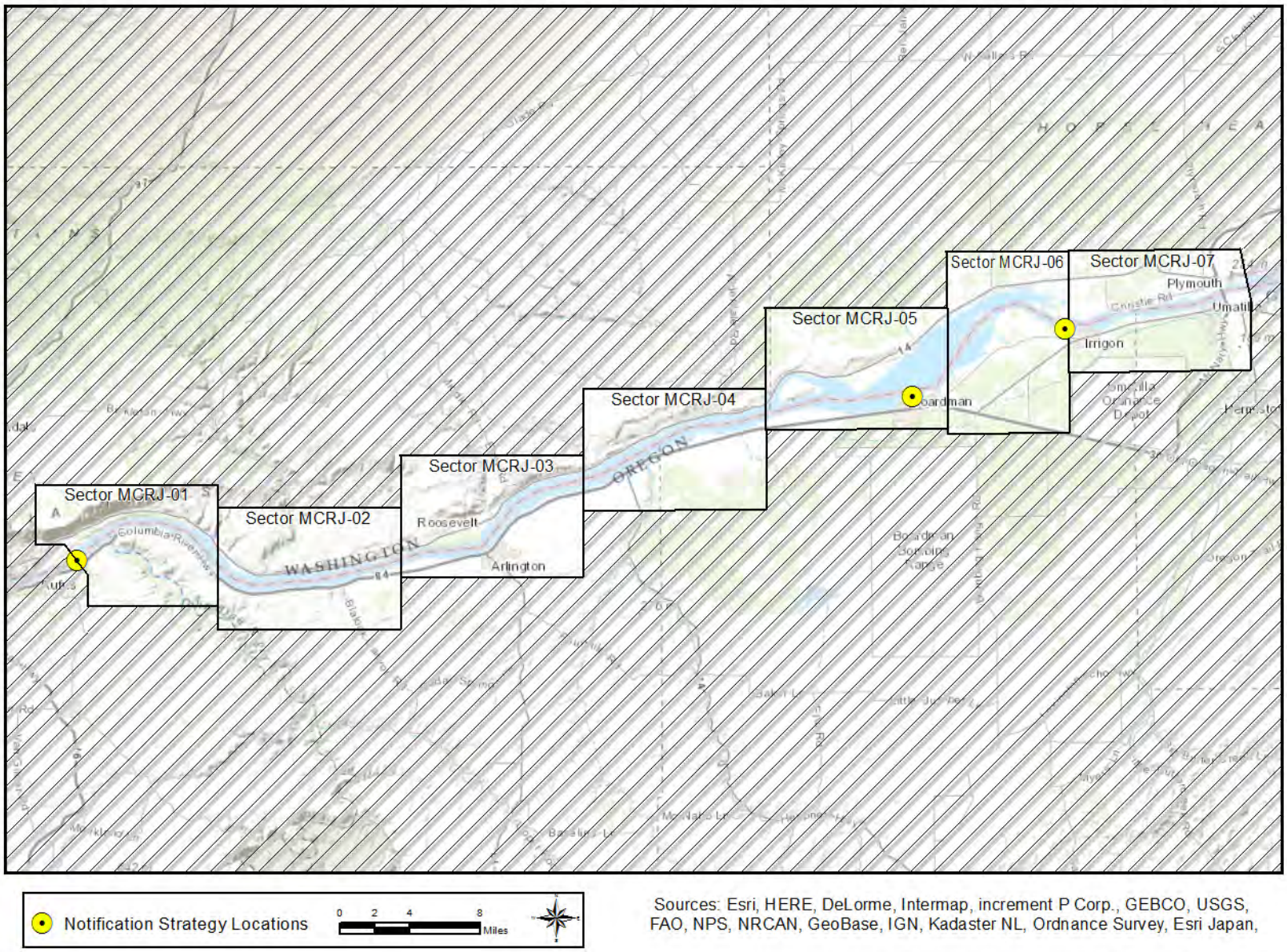
4.2 AREA OVERVIEW MAPS

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


Sector MCRJ-01
Sector MCRJ-02
Sector MCRJ-03
Sector MCRJ-04
Sector MCRJ-05
Sector MCRJ-06
Sector MCRJ-07
Roosevelt
Arlington
Irrigon
Boardman
Response Strategy Locations
0 2 4 8
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,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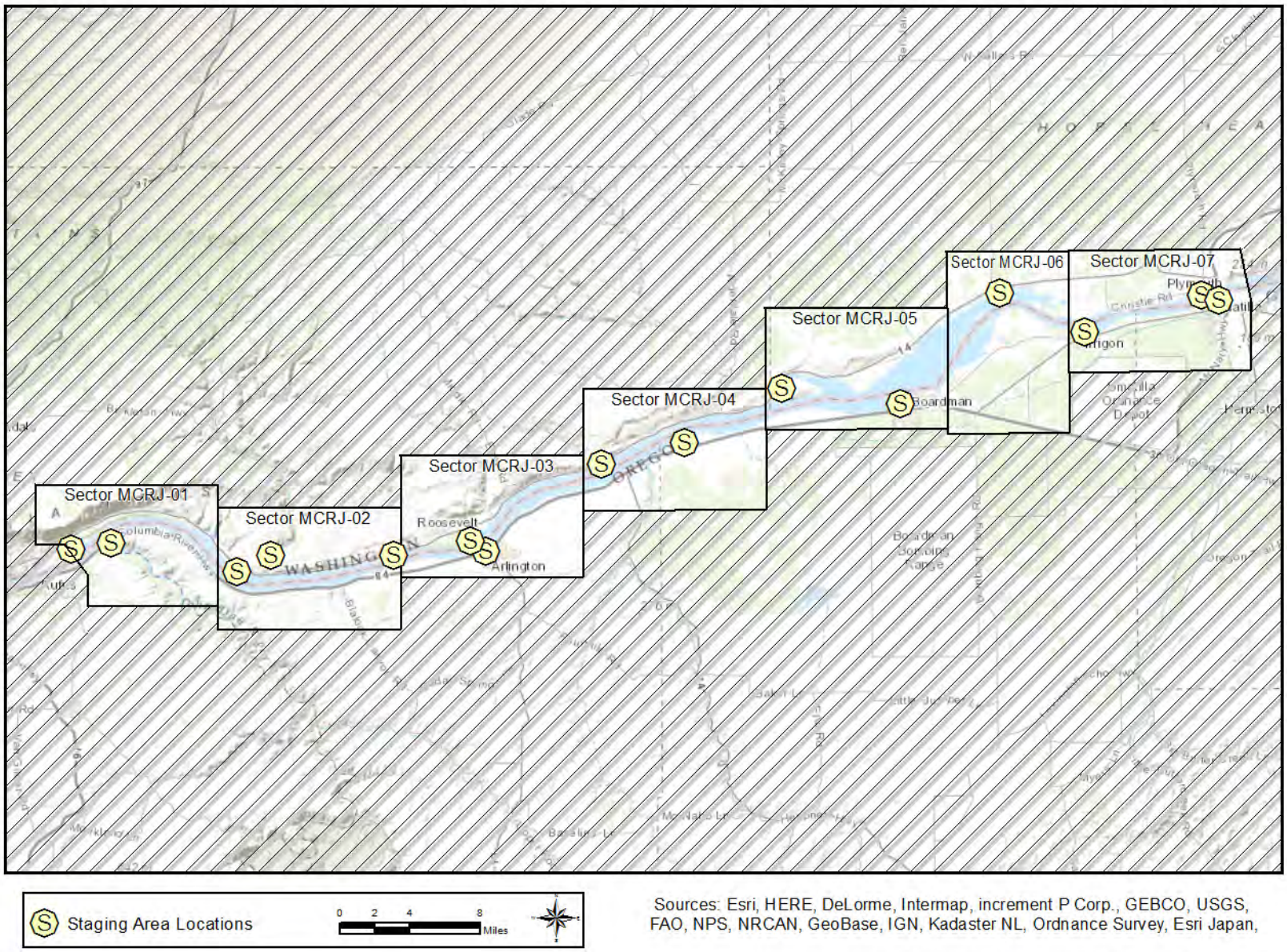
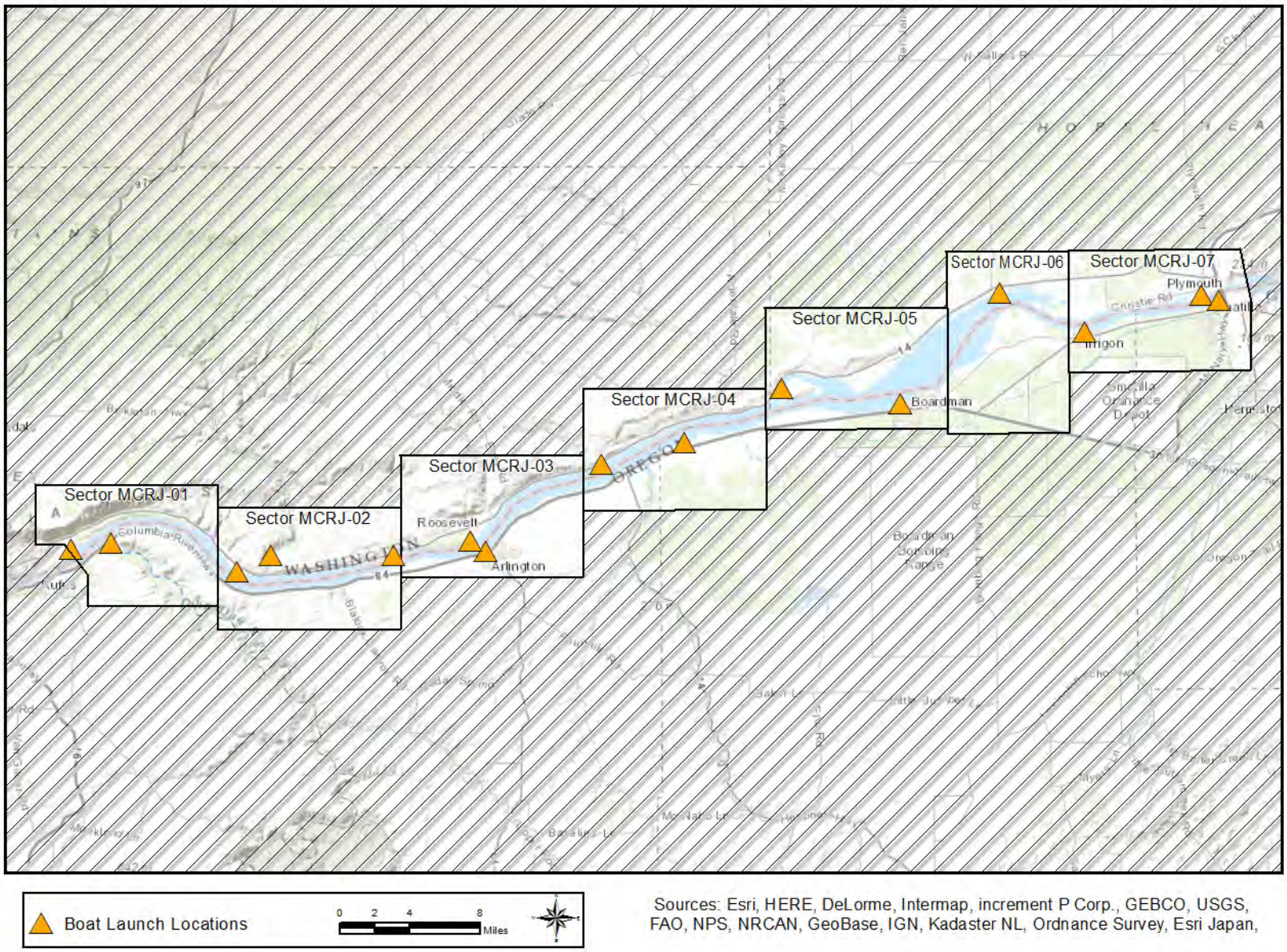
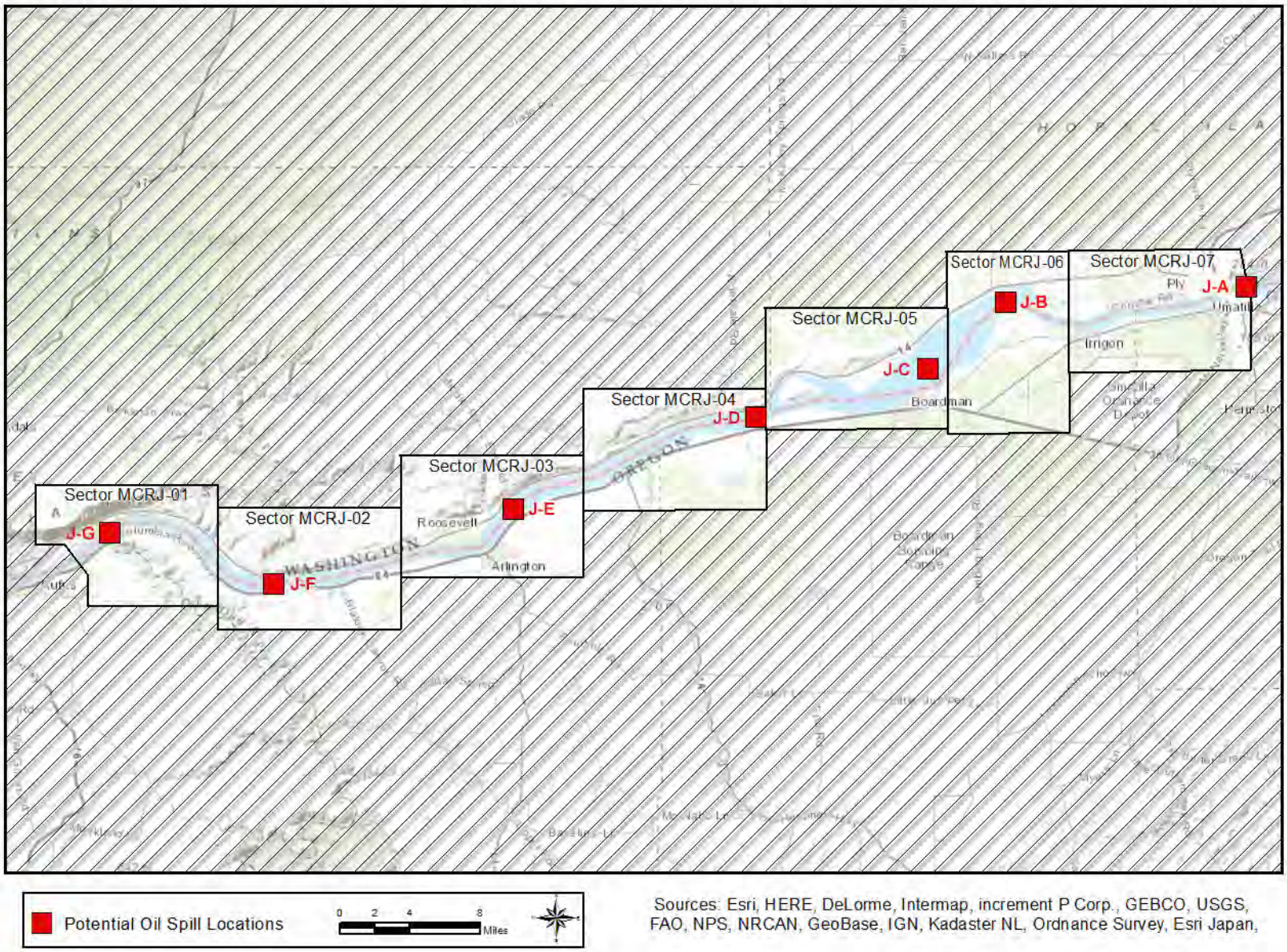
Sector MCRJ-03
Sector MCRJ-04
Sector MCRJ-05
Sector MCRJ-06
Sector MCRJ-07
Roosevelt
Arlington
Boardman
Irrigon
Plymouth
Umatilla
WASHINGTON
OREGON
Notification Strategy Locations
0 2 4 8
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,


Sector MCRJ-01
Sector MCRJ-02
Sector MCRJ-03
Sector MCRJ-04
Sector MCRJ-05
Sector MCRJ-06
Sector MCRJ-07
Roosevelt
Arlington
Boardman
Staging Area Locations
0 2 4 8
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,


Sector MCRJ-01
Sector MCRJ-02
Sector MCRJ-03
Sector MCRJ-04
Sector MCRJ-05
Sector MCRJ-06
Sector MCRJ-07
Roosevelt
Arlington
Boardman
Irrigon
Plymouth
WASHINGTON
OREGON
Boat Launch Locations
0 2 4 8
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan,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J-G
Sector MCRJ-02
J-F
Sector MCRJ-03
J-E
Roosevelt
Arlington
Sector MCRJ-04
J-D
Sector MCRJ-05
J-C
Boardman
Sector MCRJ-06
J-B
Sector MCRJ-07
J-A
Irrigon
Umatilla
Hermiston
WASHINGTON
OREGON
Potential Oil Spill Locations
0 2 4 8
Miles
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 John Day 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 John Day Pool-GRP; example include, points J-A, J-B, J-C and J-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: J-A (McNary Lock and Dam ~J-292.55)

J-A (McNary Lock and Dam ~J-292.55)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Details (Page #)**
1	J-287.1L	63	87	227
2	J-288L	63	87	229
3	J-288.8R	63	88	231
4	J-289.6L	63	88	233
5	J-289.9R	63	88	235
6	J-290.8L	63	89	237
7	J-290.9L	63	89	239
8	J-291R	63	89	241

Table 4-4: J-B (Paterson Area ~J-277.7)

J-B (Paterson Area ~J-277.7)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Detail (Page #)**
1	J-275L	62	83	207
2	J-275R	62	83	209
3	J-275.5L	62	84	211
4	J-275.8R	62	84	213
5	J-275.9M	62	85	215
6	J-277.3L	62	85	217
7	J-277.7R	62	86	219

Table 4-5: J-C (Boardman Area ~J-272)

J-C (Boardman Area ~J-272)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Details (Page #)**
1	J-266.6R	61	79	187
2	J-269.3L	61	80	189
3	J-269.9R	61	80	191
4	J-270.2L	61	80	193
5	J-271.4L	61	80	195
6	J-272.2R	61	81	197

Table 4-6: J-D (Sixmile Canyon Area ~J-260)

J-D (Sixmile Canyon Area ~J-260)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Details (Page #)**
1	J-256.8M	60	75	161
2	J-257.3L	60	75	163
3	J-258.6R	60	75	165
4	J-258.65R	60	75	167
5	J-259.8L	60	76	169

Table 4-7: J-E (Roosevelt Area ~J-245.2)

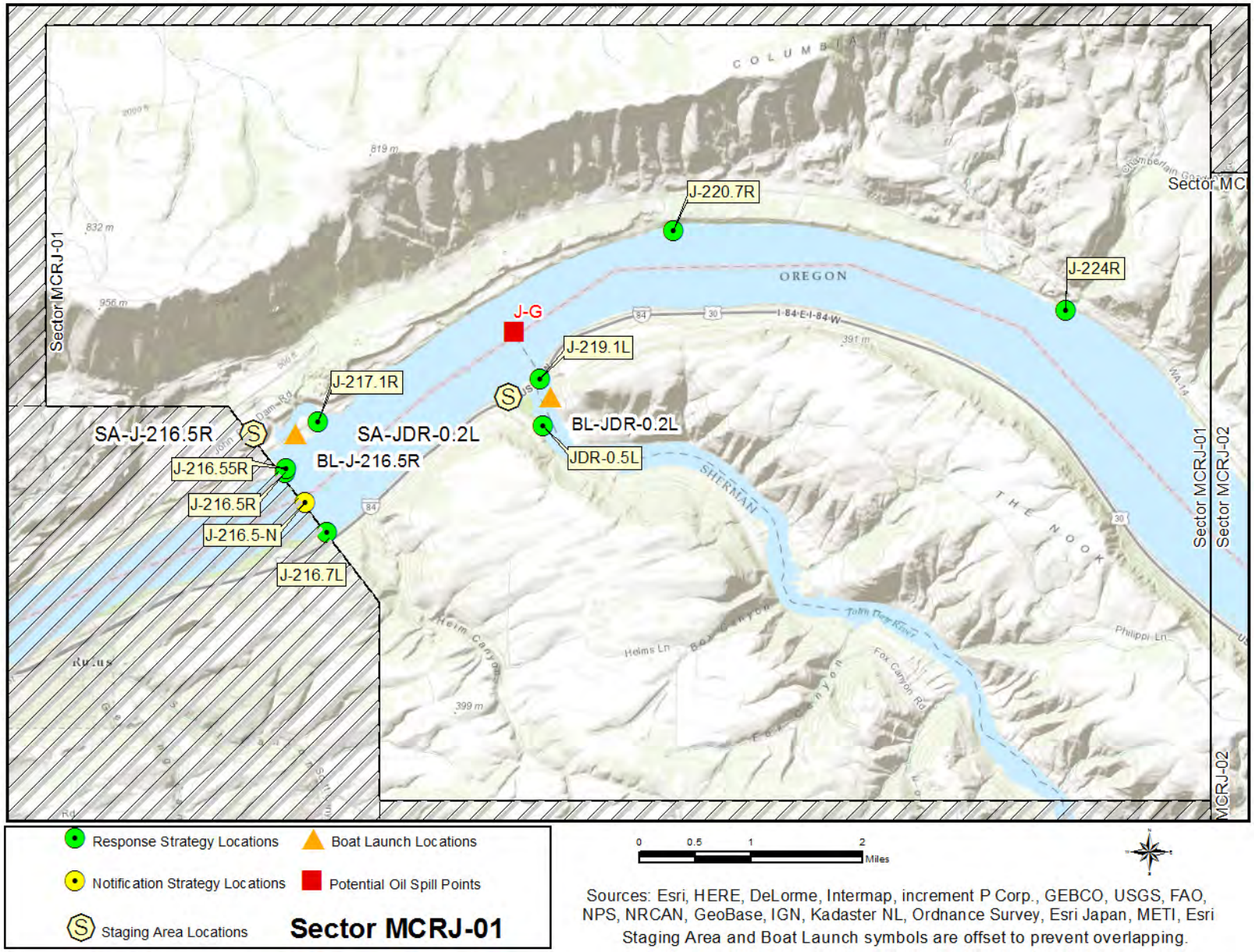
J-E (Roosevelt Area ~J-245.2)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Details (Page #)**
1	J-242.7L	59	72	141
2	J-242.3R	59	72	139
3	J-244.4R	59	72	143
4	J-244.5R	59	72	145
5	J-245.1R	59	73	147

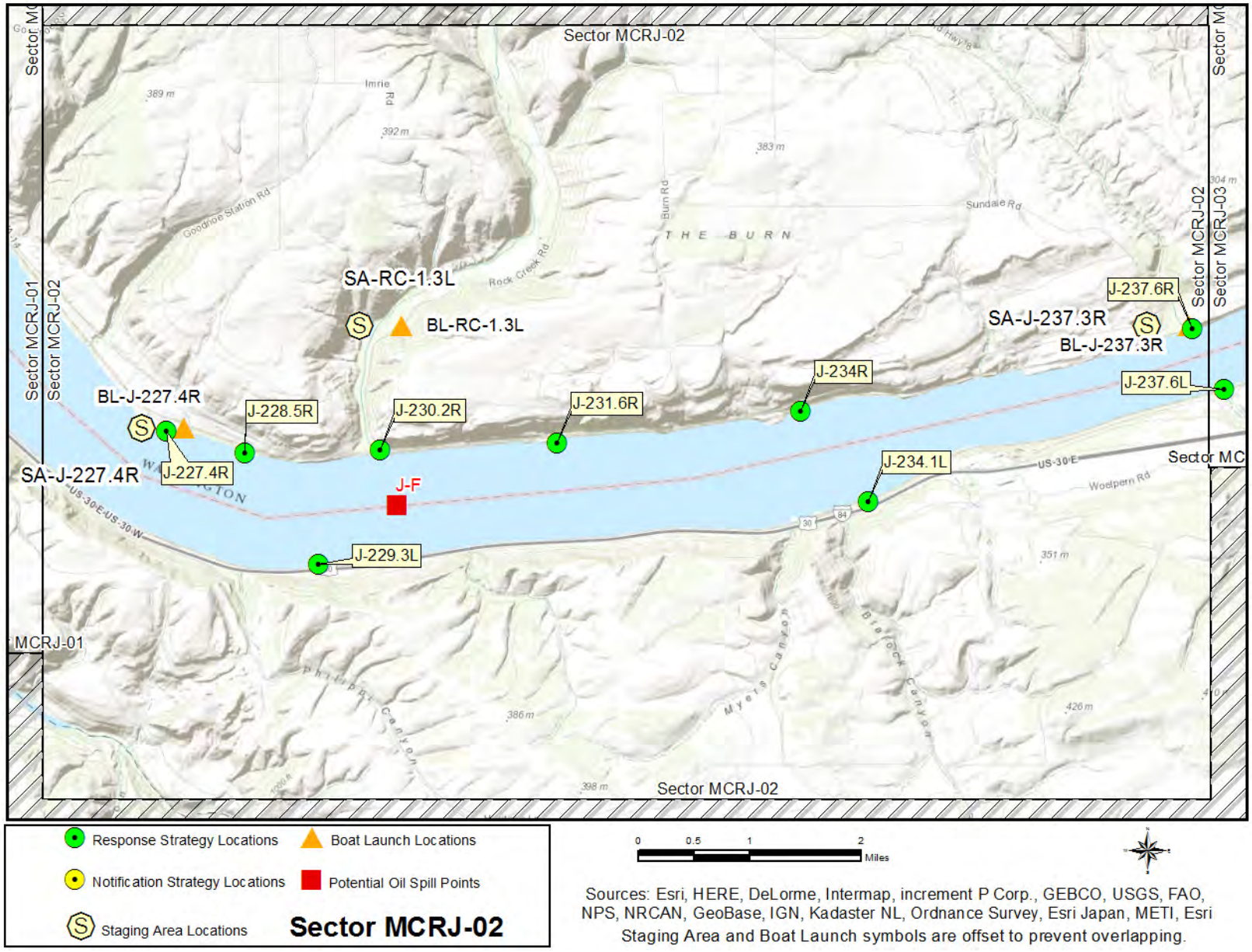
Table 4-8: J-F (Rock Creek Confluence~J-230.2)

J-F (Rock Creek Confluence~J-230.2)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Details (Page #)**
1	J-227.4R	58	69	119
2	J-228.5R	58	69	121
3	J-229.3L	58	69	123
4	J-230.2R	58	70	125

Table 4-9: J-G (John Day River Confluence~J-219.1)

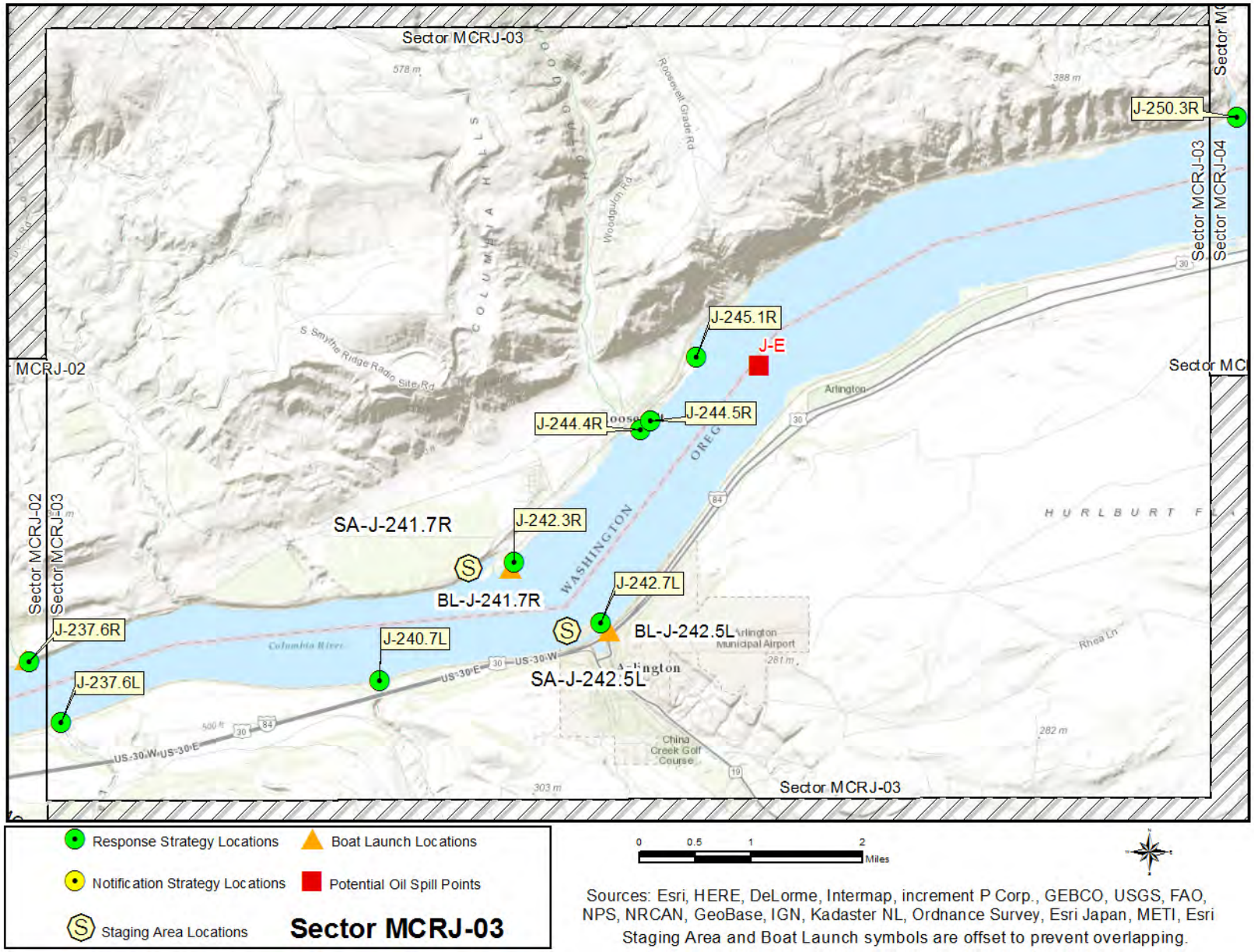
J-G (John Day River Confluence~J-219.1)				
Implementation Priority	**Strategy Number**	**Sector Map (Page #)**	**Strategy Matrix (Page #)**	**Strategy Details (Page #)**
1	J-216.5R	57	67	105
2	J-216.55R	57	67	107
3	J-216.7L	57	67	109
4	J-217.1R	57	68	111
5	J-219.1L	57	68	113


J-220.7R
J-224R
J-G
J-219.1L
J-217.1R
SA-J-216.5R
SA-JDR-0.2L
BL-J-216.5R
BL-JDR-0.2L
JDR-0.5L
J-216.55R
J-216.5R
J-216.5-N
J-216.7L
OREGON
SHERMAN
THE NOOK
Sector MCRJ-01
Sector MCRJ-02
Response Strategy Locations
Boat Launch Locations
Notification Strategy Locations
Potential Oil Spill Points
Staging Area Locations
Sector MCRJ-01
0 0.5 1 2
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri
Staging Area and Boat Launch symbols are offset to prevent overlapping.



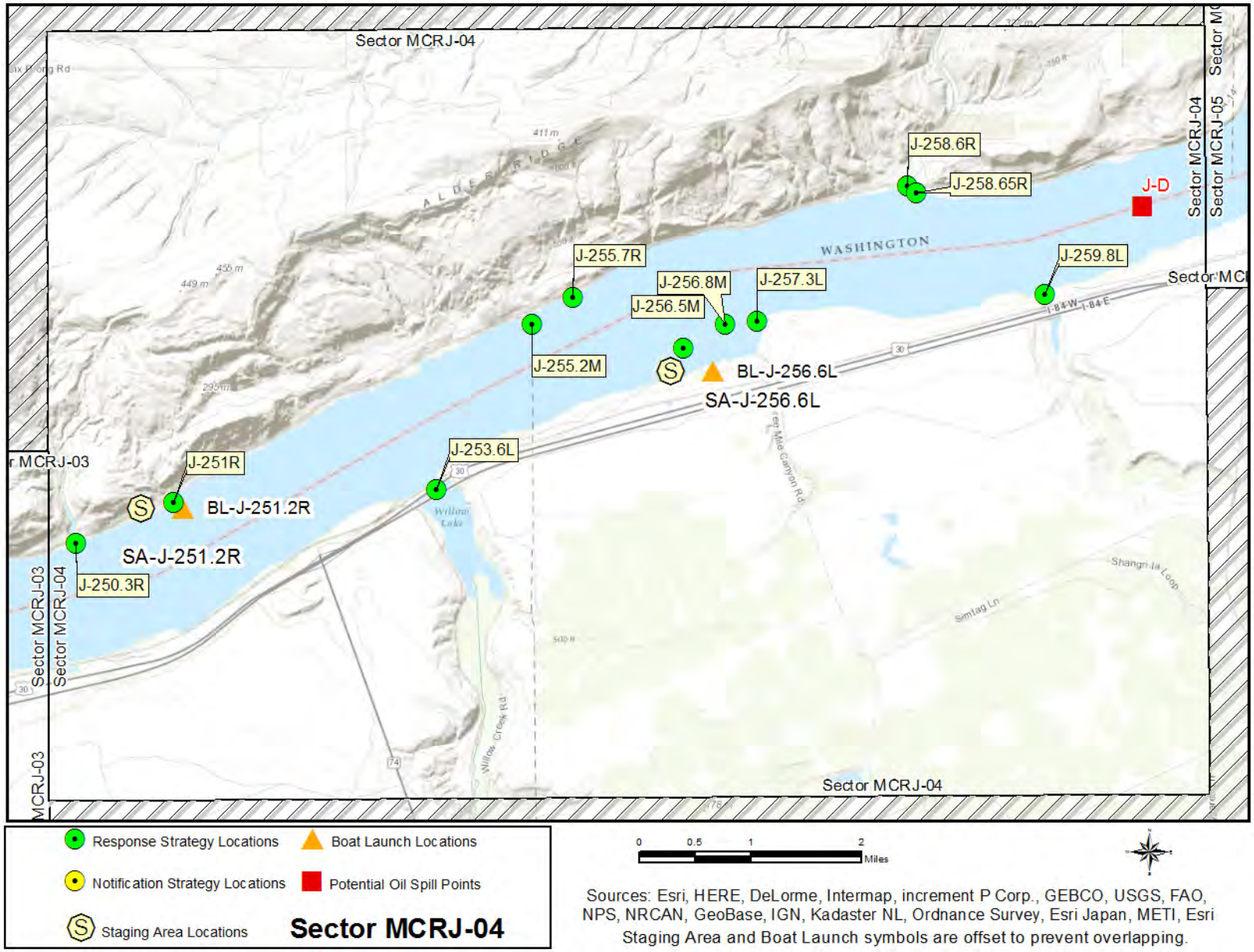
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri

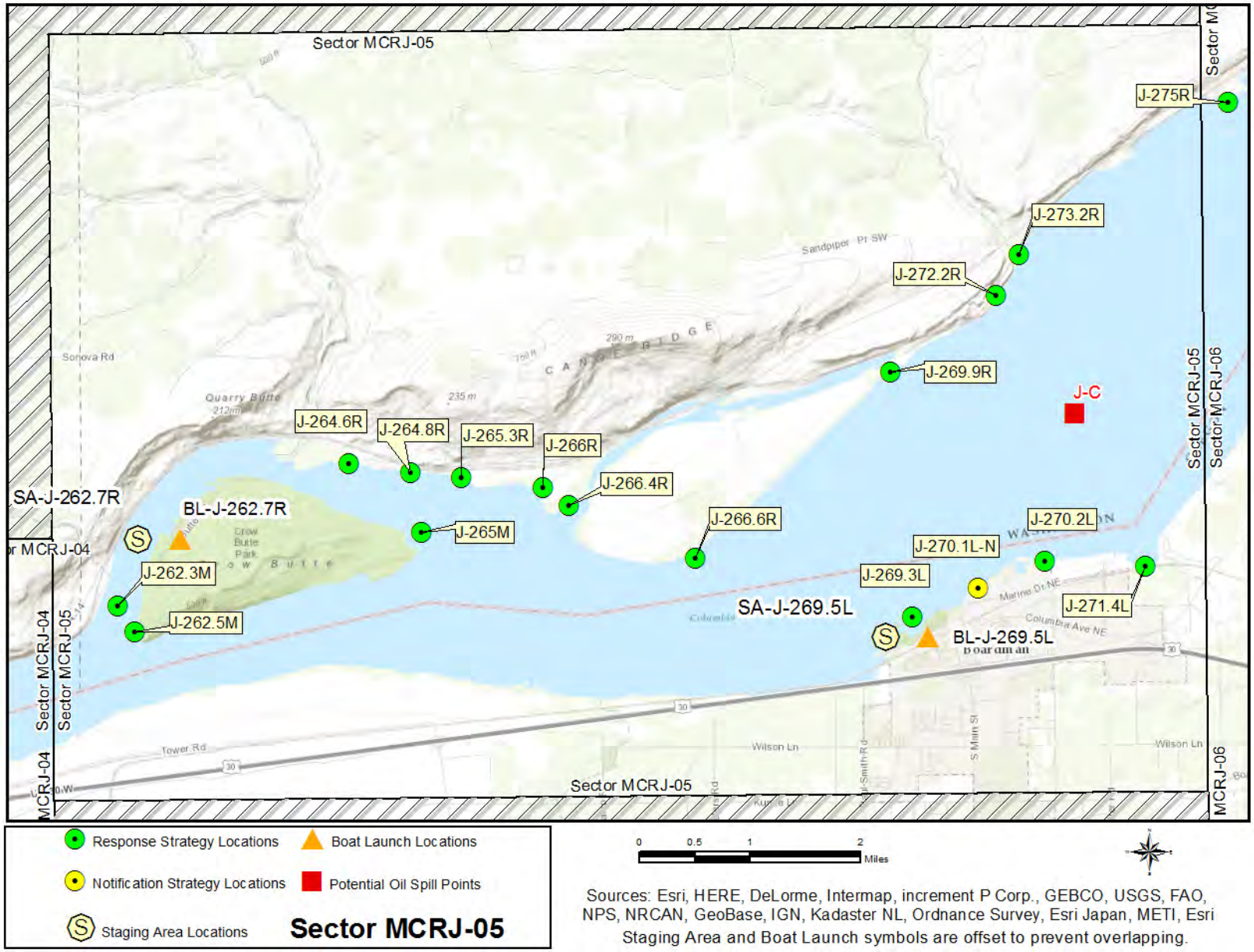
Staging Area and Boat Launch symbols are offset to prevent overlapping.



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

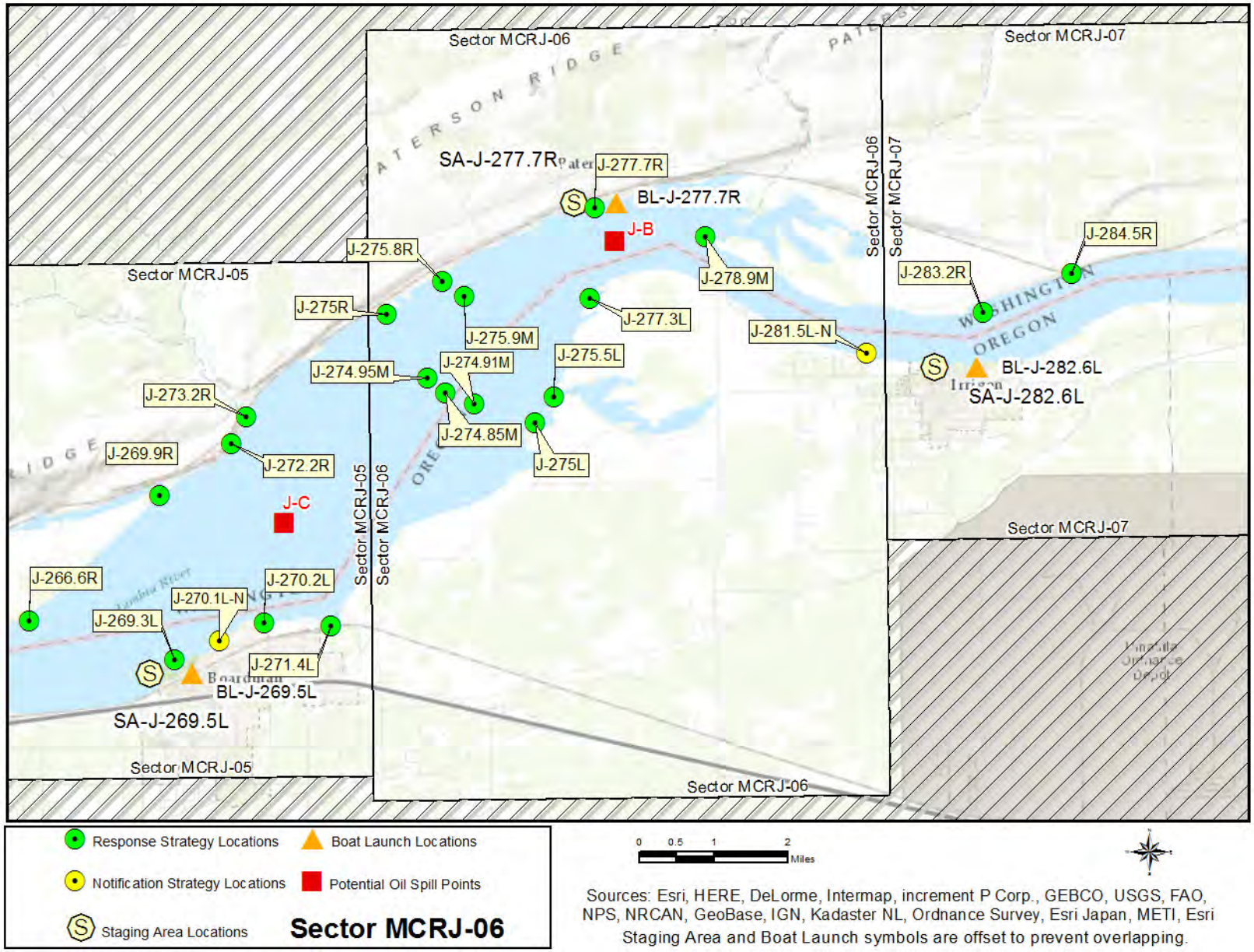
Staging Area and Boat Launch symbols are offset to prevent overlapping.


Sector MCRJ-04
Sector MCRJ-05
Sector MCRJ-03
J-258.6R
J-258.65R
J-D
J-255.7R
J-256.8M
J-257.3L
J-256.5M
J-259.8L
J-255.2M
BL-J-256.6L
SA-J-256.6L
J-253.6L
J-251R
BL-J-251.2R
SA-J-251.2R
J-250.3R
WASHINGTON
Response Strategy Locations
Boat Launch Locations
Notification Strategy Locations
Potential Oil Spill Points
Staging Area Locations
Sector MCRJ-04
0 0.5 1 2
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri
Staging Area and Boat Launch symbols are offset to prevent overlapping.



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

Staging Area and Boat Launch symbols are offset to prevent overlapping.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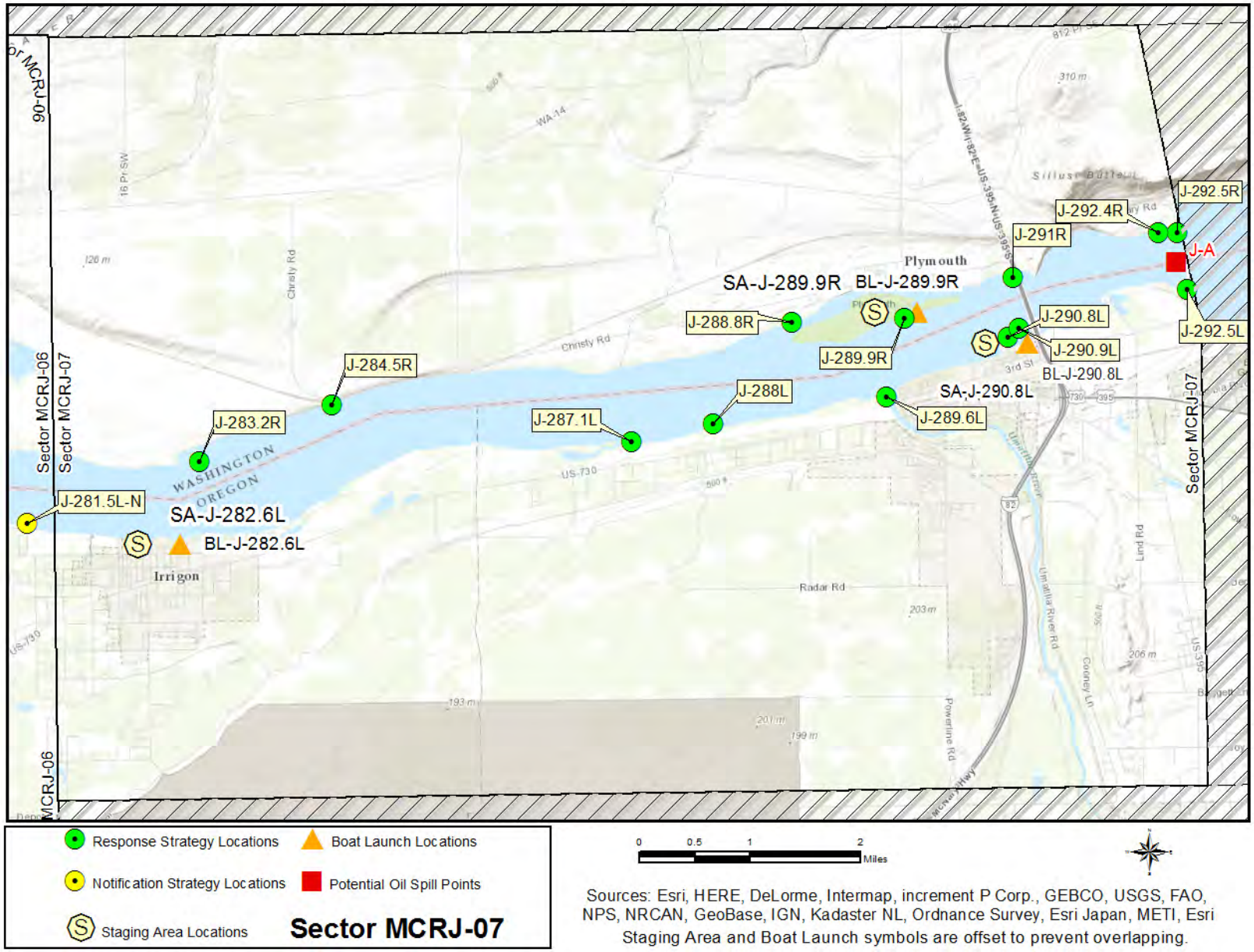
Sector MCRJ-07
Sector MCRJ-05
SA-J-277.7R
J-277.7R
BL-J-277.7R
J-B
J-275.8R
J-278.9M
J-284.5R
J-283.2R
J-275R
J-277.3L
J-275.9M
J-281.5L-N
J-274.95M
J-274.91M
J-275.5L
BL-J-282.6L
SA-J-282.6L
J-273.2R
J-274.85M
J-269.9R
J-272.2R
J-275L
J-C
J-266.6R
J-270.2L
J-270.1L-N
J-269.3L
J-271.4L
BL-J-269.5L
SA-J-269.5L
Response Strategy Locations
Boat Launch Locations
Notification Strategy Locations
Potential Oil Spill Points
Staging Area Locations
Sector MCRJ-06
0 0.5 1 2
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri
Staging Area and Boat Launch symbols are offset to prevent overlapping.


Sector MCRJ-06
Sector MCRJ-07
J-292.5R
J-292.4R
J-291R
J-A
J-292.5L
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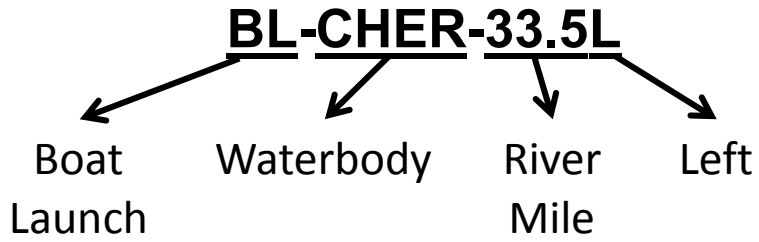
BL-J-289.9R
Plymouth
J-288.8R
J-290.8L
J-290.9L
BL-J-290.8L
J-289.9R
SA-J-290.8L
J-289.6L
J-284.5R
J-288L
J-287.1L
J-283.2R
WASHINGTON
OREGON
J-281.5L-N
SA-J-282.6L
BL-J-282.6L
Irrigon
Radar Rd
Response Strategy Locations
Boat Launch Locations
Notification Strategy Locations
Potential Oil Spill Points
Staging Area Locations
Sector MCRJ-07
0 0.5 1 2
Miles
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri
Staging Area and Boat Launch symbols are offset to prevent overlapping.

4.5 MATRICES

4.5.1 Naming Conventions (Short Names)

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



Associated river body short name designations used within the Middle Columbia include:

B=Bonneville Pool	SIH=Snake River/Ice Harbor Pool	WWR=Walla Walla River	L = River Left
D=The Dalles Pool	WIND=Wind River	YAK=Yakima River	R = River Right
J=John Day Pool	LDR=Lower Deschutes River	N = Notification Strategy	M = River Middle
M=McNary Pool	JDR=John Day River	SA = Staging Area	
MSN=McNary Pool/Snake River	RC=Rock Creek	BL = Boat Launch	

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#)
J-216.5R	John Day Dam Fish Ladder NE 45.71938 -120.69634	Exclusion	Boom 100ft	Yes	Onsite Can stage some equipment on site, additional staging available at SA-J-216.5R/ Railroad Island Park.	Fish Ladder(s)	Launch at BL-J-216.5R/ Railroad Island Boat Launch. Contact John Day Dam control room (541) 298-9712 before accessing the dam	57	105
J-216.55R	John Day Dam Locks 45.71990 -120.69606	Collection	Boom 1000ft	Yes	Onsite Can stage some equipment onsite with dam access, otherwise use SA-J-216.5R/ Railroad Island Park	Lock and Dam	Must pre-notify the John Day Dam control room (541) 298-9712 for access to the dam	57	107
J-216.7L	John Day South Fish Ladder 45.71159 -120.68855	Exclusion	Boom 100ft	Yes	Onsite Can stage boom onsite or at boat launch at BL-JDR-0.2L/ Le Page	Fish Ladder(s)	Launch boat from Le Page Park (BL-JDR-0.2L)	57	109

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-217.1R	Entrance to Lake Umatilla 45.72606 -120.69026	Exclusion	Boom 100ft	Yes	Remote Stage at SA-J-216.5R/ Railroad Island	Public Recreation Site/Area, Salmonid Concentrations and Habitat, Waterfowl and Shorebird Concentrations	Launch from BL-J-216.5R/ Railroad Island	57	111
J-219.1L	John Day River 45.73162 -120.64891	Exclusion	Boom 1200ft	Yes	Remote Stage at SA-JDR-0.2L/ Le Page Park	Resident Warmwater Fish, Salmonid Concentrations and Habitat, Sensitive Resources Nearby, Shorebird Concentrations, Wintering Waterfowl	Launch at BL-JDR-0.2L/ Le Page Park	57	113
J-220.7R	Towal Road (FBS MP-124.5) 45.75094 -120.62409	Collection	Boom 1000ft	Yes	Onsite Stage recovery equipment onsite, other equipment at boat launch at Le Page Park BL-JDR-0.2L	Downstream Habitat, Freshwater Wildlife, Sensitive Resources Nearby	Launch on the opposite side of the river at BL-JDR-0.2L/ Le Page	57	115

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-224R	MP 116 Highway 14 (FBS MP-128.2) 45.74069 -120.55118	Collection	Boom 1000ft	Yes	Onsite Gravel road with large area for trucks, Vac truck and boom staged on site.	Downstream Habitat, Freshwater Wildlife, Sensitive Resources Nearby	Launch from BL-J-227.4R/ SE of Goodnoe	57	117
J-227.4R	Bay at Pasture Point In-Lieu site SE of Goodnoe 45.70573 -120.50123	Exclusion	Boom 800ft	Yes	Onsite Stage at SA-J-227.4R/ Pasture Point In-Lieu Site	Boat Launch/Ramp, Freshwater Wildlife, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch on site BL-J-227.4R/ Pasture Point In-Lieu Site	58	119
J-228.5R	Two miles W of Rock Creek 45.70288 -120.48661	Collection	Boom 1000ft	Yes	Onsite Gated, gravel road approx. 0.8 miles upstream from SA-J-227.4R/ SE of Goodnoe with a 35' x 80' open area to park	Downstream Resources, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-J-227.4R/ SE of Goodnoe	58	121
J-229.3L	East of Quinton Canyon Road 45.68843 -120.47294	Collection	Boom 1000ft	Yes	Onsite Stage vac truck on site via private UPPR road.	Sensitive Resources Nearby, Waterfowl and Shorebird Concentrations	Launch boat on-site (alternate boat launch is Rock Creek BL-RC-1.3L on the WA side)	58	123

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-230.2R	Rock Creek/Paterson Slough 45.70333 -120.46148	Exclusion	Boom 100ft	Yes	Remote Stage at SA-RC-1.3L/ Rock Creek	Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-RC-1.3L/ Rock Creek	58	125
J-231.6R	MP 122.5 Highway 14 (FBS MP-135.2) 45.70418 -120.42858	Collection	Boom 1000ft	Yes	Onsite Can stage vac truck on site	Downstream Resources	Boat ramp from Rock Creek (BL-RC-1.3L)	58	127
J-234R	MP 125 Highway 14 45.70835 -120.38327	Collection	Boom 800ft	Yes	Onsite Gravel road with room for roadside parking	Downstream Resources	Launch on site at single gravel ramp	58	129
J-234.1L	Blalock Port Road 45.69657 -120.37074	Collection	Boom 1000ft	Yes	Onsite 350' x 50' Gravel staging area at primitive boat launch	Downstream Resources	Launch on site at primitive boat ramp. Ramp has been silted up, so care must be taken when launching.	58	131

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-237.6L	Lang Canyon-High Water Only 45.71109 -120.30457	Exclusion	Boom 100ft	Yes	Remote Stage equipment across the river at Sundale (BL-J-237.3R)	Goose Wintering/Loafing Area, Public Recreation Site/Area, Salmonid Concentrations and Habitat, Sensitive Nesting Species, Sensitive Wetland Habitat	Boat access only, boat ramp across the river at Sundale (BL-J-237.3R)	59	133
J-237.6R	Sundale 45.71900 -120.31055	Exclusion	Boom 200ft	Yes	Remote Stage at boat launch in pond near site (SA-J-237.3R)	Goose Wintering/Loafing Area, Public Recreation Site/Area, Salmonid Concentrations and Habitat, Sensitive Nesting Species, Wetland Habitat	Boat Access Only, Boat launch in pond near site (BL-J-237.3R)	58	135

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-240.7L	Jones Canyon 45.71641 -120.24520	Exclusion	Boom 100ft	Yes	Remote Arlington Marina (SA-J-242.5L)	Sensitive Nesting Species, Shorebird Concentrations	Launch boat from Arlington Marina (BL-J-242.5L)	59	137
J-242.3R	Roosevelt Ferry 45.73184 -120.22023	Collection	Boom 1000ft	Yes	Onsite Roosevelt Park Recreation Area (SA-J-241.7R)	Downstream Resources	Boat Launch on site (BL-J-241.7R)	59	139
J-242.7L	Arlington Grain Terminal 45.72385 -120.20403	Collection	Boom 500ft	Yes	Onsite Plenty of staging available on site.	Downstream Resources, Sensitive Resources Nearby	Launch boat from Arlington Marina (BL-J-242.5L)	59	141
J-244.4R	Roosevelt South 45.74900 -120.19648	Exclusion	Boom 200ft	Yes	Onsite Can stage equipment on site.	Resident Warmwater Fish, Salmonid Concentrations and Habitat, Sensitive Resources	Boat ramp at Roosevelt Rec Area (BL-J-241.7R)	59	143
J-244.5R	Roosevelt Central (FBS MP-147.3) 45.75019 -120.19458	Collection	Boom 1000ft	Yes	Onsite Can stage equipment on site at railyard.	Downstream Resources	Boat ramp at Arlington Marina (BL-J-242.5L) or Roosevelt Rec Area (BL-J-241.7R).	59	145

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Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-245.1R	Roosevelt North 45.75849 -120.18615	Collection		Yes	Onsite Equipment can be staged onsite.	Downstream Resources	Launch boat from Roosevelt Rec Area (BL-J-241.7R) or Arlington Marina.	59	147
J-250.3R	Pine Creek-High Water 45.78947 -120.08513	Exclusion	Boom 200ft	Yes	Remote Stage at Pine Creek (SA-J-251.2R)	Salmonid Concentrations and Habitat, Sensitive Resources	Launch Boat at Pine Creek (BL-J-251.2R)	60	149
J-251R	East of Pine Creek 45.79481 -120.06690	Collection	Boom 1000ft	Yes	Onsite Parking lot located on site could be used for staging.	Downstream Resources	Boat ramp located on site (BL-J-251.2R)	60	151
J-253.6L	Willow Creek 45.79629 -120.01774	Exclusion	Boom 300ft	Yes	Remote Pine Creek Rec Area	Resident Warmwater Fish, Salmonid Concentrations and Habitat, Shallow Water Habitat, Shorebird Concentrations, Wintering Waterfowl	Boat Access Only: Launch from Pine Creek Rec Area (BL-J-251.2R)	60	153

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-255.2M	MP 145.5 Highway 14 45.81783 -119.99962	Exclusion	Boom 1000ft	Yes	Remote Quesnel Boat Launch (SA-J-256.6L)	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations	Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	155
J-255.7R	MP 146 Highway 14 45.82129 -119.99181	Exclusion	Boom 600ft	Yes	Remote Quesnel Boat Ramp (SA-J-256.6L)	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations	Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	157
J-256.5M	Threemile Canyon West 45.81448 -119.97128	Exclusion	Boom 500ft	Yes	Onsite Quesna County Park	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations	Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	159

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-256.8M	Threemile Canyon Central 45.81763 -119.96344	Deflection	Boom 700ft	Yes	Onsite Quesna County Park	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations	Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	161
J-257.3L	Threemile Canyon East 45.81801 -119.95750	Exclusion	Boom 600ft	Yes	Onsite Quesna County Park	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations	Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	163
J-258.6R	Alder Creek 45.83553 -119.92907	Exclusion	Boom 200ft	Yes	Onsite Quesnel Boat Launch (SA-J-256.6L).	Waterfowl and Salmonid Concentrations and Habitat	Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	165
J-258.65R	Just upstream of Alder Creek 45.83469 -119.92744	Collection	Boom 1000ft	Yes	Onsite Need to check bridge clearance on access road for a vac truck. Boat Ramp available at Quesnel Park (BL-J-256.6L)		Launch boat at Quesnel Boat Launch (BL-J-256.6L)	60	167

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-259.8L	Sixmile Canyon 45.82119 -119.90349	Exclusion	Boom 500ft	Yes	Onsite Stage on site off Tower Rd, gravel road with off road parking by anchor point	Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat, Wetland Habitat	Launch at BL-J-256.6L/ Quesnel	60	169
J-262.3M	Crow Butte North Channel 45.84753 -119.86095	Exclusion	Boom 2000ft	Yes	Remote Crowe Butte Park (SA-J-262.7R)	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch boat from Crow Butte Park (BL-J-262.7R)	61	171

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-262.5M	Crow Butte Park West 45.84416 -119.85775	Deflection	Boom 1000ft	Yes	Remote Stage at SA-J-262.7R/ Crow Butte	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch from BL-J-262.7R/ Crow Butte	61	173
J-264.6R	Crow Butte - Highway 14 MP 155.5 45.86596 -119.81733	Deflection	Boom 900ft	Yes	Remote Crow Butte Park (SA-J-262.7R)	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch boat from Crow Butte Park (BL-J-262.7R)	61	175
J-264.8R	Crow Butte Water Intake 45.86474 -119.80587	Exclusion	Boom 200ft	Yes	Onsite Can stage some equipment on site or at Crow Butte Park (SA-J-262.7R)	Water Intakes	Launch boat from Crow Butte Park (BL-J-262.7R)	61	177

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-265M	Eastern end of Crow Butte Island 45.85685 -119.80391	Deflection	Boom 1500ft	Yes	Remote Stage at SA-J-262.7R/ Crow Butte	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch at BL-J-262.7R/ Crow Butte	61	179
J-265.3R	Collection point NE of Crow Butte 45.86401 -119.79632	Collection	Boom 1000ft	Yes	Onsite Must cross tracks and follow graved rd adjacent to tracks to staging area - use 4-wheel drive in bad weather	Downstream Resources, Waterfowl and Salmonid Concentrations and Habitat	Launch from BL-J-262.7R/ Crow Butte	61	181

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-266R	Whitcomb Shallow Water Habitat 45.86262 -119.78094	Exclusion	Boom 300ft	Yes	Remote Stage at SA-J-262.7R/ (Crow Butte Park)	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch at Crow Butte Park, BL-J-262.7R.	61	183
J-266.4R	Whitcom Island 45.86024 -119.77602	Exclusion	Boom 800ft	Yes	Remote Stage at Crow Butte Park, SA-J-262.7R	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch boat from Crow Butte Park (BL-J-262.7R)	61	185
J-266.6R	SE end of Whitcomb Island 45.85310 -119.75237	Deflection	Boom 1000ft	Yes	Remote Stage at SA-J-262.7R/ Crow Butte	Downstream Resources, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat	Launch at BL-J-262.7R/ Crow Butte	61	187

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-269.3L	Boardman Marina 45.84508 -119.71183	Exclusion	Boom 800ft	Yes	Onsite Stage at SA-J-269.5L/ Boardman Marina	Boat Basin/Marina	Launch at BL-J-269.5L/ Boardman Marina	61	189
J-269.9R	Whitcomb Island East End- High Water 45.87732 -119.71550	Exclusion	Boom 200ft	Yes	Remote Stage equipment at SA-J-269.5L Boardman Marina	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch Boat at BL-J-269.5L Boardman Marina	61	191
J-270.2L	Marine Dr NE Beach 45.85227 -119.68674	Deflection	Boom 1000ft	Yes	Remote Stage at SA-J-269.5L/ Boardman Marina	Economic Resource, Recreational Boating, Recreational Swimming Area, Sensitive Resources	Launch from BL-J-269.5L/ Boardman Marina	61	193
J-271.4L	Utility Lane wetlands E of Port of Morrow 45.85147 -119.66794	Exclusion	Boom 100ft	Yes	Remote Stage at SA-J-269.5L/ Boardman Marina	Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat	BL-J-269.5L/ Boardman Marina	61	195

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-272.2R	Highway 14, MP 161.5 45.88720 -119.69539	Collection	Boom 1000ft	Yes	Onsite Can stage some equipment on site, additional staging at Boardman Marine Park	Downstream Resources	Launch boat from Boardman Marina BL-J-269.5L	61	197
J-273.2R	Glade Creek 45.89259 -119.69115	Exclusion	Boom 1000ft	Yes	Onsite Some staging available onsite, additional staging at Boardman Marina.	Waterfowl and Salmonid Concentrations and Habitat	Launch boat from Boardman Marina BL-J-269.5L	61	199
J-274.85M	Sand Island 45.89677 -119.63537	Deflection	Boom 1000ft	Yes	Remote Boardman Marina SA-J-269.5L	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch Boat at Boardman Marina, BL-J-269.5L	62	201

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-274.91M	Long Walk Island 45.89451 -119.62731	Deflection	Boom 500ft	Yes	Remote Boardman Marina SA-J-269.5L	Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat, Wildlife Refuge	Launch Boat at Boardman Marina BL-J-269.5L	62	203
J-274.95M	Sand Island Center Channel 45.89966 -119.64036	Exclusion	Boom 1000ft	Yes	Remote Boardman Marina SA-J-269.5L	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Sensitive Resources, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch Boat at Boardman Marina, BL-J-269.5L	62	205

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-275L	South of McCormack Slough- High Water 45.89074 -119.61020	Exclusion	Boom 200ft	Yes	Remote Boardman Marina SA-J-269.5L	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch Boat from Boardman Marina, BL-J-269.5L	62	207
J-275R	Highway 14, MP 164 45.91232 -119.65155	Deflection	Boom 1000ft	Yes	Remote Boardman Marina SA-J-269.5L	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch boat at Boardman Marina (BL-J-269.5L)	62	209

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-275.5L	McCormack Slough- High Water 45.89575 -119.60478	Exclusion	Boom 200ft	Yes	Remote Boardman Marina SA-J-269.5L.	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch boat at Boardman Marina, BL-J-269.5L.	62	211
J-275.8R	Abandoned RR trestle NW of Big Blalock Island 45.91854 -119.63589	Deflection	Boom 1000ft	Yes	Remote Stage at SA-J-282.6L/ Irrigon	Bald Eagle Nesting, Great Blue Heron Rookeries, National Wildlife Refuge, Shorebird Concentrations, Waterfowl and Salmonid Concentrations and Habitat, Wetland Habitat	Launch from BL-J-282.6L/ Irrigon	62	213

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-275.9M	Telegraph Island 45.91568 -119.62968	Deflection	Boom 700ft	Yes	Remote Irrigon Boat Ramp SA-J-282.6L	Sensitive Nesting Species, Sensitive Resources, Waterfowl and Salmonid Concentrations and Habitat, Wildlife Refuge	Boat access only, launch at Irrigon Boat Ramp, BL-J-282.6L	62	215
J-277.3L	Channel Northeast of Long Walk Island 45.91496 -119.59451	Exclusion	Boom 1500ft	Yes	Remote Irrigon boat ramp, Boardman Marina BL-J-282.6L	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Boat Access Only, launch from Irrigon Boat Ramp, BL-J-282.6L	62	217

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-277.7R	Paterson Road 45.93274 -119.59272	Collection	Boom 1000ft	Yes	Onsite Stage on site at SA-J-277.7R/ Paterson Slough gravel parking lot, room to park vehicles with trailers, no facilities	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch on site at BL-J-277.7R/ Paterson Slough	62	219
J-278.9M	Paterson Slough 45.92680 -119.56200	Deflection	Boom 1000ft	Yes	Remote Irrigon boat ramp	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge	Launch boat from Irrigon Boat Ramp, BL-J-282.6L	62	221

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-283.2R	West of Christy Road 45.91137 -119.48438	Deflection	Boom 1000ft	Yes	Remote Irrigon Boat Ramp SA-J-282.6L	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations	Launch boat from Irrigon boat ramp, BL-J-282.6L	63	223
J-284.5R	Christy Road (FBS MP-187.2) 45.91870 -119.45944	Collection	Boom 1000ft	Yes	Onsite Room for Vac Truck on site, additional staging at Irrigon or Umatilla boat launch.	Downstream Resources	Launch boat from Irrigon boat ramp, BL-J-282.6L	63	225
J-287.1L	Wilcox Lane 45.91327 -119.40292	Deflection	Boom 700ft	Yes	Remote Port of Umatilla or Plymouth Park	Resident Fish, Salmon Concentrations and Habitat, Waterfowl and Shorebird Concentrations	Launch boat from Plymouth Park, BL-J-289.9R or Port of Umatilla	63	227
J-288L	Inlet to Umatilla Water Intake 45.91550 -119.38756	Exclusion	Boom 200ft	Yes	Onsite Water intake facility with lots of parking on gravel drive all the way to the anchor points	Downstream Resources, Water Intakes, Waterfowl and Salmonid Concentrations and Habitat	Launch from BL-J-290.8L/ Port of Umatilla	63	229

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-288.8R	W end of Plymouth Park 45.92863 -119.37239	Exclusion	Boom 600ft	Yes	Remote Stage at SA-J-289.9R/ Plymouth Park	Bald Eagle, Recreational Use Area, Riparian Habitat, Waterfowl and Salmonid Concentrations and Habitat	Launch from BL-J-289.9R/ Plymouth Park	63	231
J-289.6L	Umatilla River 45.91868 -119.35485	Exclusion	Boom 800ft	Yes	Remote Stage at SA-J-290.8L/ Port of Umatilla	Resident Fish, Salmon Concentrations and Habitat, Sensitive Resources Nearby, Waterfowl and Shorebird Concentrations	Launch from BL-J-290.8L/ Port of Umatilla	63	233
J-289.9R	Plymouth Park Boat Launch 45.92897 -119.35109	Collection	Boom 1000ft	Yes	Onsite Stage on site at SA-J-289.9R/ Plymouth Park	Bald Eagle, Boat Launch/Ramp, Downstream Resources, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat	Launch on site at BL-J-289.9R/ Plymouth Park	63	235

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-290.8L	Umatilla Marina 45.92628 -119.33167	Deflection	Boom 300ft	Yes	Onsite Stage at the Port of Umatilla Marina	Marina, Recreational Boating	Launch on site at the Umatilla Marina	63	237
J-290.9L	Port of Umatilla Marina 45.92742 -119.32951	Collection	Boom 1100ft	Yes	Onsite Gravel parking close to the anchor point, plus all needed facilities at the Port of Umatilla Marina	Downstream Resources	Launch on site at the Port of Umatilla Marina, lots of room for staging and vac truck can easily access the shoreline at the collection point.	63	239
J-291R	Plymouth Park East 45.93422 -119.33064	Deflection	Boom 1000ft	Yes	Remote Stage across the river at SA-J-290.8L/ Port of Umatilla, it is ~1/2 mile to the site, or at Plymouth Park	Bald Eagle, Recreational Use Area, Sensitive Resources, Waterfowl and Salmonid Concentrations and Habitat, Wetlands	Launch from BL-J-290.8L/ Port of Umatilla	63	241
J-292.4R	John Day Lock, downstream 45.93980 -119.30299	Collection	Boom 500ft	Yes	Onsite Contractors must call McNary Dam control at (541) 922-2231 to access site.	Downstream Resources, Lock and Dam	Launch from BL-J-290.8L/ Port of Umatilla	63	243

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-292.5L	McNary Dam downstream river left fish ladder 45.93223 -119.29781	Exclusion	Boom 100ft	Yes	Onsite USACE staff should deploy strategy. Contractors must call McNary Dam control at (541) 922-2231 to access site.	Fish Ladder(s)	Launch from BL-J-290.8L/ Port of Umatilla	63	245
J-292.5R	McNary Dam downstream fishladder in/out take WA 45.93967 -119.29949	Exclusion	Boom 100ft	Yes	Onsite Contractors must call McNary Dam control at (541) 922-2231 to access site.	Fish Ladder(s)	Launch from BL-J-290.8L/ Port of Umatilla	63	247
JDR-0.5L	LePage Park campground (J-219.1L) 45.72561 -120.64827	Collection	Boom 1000ft	Yes	Onsite Stage at LePage Park campground	Downstream Resources, Public Recreation Site/Area, Shorebird Concentrations, Waterfowl and Salmonid Concentrations and Habitat, Wintering Waterfowl	Launch downstream at BL-JDR-0.2L/ Le Page boat launch	57	249

4.5.3 Notification Strategy Matrices

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-216.5-N	John Day Lock and Dam Notification 45.71546 -120.69252	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 John Day pool include: J-216.5R and J-216.7L, both exclusion strategies to protect the fish ladders on the upstream side of the dam, and J-216.55R, a collection strategy for the E end of the lock. Strategies on the downstream side of the dam include D-216.4R on the W end of the lock, D-216.45L and D-216.45R for the fish ladders.	Protection of fish ladders, lock and/or spillway closure, deployment of GRP strategies	57	253
J-270.1L-N	City of Boardman Public Works Department 45.84885 -119.69938	Notification	Public Health and Safety, Water Intakes	Determine if water intake/well need to be shut down.	Alert to need to monitor and potentially shut off transient, non-community well located less than 500 feet from river bank.	61	255

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
J-281.5L-N	City of Irrigon Public Works 45.90362 -119.51712	Notification	Public Health and Safety, Water Intakes	May shut down intakes or wells	Alert to need to monitor and potentially shut off large municipal well located less than 500 feet from river bank.	62	257
M-292.6-N	McNary Lock and Dam Notification 45.93603 -119.29659	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 McNary pool include: M-292.7M and M-292.65R, exclusion strategies to protect the fish ladders on the upstream side of the dam, and M-292.6R, a collection strategy for the E end of the lock; strategies on the downstream side of the dam, in the John Day pool, include: J-292.5L and J-292.5R to protect the fish ladders.	Protection of fish ladders, lock and/or spillway closure, deployment of GRP strategies	63	259

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
M-309.4-N	Oregon Water Resources Dept. 45.99957 -118.98749	Notification	Water Intakes	The Oregon Water Resources Department will notify the following municipalities' who divert water directly or indirectly (Ranney wells, shallow gravel wells) from the Columbia River for Human Consumption: Port of Umatilla (541) 922-3224, City of Hermiston (541) 567-5521, City of Irrigon (541) 922-2047, City of Boardman (541) 481-9252	Notify Oregon Water Resources Department for the need for water intake closures	See McNary Pool	261

4.5.4 Staging Area Matrices

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-J-216.5R	USACE Railroad Island boat launch	45.72444 -120.69804	John Day Dam Road Goldendale, WA 98620	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-217.1R, J-216.5R	Lighted staging area with 2 concrete boat rams ~ 8 degree grade	57	265
SA-J-227.4R	Pasture Point In-Lieu Site, E of Goodnoe Rd	45.70616 -120.50179	Highway 14 Roosevelt, WA 99356	USACE John Day pool Natural Resource Manager (541) 506-4805 Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702	J-227.4R	Pasture Point In-Lieu Site with power, water, parking, lights, and a single, concrete boat launch	58	267
SA-J-237.3R	Sundale Park (In-Lieu Site)	45.71929 -120.31492	Sundale Park Rd Roosevelt, WA 99356	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	J-237.6L, J-237.6R	Staging area and boat launch with one concrete ramp 7 degree grade. This is an in-lieu site which is open to the public (at this time)	58	269

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-J-241.7R	Roosevelt Park (USACE) boat launch	45.73105 -120.22470	Roosevelt Ferry Rd. Roosevelt, WA 99356	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-242.3R, J-245.1R, J-242.7L, J-244.5R, J-244.4R	Lighted staging area with double boat ramp	59	271
SA-J-242.5L	Arlington Point Marina and Campground	45.72279 -120.20633	Arlington Port Rd Port of Arlington, OR 97812	Port of Arlington Arlington Point Marina (boat launch) and Campground Port of Arlington, OR 97812 (541) 454-2868	J-240.7L	Paved staging area, marina, campground and boat launch	59	273
SA-J-251.2R	Pine Creek In-Lieu Treaty Fishing Site	45.79403 -120.06887	Washington 14 Bickleton, WA 99322	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	J-251R, J-253.6L, J-250.3R	Gated, paved, launch and staging area (may need bolt cutters to cut lock)	60	275

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-J-256.6L	Quesnel Park Boat Launch	45.81151 -119.96966	Tower Rd Boardman, OR 97818	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	J-257.3L, J-255.7R, J-258.6R, J-258.65R, J-256.8M, J-255.2M, J-256.5M	Gravel lot staging area and boat launch	60	277
SA-J-262.7R	Crow Butte Park boat launch	45.85626 -119.85295	1 Butte Road Prosser, WA 99350	Washington State Parks and Recreation Commission Crow Butte State Park Paterson, WA 993454 (509) 875-2644	J-266.4R, J-264.6R, J-262.5M, J-266R, J-266.6R, J-265M, J-262.3M	Lighted staging area with Marina, Campground and double boat launch, ramps have a 6.5 degree grade. This is a gated facility.	61	279
SA-J-269.5L	Boardman Marina and RV Park	45.84250 -119.71276	1 Marine Dr. NW Boardman, OR 97818	Boardman Parks and Recreation Boardman, OR 97818 (541) 481-721	J-273.2R, J-275L, J-270.2L, J-274.91M, J-272.2R, J-274.95M, J-271.4L, J-275R, J-269.3L, J-275.5L, J-269.9R, J-274.85M	Paved, lighted, staging area, launch, marina and RV park	61	281

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-J-277.7R	Paterson Boat Launch, Umatilla National Wildlife R	45.93358 -119.59269	48915 Kent Rd Paterson, WA 99345	US Fish and Wildlife Service, McNary and Umatilla National Wildlife Refuges Property Contact Burbank, WA 99323 (509) 546-8300	J-277.7R	Dirt and gravel lot, no amenities	62	283
SA-J-282.6L	Irrigon Marina Park	45.90065 -119.49213	NE 10th St. Irrigon, Irrigon, OR 97844	City of Irrigon-Marina Manager Irrigon, OR 97844 (541) 922-4933	J-278.9M, J-275.8R, J-283.2R, J-275.9M, J-277.3L, J-284.5R	Paved launch, marina, and picnic area, 85,000 sq. ft. of paved parking	63	285
SA-J-289.9R	Plymouth Park boat launch	45.92974 -119.35274	Christy Rd Plymouth, WA 99346	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-288.8R, J-289.9R, J-287.1L	Staging area with paved lot, campground and boat launch with 8 degree grade	63	287
SA-J-290.8L	Umatilla Marina and RV Park	45.92555 -119.33198	1710 Quincy Avenue Umatilla, OR 97882	Port of Umatilla Umatilla, OR 97882 (541) 922-3939	J-289.6L, J-291R, J-290.8L, J-290.9L	Paved, 106,860 sq. ft. area with three ramps. Port of Umatilla manages (541) 922-3939, RV park and marina.	63	289
SA-JDR-0.2L	LePage Park	45.72935 -120.65078	410 Beech St Arlington, OR 97812	LePage Park OR (541) 506-7819	JDR-0.5L, J-219.1L	Paved, lighted, 139,350 sq. ft.	57	291

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-RC-1.3L	Rock Creek Park boat launch	45.71954 -120.46133	Rock Creek Rd Roosevelt, WA 99356	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-230.2R	Rock Creek feeds into the John Day Pool at river mile 230.2; staging area and boat launch with a 7 degree grade	58	293

4.5.5 Boat Launch Matrices

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-J-216.5R	USACE Railroad Island boat launch	45.72444 -120.69804	John Day Dam Road Goldendale, WA 98620	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-216.55R, J-217.1R, J-216.5R	Lighted staging area with 2 concrete boat rams ~ 8 degree grade	57	297
BL-J-227.4R	Pasture Point In-Lieu Site, E of Goodnoe Rd	45.70616 -120.50179	Highway 14 Roosevelt, WA 99356	USACE John Day pool Natural Resource Manager (541) 506-4805 Bureau of Indian Affairs Oversees Tribal In-Lieu Fishing Sites (503) 231-6702	J-224R, J-227.4R, J-228.5R	Pasture Point In-Lieu Site with power, water, parking, lights, and a single, concrete boat launch 7 degree grade	58	299
BL-J-237.3R	Sundale Park (In-Lieu Site)	45.71929 -120.31492	Sundale Park Rd Roosevelt, WA 99356	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	J-237.6L, J-237.6R	Boat launch with one concrete ramp 7 degree grade in an in-lieu site which is open to the public (at this time). Clearance under train bridge is 29' H and 25' W at average water level.	58	301

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-J-241.7R	Roosevelt Park (USACE) boat launch	45.73105 -120.22470	Roosevelt Ferry Rd. Roosevelt, WA 99356	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-242.3R, J-245.1R, J-244.5R, J-244.4R	Lighted staging area with double boat ramp	59	303
BL-J-242.5L	Arlington Point Marina and Campground	45.72279 -120.20633	Arlington Port Rd Port of Arlington, OR 97812	Port of Arlington Arlington Point Marina (boat launch) and Campground Port of Arlington, OR 97812 (541) 454-2868	J-242.7L, J-240.7L	Paved staging area, marina, campground and boat launch	59	305
BL-J-251.2R	Pine Creek In-Lieu Treaty Fishing Site	45.79403 -120.06887	Washington 14 Bickleton, WA 99322	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	J-251R, J-253.6L, J-250.3R	Gated, paved, launch and staging area	60	307

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-J-256.6L	Quesnel Park Boat Launch	45.81151 -119.96966	Tower Rd Boardman, OR 97818	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	J-257.3L, J-255.7R, J-258.6R, J-259.8L, J-258.65R, J-256.8M, J-255.2M, J-256.5M	Concrete boat launch and gravel lot staging area	60	309
BL-J-262.7R	Crow Butte Park boat launch	45.85626 -119.85295	1 Butte Road Prosser, WA 99350	Washington State Parks and Recreation Commission Crow Butte State Park Paterson, WA 993454 (509) 875-2644	J-266.4R, J-264.6R, J-265.3R, J-262.5M, J-264.8R, J-266R, J-266.6R, J-265M, J-262.3M	Lighted staging area with Marina, Campground and double boat launch, ramps with a 6.5 degree grade. This is a gated facility.	61	311

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-J-269.5L	Boardman Marina and RV Park	45.84250 -119.71276	1 Marine Dr. NW Boardman, OR 97818	Boardman Parks and Recreation Boardman, OR 97818 (541) 481-721	J-273.2R, J-275L, J-270.2L, J-274.91M, J-272.2R, J-274.95M, J-271.4L, J-275R, J-269.3L, J-275.5L, J-269.9R, J-274.85M	Two concrete ramps, 7.2 degree grade, paved lot, marina and RV park	61	313
BL-J-277.7R	Paterson Boat Launch, Umatilla National Wildlife R	45.93358 -119.59269	48915 Kent Rd Paterson, WA 99345	US Fish and Wildlife Service, McNary and Umatilla National Wildlife Refuges Property Contact Burbank, WA 99323 (509) 546-8300	J-277.7R	Primitive ramp, dirt and gravel	62	315
BL-J-282.6L	Irrigon Marina Park	45.90065 -119.49213	NE 10th St. Irrigon, Irrigon, OR 97844	City of Irrigon-Marina Manager Irrigon, OR 97844 (541) 922-4933	J-278.9M, J-275.8R, J-283.2R, J-275.9M, J-277.3L, J-284.5R	Two paved ramps, 85,000 sq. ft. of paved parking	63	317
BL-J-289.9R	Plymouth Park boat launch	45.92974 -119.35274	Christy Rd Plymouth, WA 99346	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-288.8R, J-289.9R, J-287.1L	Staging area with paved lot, campground and boat launch with 8 degree grade	63	319

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-J-290.8L	Umatilla Marina and RV Park	45.92555 -119.33198	1710 Quincy Avenue Umatilla, OR 97882	Port of Umatilla Umatilla, OR 97882 (541) 922-3939	J-292.5L, J-289.6L, J-292.5R, J-291R, J-288L, J-290.8L, J-290.9L, J-292.4R	Paved, 106,860 sq. ft. area with three ramps Port of Umatilla manages (541) 922-3939	63	321
BL-JDR-0.2L	LePage Park	45.72935 -120.65078	410 Beech St Arlington, OR 97812	LePage Park OR (541) 506-7819	J-216.7L, JDR-0.5L, J-219.1L, J-220.7R	Three paved ramps with floating docks, $3 fee, open all year	57	323
BL-RC-1.3L	Rock Creek Park boat launch	45.71954 -120.46133	Rock Creek Rd Roosevelt, WA 99356	USACE John Day pool Natural Resource Manager John Day Dam, OR (541) 506-4805	J-231.6R, J-230.2R	Rock Creek feeds into the John Day Pool at river mile 230.2; staging area and boat launch with a 7 degree grade	58	325

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APPENDIX 4A

Response Strategy 2-Pagers

RESPONSE STRATEGIES – LIST

J-216.5R	J-216.55R	J-216.7L	J-217.1R	J-219.1L
J-220.7R	J-224R	J-227.4R	J-228.5R	J-229.3L
J-230.2R	J-231.6R	J-234R	J-234.1L	J-237.6L
J-237.6R	J-240.7L	J-242.3R	J-242.7L	J-244.4R
J-244.5R	J-245.1R	J-250.3R	J-251R	J-253.6L
J-255.2M	J-255.7R	J-256.5M	J-256.8M	J-257.3L
J-258.6R	J-258.65R	J-259.8L	J-262.3M	J-262.5M
J-264.6R	J-264.8R	J-265M	J-265.3R	J-266R
J-266.4R	J-266.6R	J-269.3L	J-269.9R	J-270.2L
J-271.4L	J-272.2R	J-273.2R	J-274.85M	J-274.91M
J-274.95M	J-275L	J-275R	J-275.5L	J-275.8R
J-275.9M	J-277.3L	J-277.7R	J-278.9M	J-283.2R
J-284.5R	J-287.1L	J-288L	J-288.8R	J-289.6L
J-289.9R	J-290.8L	J-290.9L	J-291R	J-292.4R
J-292.5L	J-292.5R	JDR-0.5L		

<< Go Back

John Day Dam Fish Ladder NE J-216.5R

Position - Location:	45° 43.163', -120° 41.780'	45° 43' 9.8", -120° 41' 46.8"	45.71938, -120.69634	Goldendale

Strategy Objective: Exclusion : Prevent oil from entering the fish ladder. If conditions are suitable collect oil with vac truck at this location.

Implementation: Angle 100' of boom on the upstream end of the fish ladder. Need to coordinate the anchor points with the John Day Dam. Vac truck access via Oregon side of the dam.

Staging Area: Onsite: Can stage some equipment on site, additional staging available at SA-J-216.5R/Railroad Island Park.

Site Safety: Slips, Trips, Falls, Water Hazard, John Day Dam

Field Notes: Launch at BL-J-216.5R/Railroad Island Boat Launch. Contact John Day Dam control room 541-298-9712 before accessing the dam

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Fish Ladder(s)

Recommended Equipment

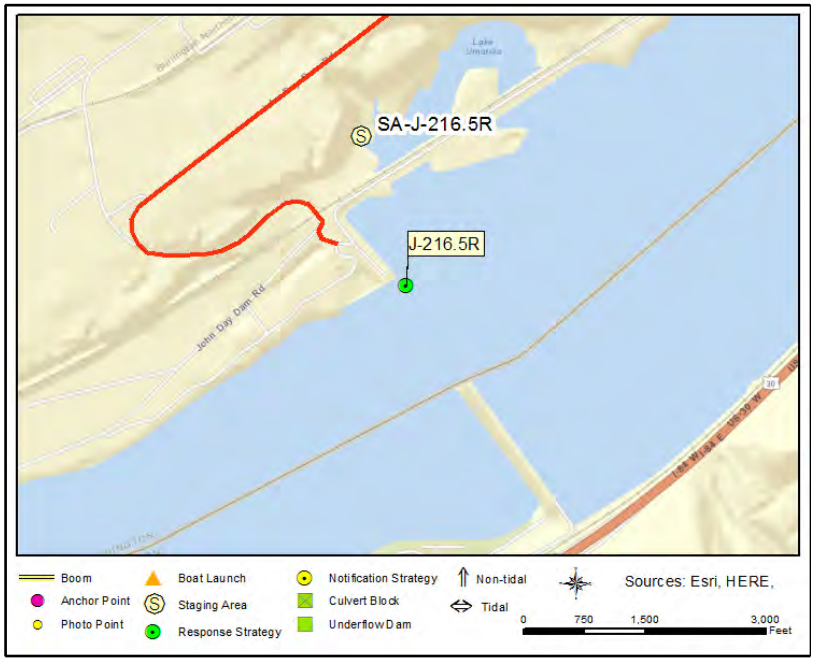
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

John Day Dam Fish Ladder NE J-216.5R

J-216.5R Photo: Aerial overview of locks and fish ladder.



Site Contact

USACE John Day Control Room
Primary Contact : Emergency contact & access to dam
541-298-9712

USACE John Day pool
Land/Property Contact : Natural Resource Manager
541-506-4805

Nearest Address

John Day Dam Road
Goldendale, WA 98620

Driving Directions

1. Directions to John Day Dam on the WA side. Starting at the intersection of WA Hwy-97 & WA Hwy-14, head east on WA-14 E toward Stonehenge Dr (6.9 mi)
2. Turn right onto John Day Dam Rd (2.0 mi)
3. Turn Right for the dam access gate OR left toward Railroad Island boat launch (0.3 mi)

John Day Dam Locks J-216.55R

Position - Location:	45° 43.194', -120° 41.764'	45° 43' 11.6", -120° 41' 45.8"	45.71990, -120.69606	Goldendale

Strategy Objective: Collection : Collect oil within the lock

Implementation: Deploy 500' of boom (BM-1) from the N lock wall out toward the NE to divert oil moving downstream into the lock for collection. Deploy 500' of boom (BM-1) across the lock walls to keep oil from exiting the lock if the spill source is within, collect from the N lock wall. Coordinate with USACE staff on anchor points.

Staging Area: Onsite: Can stage some equipment onsite with dam access, otherwise use SA-J-216.5/Railroad Island Park

Site Safety: Slips, Trips, Falls, Water Hazard, heavy equipment, John Day Dam

Field Notes: Must pre-notify the John Day Dam control room 541-298-9712 for access to the dam

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Lock and Dam

Recommended Equipment

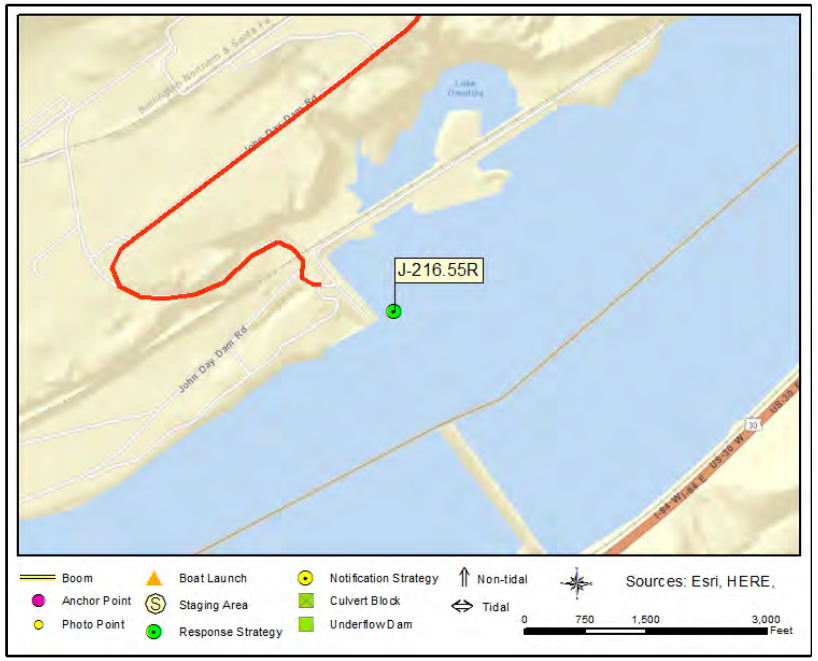
5	Each	Anchor - Danforth (or other appropriate type)
3	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage (if collection)
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

John Day Dam Locks J-216.55R

J-216.55R Photo: Aerial overview of locks.



Site Contact

USACE John Day Control Room
Primary Contact : Emergency contact & access to dam
541-298-9712

USACE John Day pool
Land/Property Contact : Natural Resource Manager
541-506-4805

Nearest Address

John Day Dam Road
Goldendale, WA 98620

Driving Directions

1. Directions to John Day Dam on the WA side. Starting at the intersection of WA Hwy-97 & WA Hwy-14, head east on WA-14 E toward Stonehenge Dr (6.9 mi)
2. Turn right onto John Day Dam Rd (2.0 mi)
3. Turn right to access the dam, or left toward the Railroad Island boat launch (0.3 mi)

<< Go Back

John Day South Fish Ladder J-216.7L

Position - Location:	45° 42.695', -120° 41.313'	45° 42' 41.7", -120° 41' 18.8"	45.71159, -120.68855	Wasco

Strategy Objective: Exclusion : Prevent oil from entering fish ladder.

Implementation: Deploy 100' of boom in a chevron configuration on the upstream side of the fish ladder.

Staging Area: Onsite: Can stage boom onsite or at boat launch at BL-JDR-0.2L/Le Page

Site Safety: Slips, Trips, Falls, Water Hazard, John Day Dam

Field Notes: Launch boat from Le Page Park (BL-JDR-0.2L)

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Fish Ladder(s)

Recommended Equipment

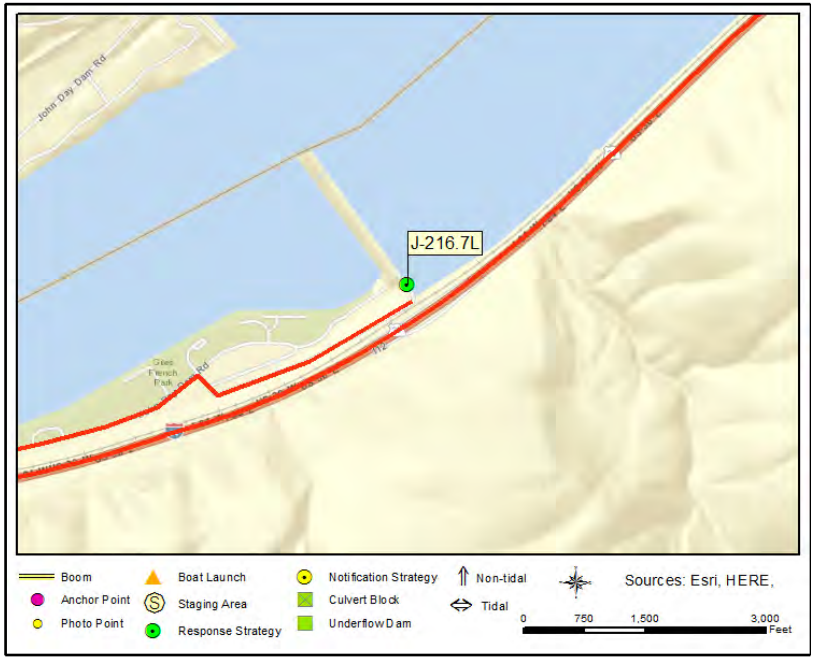
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

John Day South Fish Ladder J-216.7L

J-216.7L Photo: Aerial view of the John Day Dam SE fishladder



Site Contact

USACE John Day Control Room
Pre-Notification Required : Emergency contact & access to dam

541-298-9712

Nearest Address

John Day Dam Road
Wasco, OR 97065

Driving Directions

Directions to the John Day Dam on the Oregon Side.
1. Start at Boardman, Oregon
2. Go west on Boardman Ave NE toward Boardman Ave/N Main St (0.05 miles)
3. Turn left on N Main St (0.08 miles)
4. Turn right onto ramp and go on I-84 W/US-30 W (53.91 miles)
5. At exit 109 take ramp on the right to John Day Dam toward Rufus (0.3 miles)
6. Turn right (0.09 miles)
7. Bear right on John Day Dm (John Day Dam Ln) (0.07 miles)
8. Continue along John Day Dam Road up to the Dam.

Entrance to Lake Umatilla J-217.1R

Position - Location:	45° 43.564', -120° 41.415'	45° 43' 33.8", -120° 41' 24.9"	45.72606, -120.69026	Goldendale

Strategy Objective:	Exclusion : Keep oil out of inlet that leads to impounded Lake Umatilla.
Implementation:	Use 100' anchored to the NE side of the tunnel and run it out to the SW to anchor off-shore, thereby keeping the tunnel open for boat access. Block off inlet only if necessary as it allow use of the Railroad Island boat launch. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage at SA-J-216.5/Railroad Island
Site Safety:	Steep Bank, 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-J-216.5/Railroad Island
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Public Recreation Site/Area, Salmonid Concentrations and Habitat, Waterfowl and Shorebird Concentrations

Recommended Equipment

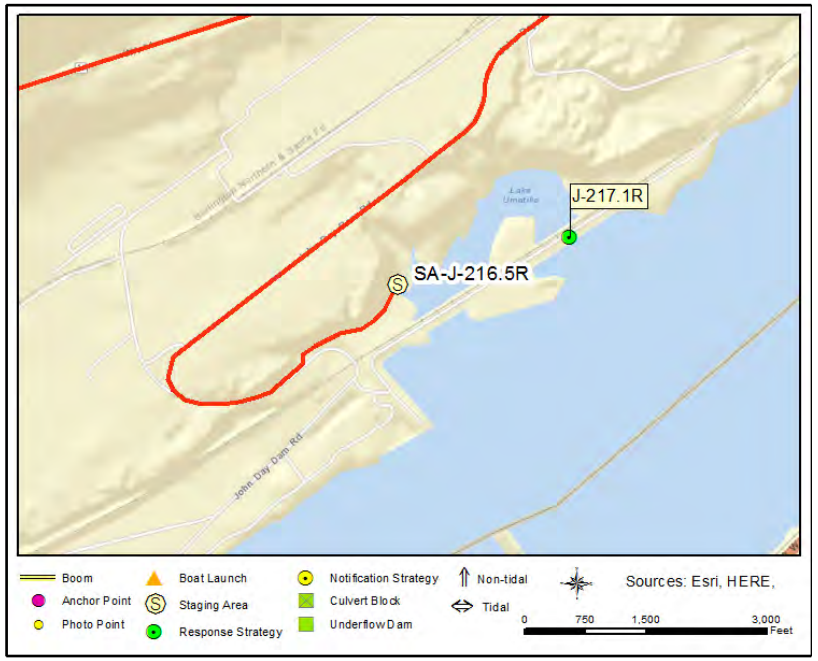
2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Entrance to Lake Umatilla J-217.1R

J-217.1R Photo: Culvert that should be boomed off.



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

John Day Dam Road
Goldendale, WA 98620

Driving Directions

1. Directions to SA-J-216.5R/Railroad Island, starting at the intersection of WA Hwy-97 & WA Hwy-14, head east on WA-14 E toward Stonehenge Dr (6.9 mi)
2. Turn right onto John Day Dam Rd (2.0 mi)
3. Turn left toward Railroad Island boat launch (0.3 mi)

John Day River J-219.1L

Position - Location:	45° 43.897', -120° 38.935'	45° 43' 53.8", -120° 38' 56.1"	45.73162, -120.64891	Arlington

Strategy Objective: Exclusion : Keep oil from entering/exiting river mouth.

Implementation: Use 1200' of boom. Secure to 800' of boom to UPRR trestle on the NE shore and then anchor it to a piling midway to the SW shore. Anchor 400' of boom to the SW shore under the rr bridge and anchor it to the highway bridge upstream to the SE. Keep this formation to allow access to the boat launch as long as possible. Adjust angle of boom, quantity and placement of anchors based on conditions of the day.

Staging Area: Remote: Stage at SA-JDR-0.2L/Le Page Park

Site Safety: Steep Bank, 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-JDR-0.2L/Le Page Park

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Resident Warmwater Fish, Salmonid Concentrations and Habitat, Sensitive Resources Nearby, Shorebird Concentrations, Wintering

Recommended Equipment

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
2	Laborer

John Day River J-219.1L

J-219.1L Photo: Train trestle & Hwy bridge crossing the John Day River

Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

410 Beech St
Arlington, OR 97812

Driving Directions

1. Directions to SA-JDR-0.2L/LePage Park. Starting from Umitalla, OR 97882
2. Merge onto I-84 (64.6 mi)
5. Take exit 114 for LePage Park toward John Day River (0.2 mi)
6. Turn left onto Le Page Park Road, pass through the gate house (0.1 Mi)
7. Take the first left toward the boat launch. Destination will be at the end (0.1 mi)

<< Go Back

Towal Road (FBS MP-124.5) J-220.7R

Position - Location:	45° 45.056', -120° 37.446'	45° 45' 3.4", -120° 37' 26.7"	45.75094, -120.62409	Goldendale

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Anchor 1000' of boom to shore and angle up into the main part of the channel. Collect oil with a skimmer and vac truck on shore. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Stage recovery equipment onsite, other equipment at boat launch at Le Page Park BL-JDR-0.2L
Site Safety:	Railroad Crossing, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not
Field Notes:	Launch on the opposite side of the river at BL-JDR-0.2L/Le Page
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Habitat, Freshwater Wildlife, Sensitive Resources Nearby

Recommended Equipment

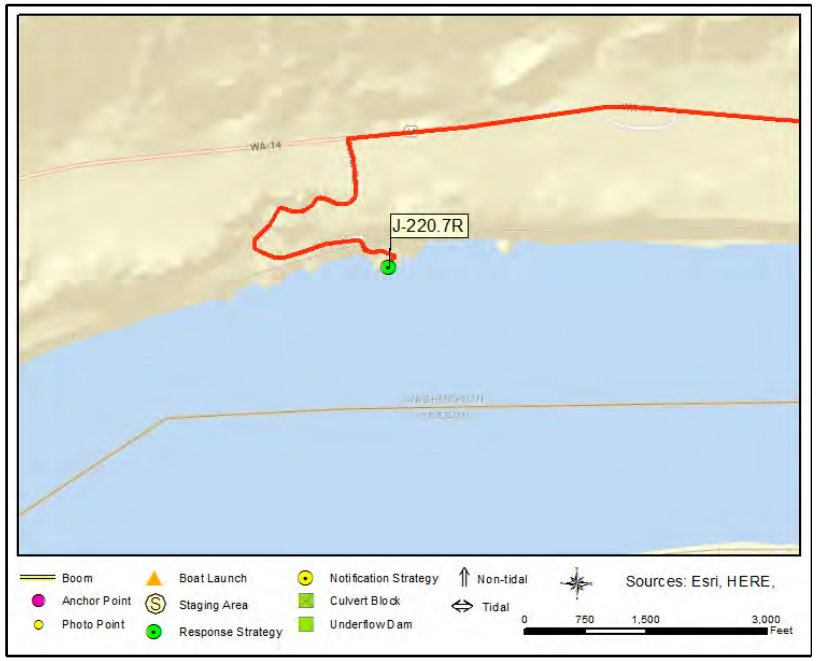
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B3 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Towal Road (FBS MP-124.5) J-220.7R

J-220.7R Photo: Looking upstream from the collection point.



Site Contact

Burlington Northern Santa Fe Railroad
Primary Contact :

WA
800-832-5452

Nearest Address

57 Towal Road
Goldendale, WA 98620

Driving Directions

1. Directions to J-220.7R, starting at Plymouth, WA
2. Go west on S Plymouth Rd toward Christy Rd (0.03 miles)
3. Turn right at Christy Rd to stay on S Plymouth Rd (0.69 miles)
4. Turn left on WA-14 (68.14 miles)
5. Turn left on Towal Rd (0.39 miles)
6. Continue down across the railroad tracks to the collection spot by the river.

MP 116 Highway 14 (FBS MP-128.2) J-224R

Position - Location:	45° 44.441', -120° 33.071'	45° 44' 26.5", -120° 33' 4.2"	45.74069, -120.55118	Roosevelt

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Anchor boom at shore and tow boom upstream SE of shore anchor. Adjust angle of boom, number and placement of anchors, accordingt to conditions of the day.
Staging Area:	Onsite: Gravel road with large area for trucks, Vac truck & boom staged on 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-J-227.4R/SE of Goodnoe
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Habitat, Freshwater Wildlife, Sensitive Resources Nearby

Recommended Equipment

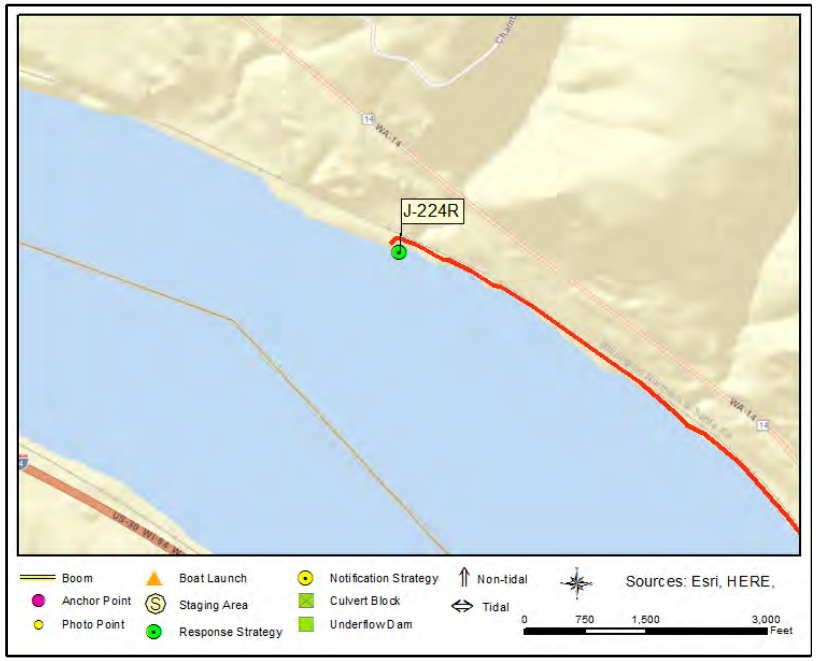
4	Each	Anchoring System(s) - (anchor, lines, floats)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage (if collection)
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

MP 116 Highway 14 (FBS MP-128.2) J-224R

J-224R Photo: Aerial overview of collection location.



Site Contact

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

Burlington Northern Santa Fe Railroad
Other :
800-832-5452

Nearest Address

11667 WA Highway 14
Roosevelt, WA 99356

Driving Directions

1. Start at 13099 Highway 14 Roosevelt
2. Go west on WA-14 (Highway 14) (16.02 miles)
3. At approximately 11667 WA Highway 14, 99356, take a left on gravel road.
4. Cross the RR track and follow gravel road along the river until the collection point.

Bay at Pasture Point In-Lieu site SE of Goodnoe J-227.4R

Position - Location:	45° 42.344', -120° 30.074'	45° 42' 20.6", -120° 30' 4.4"	45.70573, -120.50123	Roosevelt

Strategy Objective:	Exclusion : Keep oil out of bay but keep boat launch open
Implementation:	Anchor 800' of boom at shore on the E side of the bay, on the tip of the island in the middle of the bay, and downstream while keeping boat launch open. Adjust angle of boom, placement & quantity of anchors, based on current conditions. Shallow water, bring waders to reach shore.
Staging Area:	Onsite: Stage at SA-J-227.4R/Pasture Point In-Lieu Site
Site Safety:	Slips, Trips, Falls, water hazards, active railway.
Field Notes:	Launch on site BL-J-227.4R/Pasture Point In-Lieu Site
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Boat Launch/Ramp, Freshwater Wildlife, Tribal Lands/Resources, Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

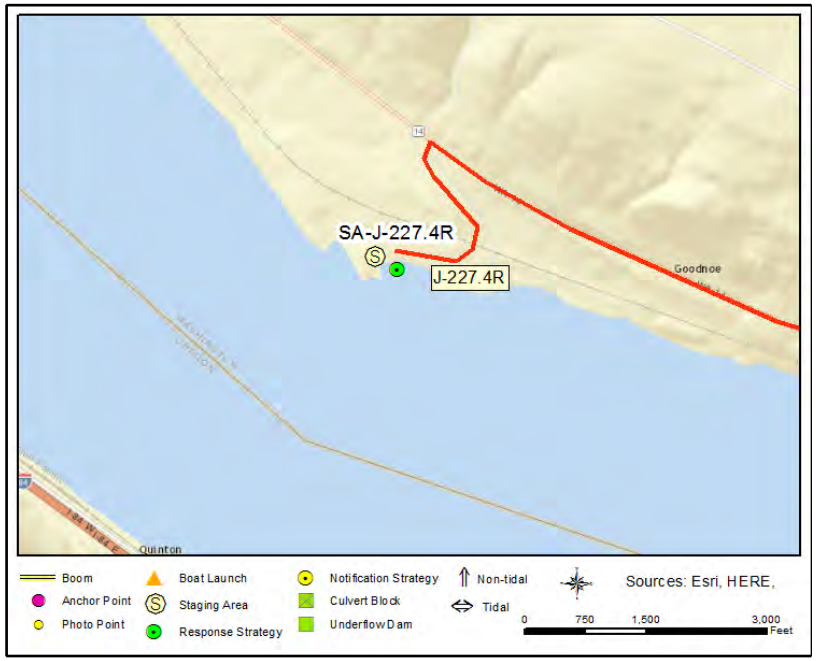
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Bay at Pasture Point In-Lieu site SE of Goodnoe J-227.4R

J-227.4R Photo: View of strategy location from boat ramp



Site Contact

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

Nearest Address

Highway 14
Roosevelt, WA 99356

Driving Directions

1. Directions to SA-J-227.4R, Pasture Point Tribal In-Lieu Site, starting at WA Hwy14 in Roosevelt, WA go west 9 miles, - or - coming from WA Hwy 14 in Maryhill WA go east 17.6 miles, to a gravel road located at Lat 45.710149, Long -120.499682 (this unmarked gravel rd is ~.75 miles EAST of Goodnoe Station Road)
2. Turn onto gravel road, go southwest until you come to the railroad tracks (0.3 mi), continue straight across the tracks (0.7 miles) to launch on the left.

<< Go Back

Two miles W of Rock Creek J-228.5R

Position - Location:	45° 42.173', -120° 29.197'	45° 42' 10.4", -120° 29' 11.8"	45.70288, -120.48661	Roosevelt

Strategy Objective: Collection : Divert oil to shore for collection

Implementation: Anchor 1000' of boom on shore at 45.702852 N, -120.486648 W and run boom out to the SE, adjust angle of boom, placement & quantity of anchors according to conditions of the day. Can drive vac truck to waters edge.

Staging Area: Onsite: Gated, gravel road approx 0.8 miles upstream from SA-J-227.4R/SE of Goodnoe with a 35' x 80' open area to park

Site Safety: Gravel Roads, 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-J-227.4R/SE of Goodnoe

Watercourse: River - Above a Dam - John Day pool

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

Recommended Equipment

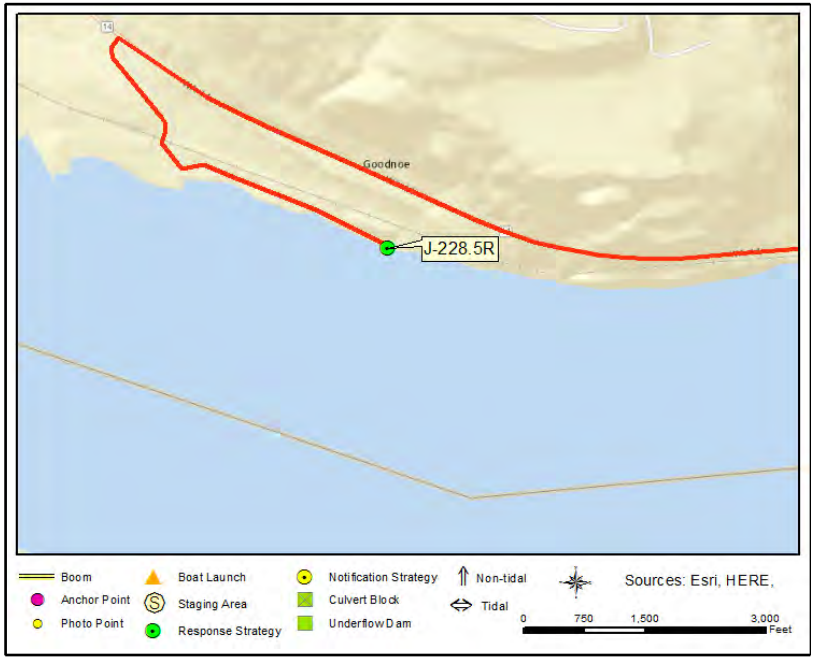
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Two miles W of Rock Creek J-228.5R

J-228.5R Photo: Aerial view of shoreline 2 miles west of Rock Creek, site of J-228.5R collection strategy



Site Contact

Nearest Address

Hwy 14 and Goodnoe Station Rd
Roosevelt, WA 99356

Driving Directions

1. Start at 13099 Highway 14 Roosevelt
2. Go west on WA-14 (Highway 14) (8.24 miles)
3.After passing over Rock Creek/Paterson Slough look for a dirt access road on the left. Dirt road is between highway mile marker 119 and 120. Follow this dirt road down across the railroad tracks and turn left at the fork. Stay left at the second fork and site will be on the 1/2 mile ahead on the right (look for two large rocks on the right at the turn off for the site).

East of Quinton Canyon Road J-229.3L

Position - Location:	45° 41.306', -120° 28.377'	45° 41' 18.3", -120° 28' 22.6"	45.68843, -120.47294	Arlington

Strategy Objective:	Collection : Collect oil to prevent oil from moving further downriver.
Implementation:	Use two 500' lengths of boom to cascade oil to the collection point. Land access via private UPPR road from Westbound I84. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Stage vac truck on site via private UPPR road.
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 boat on-site (alternate boat launch is Rock Creek BL-RC-1.3L on the WA side)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Sensitive Resources Nearby, Waterfowl and Shorebird Concentrations

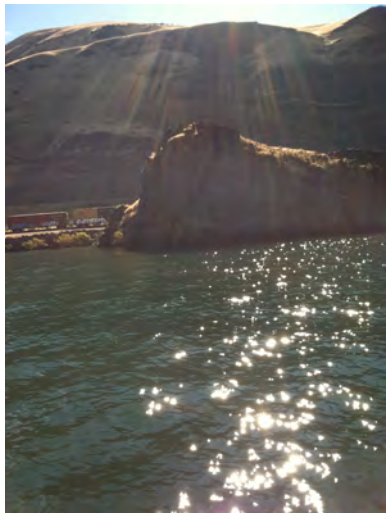
Recommended Equipment

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

East of Quinton Canyon Road J-229.3L



J-229.3L Photo: Looking in towards the cove where oil should be collected and recovered

Site Contact

Union Pacific Railroad
Land/Property Owner :

WA
888-877-7267

Nearest Address

US 30
Arlington, OR 97812

Driving Directions

1. Directions to J-229.3L starting at 78898 Laurel Ln Boardman
2. Go north on Laurel Ln
3. Continue on Messner Rd
4. Turn left onto ramp and go on I-84 W for 41.1 miles
5. Look for a UPPR access road approximately 1 mile east of the strategy.
6. Take the gravel road W0.8 miles to the primitive boat launch and collection area.

Rock Creek/Paterson Slough J-230.2R

Position - Location:	45° 42.200', -120° 27.689'	45° 42' 12.0", -120° 27' 41.3"	45.70333, -120.46148	Roosevelt

Strategy Objective: Exclusion : Prevent oil from entering Rock Creek/Paterson Slough.

Implementation: Anchor 100' of boom in a chevron formation across mouth of Rock Creek /Paterson Slough. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Do not anchor boat in this area.

Staging Area: Remote: Stage at SA-RC-1.3L/Rock 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: Launch at BL-RC-1.3L/Rock Creek

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

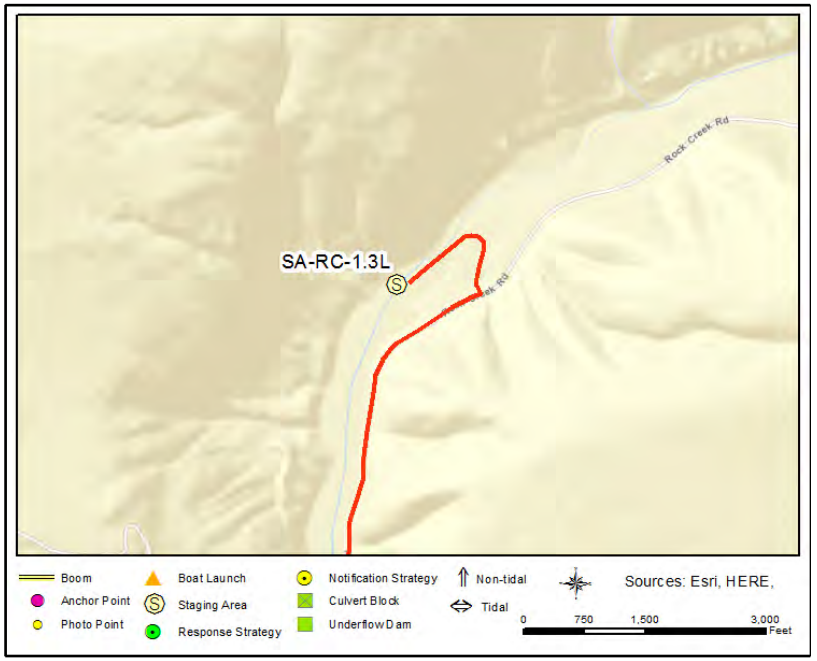
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Rock Creek/Paterson Slough J-230.2R

J-230.2R Photo: View of Rock Creek entering Columbia River taken from the bridge.



Site Contact

Nearest Address

Rock Creek Rd
Roosevelt, WA 99356

Driving Directions

Directions to SA-RC-1.3L Rock Creek Boat Launch
1. From WA-97 head east on WA-14 toward Stonehenge Dr (19.7 mi)
2. Turn left on Rock Creek Rd (1.3 mi)
3. Take the first left into Rock Creek Park, road ends at boat launch (0.35 mi)

<< Go Back

MP 122.5 Highway 14 (FBS MP-135.2) J-231.6R

Position - Location:	45° 42.251', -120° 25.715'	45° 42' 15.0", -120° 25' 42.9"	45.70418, -120.42858	Roosevelt

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Anchor boom near shore and tow boom upstream to a point SE of shore anchor. Use a vac truck and skimmer to collect oil at the shore. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Can stage vac truck on 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:	Boat ramp from Rock Creek (BL-RC-1.3L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

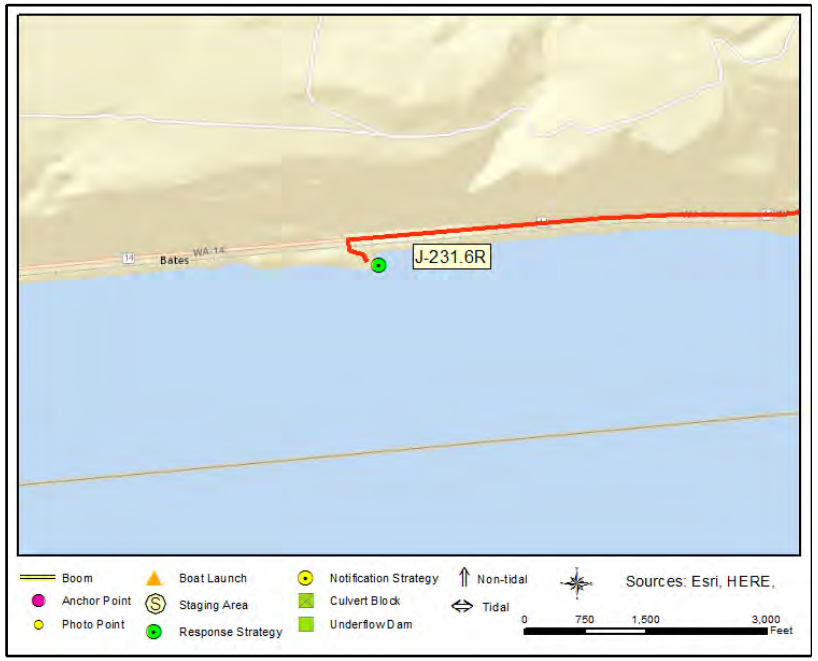
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

MP 122.5 Highway 14 (FBS MP-135.2) J-231.6R

J-231.6R Photo: Aerial overview of collection area.



Site Contact

Burlington Northern Santa Fe Railroad
Primary Contact :

WA
800-832-5452

Nearest Address

Highway 14, MP 122.5
Roosevelt, WA 99356

Driving Directions

1. Directions to J-231.6R; starting at 3 Railroad Ave Roosevelt
2. Go north on Railroad Ave (Roosevelt Elevator Rd) toward WA-14/Roosevelt Grade Rd (0.06 miles)
3. Turn left on WA-14 (Highway 14)
4. At approximately Highway 14, MP 122.5, there will be a gravel road that crosses the train tracks and leads down to the collection area.

<< Go Back

MP 125 Highway 14 J-234R

Position - Location:	45° 42.501', -120° 22.996'	45° 42' 30.1", -120° 22' 59.8"	45.70835, -120.38327	Roosevelt

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Use 800' of boom to divert oil towards shore for collection. Adjust angle of boom, as well as quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Gravel road with room for roadside parking
Site Safety:	Gravel road, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allov
Field Notes:	Launch on site at single gravel ramp
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Downstream Resources

Recommended Equipment

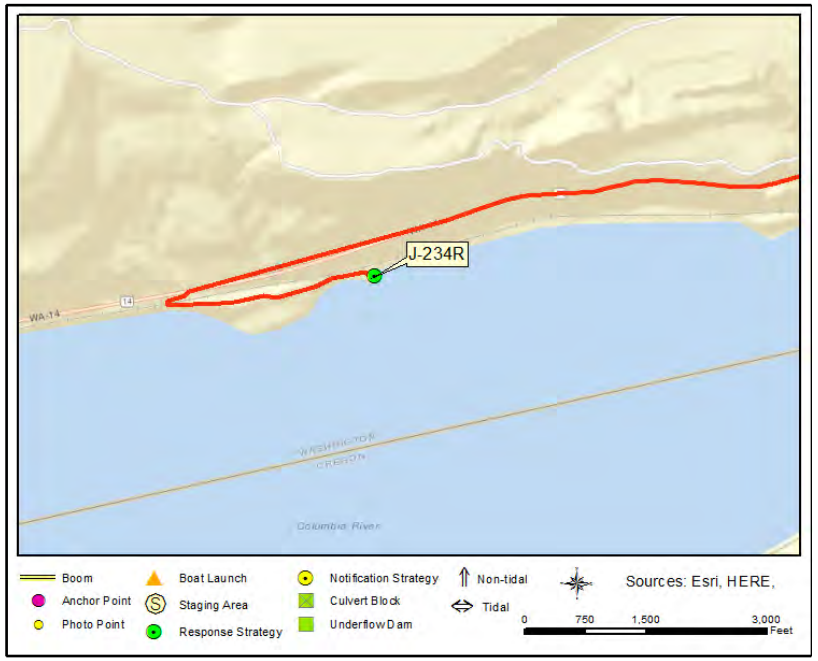
4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

MP 125 Highway 14 J-234R

J-234R Photo: View of primitive boat launch in the John Day pool, site of J-234R



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

11011 Washington Hwy 14
Roosevelt, WA 99356

Driving Directions

1. Directions to J-234R. Starting at Innterstate 82 and Hwy 14 Plymouth, WA 9946
2. Go north on S Plymouth Rd toward SE 3rd Ave (0.63 miles)
3. Turn left on WA-14 (55.04 miles)
4. Turn left onto gravel road located at45.707761 N, -120.392327 W, cross the tracks and stay left at the fork. Finish at 11011 Washington Hwy 14, 99356.

Blalock Port Road J-234.1L

Position - Location:	45° 41.794', -120° 22.244'	45° 41' 47.6", -120° 22' 14.6"	45.69657, -120.37074	Arlington

Strategy Objective:	Collection : Collection
Implementation:	Anchor 900' of boom to the NW side of the causeway and tow boom out to the NE to anchor off shore (trying to funnel oil into the impounded pond). Adjust angle of boom, quantity and placement of anchors according to conditions of the day. Anchor an additional 100' of boom inside the impounded pond at the SE corner of the causeway, tow it to the SW and anchor it on shore to divert oil to the collection point at the boat ramp.
Staging Area:	Onsite: 350' x 50' Gravel staging area at primitive boat launch
Site Safety:	Steep Bank by causeway, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction
Field Notes:	Launch on site at primitive boat ramp. Ramp has been silted up, so care must be taken when launching.
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream 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	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

Blalock Port Road J-234.1L

J-234.1L Photo: Blalock Port Rd Primitive Boat Launch

Site Contact

Nearest Address

Blalock Port Road
Arlington, OR

Driving Directions

1. Directions to J-234.1L, Blalock Port Rd in Arlington, OR, starting from U.S. 395 in Pasco, WA
Continue on U.S. 395 to Kennewick 12.1 mi
2. Take the exit onto I-182 W/US-395 S toward Richland/Pendleton 2.4 mi
3. Take exit 12A for US-395 S toward Kennewick Pendleton 0.7 mi
4. Continue onto US-395 S 1.8 mi
5. Get on I-82 E/US-395 S in Highland 6.4 mi
6. Continue straight to stay on US-395 S (signs for Kennewick Pendleton) 5.2 mi
7. Keep left at the fork, follow signs for I-82 E/US-395 S/Pendleton/Umatilla and merge onto I-82 E/US-395 1.2 mi
8. Follow I-82 E and I-84 to Gilliam County. Take exit129 from I-84 79.5 mi
9. Merge onto I-82 E/US-395 S 29.4 mi
10. Take the I-84 W exit toward Portland 0.5 mi
11. Merge onto I-84 49.2 mi
12. Take exit 129 toward Blalock Canyon 0.3 mi
13. Drive to Blalock Port Rd 0.1 mi
14. Turn right toward Blalock Port Rd 115 ft

<< Go Back

Lang Canyon-High Water Only J-237.6L

Position - Location:	45° 42.666', -120° 18.274'	45° 42' 39.9", -120° 18' 16.4"	45.71109, -120.30457	Roosevelt

Strategy Objective:	Exclusion : Prevent oil from entering pond.
Implementation:	Use 100' of boom to prevent oil from entering the pond. May not be needed at low water as culvert is above lake level. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage equipment across the river at Sundale (BL-J-237.3R)
Site Safety:	Steep Bank, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow
Field Notes:	Boat access only, boat ramp across the river at Sundale (BL-J-237.3R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Goose Wintering/Loafing Area, Public Recreation Site/Area, Salmonid Concentrations and Habitat, Sensitive Nesting Species, Sensitive

Recommended Equipment

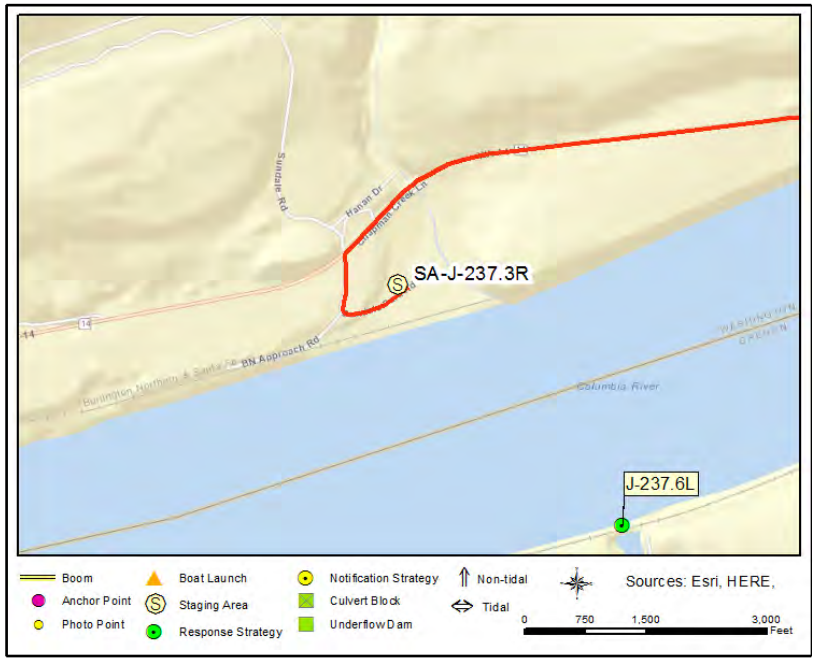
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Lang Canyon-High Water Only J-237.6L

J-237.6L Photo: Two culverts that connect to the pond. Photo taken when the lake level was low.



Site Contact

Nearest Address

Sundale Park Rd
Roosevelt, WA 99356

Driving Directions

1. Start at 3 Railroad Ave Roosevelt
2. Go north on Railroad Ave (Roosevelt Elevator Rd) toward WA-14/Roosevelt Grade Rd (0.06 miles)
3. Turn left on WA-14 (Highway 14) (6.21 miles)
4. Turn left on Sundale Park Rd (0.14 miles)
5. Turn left at Bn Approach Rd to stay on Sundale Park Rd (0.02 miles)
6. Finish at Sundale Park Road, 99356, on the right

<< Go Back

Sundale J-237.6R

Position - Location:	45° 43.140', -120° 18.633'	45° 43' 8.4", -120° 18' 38.0"	45.71900, -120.31055	Roosevelt

Strategy Objective:	Exclusion : Prevent oil from entering pond.
Implementation:	Use 200' of boom to deflect oil away from the inlet to the pond. Keep boat launch open. Multiple places to secure boom onshore. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.
Staging Area:	Remote: Stage at boat launch in pond near site(SA-J-237.3R)
Site Safety:	Steep Bank, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow
Field Notes:	Boat Access Only, Boat launch in pond near site(BL-J-237.3R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Goose Wintering/Loafing Area, Public Recreation Site/Area, Salmonid Concentrations and Habitat, Sensitive Nesting Species, Wetland

Recommended Equipment

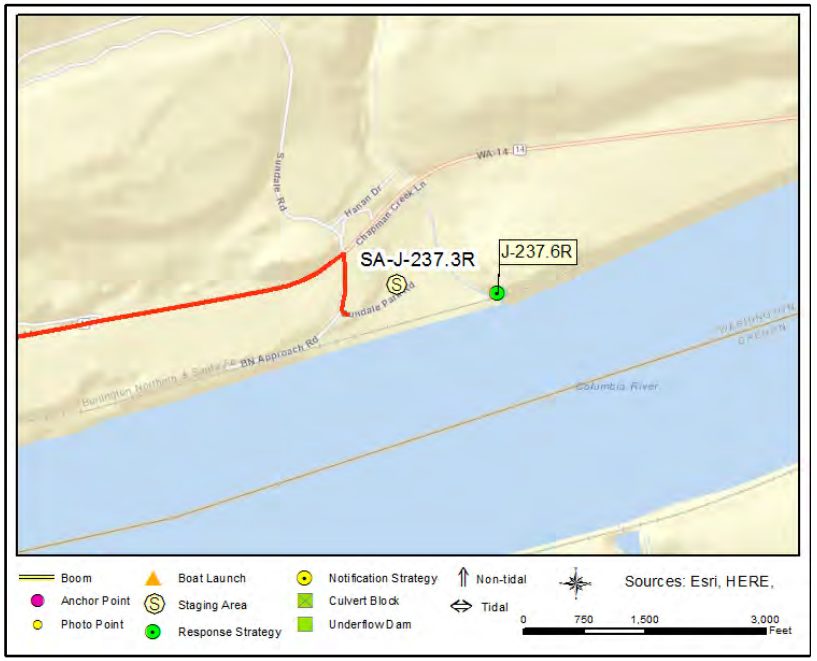
2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Sundale J-237.6R

J-237.6R Photo: Entrance to pond and Chapman Creek



Site Contact

Nearest Address

Sundale Park Rd
Roosevelt, WA 99356

Driving Directions

Directions to Sunnydale Boat Ramp heading East Bound on Highway 14

1. Continue on WA-14 (Highway 14)
2. Make sharp right on Sundale Park Rd (0.14 miles)
3. Turn left at Bn Approach Rd to stay on Sundale Park Rd (0.02 miles)
4. Finish at Sundale Park Road, 99356, on the right

<< Go Back

Jones Canyon J-240.7L

Position - Location:	45° 42.985', -120° 14.712'	45° 42' 59.1", -120° 14' 42.7"	45.71641, -120.24520	Arlington

Strategy Objective:	Exclusion : Keep oil from entering pond.
Implementation:	Use 100' of boom, deploy in a chevron to keep oil from entering the pond. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Arlington Marina (SA-J-242.5L)
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 boat from Arlington Marina (BL-J-242.5L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Sensitive Nesting Species, Shorebird 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
2	Laborer

Jones Canyon J-240.7L

J-240.7L Photo: Culvert connecting Columbia River to pond.

Site Contact

Nearest Address

Arlington Port Rd
Arlington, OR 97812

Driving Directions

Directions to Arlington Boat Launch
1. Start at US 395 Kennewick
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
6. Take ramp on the right and go on I-84 W toward Portland (41.07 miles)
7. At exit 137 take ramp on the right toward Arlington/OR-19/Condon (0.64 miles)
8. Continue on Beech St (0.09 miles)
9. Turn right on Arlington Port Rd (0.38 miles)
10. Finish at 98 Port Island Road, 97812, on the right

Roosevelt Ferry J-242.3R

Position - Location:	45° 43.910', -120° 13.214'	45° 43' 54.6", -120° 13' 12.8"	45.73184, -120.22023	Roosevelt

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Use 1000' of boom to direct oil to the shoreline for collection. Need extra hose and pump to reach vacuum truck. Approximately 500' from skimmer spot to parking area. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Roosevelt Park Recreation Area (SA-J-241.7R)
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Boat Launch on site (BL-J-241.7R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

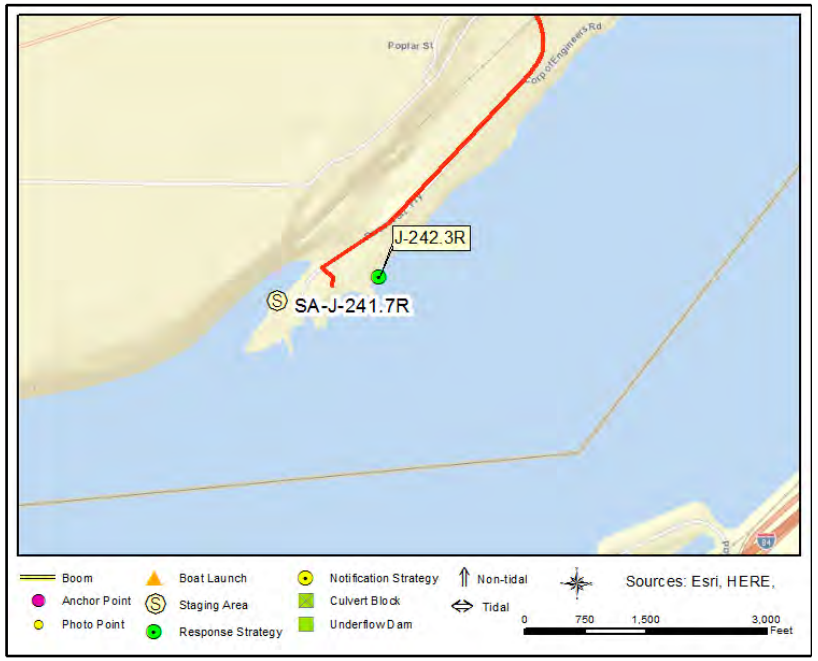
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Each	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Roosevelt Ferry J-242.3R

J-242.3R Photo: Aerial photo of collection area.



Site Contact

Roosevelt Park Recreation Area
Land/Property Contact :

WA
503-808-4514

Nearest Address

Roosevelt Ferry Road
Roosevelt, WA 99356

Driving Directions

1. Start at US 395 Kennewick
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
6. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
7. Turn right on WA-14 (47.13 miles)
8. Turn left on Roosevelt Fry (Roosevelt Ferry Rd) (0.65 miles)
9. Finish at Roosevelt Ferry Road, 99356, on the left

Arlington Grain Terminal J-242.7L

Position - Location:	45° 43.431', -120° 12.242'	45° 43' 25.8", -120° 12' 14.5"	45.72385, -120.20403	Arlington

Strategy Objective:	Collection : Collect oil that is moving downstream, prevent oiling of grain terminal
Implementation:	Use 500' of boom to deflect oil away from the grain terminal and into the natural collection area. Remove oil with skimmer and vac truck. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Plenty of staging available on 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 boat from Arlington Marina (BL-J-242.5L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources, Sensitive Resources Nearby

Recommended Equipment

3	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
500	Each	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

Arlington Grain Terminal J-242.7L

J-242.7L Photo: View of collection area from shore.

Site Contact

Nearest Address

160 Port Island Road
Arlington, OR 97812

Driving Directions

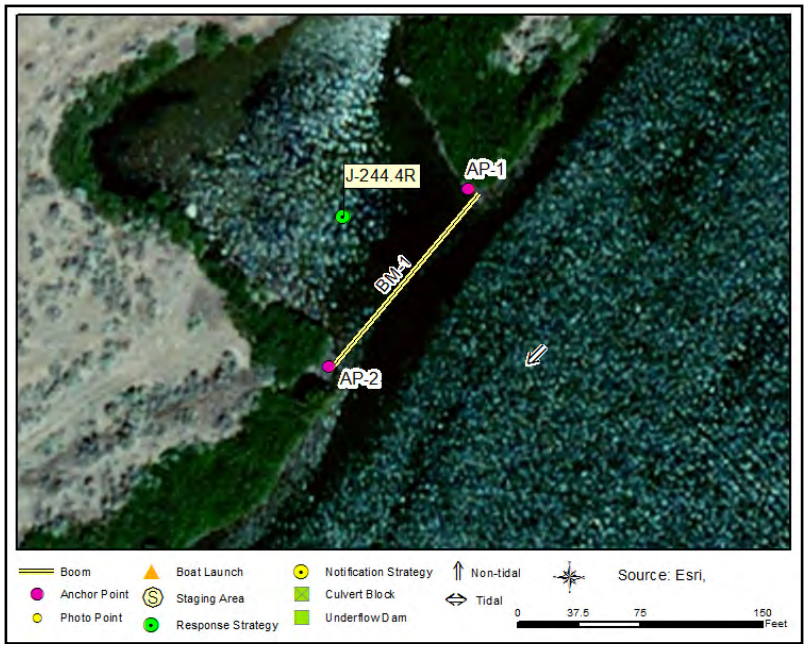
1. Start at US 395 Kennewick
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
6. Take ramp on the right and go on I-84 W toward Portland (41.07 miles)
7. At exit 137 take ramp on the right toward Arlington/OR-19/Condon (0.64 miles)
8. Continue on Beech St (0.09 miles)
9. Turn right on Arlington Port Rd (0.28 miles)
10. Finish at 160 Port Island Road, 97812, on the left

<< Go Back

Roosevelt South J-244.4R

Position - Location:	45° 44.940', -120° 11.789'	45° 44' 56.4", -120° 11' 47.3"	45.74900, -120.19648	Roosevelt

Strategy Objective:	Exclusion : Prevent oil from entering shallow water habitat.
Implementation:	Use 200' of boom to close off shallow water habitat. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Can stage equipment on site.
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:	Boat ramp at Roosevelt Rec Area (BL-J-241.7R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Warmwater Fish, Salmonid Concentrations and Habitat, Sensitive Resources



Recommended Equipment

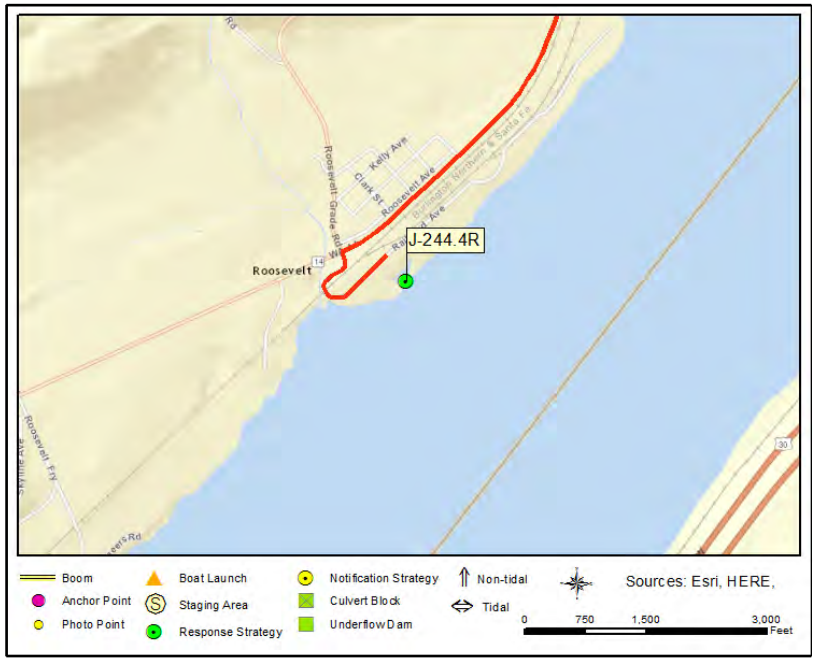
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Roosevelt South J-244.4R

J-244.4R Photo: Aerial overview of shallow water habitat.



Site Contact

Nearest Address

25 Railroad Avenue
Roosevelt, WA 99356

Driving Directions

1. Start at US 395 Kennewick
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
6. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
7. Turn right on WA-14 (46.3 miles)
8. Turn left on Railroad Ave (Roosevelt Elevator Rd) (0.31 miles)
9. Finish at 25 Railroad Avenue, 99356, on the left

<< Go Back

Roosevelt Central (FBS MP-147.3) J-244.5R

Position - Location:	45° 45.011', -120° 11.675'	45° 45' .7", -120° 11' 40.5"	45.75019, -120.19458	Roosevelt

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Deploy 1000' of boom to direct oil to shore for collection. Access is through BNSF railyard, contact them first before entering. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Can stage equipment on site at railyard.
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:	Boatramp at Arlington Marina(BL-J-242.5L) or Roosevelt Rec Area (BL-J-241.7R).
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

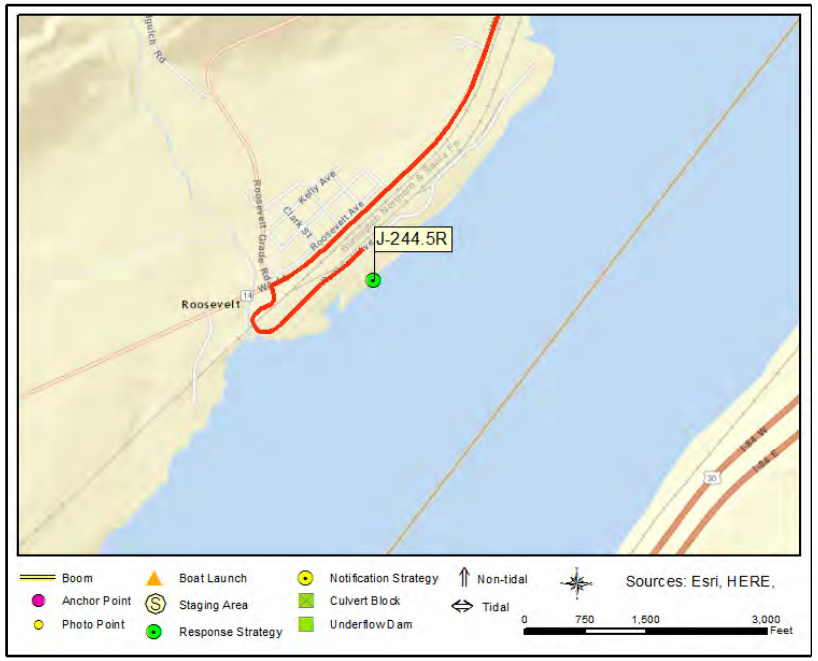
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Each	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Roosevelt Central (FBS MP-147.3) J-244.5R

J-244.5R Photo: Aerial overview of collection area.



Site Contact

Burlington Northern Santa Fe Railroad
Land/Property Contact :

WA
800-832-5452

Nearest Address

39 Railroad Ave
Roosevelt, WA 99356

Driving Directions

1. Start at US 395 Kennewick
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
6. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
7. Turn right on WA-14 (46.3 miles)
8. Turn left on Railroad Ave (Roosevelt Elevator Rd) (0.46 miles)
9. Finish at 39 Railroad Ave, 99356, on the left

Roosevelt North J-245.1R

Position - Location:	45° 45.509', -120° 11.169'	45° 45' 30.6", -120° 11' 10.1"	45.75849, -120.18615	Roosevelt

Strategy Objective:	Collection : Collect oil that is moving downstream.
Implementation:	Use 800' of boom to divert oil into natural collection area. Use vac truck to remove oil. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Equipment can be staged onsite.
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 boat from Roosevelt Rec Area (BL-J-241.7R) or Arlington Marina.
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

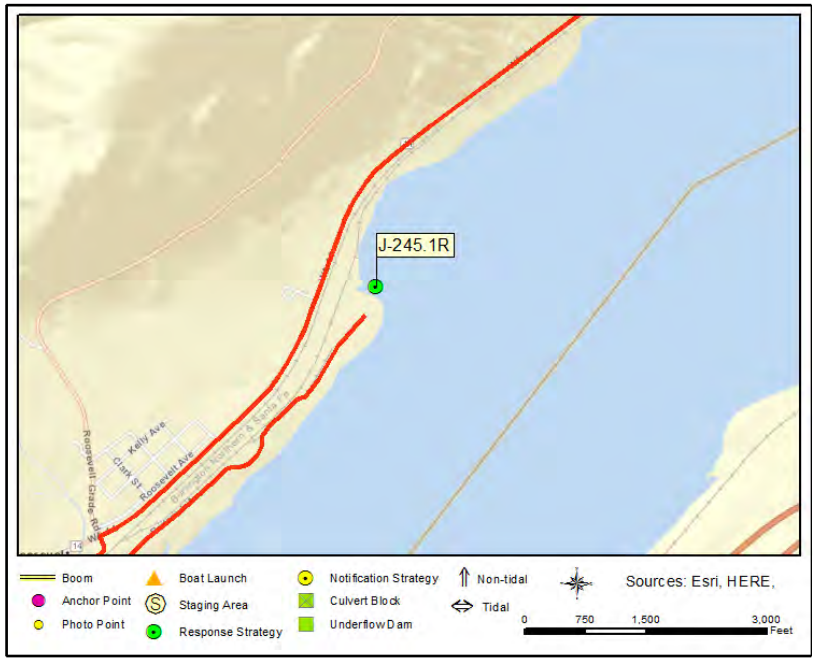
4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside

Recommended Personnel

1	Boat Operator
4	Laborer

Roosevelt North J-245.1R

J-245.1R Photo: Aerial overview of collection area.



Site Contact

Burlington Northern Santa Fe Railroad
Primary Contact :

WA
800-832-5452

Nearest Address

99 Railroad Avenue
Roosevelt, WA 99356

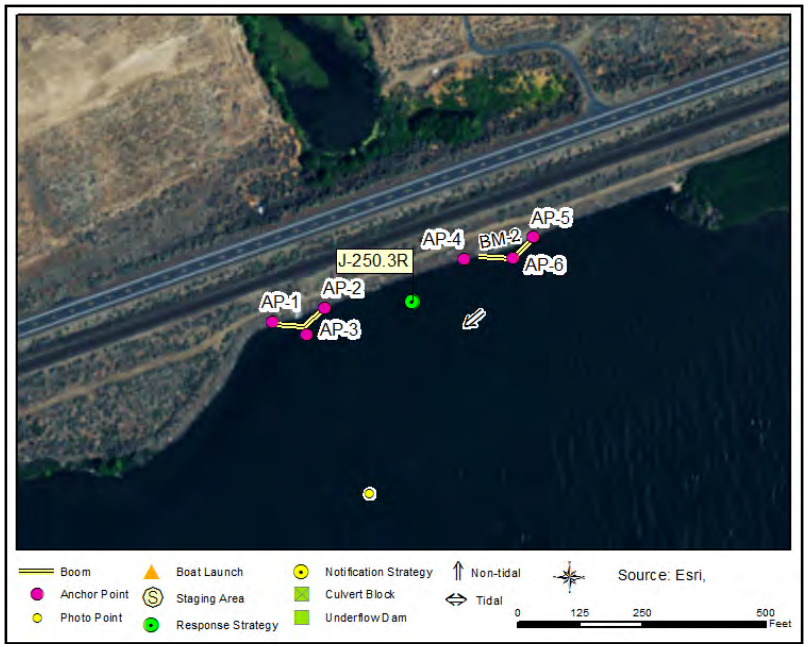
Driving Directions

1. Start at US 395 Kennewick
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
6. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
7. Turn right on WA-14 (46.3 miles)
8. Turn left on Railroad Ave (Roosevelt Elevator Rd) (1.07 miles)
9. Finish at 99 Railroad Avenue, 99356, on the left

Pine Creek-High Water J-250.3R

Position - Location:	45° 47.368', -120° 5.108'	45° 47' 22.1", -120° 5' 6.5"	45.78947, -120.08513	Bickleton

Strategy Objective:	Exclusion : Prevent oil from entering Pine Creek.
Implementation:	Use two 100' sections of boom to keep oil out of culverts connecting Pine Creek to the Columbia River. Culverts are out of the water when the river level is low. If this is the case no need to deploy strategy. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Remote: Stage at Pine Creek (SA-J-251.2R)
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 Boat at Pine Creek (BL-J-251.2R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Salmonid Concentrations and Habitat, Sensitive Resources



Recommended Equipment

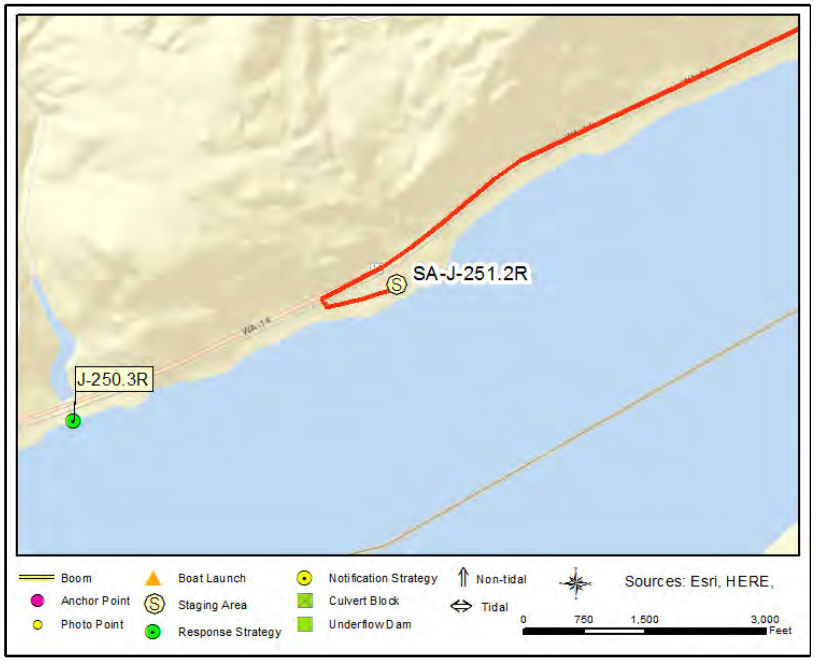
2	Each	Anchor - Danforth (or other appropriate type)
4	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Pine Creek-High Water J-250.3R

J-250.3R Photo: Aerial overview of culverts and Pine Creek



Site Contact

Nearest Address

Washington 14
Bickleton, WA 99322

Driving Directions

Directions from Kennewick to Pine Creek Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14
13. At approximately MP 141.5 turn left into parking area for boat launch.

<< Go Back

East of Pine Creek J-251R

Position - Location:	45° 47.689', -120° 4.014'	45° 47' 41.3", -120° 4' .8"	45.79481, -120.06690	Bickleton

Strategy Objective:	Collection : Collect oil that is moving down river.
Implementation:	Use 1000' of boom to direct oil to the shoreline. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Parking lot located on site could be used for staging.
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Boat ramp located on site (BL-J-251.2R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

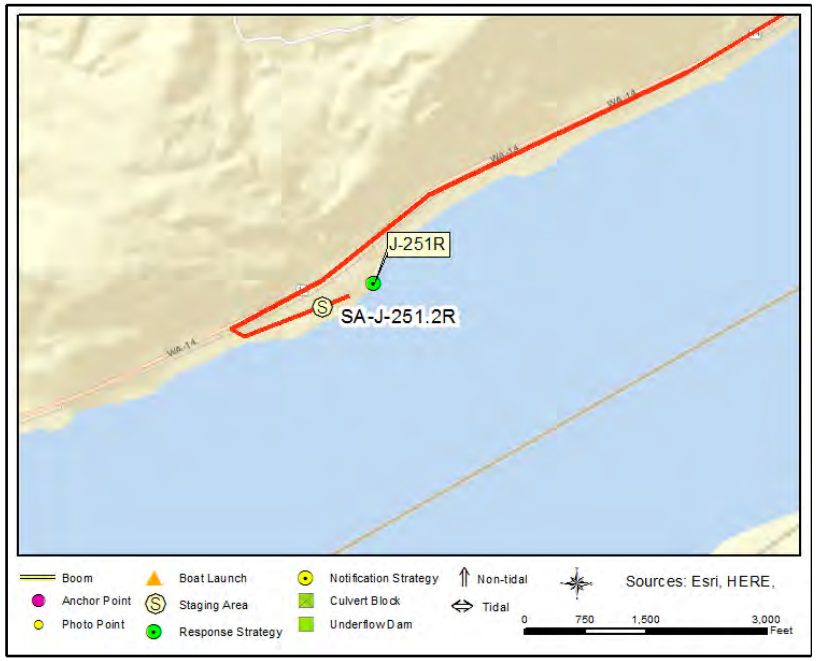
3	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

East of Pine Creek J-251R

J-251R Photo: Collection area is on the upstream side of the boat launch



Site Contact

Nearest Address

Washington Highway 14
Bickleton, WA 99322

Driving Directions

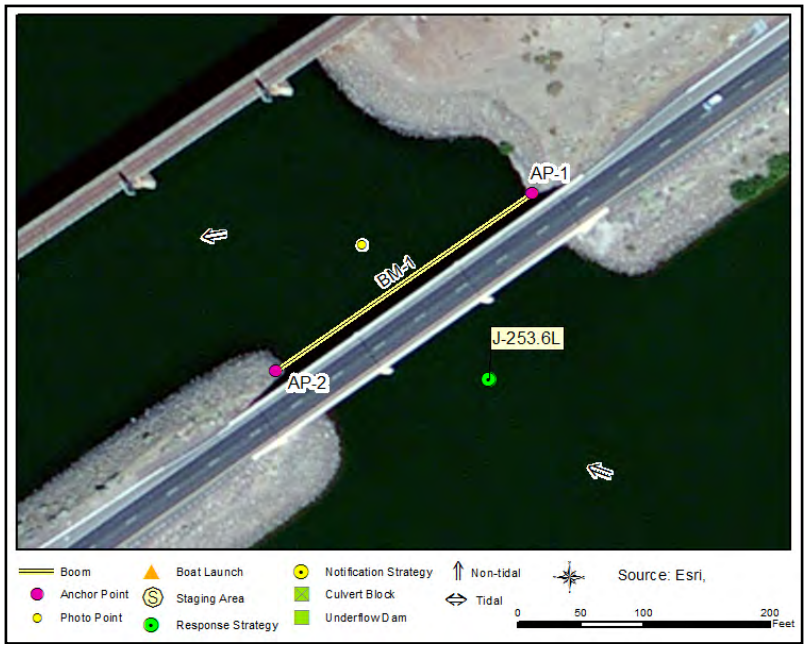
Directions from Kennewick to Pine Creek Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14
13. At approximately MP 141.5 turn left into parking area for boat launch.

<< Go Back

Willow Creek J-253.6L

Position - Location:	45° 47.777', -120° 1.065'	45° 47' 46.6", -120° 1' 3.9"	45.79629, -120.01774	Bickleton

Strategy Objective:	Exclusion : Prevent oil from reaching Willow Creek.
Implementation:	Use 300' of boom under the west bound bridge of I-30. Multiple places to secure boom on shore. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Pine Creek Rec Area
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:	Boat Access Only: Launch from Pine Creek Rec Area (BL-J-251.2R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Warmwater Fish, Salmonid Concentrations and Habitat, Shallow Water Habitat, Shorebird Concentrations, Wintering



Recommended Equipment

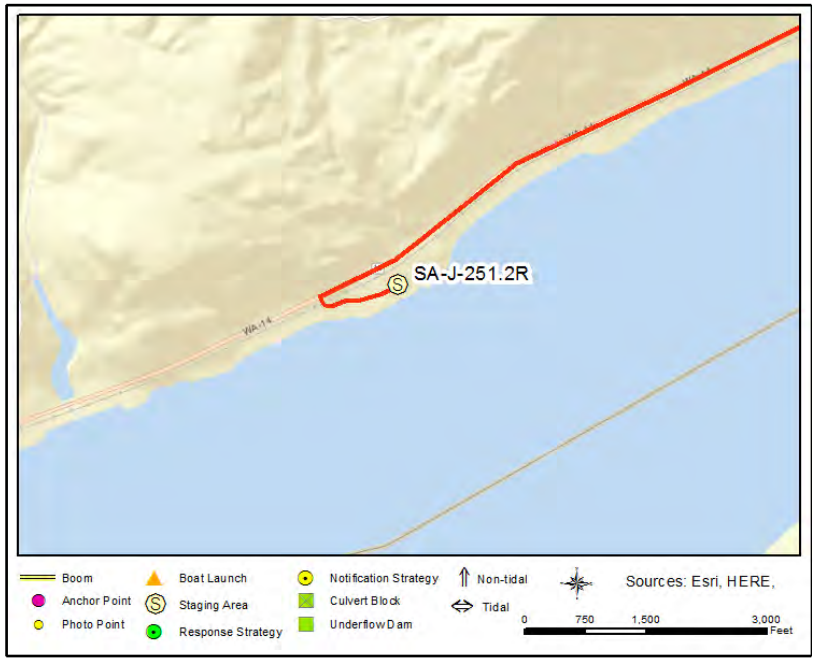
2	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Willow Creek J-253.6L

J-253.6L Photo: Northern anchor point



Site Contact

Nearest Address

Washington 14
Bickleton, WA 99322

Driving Directions

Directions from Kennewick to SA-251.2R / Pine Creek In-Lieu Site.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14
13. At approximately MP 141.5 5. turn Left on gravel road (Lat 45.793613, Long -120.073161) (0.2 mi), cross the railroad tracks and bear right to the end.

<< Go Back

MP 145.5 Highway 14 J-255.2M

Position - Location:	45° 49.070', -119° 59.977'	45° 49' 4.2", -119° 59' 58.6"	45.81783, -119.99962	Boardman

Strategy Objective: Exclusion : Protect shallow water environment from oil.

Implementation: Use 1000' of boom deployed in a chevron. Adjust quantity and placement of anchors based on conditions of the day.

Staging Area: Remote: Quesnell Boat Launch (SA-J-256.6L)

Site Safety: Large Underwater Boulders, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either

Field Notes: Launch boat at Quesnell Boat Launch (BL-J-256.6L)

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations

Recommended Equipment

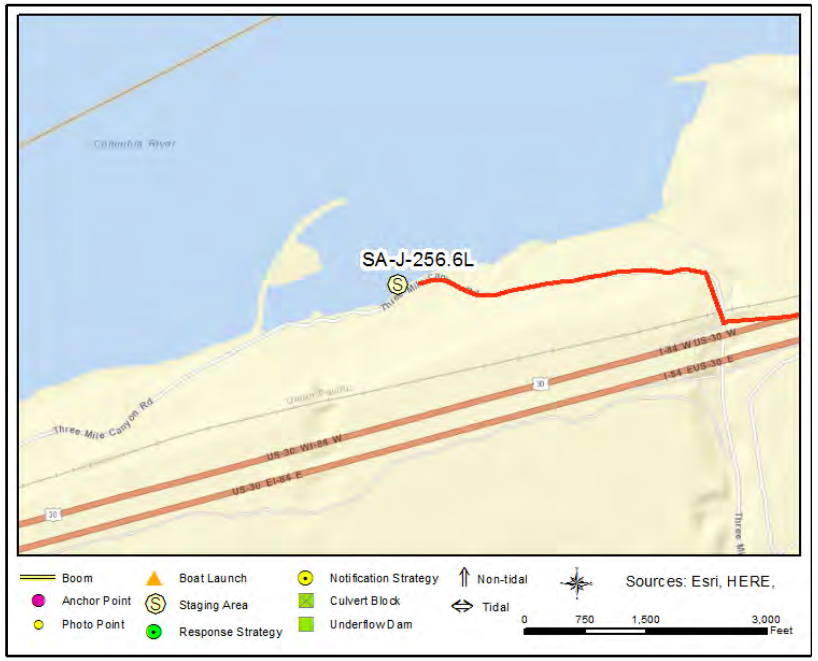
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

MP 145.5 Highway 14 J-255.2M

J-255.2M Photo: Aerial photo giving an overview of islands and shoreline habitat to be protected.



Site Contact

Nearest Address

Tower Rd
Boardman, OR 97818

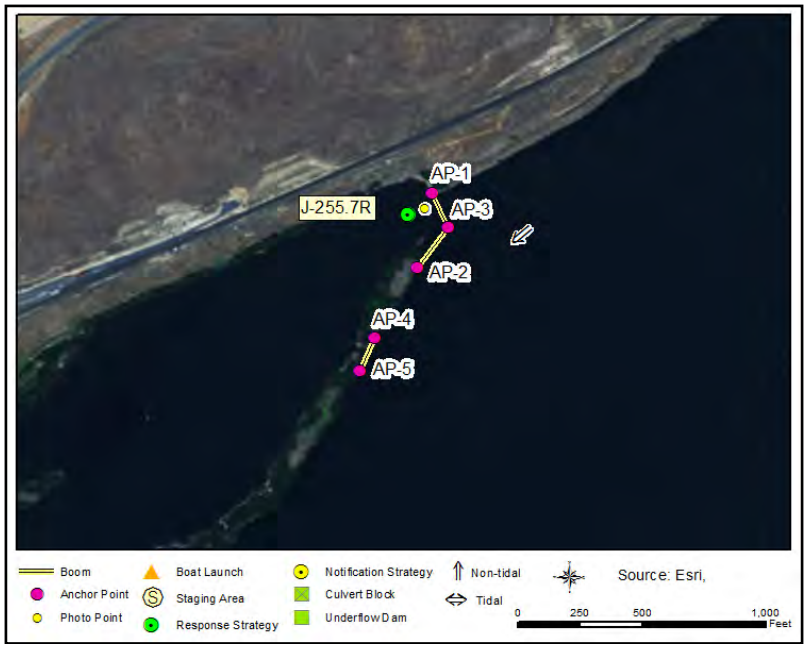
Driving Directions

Directions from Pasco to Quesnell Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.17 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
11. Take ramp on the right and go on I-84 W toward Portland (27.61 miles)
12. At exit 151 take ramp toward Threemile Canyon (0.22 miles)
13. Turn right on Three Mile Canyon Rd and follow to boat ramp.

MP 146 Highway 14 J-255.7R

Position - Location:	45° 49.278', -119° 59.509'	45° 49' 16.7", -119° 59' 30.5"	45.82129, -119.99181	Boardman

Strategy Objective:	Exclusion : Prevent oil from entering shallow water habitat behind the island.
Implementation:	Use 600' of boom to close gap between shore and island and one gap in the island. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Quesnell Boat Ramp (SA-J-256.6L)
Site Safety:	Large Underwater Boulders, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either
Field Notes:	Launch boat at Quesnell Boat Launch (BL-J-256.6L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations



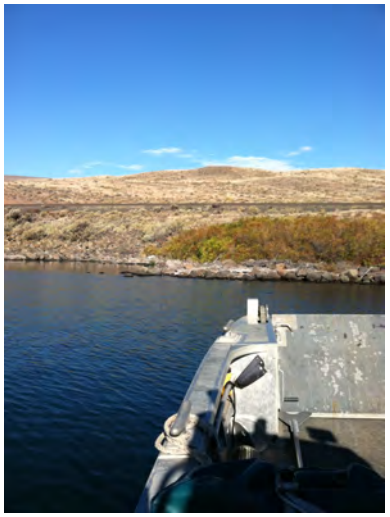
Recommended Equipment

1	Each	Anchor - Danforth (or other appropriate type)
4	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

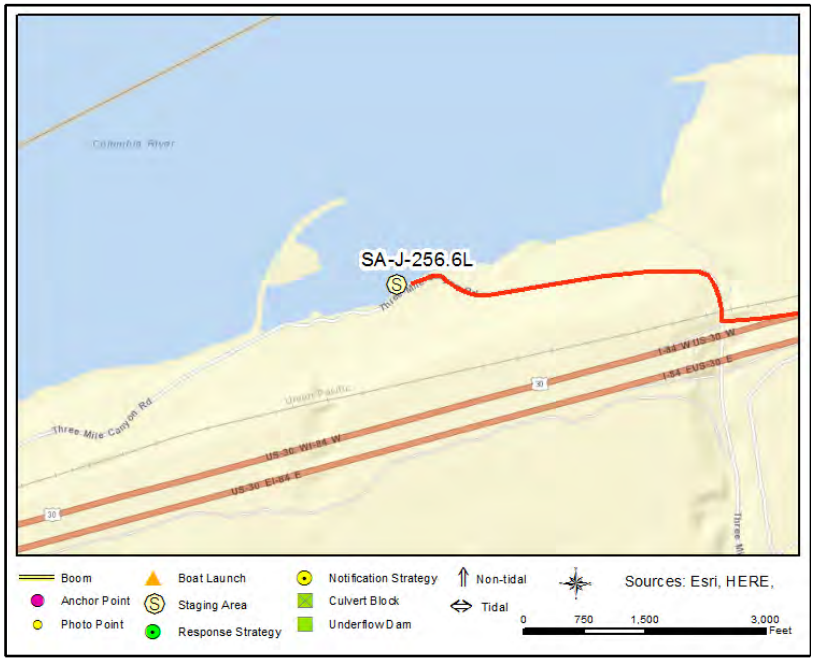
Recommended Personnel

1	Boat Operator
2	Laborer

MP 146 Highway 14 J-255.7R



J-255.7R Photo: Northern anchor area.



Site Contact

Nearest Address

Tower Rd
Boardman, OR 97818

Driving Directions

Directions from Pasco to Quesnell Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.17 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
11. Take ramp on the right and go on I-84 W toward Portland (27.61 miles)
12. At exit 151 take ramp toward Threemile Canyon (0.22 miles)
13. Turn right on Three Mile Canyon Rd and follow to boat ramp.

<< Go Back

Threemile Canyon West J-256.5M

Position - Location:	45° 48.869', -119° 58.277'	45° 48' 52.1", -119° 58' 16.6"	45.81448, -119.97128	Boardman

Strategy Objective:	Exclusion : Keep oil out of Threemile Canyon
Implementation:	500' of boom that could be used as a deflection or exclusion strategy. Using as deflection would keep access open to the boat ramp. Can be deployed with a skiff if using the local ramp. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Quesna Boat Launch
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water, Large underwater boulders.
Field Notes:	Launch boat at Quesnell Boat Launch (BL-J-256.6L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations

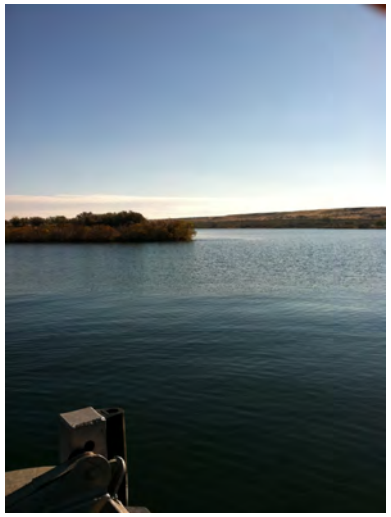
Recommended Equipment

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

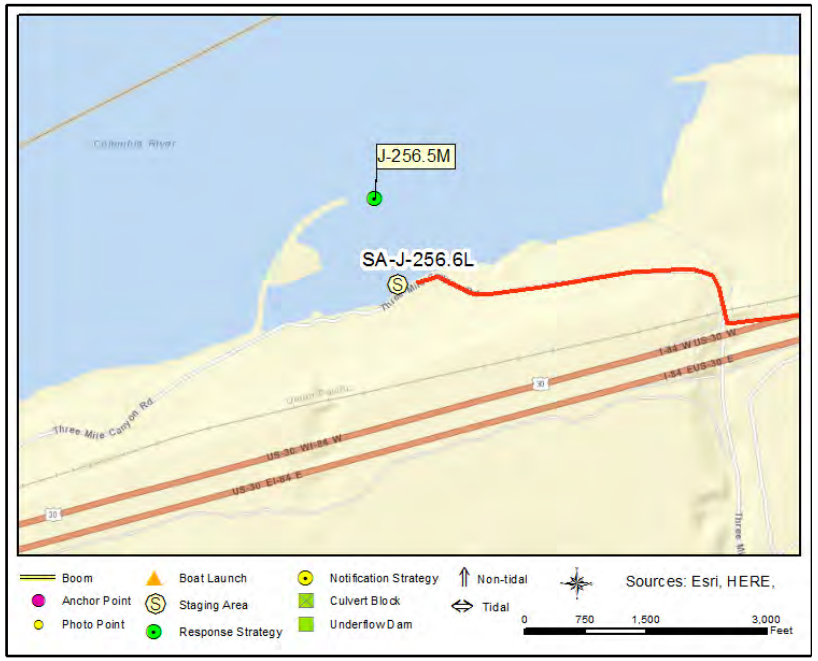
Recommended Personnel

1	Boat Operator
2	Laborer

Threemile Canyon West J-256.5M



J-256.5M Photo: Shoreline anchor area.



Site Contact

Nearest Address

Tower Rd
Boardman, OR 97818

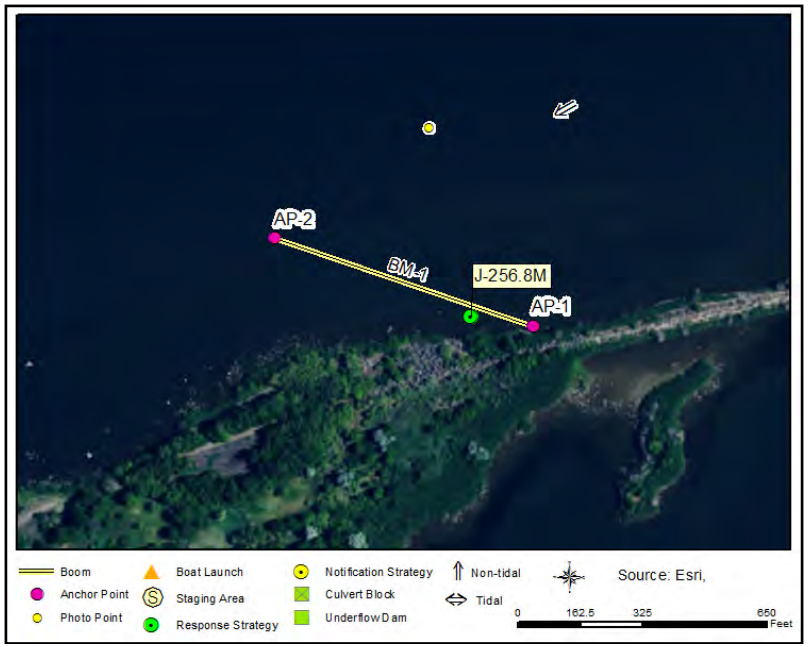
Driving Directions

Directions from Pasco to Quesnell Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.17 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
11. Take ramp on the right and go on I-84 W toward Portland (27.61 miles)
12. At exit 151 take ramp toward Threemile Canyon (0.22 miles)
13. Turn right on Three Mile Canyon Rd and follow to boat ramp.

Threemile Canyon Central J-256.8M

Position - Location:	45° 49.058', -119° 57.806'	45° 49' 3.5", -119° 57' 48.4"	45.81763, -119.96344	Boardman

Strategy Objective:	Deflection : Prevent oil from entering Threemile Canyon inlet.
Implementation:	700' of boom should be used. Small skiff could be used if deployed from Quesna County Park ramp. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Quesna County Park
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water, Large underwater rocks.
Field Notes:	Launch boat at Quesnell Boat Launch (BL-J-256.6L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations



Recommended Equipment

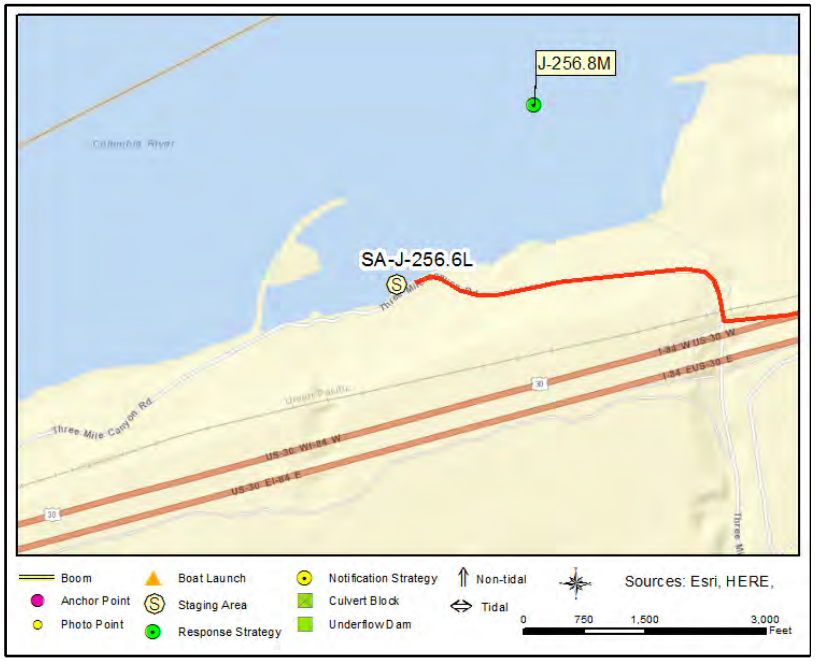
1	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Threemile Canyon Central J-256.8M

J-256.8M Photo: Overview of shoreline where the strategy is located.



Site Contact

Nearest Address

Tower Rd
Boardman, OR 97818

Driving Directions

Directions from Pasco to Quesnell Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.17 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
11. Take ramp on the right and go on I-84 W toward Portland (27.61 miles)
12. At exit 151 take ramp toward Threemile Canyon (0.22 miles)
13. Turn right on Three Mile Canyon Rd and follow to boat ramp.

Threemile Canyon East J-257.3L

Position - Location:	45° 49.081', -119° 57.450'	45° 49' 4.8", -119° 57' 27.0"	45.81801, -119.95750	Boardman

Strategy Objective:	Exclusion : Keep oil out of Threemile Canyon
Implementation:	Deploy 600' of boom in a chevron to exclude oil from the eastern most entrance to Threemile Canyon. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Quesna County Park
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water.
Field Notes:	Launch boat at Quesnell Boat Launch (BL-J-256.6L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Colonial Nesting Birds, Salmonid Concentrations and Habitat, Shallow Water Habitat, Waterfowl Concentrations

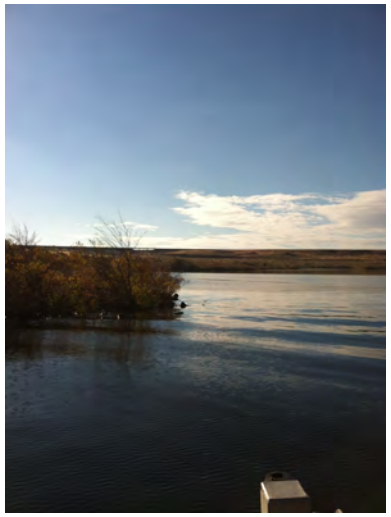
Recommended Equipment

1	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

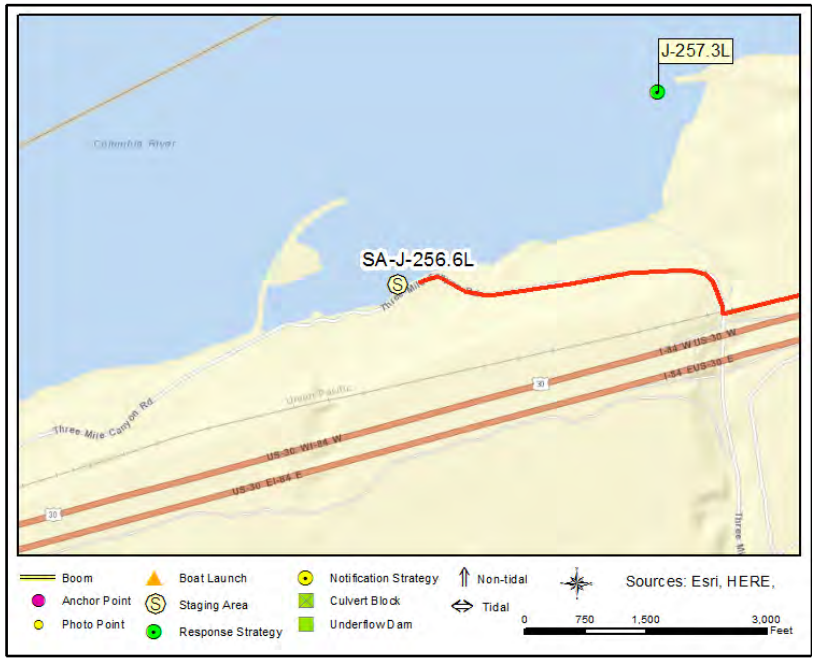
Recommended Personnel

1	Boat Operator
2	Laborer

Threemile Canyon East J-257.3L



J-257.3L Photo: Eastern anchor location



Site Contact

Nearest Address

Tower Rd
Boardman, OR 97818

Driving Directions

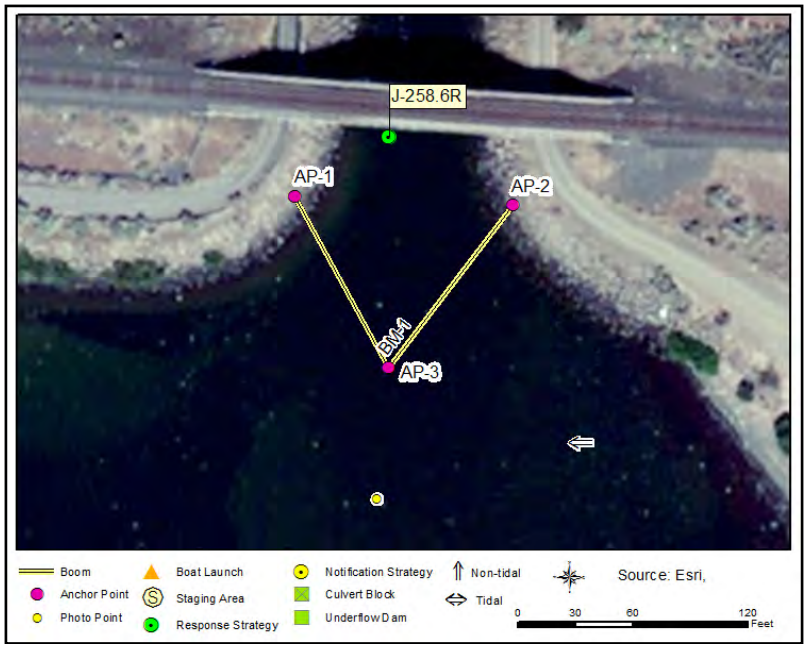
Directions to J-256.6L / Quesnel Boat Launch
1.Start at U.S. Hwy 395, Pasco, WA
2. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla
3. Take ramp on the right and go on I-84 W toward Portland (27 mi)
4. Take the ramp at Exit 151 and go north on 3 Mile Canyon Rd to the end (0.85 mi).

<< Go Back

Alder Creek J-258.6R

Position - Location:	45° 50.132', -119° 55.744'	45° 50' 7.9", -119° 55' 44.6"	45.83553, -119.92907	Prosser

Strategy Objective:	Exclusion : Prevent oil from entering Alder Creek
Implementation:	Deploy 200' of boom in a chevron configuration. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Stage on-site on the shoulder of the road
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 boat at Quesnell Boat Launch (BL-J-256.6L)
Watercourse:	River - Above a Dam - John Day 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

Alder Creek J-258.6R

J-258.6R Photo: Mouth of Alder Creek.

Site Contact

Nearest Address

100 Alderdale Road
Prosser, WA 99350

Driving Directions

Directions to J-258.6R
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14 (31.4 miles)
13. Turn right on Alderdale Rd (0.18 miles)
14. Finish at the river after going under the railroad bridge.

<< Go Back

Alder Creek Collection J-258.65R

Position - Location:	45° 50.082', -119° 55.647'	45° 50' 4.9", -119° 55' 38.8"	45.83469, -119.92744	Crow Butte Park

Strategy Objective:	Collection : Collect oil that is travelling down river.
Implementation:	Use 1000' of boom to divert oil to shoreline collection area. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Need to check bridge clearance on access road for a vac truck. Boat Ramp available at Quesnell Park (BL-J-256.6L)
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 boat at Quesnell Boat Launch (BL-J-256.6L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	

Recommended Equipment

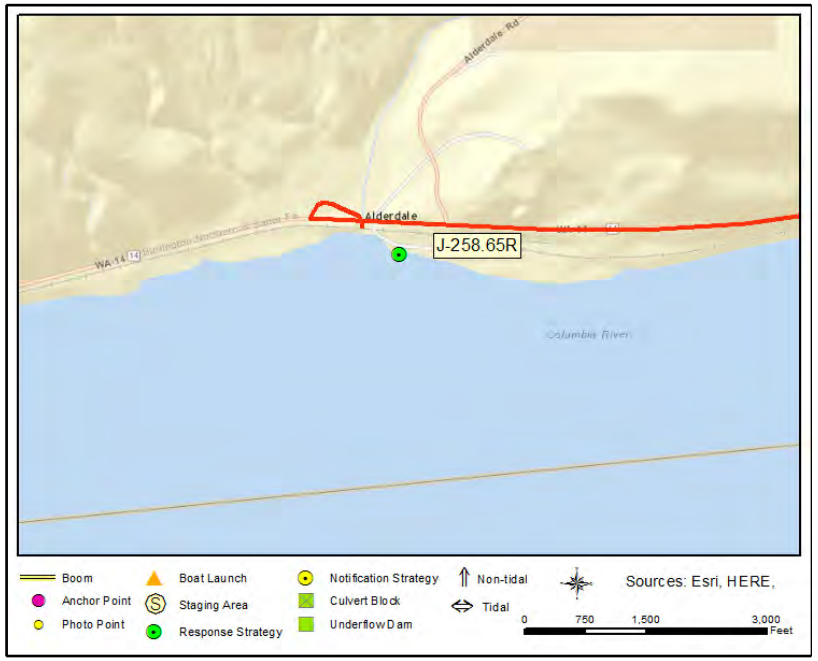
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Alder Creek Collection J-258.65R

J-258.65R Photo: Aerial overview of collection area.



Site Contact

Nearest Address

Crow Butte Park
Crow Butte Park, WA

Driving Directions

Directions to J-258.65R
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14 (31.4 miles)
13. Turn right on Alderdale Rd (0.18 miles)
14. Finish at the river after going under the railroad bridge.

Sixmile Canyon J-259.8L

Position - Location:	45° 49.271', -119° 54.209'	45° 49' 16.3", -119° 54' 12.5"	45.82119, -119.90349	Boardman

Strategy Objective:	Exclusion : Keep oil out of wetlands
Implementation:	Anchor 500' of boom on either side of the inlet to Sixmile Canyon. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Stage on site off Tower Rd, gravel road with off road parking by anchor point
Site Safety:	Water hazard, slips, trips, & falls.
Field Notes:	Launch at BL-J-256.6L/Quesnell
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat, Wetland Habitat

Recommended Equipment

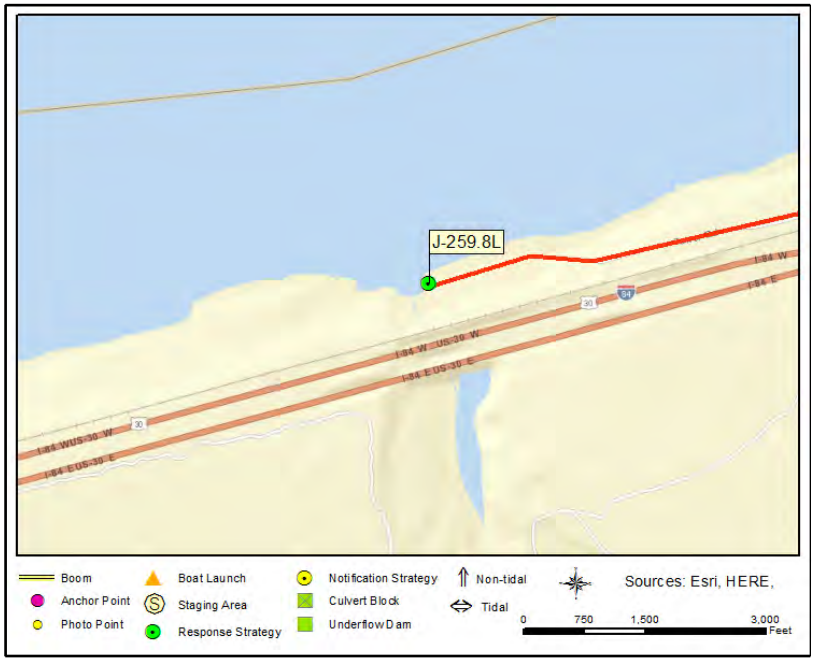
2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
500	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Sixmile Canyon J-259.8L

J-259.8L Photo: Aerial view of Sixmile Canyon showing the culvert



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Tower Rd
Boardman, OR 97818

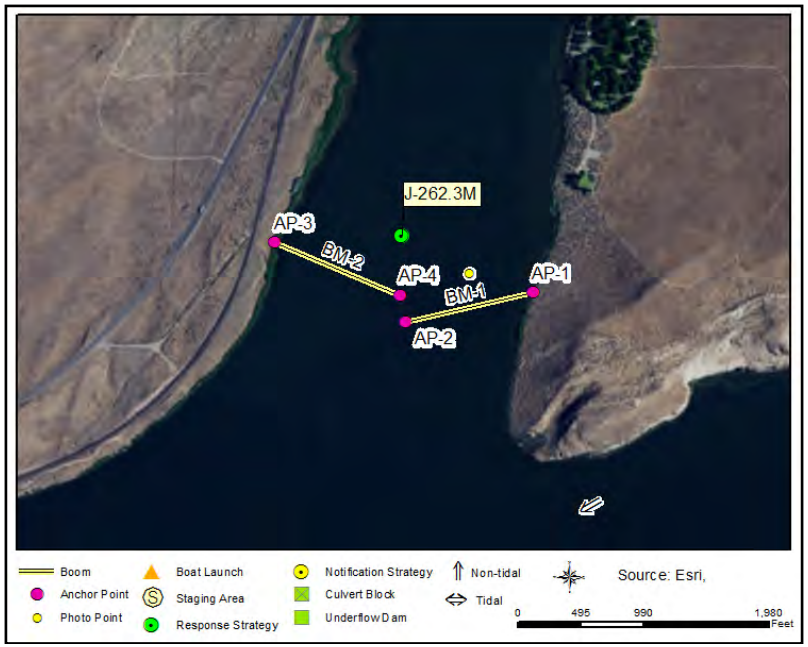
Driving Directions

1. Directions to J-259.8L/Sixmile Canyon, starting at US 395, pasco, wa
2. Go south on US-395 toward W Vineyard Dr (4.52 miles)
3. Take ramp on the right and go on I-182 W/US-395 S toward Richland/Pendleton (2.37 miles)
4. At exit 12A take ramp on the right and go on US-395 S toward Kennewick/Pendleton (2.55 miles)
5. At fork keep left on US-395 (5.18 miles)
6. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
7. Take ramp on the right and go on I-84 W toward Portland (20.09 miles)
8. At exit 159 take ramp to Tower Rd. (0.22 miles)
9. Turn right on Tower Rd (2.85 miles),
10. Cross the railroad tracks and turn left, follow to the end of the gravel road (.5 miles)

Crow Butte North Channel J-262.3M

Position - Location:	45° 50.852', -119° 51.657'	45° 50' 51.1", -119° 51' 39.4"	45.84753, -119.86095	Prosser

Strategy Objective:	Exclusion : Prevent oil from entering area north of Crow Butte Island
Implementation:	Use two different legs of 1000' each to ceate a cascading deflection strategy. Low river flow northward in this direction means this strategy should only be deployed if oil observed moving in this direction. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Crowe Butte Park (SA-J-262.7R)
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 boat from Crow Butte Park (BL-J-262.7R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge



Recommended Equipment

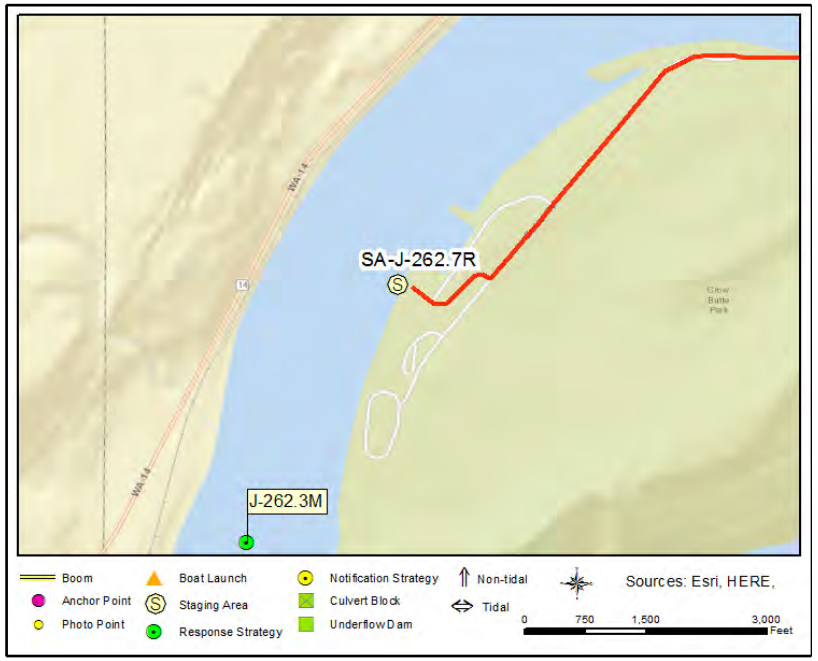
6	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
2000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Crow Butte North Channel J-262.3M

J-262.3M Photo: Shoreline for eastern anchor.



Site Contact

Crowe Butte Park Ranger
Land/Property Contact :

WA
509-875-2644

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

Directions from Pasco to Crow Butte Boat Launch.
1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14 (25.77 miles)
13. Turn right on Sonova Rd (0.03 miles)
14. Turn right on Butte Rd (1.03 miles)
15. Continue into the park and down road to the 2nd right, boat launch on the right.

Crow Butte Park West J-262.5M

Position - Location:	45° 50.649', -119° 51.465'	45° 50' 39.0", -119° 51' 27.9"	45.84416, -119.85775	Prosser

Strategy Objective: Deflection : Prevent oil from entering area north of Crow Butte Island

Implementation: Use 1000' of boom. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.

Staging Area: Remote: Stage at SA-J-262.7R/Crow Butte

Site Safety: Slips, Trips, Falls, Water Hazard, Shallow Water

Field Notes: Launch from BL-J-262.7R/Crow Butte

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

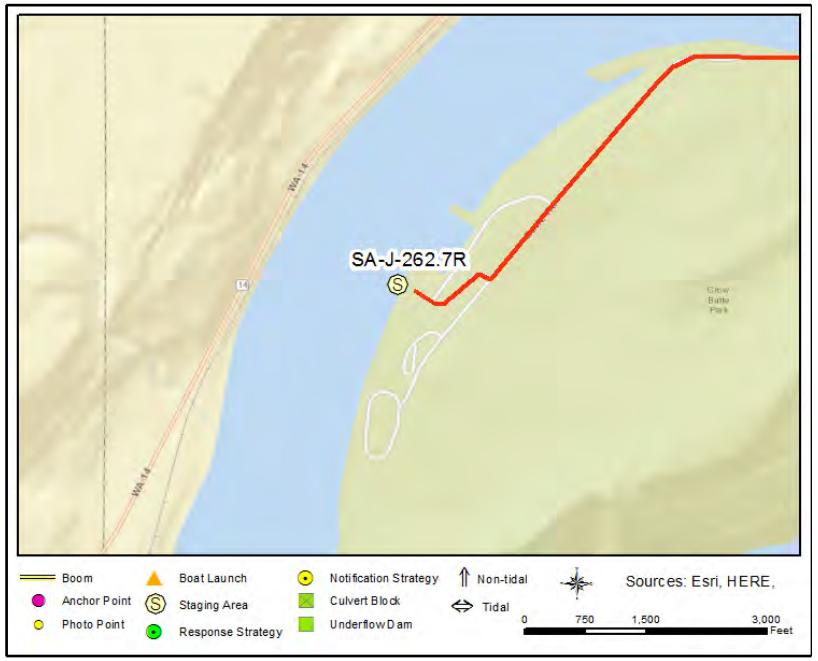
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Crow Butte Park West J-262.5M

J-262.5M Photo: Shoreline anchor area.



Site Contact

Crowe Butte Park Ranger
Land/Property Contact :

WA
509-875-2644

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

Directions to Crow Butte boat launch.
1. From I-82 South take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Crow Butte -Highway 14 MP 155.5 J-264.6R

Position - Location:	45° 51.958', -119° 49.040'	45° 51' 57.5", -119° 49' 2.4"	45.86596, -119.81733	Prosser

Strategy Objective: Deflection : Prevent oil from entering valuable bird habitat, mashland near Crow Butte bridge.

Implementation: Use 900' of boom. Will need waders and machetes. There is not a strong influx of water in this area from the main channel. Onlly deploy if oil is observed or forcast to enter the area. Adjust quantity and placement of anchors based on conditions of the day.

Staging Area: Remote: Crow Butte Park (SA-J-262.7R)

Site Safety: Slips, Trips, Falls, Water Hazard, Shallow Water

Field Notes: Launch boat from Crow Butte Park (BL-J-262.7R)

Watercourse: Freshwater Wetland - John Day Pool

Resources at Risk: Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

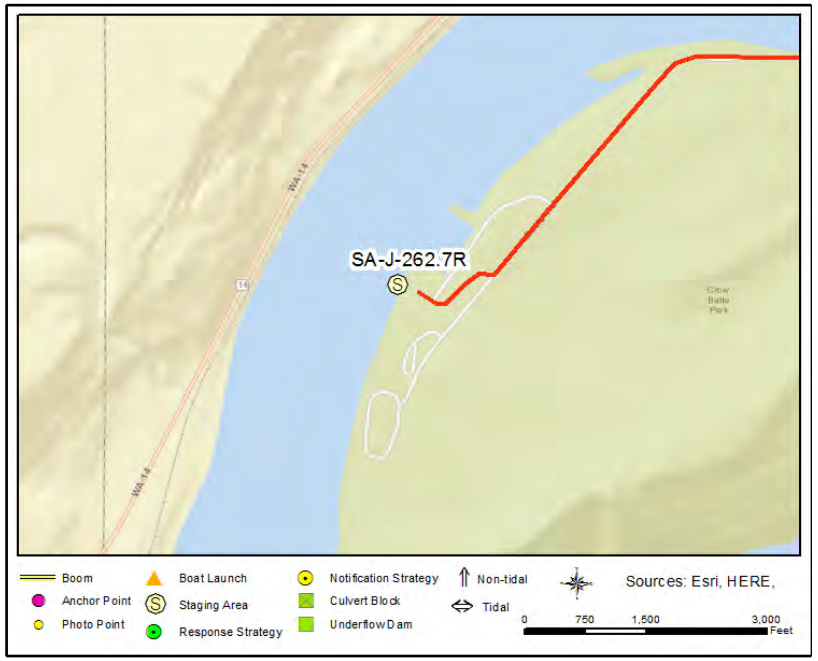
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
900	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Crow Butte -Highway 14 MP 155.5 J-264.6R

J-264.6R Photo: Aerial overview of strategy area.



Site Contact

Crowe Butte Park Ranger
Land/Property Contact :

WA
509-875-2644

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

Directions to Crow Butte boat launch from I-82 South.
1. From I-82 South take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Crow Butte Water Intake J-264.8R

Position - Location:	45° 51.885', -119° 48.352'	45° 51' 53.1", -119° 48' 21.1"	45.86474, -119.80587	Prosser

Strategy Objective:	Exclusion : Keep oil out of water intake facility.
Implementation:	Use 200' off boom in a chevron configuration to deflect oil away from the intakes. Adjust angle of boom, placement & number of anchors according to conditions of the day.
Staging Area:	Onsite: Can stage some equipment on site or at Crow Butte Park (SA-J-262.7R)
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 boat from Crow Butte Park (BL-J-262.7R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Water Intakes

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

Crow Butte Water Intake J-264.8R

J-264.8R Photo: Aerial overview of water intake.

Site Contact

Nearest Address

138469 WA-14
Prosser, WA 99350

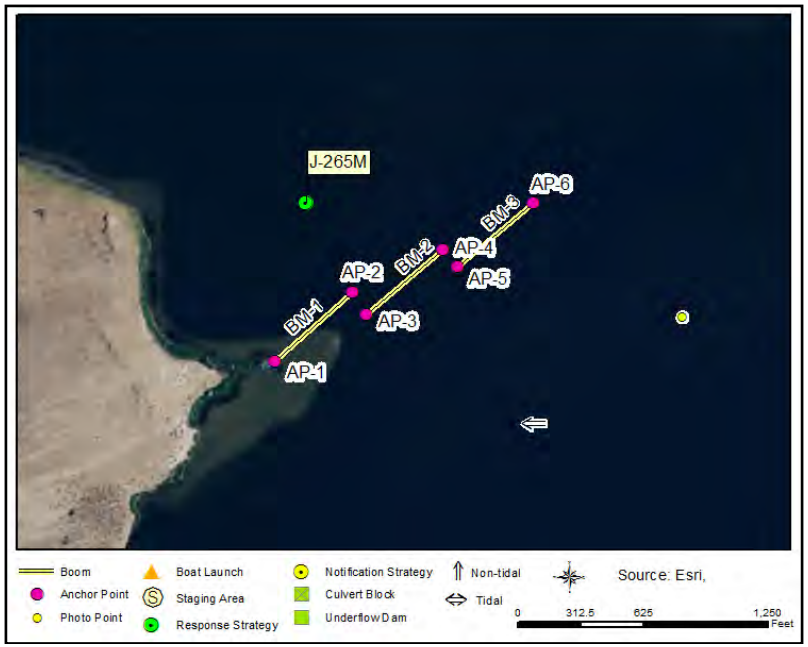
Driving Directions

1. Start at U.S. Hwy 395, Pasco, WA
2. Go southeast on N 4th Ave (0.05 miles)
3. Turn right on W Sylvester St (0.09 miles)
4. Turn left on N 5th Ave (0.22 miles)
5. Turn right on W Clark St (0.5 miles)
6. Turn left on N 12th Ave (0.06 miles)
7. Make sharp right on W Lewis St (1.41 miles)
8. Take ramp and go on US-395 S (0.78 miles)
9. At fork keep left on US-395 (5.18 miles)
10. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.87 miles)
11. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
12. Turn right on WA-14 (23.82 miles)
13. Take a left on gravel road at138469 WA-14, 99350
14. Cross the RR tracks and follow dirt road to the water intakes.

Eastern end of Crow Butte Island J-265M

Position - Location:	45° 51.411', -119° 48.235'	45° 51' 24.7", -119° 48' 14.1"	45.85685, -119.80391	Patterson

Strategy Objective:	Deflection : Prevent oil from entering valuable bird habitat, marshland near Crow Butte Bridge.
Implementation:	Cascade 3 sections of 500' boom each to deflect oil away from the northside of Crow Island. Water does not appear to flow strongly through this area. Does not appear to be a collection point for debris. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage at SA-J-262.7R/Crow Butte
Site Safety:	Slips, Trips, Falls, Water Hazards, Shallow Water
Field Notes:	Launch at BL-J-262.7R/Crow Butte
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge



Recommended Equipment

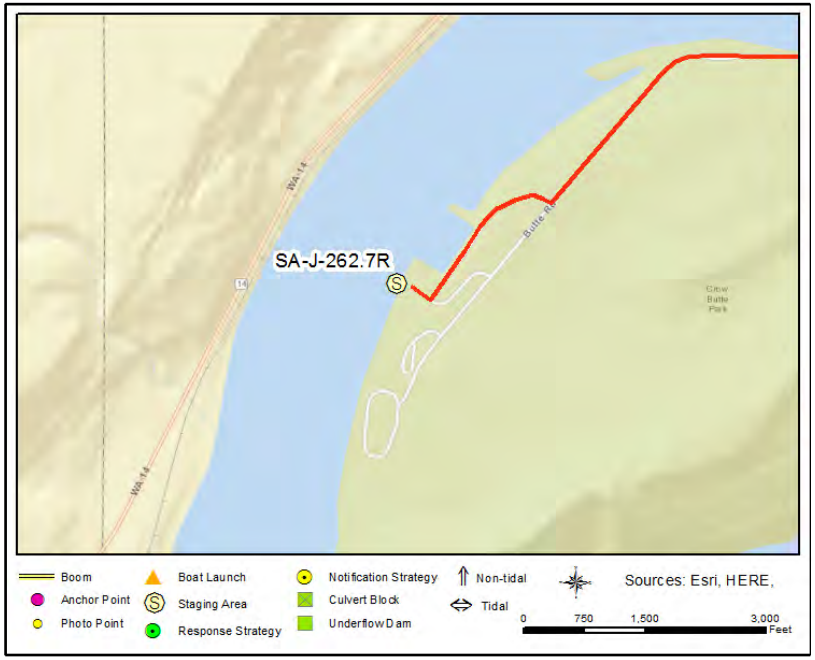
10	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1500	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Eastern end of Crow Butte Island J-265M

J-265M Photo: Aerial overview of strategy area, looking west at head of island.



Site Contact

Crowe Butte Park Ranger
Land/Property Contact :

WA
509-875-2644

Nearest Address

1 Butte Road
Patterson, WA 99350

Driving Directions

1. Directions to SA-J-262.7R/Crow Butte Park, from I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Collection point NE of Crow Butte J-265.3R

Position - Location:	45° 51.841', -119° 47.779'	45° 51' 50.4", -119° 47' 46.8"	45.86401, -119.79632	Prosser

Strategy Objective:	Collection : Divert oil moving downstream to the collection point
Implementation:	Deploy 1000' of boom from shoreside anchor point located at 45.864007 N, -119.796287 W; run boom out to the SE and anchor. Not a strong influx of water into this area from the main channel. Deploy only if oil is forecast to enter this area. Adjust angle of boom, placement and number of anchors, depending on condtions of the day.
Staging Area:	Onsite: Must cross tracks and follow graved rd adjacent to tracks to staging area - use 4-wheel drive in bad weather
Site Safety:	Railroad Crossing, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not
Field Notes:	Launch from BL-J-262.7R/Crow Butte
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Downstream Resources, Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

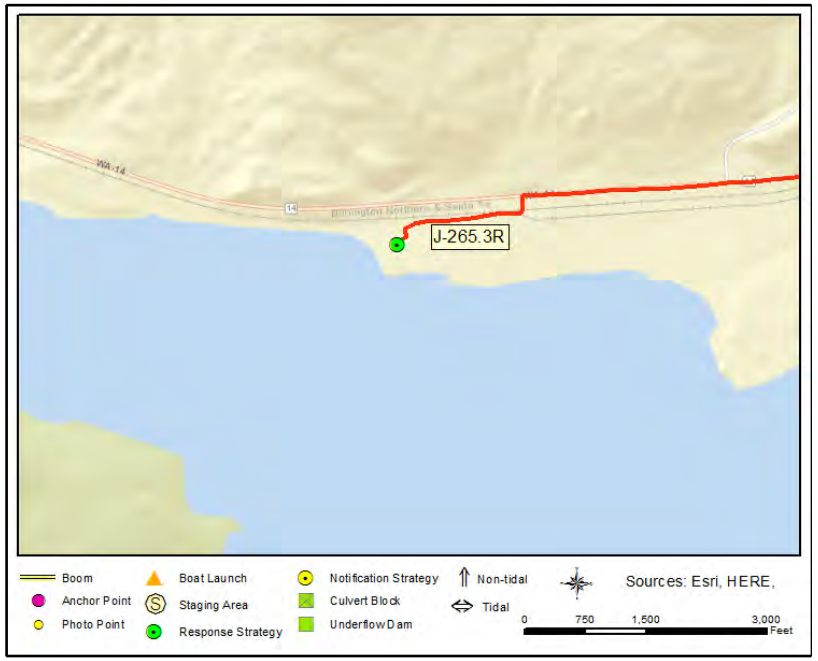
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Collection point NE of Crow Butte J-265.3R

J-265.3R Photo: Aerial view of shoreline location of J-265.3R collection strategy



Site Contact

Crowe Butte Park Ranger
Primary Contact :

WA
509-875-2644

Nearest Address

Canoe Ridge Road
Prosser, WA 99350

Driving Directions

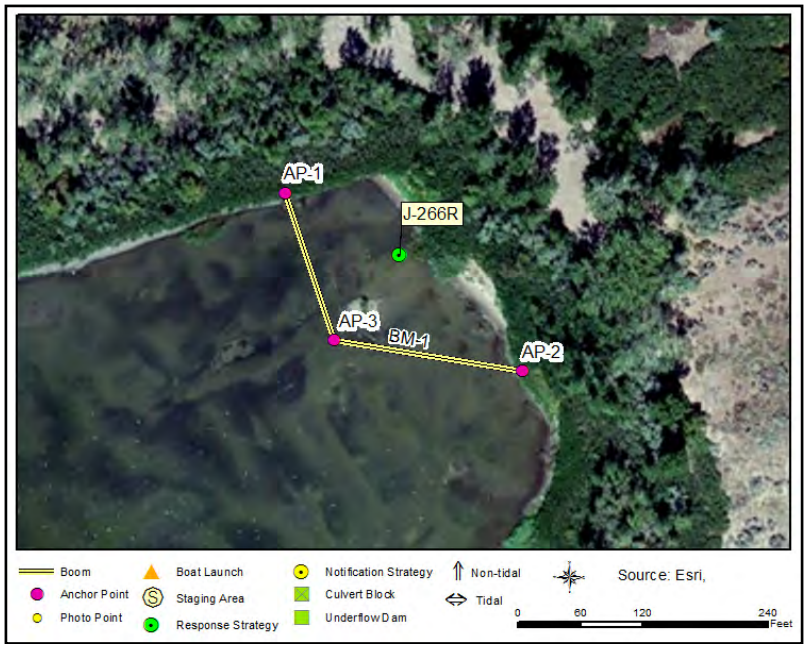
1. Directions to J-265.3R, starting from Interstate 82 and WA-14, Plymouth, WA 99346
2. Go east on SE 3rd Ave toward S Plymouth Rd (0.02 miles)
3. Turn left on S Plymouth Rd (0.57 miles)
4. Turn left on WA-14 (23 miles)
5. Go past Canoe Ridge Rd (0.5 miles) and turn left by a parking lot to get to the railroad crossing
6. Turn right on the gravel road running adjacent to the tracks for (0.28 mi) then left at the fork. Your destination will be directly ahead.

<< Go Back

Whitcomb Shallow Water Habitat J-266R

Position - Location:	45° 51.757', -119° 46.857'	45° 51' 45.4", -119° 46' 51.4"	45.86262, -119.78094	Prosser

Strategy Objective:	Exclusion : Keep oil out of shallow water habitat.
Implementation:	Use 300' of boom deployed in a chevron configuration. Thick vegetation on shore, recommend taking a machete to help set shoreside anchors. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage at SA-J-262.7R (Crow Butte Park)
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water.
Field Notes:	Launch at Crow Butte Park, BL-J-262.7R.
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge



Recommended Equipment

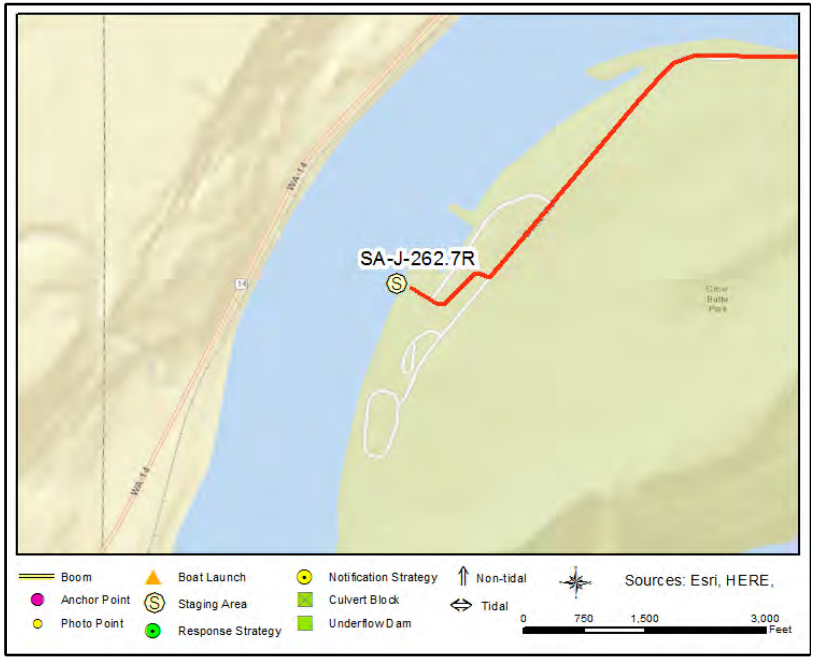
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Whitcomb Shallow Water Habitat J-266R

J-266R Photo: Aerial overview of strategy location.



Site Contact

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

Directions to Crow Butte boat launch from I-82 South.
1. From I-82 South take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Whitcom Island J-266.4R

Position - Location:	45° 51.614', -119° 46.561'	45° 51' 36.8", -119° 46' 33.7"	45.86024, -119.77602	Prosser

Strategy Objective:	Exclusion : Keep oil out of shallow water habitat located to the north of Whitcomb Island.
Implementation:	Use 800' of boom deployed in a chevron configuration. Water can be extremely shallow in the area. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage at Crow Butte Park, SA-J-262.7R
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch boat from Crow Butte Park (BL-J-262.7R)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

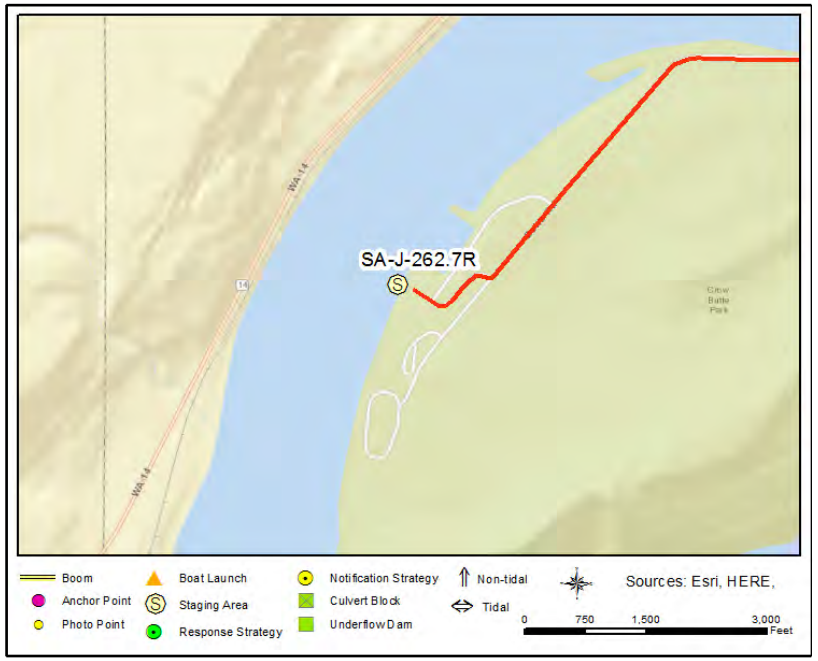
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
800	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Whitcom Island J-266.4R

J-266.4R Photo: Aerial overview of strategy area.



Site Contact

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

1. Start at I 82 Kennewick
2. Go northwest on I-82 (0.84 miles)
3. Make U-turn and go back on I-82 (19.27 miles)
4. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
5. Turn right on WA-14 (25.77 miles)
6. Turn right on Sonova Rd (0.03 miles)
7. Turn right on Butte Rd (1.03 miles)
8. Continue into the park and down road to the 2nd right, boat launch on the right.

SE end of Whitcomb Island J-266.6R

Position - Location:	45° 51.186', -119° 45.142'	45° 51' 11.1", -119° 45' 8.5"	45.85310, -119.75237	Paterson

Strategy Objective: Deflection : Keep oil out of south shore and channel that goes N of Crow Butte Island

Implementation: Anchor 1000' of boom from agricultural water intake jetty, tow boom to the SW and anchor it off shore. Adjust angle of boom, placement & quantity of anchors, according to conditions of the day. Waders may be needed to access shore anchor point.

Staging Area: Remote: Stage at SA-J-262.7R/Crow Butte

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

Field Notes: Launch at BL-J-262.7R/Crow Butte

Watercourse: River - Above a Dam - John Day Pool

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

Recommended Equipment

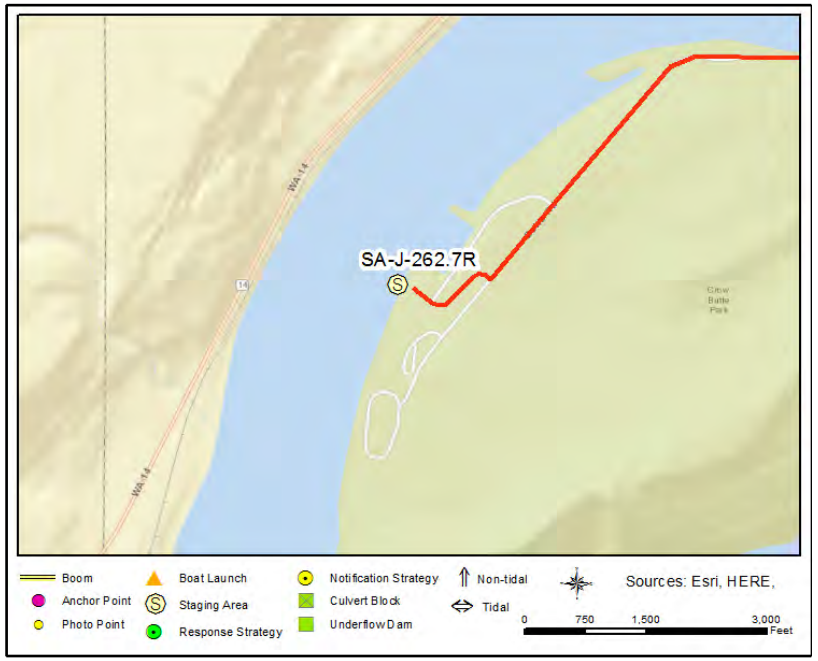
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

SE end of Whitcomb Island J-266.6R

J-266.6R Photo: Aerial view of shoreside anchor location for J-266.6R at the tip of the penninsula across from Crow Butte



Site Contact

Crowe Butte Park Ranger
Primary Contact :

WA
509-875-2644

Nearest Address

1 Butte Road
Paterson, WA 99350

Driving Directions

1. Directions to Crow Butte Park, SA-J-262.7R, starting from I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Boardman Marina J-269.3L

Position - Location:	45° 50.705', -119° 42.710'	45° 50' 42.3", -119° 42' 42.6"	45.84508, -119.71183	Boardman

Strategy Objective:	Exclusion : Keep oil out of boat basin
Implementation:	Anchor 800' of boom from the E jetty midway to the end. Tow boom out to the NW and anchor offshore. Keep enough room between boom and W jetty for boats to pass. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.
Staging Area:	Onsite: Stage at SA-J-269.5L/Boardman Marina
Site Safety:	Working marina, water hazard, rip rap, slips, trips & falls.
Field Notes:	Launch at BL-J-269.5L/Boardman Marina
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Boat Basin/Marina

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

Boardman Marina J-269.3L

J-269.3L Photo: View of the Boardman Marina inlet

Site Contact

Boardman Parks and Recreation
Land/Property Contact :

Boardman, OR 97818
541-481-721

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

1. Directions to SA-J-269.5L/Boardmand Marina, starting from Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US395 S (18.9 mi)
3.Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (14.6 mi)
6. Take exit 164 toward Boardman (0.3 mi)
7. Turn right onto N Main St (0.4 mi)
8. Turn left onto Marine Dr NW
9. Finish at 1 Marine Dr. NW,97818, on the right

Whitcomb Island East End- High Water J-269.9R

Position - Location:	45° 52.639', -119° 42.930'	45° 52' 38.3", -119° 42' 55.8"	45.87732, -119.71550	Boardman

Strategy Objective: Exclusion : Keep oil out of Umatilla Wildlife Refuge, channel behind Whitcomb Island.

Implementation: Use 200' of boom in a chevron configuration. During site visit in 2014 water access into slough was not found. Possible it only needs to be deployed during high water situations. Need a machete to clear vegetation for shoreside anchors. Adjust quantity and placement of anchors based on conditions of the day.

Staging Area: Remote: Stage equipment at SA-J-269.5L, Boardman Marina

Site Safety: Slips, Trips, Falls, Water Hazard, Shallow Water

Field Notes: Launch Boat at BL-J-269.5L, Boardman Marina

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

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	Machete(s) - (or other vegetation cutting tool)
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Whitcomb Island East End- High Water J-269.9R

J-269.9R Photo: Aerial overview of strategy location.

Site Contact

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

Directions from I-82 South to Boardman Marina
1. Start at US 395, Kennewick, wa
2. Go southwest on I-82 (US-395 S) (21.37 miles)
3. Take ramp on the right and go on I-84 W toward Portland (15.16 miles)
4. At exit 164 take ramp toward Boardman (0.28 miles)
5. Turn right on N Main St (0.46 miles)
6. Continue on Marine Dr NW (0.23 miles)
7. Finish at Boardman Marina Boat Launch (BL-J-269.5L)

<< Go Back

Marine Dr NE Beach J-270.2L

Position - Location:	45° 51.136', -119° 41.205'	45° 51' 8.2", -119° 41' 12.3"	45.85227, -119.68674	Boardman

Strategy Objective:	Deflection : Keep oil out of inlet and off of beach
Implementation:	Anchor 1000' of boom to the NE side of the Marine Drive Beach inlet, tow boom to the NW and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day. Shallow water, bring waders to access shore.
Staging Area:	Remote: Stage at SA-J-269.5L/Boardman Marina
Site Safety:	Water hazard, shallow water, slips, trips & falls
Field Notes:	Launch from BL-J-269.5L/Boardman Marina
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Economic Resource, Recreational Boating, Recreational Swimming Area, Sensitive Resources

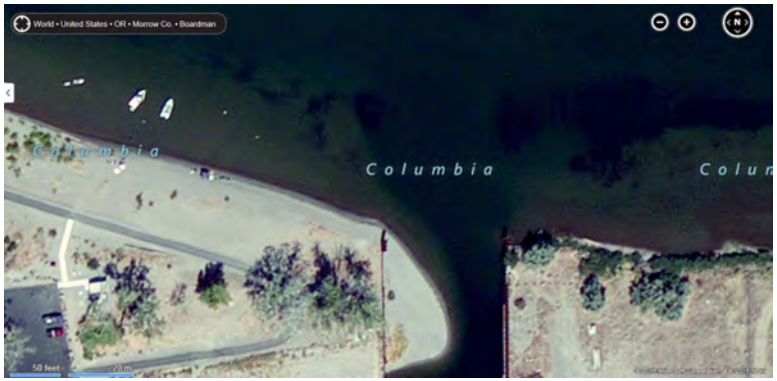
Recommended Equipment

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

Recommended Personnel

1	Boat Operator
4	Laborer

Marine Dr NE Beach J-270.2L



J-270.2L Photo: Aerial view of the Inlet at Marine Dr NE near the beach

Site Contact

Boardman Parks and Recreation
Land/Property Contact :

Boardman, OR 97818
541-481-721

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

1. Directions to SA-J-269.5L/Boardmand Marina, starting from Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US395 S (18.9 mi)
3.Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (14.6 mi)
6. Take exit 164 toward Boardman (0.3 mi)
7. Turn right onto N Main St (0.4 mi)
8. Turn left onto Marine Dr NW
9. Finish at 1 Marine Dr. NW,97818, on the right

Utility Lane wetlands E of Port of Morrow J-271.4L

Position - Location:	45° 51.088', -119° 40.076'	45° 51' 5.3", -119° 40' 4.6"	45.85147, -119.66794	Boardman

Strategy Objective:	Exclusion : Keep oil out of wetlands
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. Shallow water, bring waders
Staging Area:	Remote: Stage at SA-J-269.5L/Boardman Marina
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:	BL-J-269.5L/Boardman Marina
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Sensitive Resources Nearby, 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

Utility Lane wetlands E of Port of Morrow J-271.4L

J-271.4L Photo: Interior view of the culvert leading into Utility Lane wetlands

Site Contact

Boardman Parks and Recreation
Land/Property Contact :

Boardman, OR 97818
541-481-721

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

1. Directions to SA-J-269.5L/Boardmand Marina, starting from Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US395 S (18.9 mi)
3.Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (14.6 mi)
6. Take exit 164 toward Boardman (0.3 mi)
7. Turn right onto N Main St (0.4 mi)
8. Turn left onto Marine Dr NW
9. Finish at 1 Marine Dr. NW,97818, on the right

Highway 14, MP 161.5 J-272.2R

Position - Location:	45° 53.232', -119° 41.723'	45° 53' 13.9", -119° 41' 43.4"	45.88720, -119.69539	Prosser

Strategy Objective: Collection : Collect oil as it moves downriver.

Implementation: Use 1000' of boom to divert oil to the shoreline for collection. Access is through BNSF property. Access road may be too small for a vac truck. If road is too small for a vac truck consider altering strategy J-273.2R which is directly upriver to allow for collection. Adjust quantity and placement of anchors based on conditions of the day.

Staging Area: Onsite: Can stage some equipment on site, additional staging at Boardman Marine 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 boat from Boardman Marina (BL-J-269.5L)

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Downstream Resources

Recommended Equipment

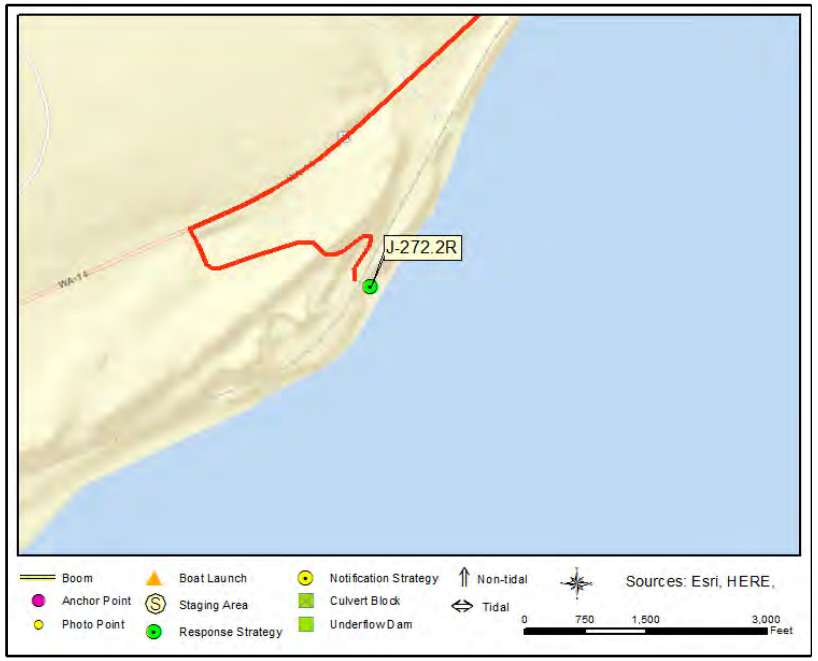
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Highway 14, MP 161.5 J-272.2R

J-272.2R Photo: Aerial overview of collection area.



Site Contact

Burlington Northern Santa Fe Railroad
Land/Property Contact :

WA
800-832-5452

Nearest Address

95200 Washington 14
Prosser, WA 99350

Driving Directions

1. Start at US 395, Kennewick, wa
2. Go southwest on I-82 (US-395 S) (9.65 miles)
3. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
4. Turn right on WA-14 (19.33 miles)
5.Turn left onto gravel road at95200 Washington 14, 99350, and follow down to collection site at the river.

Glade Creek J-273.2R

Position - Location:	45° 53.556', -119° 41.469'	45° 53' 33.3", -119° 41' 28.1"	45.89259, -119.69115	Prosser

Strategy Objective:	Exclusion : Keep oil out of creek mouth and marsh.
Implementation:	Use 1000' of boom to deflect and exclude oil. Eastern anchor should be attached to the shoreline and run the boom to the pumphouse structure. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Some staging available onsite, additional staging at Boardman Marina.
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 boat from Boardman Marina (BL-J-269.5L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Each	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

Glade Creek J-273.2R

J-273.2R Photo: Aerial overview of the mouth of Glade Creek.

Site Contact

Nearest Address

91134 WA Highway 14
Prosser, WA 99350

Driving Directions

1. Start at US 395, Kennewick, wa
2. Go southwest on I-82 (US-395 S) (9.65 miles)
3. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
4. Turn right on WA-14 (18.8 miles)
5. Turn left at gravel road at 91134 WA Highway 14, 99350, follow gravel road down to the river.

Sand Island J-274.85M

Position - Location:	45° 53.806', -119° 38.122'	45° 53' 48.4", -119° 38' 7.3"	45.89677, -119.63537	Boardman

Strategy Objective:	Deflection : Keep oil away from the shore of Sand Island and deflect back into the main channel.
Implementation:	Use 2 sections of boom, 500' each. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Boardman Marina
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch Boat at Boardman Marina, BL-J-269.5L
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

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

Sand Island J-274.85M

J-274.85M Photo: Aerial overview of strategy location.

Site Contact

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

Directions from I-82 South to Boardman Marina
1. Start at US 395, Kennewick, wa
2. Go southwest on I-82 (US-395 S) (21.37 miles)
3. Take ramp on the right and go on I-84 W toward Portland (15.16 miles)
4. At exit 164 take ramp toward Boardman (0.28 miles)
5. Turn right on N Main St (0.46 miles)
6. Continue on Marine Dr NW (0.23 miles)
7. Finish at Boardman Marina Boat Launch (BL-J-269.5L)

<< Go Back

Long Walk Island J-274.91M

Position - Location:	45° 53.671', -119° 37.639'	45° 53' 40.2", -119° 37' 38.3"	45.89451, -119.62731	Boardman

Strategy Objective:	Deflection : Keep oil out of shallow water habitat east of Long Walk Island.
Implementation:	Anchor 500' of boom at the very Southern most tip of the island, do not anchor on the NW shore. Depending on conditions may require more boom to keep oil from coming up along the backside of the island. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Boardman Marina
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water.
Field Notes:	Launch Boat at Boardman Marina (BL-J-269.5L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Sensitive Resources Nearby, Waterfowl and Salmonid Concentrations and Habitat, Wildlife Refuge

Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
500	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

Long Walk Island J-274.91M

J-274.91M Photo: Shoreline anchor area.

Site Contact

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

Directions to Boardman Marina Boat Launch
1. Start at US 395, Kennewick, wa
2. Go southwest on I-82 (US-395 S) (21.37 miles)
3. Take ramp on the right and go on I-84 W toward Portland (15.16 miles)
4. At exit 164 take ramp toward Boardman (0.28 miles)
5. Turn right on N Main St (0.46 miles)
6. Continue on Marine Dr NW (0.23 miles)
7. Finish at Boardman Marina Boat Launch (BL-J-269.5L)

Sand Island Center Channel J-274.95M

Position - Location:	45° 53.980', -119° 38.421'	45° 53' 58.8", -119° 38' 25.3"	45.89966, -119.64036	Boardman

Strategy Objective:	Exclusion : Keep oil of of the channel west of Sand Island
Implementation:	Deploy 1000' of boom between the two islands. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Boardman Marina
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch Boat at Boardman Marina, BL-J-269.5L
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Sensitive Resources, Waterfowl and Shorebird

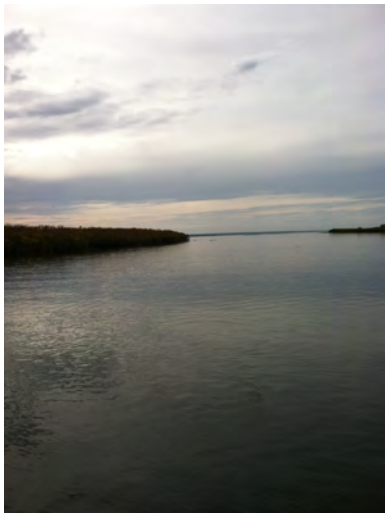
Recommended Equipment

2	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
2	Laborer

Sand Island Center Channel J-274.95M



J-274.95M Photo: View of the channel opening at Sand Island

Site Contact

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

Directions to Boardman Marina Boat Launch
1. Start at US 395, Kennewick, wa
2. Go southwest on I-82 (US-395 S) (21.37 miles)
3. Take ramp on the right and go on I-84 W toward Portland (15.16 miles)
4. At exit 164 take ramp toward Boardman (0.28 miles)
5. Turn right on N Main St (0.46 miles)
6. Continue on Marine Dr NW (0.23 miles)
7. Finish at Boardman Marina Boat Launch (BL-J-269.5L)

South of McCormack Slough- High Water J-275L

Position - Location:	45° 53.444', -119° 36.612'	45° 53' 26.7", -119° 36' 36.7"	45.89074, -119.61020	Boardman

Strategy Objective: Exclusion : Prevent oil from entering shallow water area.

Implementation: Use 200' of boom in a chevron configuration. Water access to slough was dry at time of field visit, GRP only needs to be deployed during high water situation. Will need waders to access shoreline. Adjust quantity and placement of anchors based on conditions of the day.

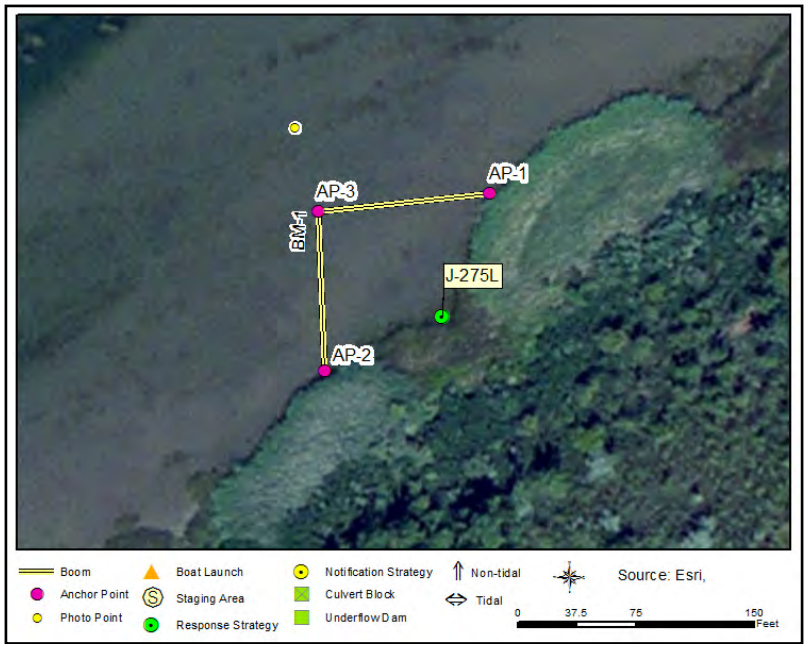
Staging Area: Remote: Boardman Marina

Site Safety: Slips, Trips, Falls, Water Hazard, Shallow Water

Field Notes: Launch Boat from Boardman Marina, BL-J-269.5L

Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge



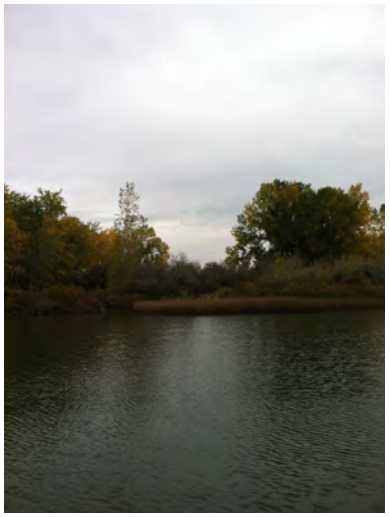
Recommended Equipment

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

South of McCormack Slough- High Water J-275L



J-275L Photo: Shoreline to be protected.

Site Contact

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

Directions to Boardman Marina
1. Start at U.S. Hwy 395, Kennewick, WA
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
6. Take ramp on the right and go on I-84 W toward Portland (15.16 miles)
7. At exit 164 take ramp toward Boardman (0.28 miles)
8. Turn right on N Main St (0.46 miles)
9. Continue on Marine Dr NW (0.23 miles)
10. Finish Boardman Marina Boat Launch

Highway 14, MP 164 J-275R

Position - Location:	45° 54.739', -119° 39.093'	45° 54' 44.4", -119° 39' 5.6"	45.91232, -119.65155	Boardman

Strategy Objective:	Deflection : Keep oil away from shoreline and shallow water habitat.
Implementation:	Use 1000' of boom to deflect oil away from the shoreline. Can walk down to shoreline area via gravel road. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Boardman Marina
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch boat at Boardman Marina (BL-J-269.5L)
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

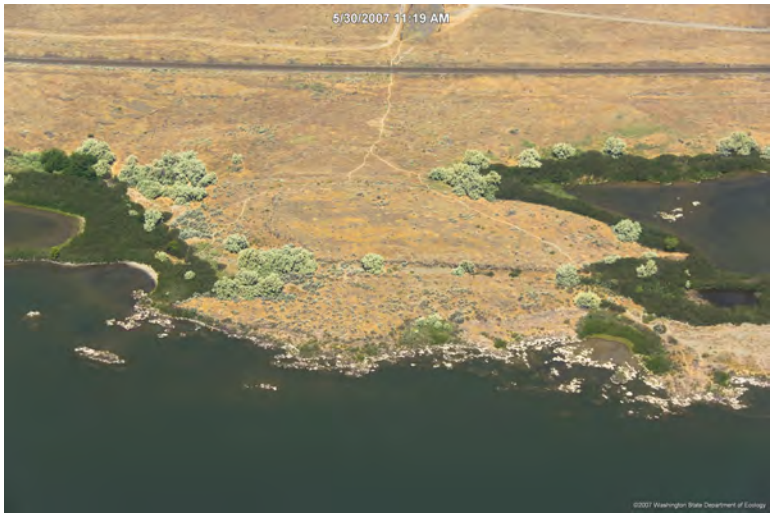
Recommended Equipment

3	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
2	Laborer

Highway 14, MP 164 J-275R



J-275R Photo: Aerial overview of shoreline anchor area.

Site Contact

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

Directions to Boardman Marina Boat Launch
1. Start at U.S. Hwy 395, Kennewick, WA
2. Go north on S Washington St toward E Kennewick Ave (0.04 miles)
3. Turn left on W Kennewick Ave (2.01 miles)
4. Turn left on US-395 (S Ely St) (3.51 miles)
5. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (30.59 miles)
6. Take ramp on the right and go on I-84 W toward Portland (15.16 miles)
7. At exit 164 take ramp toward Boardman (0.28 miles)
8. Turn right on N Main St (0.46 miles)
9. Continue on Marine Dr NW (0.23 miles)
10. Finish at Boardman Marina Boat Launch

<< Go Back

McCormack Slough- High Water J-275.5L

Position - Location:	45° 53.745', -119° 36.287'	45° 53' 44.7", -119° 36' 17.2"	45.89575, -119.60478	Irrigon

Strategy Objective:	Exclusion : Prevent oil from entering shallow water area.
Implementation:	Use 200' of boom in a chevron configuration. Water access to slough was dry during site visit. GRP only needs to be deployed during high water situation. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Stage on-site just to the north of the strategy location
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch boat at Boardman Marina, BL-J-269.5L.
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

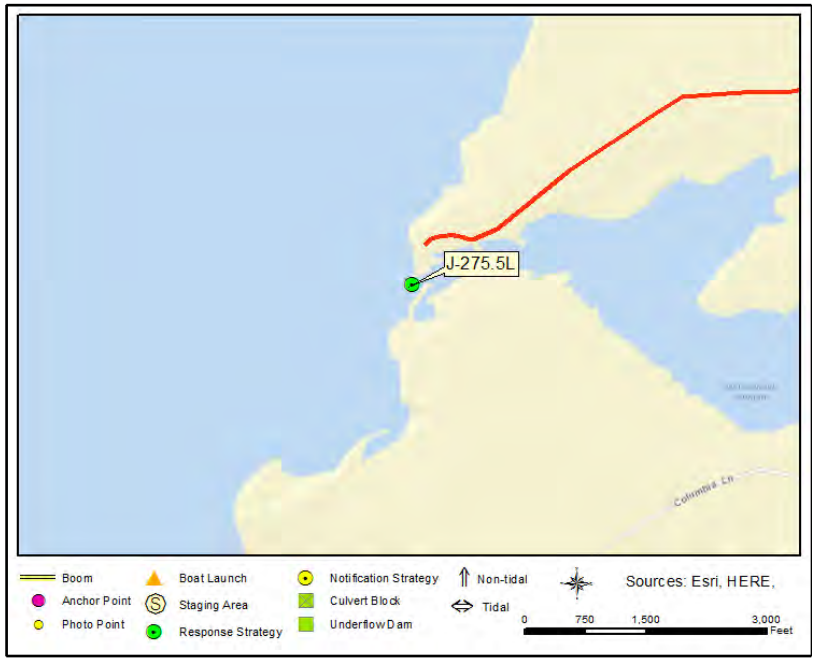
1	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

McCormack Slough- High Water J-275.5L

J-275.5L Photo: Trail down to the shoreline



Site Contact

Nearest Address

Columbia Lane
Irrigon, OR 97844

Driving Directions

Direction to Strategy Location
1. Start at 131 N Ely St Kennewick
2. Go southwest on US-395 (N Ely St) toward W Kennewick Ave
3. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla
4. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston
5. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot
6. Continue on US-730 (6th St)
7. Make sharp right on County Road 930 (Paterson Ferry Rd)
8. Turn left on Columbia Ln
9. Finish at Columbia Lane, 97844, on the left
10. follow dirt roads back to the strategy location.

<< Go Back

Abandoned RR trestle NW of Big Blalock Island J-275.8R

Position - Location:	45° 55.113', -119° 38.153'	45° 55' 6.8", -119° 38' 9.2"	45.91854, -119.63589	Irrigon

Strategy Objective:	Deflection : Keep oil off shoreline
Implementation:	Deploy 800' of boom from spit of land south of the trestle out toward the SW. Adjust angle of boom, quantity and placement of anchors, according to conditions of the day. Bring waders to access shoreline in shallow water.
Staging Area:	Remote: Stage at SA-J-282.6L/Irrigon
Site Safety:	Water hazard, slips, trips & falls
Field Notes:	Launch from BL-J-282.6L/Irrigon
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Bald Eagle Nesting, Great Blue Heron Rookeries, National Wildlife Refuge, Shorebird Concentrations, Waterfowl and Salmonid

Recommended Equipment

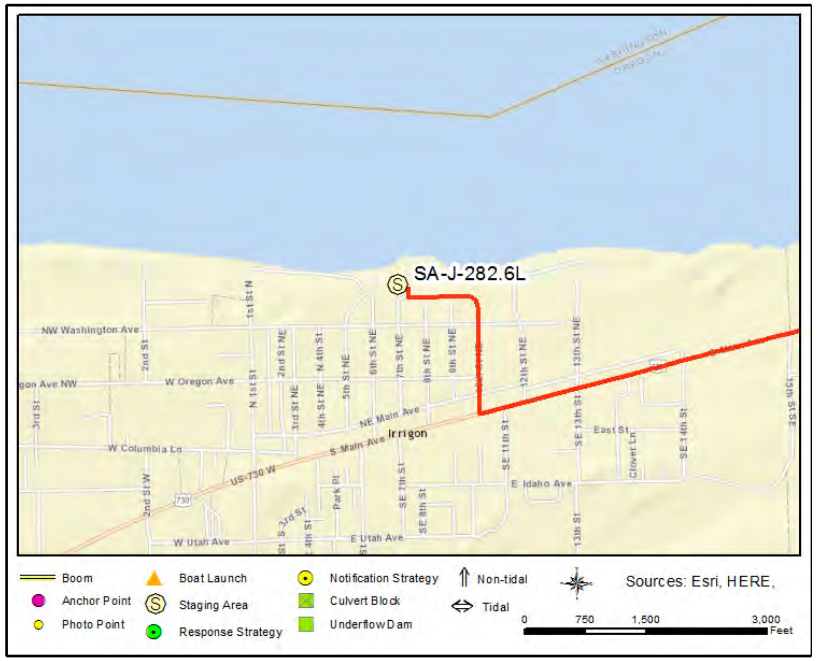
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Abandoned RR trestle NW of Big Blalock Island J-275.8R

J-275.8R Photo: Aerial view of anchor point and abandoned railroad trestle



Site Contact

US Fish & Wildlife Service, McNary and Umatilla National Wildlife Refuges
Primary Contact : Property Contact

Burbank, WA 99323
509-546-8300

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

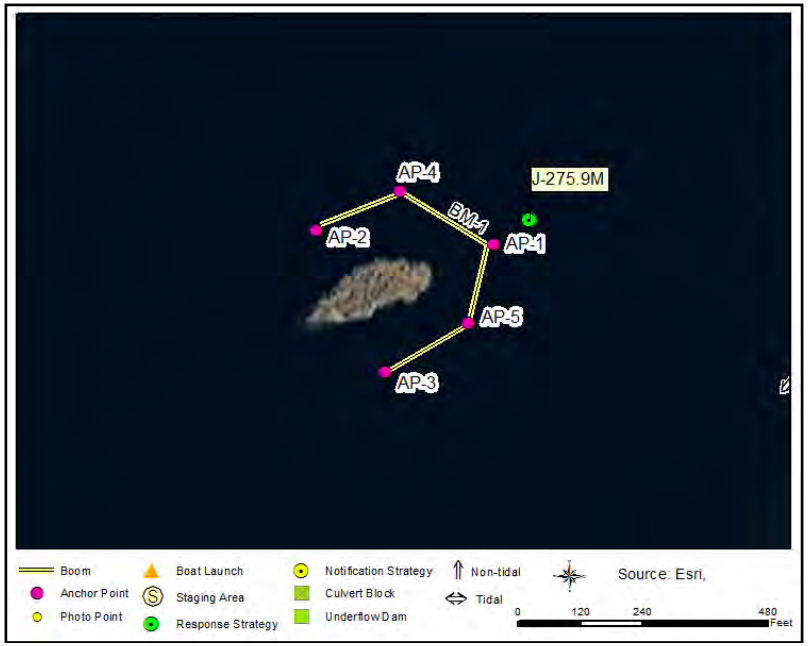
Directions from Pasco to Irrigon Boat Launch
1. From Pasco, WA take US-395 S toward Kennewick Pendleton, follow signs for I-82 E/ US-395 S/ Pendleton/ Umatilla and merge onto I-82 E/ US-395 S
Entering Oregon
2. Merge onton I-82E/US-395 S (21 mi)
3. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
4. Turn right onto US-730 W/6th St (signs for Weigh Station)
Continue to follow US-730 W (8.2 mi)
5. Turn right toward 10th St NE (249 ft)
6. Continue onto 10th St NE, Destination will be on the right (0.3 mi)

<< Go Back

Telegraph Island J-275.9M

Position - Location:	45° 54.941', -119° 37.781'	45° 54' 56.5", -119° 37' 46.9"	45.91568, -119.62968	Irrigon

Strategy Objective:	Deflection : Keep oil off of Telegraph Island
Implementation:	High priority site, contact Environmental Unit if deployed - Anchor the middle of a 700' section of boom 100' upstream of Telegraph Island, deploy first 200' of each arm in a chevron formation (one arm to the NW & one to the SW) then position the remaining 150' of each arm parallel to the island's shoreline. Do not anchor boom within 100' of the island at any point. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day. Bring sorbent to distribute at shoreline if needed.
Staging Area:	Remote: Irrigon Boat Ramp SA-J-282.6L
Site Safety:	Slips, Trips, Falls, Water hazard, Shallow Water
Field Notes:	Boat access only, launch at Irrigon Boat Ramp, BL-J-282.6L
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Sensitive Nesting Species, Sensitive Resources, Waterfowl and Salmonid Concentrations and Habitat, Wildlife Refuge



Recommended Equipment

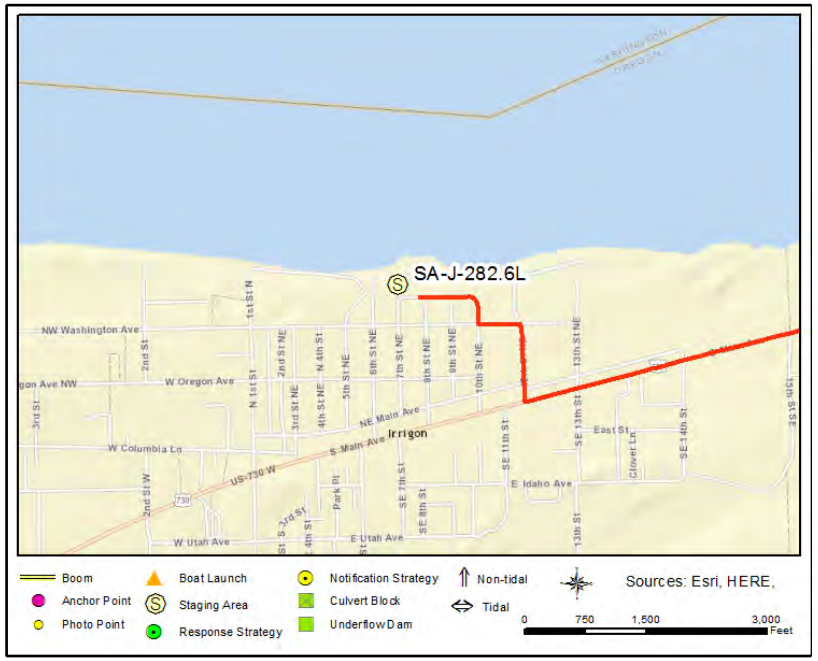
5	Each	Anchor - Danforth (or other appropriate type)
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Telegraph Island J-275.9M

J-275.9M Photo: Upstream of Telegraph Island.



Site Contact

USACE Bonneville pool
Primary Contact : Natural Resources Manager

Bonneville Dam, OR
541-374-8344

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

Directions to Irrigon Boat Ramp
1. Start at Highway 395, Kennewick, WA
2. Go southwest on I-82 (US-395 S) (11.77 miles)
3. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston (0.08 miles)
4. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot (0.15 miles)
5. Continue on US-730 (6th St) (8.06 miles)
6. Turn right on 12th St NE (0.19 miles)
7. Turn left on NE Washington Ave (0.1 miles)
8. Turn right (0.18 miles)
9. Continue on 7th St NE (NE Seventh St) (0.02 miles)
10. Finish at Irrigon Boat Ramp, 491 7th St NE, 97844, on the right

<< Go Back

Channel Northeast of Long Walk Island J-277.3L

Position - Location:	45° 54.897', -119° 35.671'	45° 54' 53.8", -119° 35' 40.2"	45.91496, -119.59451	Irrigon

Strategy Objective:	Exclusion : Keep oil out of the channel between the Oregon side of river and Long Walk Island.
Implementation:	Use 1500' feet of boom. Could be done with less boom depending on river velocity. Crew will need waders due to shallow water. Adjus quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Irrigon boat ramp, Boardman Marina
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water.
Field Notes:	Boat Access Only, launch from Irrigon Boat Ramp, BL-J-282.6L
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

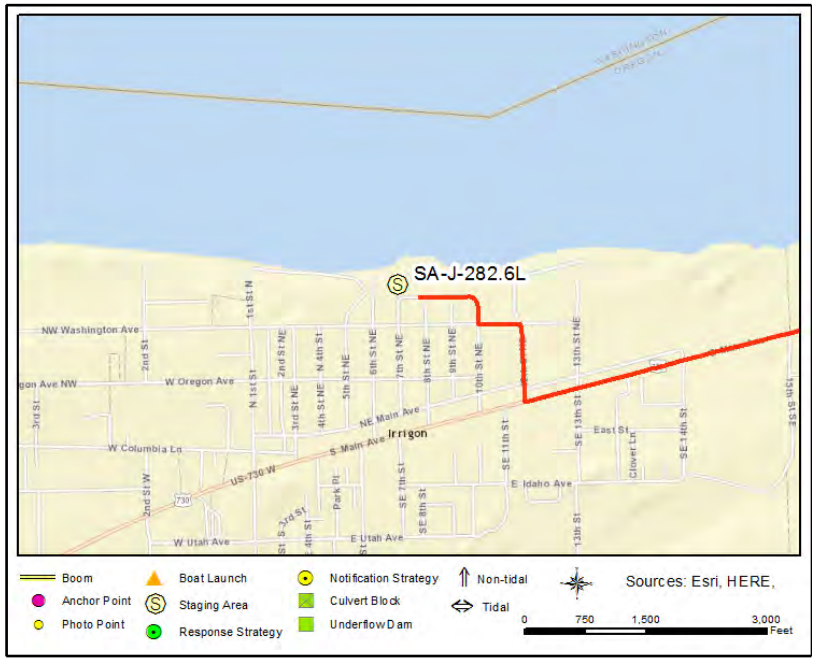
3	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1500	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
6	Laborer

Channel Northeast of Long Walk Island J-277.3L

J-277.3L Photo: Western anchor area.



Site Contact

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

Directions to Irrigon Boat Ramp
1. Start at Highway 395, Kennewick, WA
2. Go southwest on I-82 (US-395 S) (11.77 miles)
3. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston (0.08 miles)
4. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot (0.15 miles)
5. Continue on US-730 (6th St) (8.06 miles)
6. Turn right on 12th St NE (0.19 miles)
7. Turn left on NE Washington Ave (0.1 miles)
8. Turn right (0.18 miles)
9. Continue on 7th St NE (NE Seventh St) (0.02 miles)
10. Finish at Irrigon Boat Ramp, 491 7th St NE, 97844, on the right

<< Go Back

Paterson Road J-277.7R

Position - Location:	45° 55.964', -119° 35.563'	45° 55' 57.9", -119° 35' 33.8"	45.93274, -119.59272	Paterson

Strategy Objective:	Collection : Collect oil at the end of Paterson Road.
Implementation:	Use 1000 feet of boom to direct oil to a collection spot at the end of Paterson Road. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Stage on site at SA-J-277.7R/Paterson Slough gravel parking lot, room to park vehicles with trailers, no facilities
Site Safety:	Slips, Trips, Falls, Water Hazard
Field Notes:	Launch on site at BL-J-277.7R/Paterson Slough
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

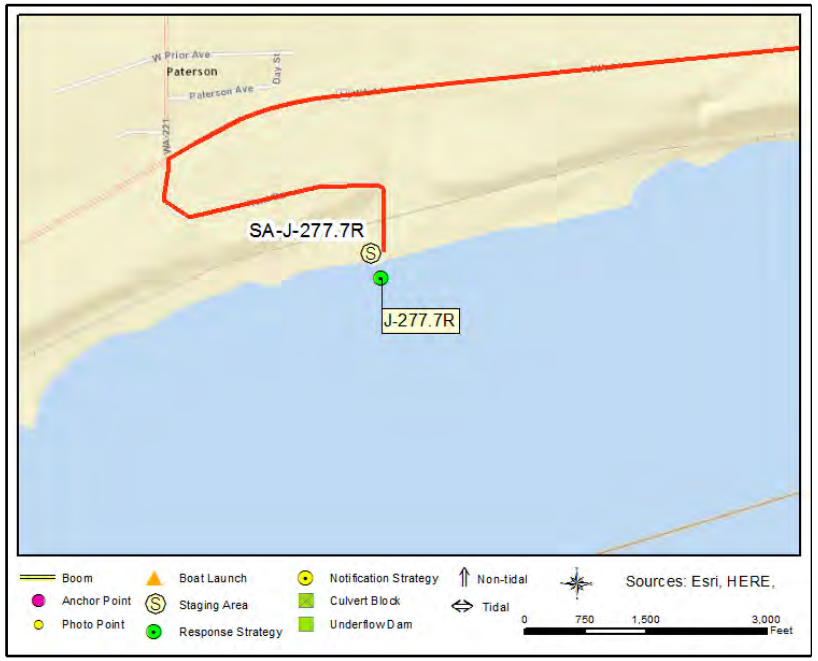
3	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage (if collection)
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Paterson Road J-277.7R

J-277.7R Photo: Shoreside at collection area.



Site Contact

Nearest Address

48915 Kent Road
Paterson, WA 99345

Driving Directions

Directions from Kennewick to Collection Site/Boat Launch
1. Start at U.S. 395, Kennewick, WA
2. Go southwest on I-82 (US-395 S) (9.65 miles)
3. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.33 miles)
4. Turn right on WA-14 (13.44 miles)
5. Turn left on Kent Rd (0.01 miles)
6. Follow Road down to boat launch/collection area.

Paterson Slough J-278.9M

Position - Location:	45° 55.608', -119° 33.720'	45° 55' 36.5", -119° 33' 43.2"	45.92680, -119.56200	Irrigon

Strategy Objective:	Deflection : Prevent oil from travelling up Paterson Slough. Also deflect oil to downstream collection strategy.
Implementation:	Use 2 500' lengths of boom. May need to increase amount of boom based on conditions. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Irrigon boat ramp
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water.
Field Notes:	Launch boat from Irrigon Boat Ramp, BL-J-282.6L
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations, Wildlife Refuge

Recommended Equipment

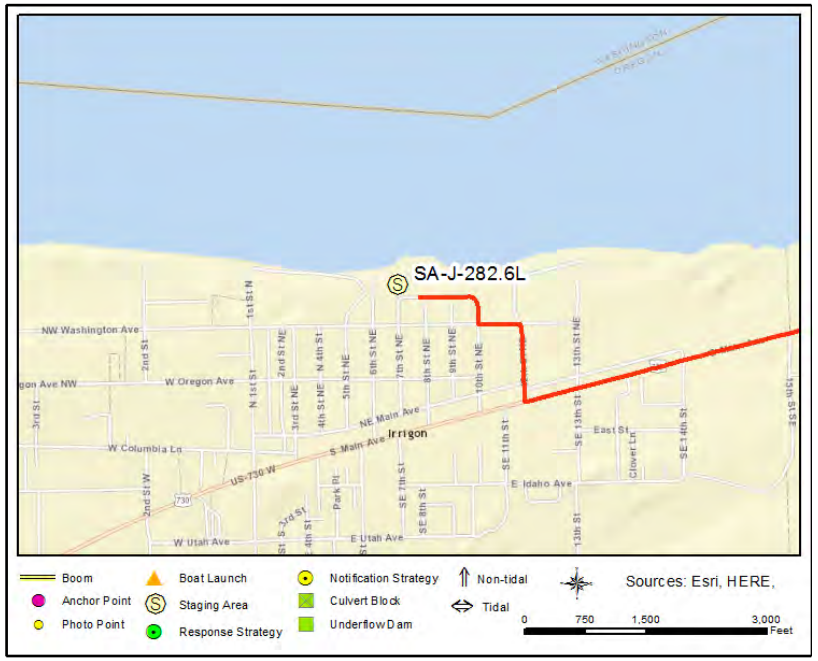
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Paterson Slough J-278.9M

J-278.9M Photo: Aerial overview of strategy area.



Site Contact

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

Directions to Irrigon Boat Ramp
1. Start at U.S. 395, Kennewick, WA
2. Go southwest on I-82 (US-395 S) (11.77 miles)
3. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston (0.08 miles)
4. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot (0.15 miles)
5. Continue on US-730 (6th St) (8.06 miles)
6. Turn right on 12th St NE (0.19 miles)
7. Turn left on NE Washington Ave (0.1 miles)
8. Turn right (0.18 miles)
9. Continue on 7th St NE (NE Seventh St) (0.02 miles)
10. Finish at Irrigon Boat Ramp, 491 7th St NE, 97844, on the right

West of Christy Road J-283.2R

Position - Location:	45° 54.682', -119° 29.063'	45° 54' 40.9", -119° 29' 3.8"	45.91137, -119.48438	Irrigon

Strategy Objective:	Deflection : Keep oil away from shallow water habitat.
Implementation:	Anchor 1000' of boom to shore and tow boom to the SSW to deflect oil away from the shore. Bring skiff & waders for shallow water and beware of large underwater boulders in the area. Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.
Staging Area:	Remote: Irrigon Boat Ramp SA-J-282.6L
Site Safety:	Boulders in shallow water, slips, trips, & falls, water hazard
Field Notes:	Launch boat from Irrigon boat ramp, BL-J-282.6L
Watercourse:	River - Above a Dam - John Day Dam
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Nesting Species, Waterfowl and Shorebird Concentrations

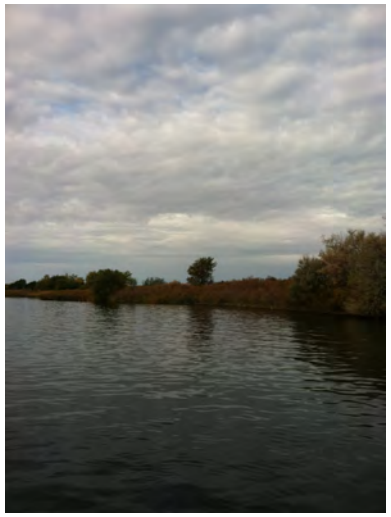
Recommended Equipment

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

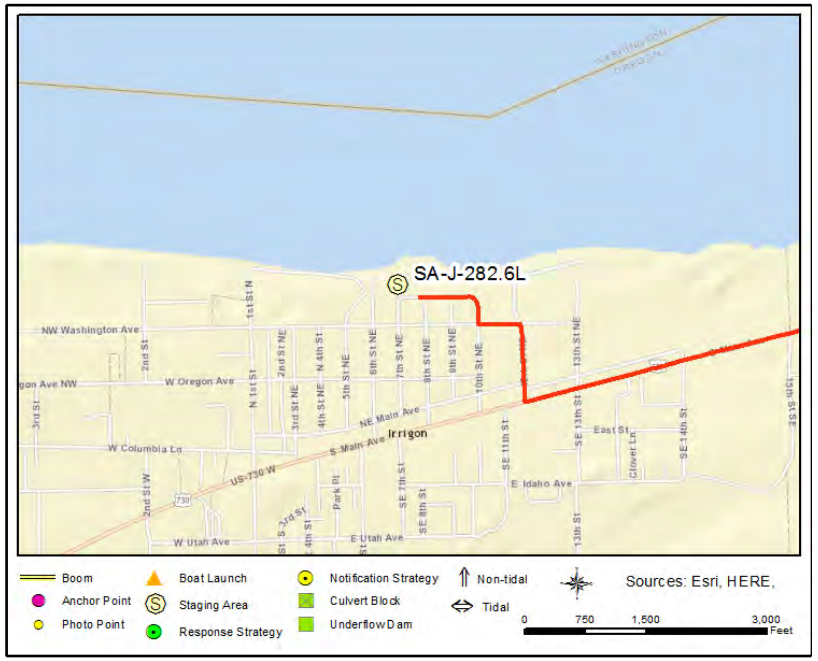
Recommended Personnel

2	Boat Operator
3	Laborer

West of Christy Road J-283.2R



J-283.2R Photo: View of strategy area west of Christy Rd.



Site Contact

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

Directions to Irrigon Boat Ramp
1. Start at U.S. 395, Kennewick, WA
2. Go southwest on I-82 (US-395 S) (11.77 miles)
3. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston (0.08 miles)
4. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot (0.15 miles)
5. Continue on US-730 (6th St) (8.06 miles)
6. Turn right on 12th St NE (0.19 miles)
7. Turn left on NE Washington Ave (0.1 miles)
8. Turn right (0.18 miles)
9. Continue on 7th St NE (NE Seventh St) (0.02 miles)
10. Finish at Irrigon boat ramp, 491 7th St NE, 97844, on the right

<< Go Back

Christy Road (FBS MP-187.2) J-284.5R

Position - Location:	45° 55.122', -119° 27.567'	45° 55' 7.3", -119° 27' 34.0"	45.91870, -119.45944	Plymouth

Strategy Objective:	Collection : Collect oil as it moves down river.
Implementation:	Use 1000' of boom to direct oil to shoreline for collection. Access is via a dirt road connected to Christy Road. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Onsite: Room for Vac Truck on site, additional staging at Irrigon or Umatilla boat launch..
Site Safety:	SSlips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. Do not allow
Field Notes:	Launch boat from Irrigon boat ramp, BL-J-282.6L
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

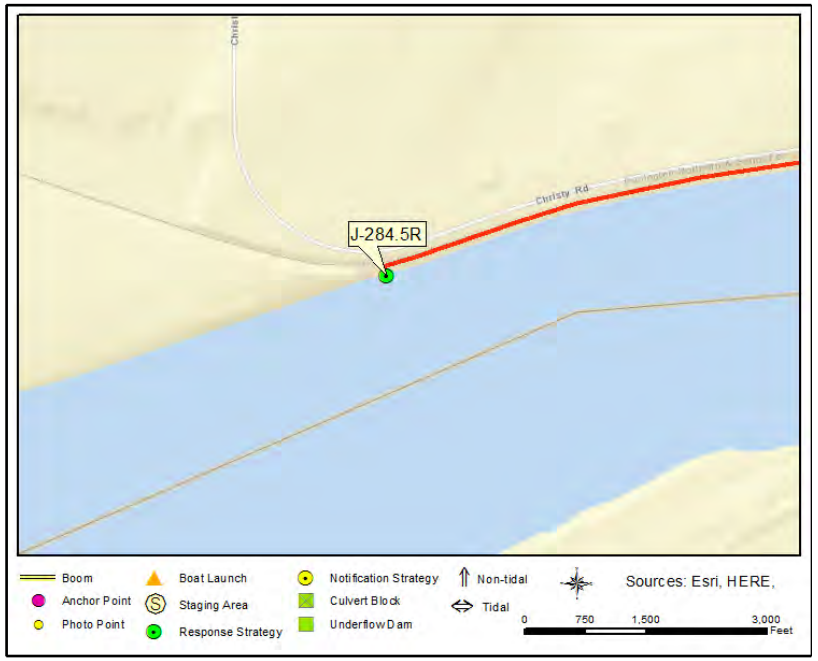
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1000	Each	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Christy Road (FBS MP-187.2) J-284.5R

J-284.5R Photo: Shoreside view of collection area.



Site Contact

Nearest Address

34608 Christy Road
Plymouth, WA 99346

Driving Directions

Directions to strategy location from Pasco.
1. I-82 E/US-395 S toward Pendleton/Umatilla
2. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver
3. Turn right on WA-14
4. Turn left on S Plymouth Rd
5. Bear right on Christy Rd
6. Before crossing the railroad tracks turn left on dirt road. Follow road to strategy location.

Wilcox Lane J-287.1L

Position - Location:	45° 54.796', -119° 24.175'	45° 54' 47.8", -119° 24' 10.5"	45.91327, -119.40292	Umatilla

Strategy Objective:	Deflection : Prevent oil from impacting shallow water habitat.
Implementation:	Use 700' of boom to deflect away from the shoreline. Strategy may not be needed when lake level is low. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage at SA-J-289.9R Plymouth Park
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch at BL-J-289.9R Plymouth Park
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Waterfowl and Shorebird Concentrations

Recommended Equipment

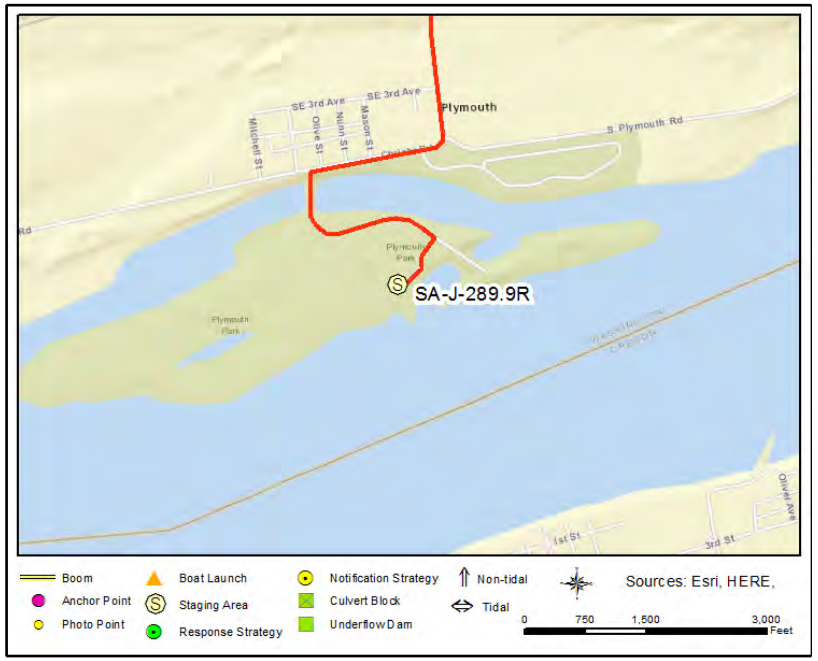
2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

Wilcox Lane J-287.1L

J-287.1L Photo: Shoreline anchor area.



Site Contact

Nearest Address

Christy Rd
Umatilla, OR 97882

Driving Directions

Directions to SA-J-289.9R Plymouth Park
1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (0.7 mi)
2. Take the 1st left onto Plymouth Rd (0.7 mi)
3. Plymouth Rd turns slightly right and becomes Christie Rd (0.3 mi)
4. Take the second left (0.4 mi)
5. Take the first right toward the boat launch (377 ft)
Lat 45.929676, Long -119.352524

Inlet to Umatilla Water Intake J-288L

Position - Location:	45° 54.930', -119° 23.254'	45° 54' 55.8", -119° 23' 15.2"	45.91550, -119.38756	Umatilla

Strategy Objective:	Exclusion : Deflect oil moving downstream to keep it out of the water intake cove
Implementation:	Deploy 200' of boom, in a chevron configuration at the channel entrance to the water intake. Adjust angle of boom, placement and number of anchors, depending on conditions of the day.
Staging Area:	Onsite: Water intake facility with lots of parking on gravel drive all the way to the anchor points
Site Safety:	Water hazard, slips, trips & falls, rip rap.
Field Notes:	Launch from BL-J-290.8L/Port of Umatilla
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Downstream Resources, Water Intakes, Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

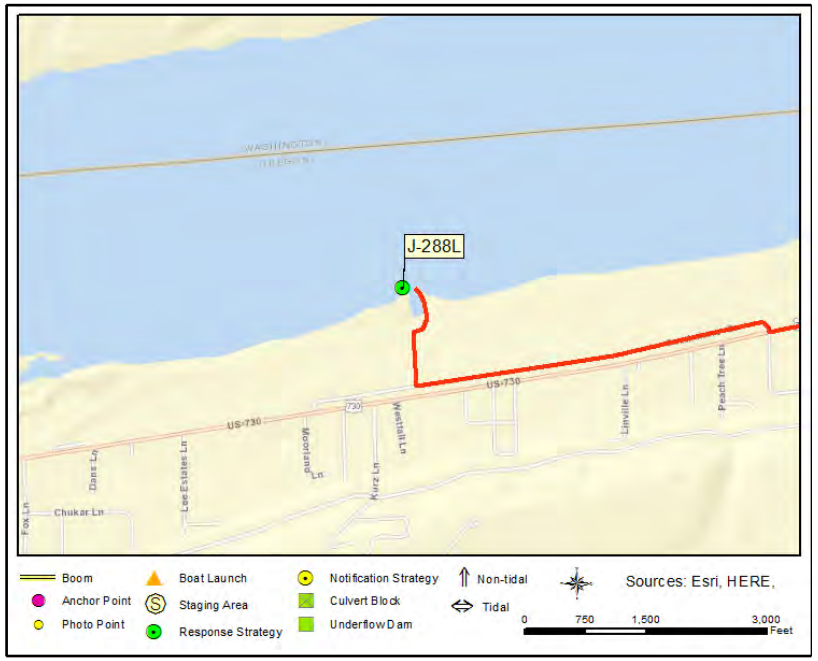
4	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
1	Laborer

Inlet to Umatilla Water Intake J-288L

J-288L Photo: Aerial view of the inlet to the water intake W of Umatilla



Site Contact

Water Resource Department (OR)
Primary Contact : Watermaster for the Middle Columbia River

OR
541-310-0620

Nearest Address

38539 Southshore Dr
Umatilla, OR 97882

Driving Directions

1. Directions to on-site staging area, starting at BL-J-292.4L, 1710 Quincy Avenue, Umatilla, OR 97882
2. Go south on Quincy Ave toward 1st St (0.05 miles)
3. Turn right on 2nd St (0.27 miles)
4. Bear left on Nugent Ave (0.06 miles)
5. Turn right on 3rd St (County Road 1275) (0.09 miles)
6. Turn left on County Road 1275 (Switzler Ave) (0.17 miles)
7. Turn right on US-730 (6th St) (1.6 miles)
8. Turn right on Southshore Dr (1 miles)
9. Turn right on a gravel road at 45.912168 N, -119.387022 W. Stay to the right of the water intake facility to the end of the road.

W end of Plymouth Park J-288.8R

Position - Location:	45° 55.718', -119° 22.344'	45° 55' 43.1", -119° 22' 20.6"	45.92863, -119.37239	Plymouth

Strategy Objective:	Exclusion : Keep oil from travelling up the N channel of Plymouth Island
Implementation:	Only if conditions warrant - Deploy 600' of boom from the building on river right to the closest accessible point on the W end of Plymouth Island. May need waders. Adjust angle of boom, placement and number of anchors, depending on conditions of the day.
Staging Area:	Remote: Stage at SA-J-289.9R/Plymouth Park
Site Safety:	Water hazard, slips, trips & falls.
Field Notes:	Launch from BL-J-289.9R/Plymouth Park
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Bald Eagle, Recreational Use Area, Riparian Habitat, Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

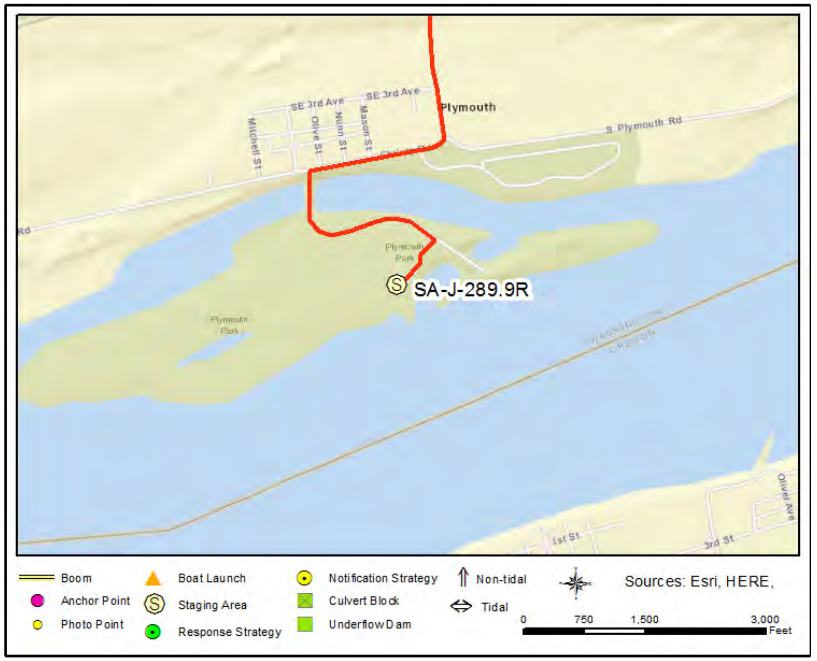
2	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer

W end of Plymouth Park J-288.8R

J-288.8R Photo: Upstream view of the NW end of Plymouth Park



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Christy Rd
Plymouth, WA 99346

Driving Directions

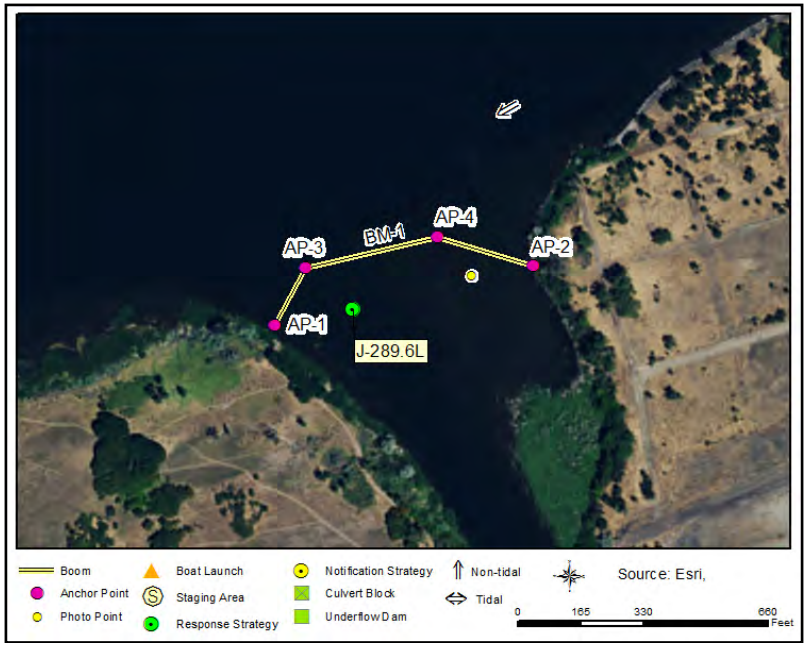
1. Directions to SA-J-289.9R/Plymouth Park, starting from I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (0.7 mi)
2. Take the 1st left onto Plymouth Rd (0.7 mi)
3. Plymouth Rd turns slightly right and becomes Christie Rd (0.3 mi)
4. Take the second left (0.4 mi)
5. Take the first right toward the boat launch (377 ft)

Lat 45.929676, Long -119.352524

Umatilla River J-289.6L

Position - Location:	45° 55.121', -119° 21.291'	45° 55' 7.2", -119° 21' 17.5"	45.91868, -119.35485	Umatilla

Strategy Objective:	Exclusion : Prevent oil from entering/exiting the river mouth.
Implementation:	Use 800' of exclusion boom from one side of the river to the other. Adjust quantity and placement of anchors based on conditions of the day.
Staging Area:	Remote: Stage at SA-J-290.8L/Port of Umatilla
Site Safety:	Slips, Trips, Falls, Water Hazard, Shallow Water
Field Notes:	Launch from BL-J-290.8L/Port of Umatilla
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Resident Fish, Salmon Concentrations and Habitat, Sensitive Resources Nearby, Waterfowl and Shorebird Concentrations



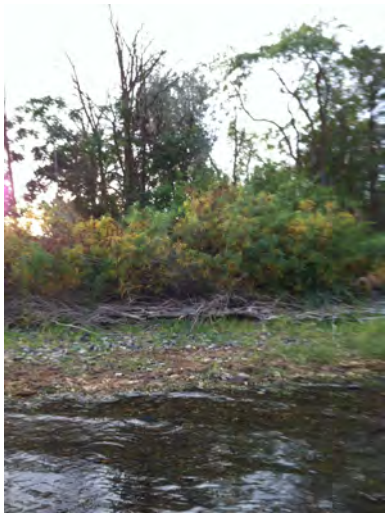
Recommended Equipment

3	Each	Anchor - Danforth (or other appropriate type)
2	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

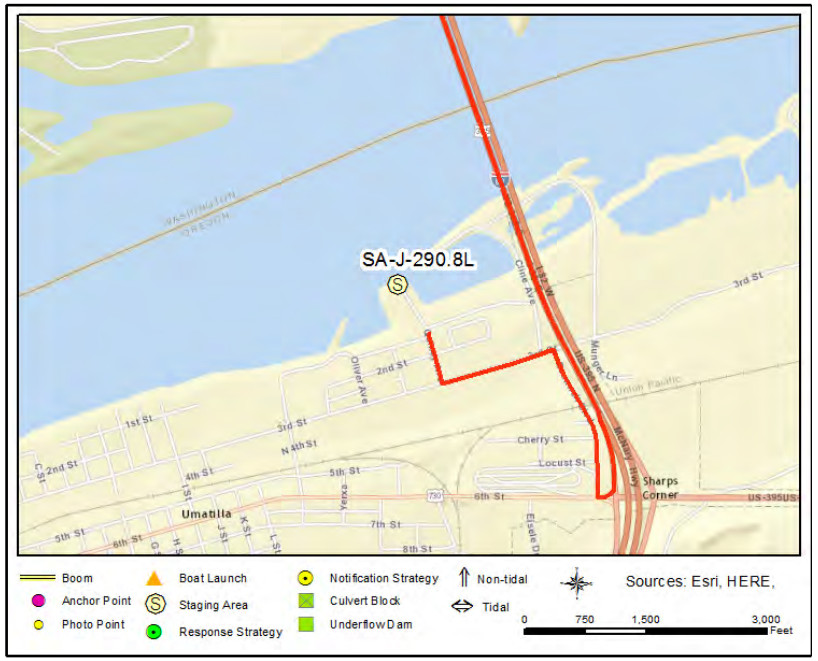
Recommended Personnel

1	Boat Operator
3	Laborer

Umatilla River J-289.6L



J-289.6L Photo: Eastern shoreline anchor area.



Site Contact

Port of Umatilla
Primary Contact :

Umatilla, OR 97882
541-922-3939

Nearest Address

1710 Quincy Avenue
Umatilla, OR 97882

Driving Directions

1.Directions to SA-J-290.8L from Pasco, WA
2. Merge onto US-395 S (1.5 mi)
3. Continue straight to stay on US-395 S (signs for Kennewick Pendleton) (5.2 mi)
4. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Entering Oregon (21.0 mi)
5. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
6. Turn right onto US-730 W/6th St (signs for Weigh Station) (292 ft)
7. Take the 1st right onto Brownell Blvd (0.4 mi)
8. Turn left onto 3rd St/ Co1275 Rd (0.3 mi)
9. Take the 2nd right onto Quincy Ave, destination will be on the right

<< Go Back

Plymouth Park Boat Launch J-289.9R

Position - Location:	45° 55.738', -119° 21.066'	45° 55' 44.3", -119° 21' 3.9"	45.92897, -119.35109	Plymouth

Strategy Objective: Collection : Collect oil moving downriver, and keep oil out of boat launch area while keeping launch open

Implementation: Deploy 1000' of boom in a chevron formation with the apex on a spit of land directly across from the boat launch. Use 600' set to the SE to divert oil toward the apex for collection, and 400' set to the SW to deflect oil away from opening to the boat launch area while keeping the launch open. Adjust angle of boom, placement & quantity of anchors depending on conditions of the day.

Staging Area: Onsite: Stage on site at SA-J-289.9R/Plymouth Park

Site Safety: Water hazard, slips, trips & falls

Field Notes: Lanch on site at BL-J-289.9R/Plymouth Park

Watercourse: River - Above a Dam - John Day pool

Resources at Risk: Bald Eagle, Boat Launch/Ramp, Downstream Resources, Recreational Use Area, Waterfowl and Salmonid Concentrations and Habitat

Recommended Equipment

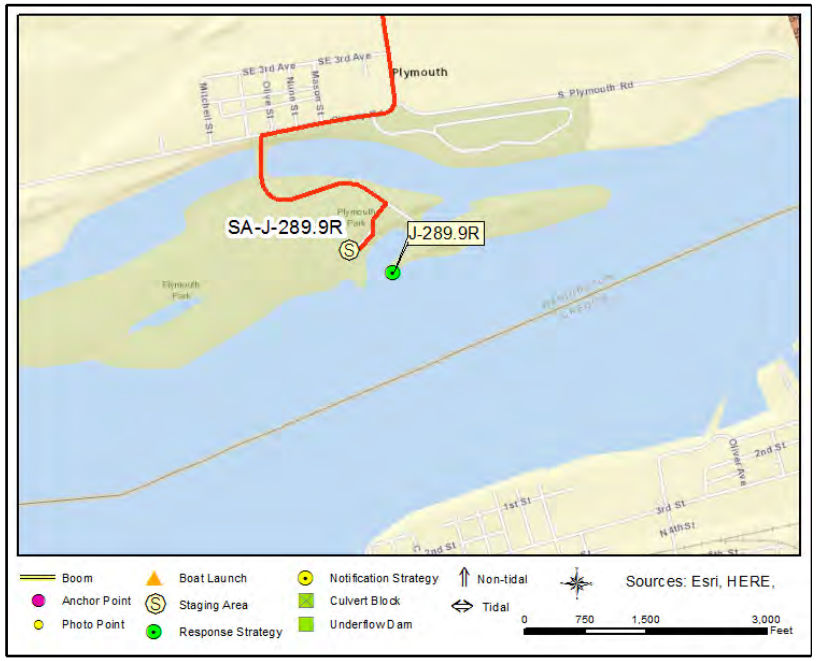
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Plymouth Park Boat Launch J-289.9R

J-289.9R Photo: View of strategy location from the Park boat launch



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Ble Sky Pr S E
Plymouth, WA 99346

Driving Directions

1. Directions to SA-J-289.9R/Plymouth Park, starting from I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (0.7 mi)
2. Take the 1st left onto Plymouth Rd (0.7 mi)
3. Plymouth Rd turns slightly right and becomes Christie Rd (0.3 mi)
4. Take the second left (0.4 mi)
5. Take the first right toward the boat launch (377 ft)

Lat 45.929676, Long -119.352524

Umatilla Marina J-290.8L

Position - Location:	45° 55.577', -119° 19.900'	45° 55' 34.6", -119° 19' 54.0"	45.92628, -119.33167	Umatilla

Strategy Objective:	Deflection : Keep oil out of Marina (keep boat launch open)
Implementation:	Anchor 00' of boom to the pilings at the end of the Jetty and tow boom out to the WNW (keep boat launch open). Adjust angle of boom, quantity and placement of anchors, based on conditions of the day.
Staging Area:	Onsite: Stage at the Port of Umatilla Marina
Site Safety:	Slips, trips, falls & water hazard.
Field Notes:	Launch on site at the Umatilla Marina
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Marina, Recreational Boating

Recommended Equipment

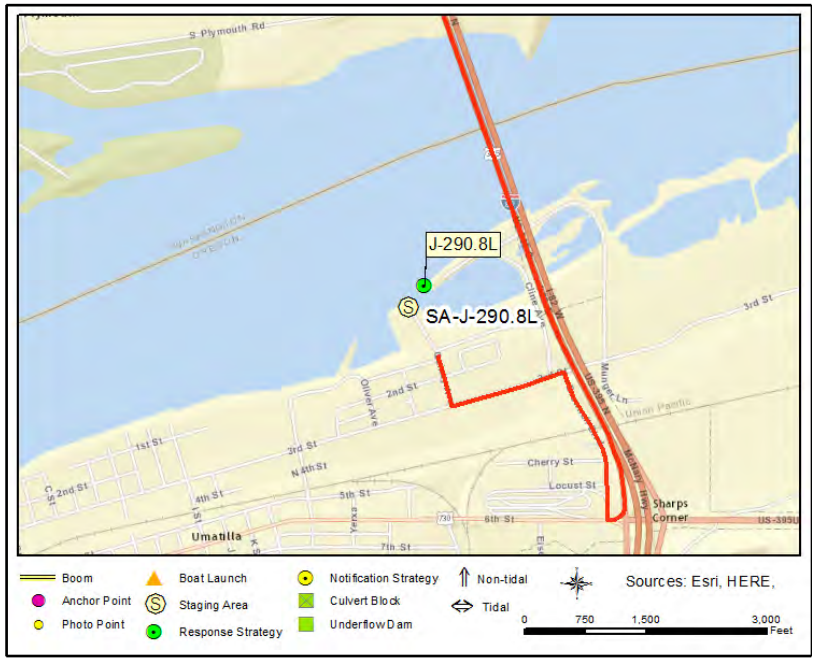
2	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer

Umatilla Marina J-290.8L

J-290.8L Photo: Anchor point for Port of Umatilla Marina deflection strategy



Site Contact

Port of Umatilla
Land/Property Contact :

Umatilla, OR 97882
541-922-3939

Nearest Address

1710 Quincy Avenue
Umatilla, OR 97882

Driving Directions

1. Directions to BL-J-290.8L/Port of Umatilla Marina from Pasco, WA
2. Merge onto US-395 S (1.5 mi)
3. Continue straight to stay on US-395 S (signs for Kennewick Pendleton) (5.2 mi)
4. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Entering Oregon (21.0 mi)
5. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
6. Turn right onto US-730 W/6th St (signs for Weigh Station) (292 ft)
7. Take the 1st right onto Brownell Blvd (0.4 mi)
8. Turn left onto 3rd St/ Co1275 Rd (0.3 mi)
9. Take the 2nd right onto Quincy Ave, destination will be on the right

Port of Umatilla Marina J-290.9L

Position - Location:	45° 55.645', -119° 19.771'	45° 55' 38.7", -119° 19' 46.2"	45.92742, -119.32951	Umatilla

Strategy Objective:	Collection : Collect oil moving downstream
Implementation:	Anchor 1100' of boom to shore and tow to the NE, if conditions allow anchor to bridge piling. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.
Staging Area:	Onsite: Gravel parking close to the anchor point, plus all needed facilities at the Port of Umatilla Marina
Site Safety:	Water hazard, slips, trips, & falls.
Field Notes:	Launch on site at the Port of Umatilla Marina, lots of room for staging and vac truck can easily access the shoreline at the colleciton point.
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources

Recommended Equipment

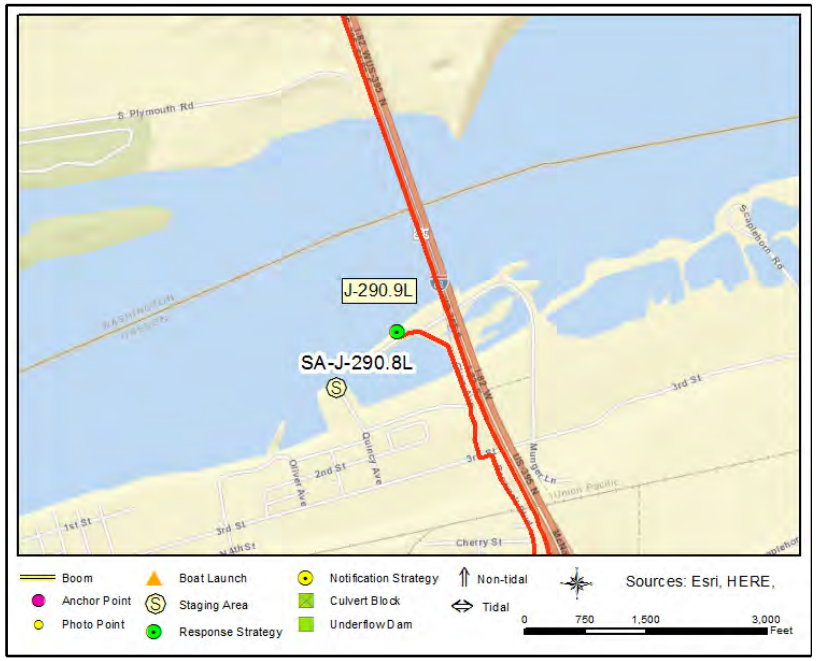
5	Each	Anchor - Danforth (or other appropriate type)
2	Each	Anchoring System(s)- Shoreside
1100	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Port of Umatilla Marina J-290.9L

J-290.9L Photo: View of the train and highway bridges from the Port of Umatilla Marina



Site Contact

Nearest Address

1710 Quincy Avenue
Umatilla, OR 97882

Driving Directions

1. Directions to BL-J-290.8L/Port of Umatilla Marina from Pasco, WA
2. Merge onto US-395 S (1.5 mi)
3. Continue straight to stay on US-395 S (signs for Kennewick Pendleton) (5.2 mi)
4. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Entering Oregon (21.0 mi)
5. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
6. Turn right onto US-730 W/6th St (signs for Weigh Station) (292 ft)
7. Take the 1st right onto Brownell Blvd (0.4 mi)
8. Turn left onto 3rd St/ Co1275 Rd (0.3 mi)
9. Take the 1st right, destination will be on the right

<< Go Back

Plymouth Park East J-291R

Position - Location:	45° 56.053', -119° 19.838'	45° 56' 3.2", -119° 19' 50.3"	45.93422, -119.33064	Umatilla

Strategy Objective:	Deflection : Keep oil out of the channel on the N side of Plymouth Park island
Implementation:	Anchor 1000' of boom on the N shore at the base of the bridge on the W, set boom angle to the SW. Adjust angle of boom, quantity and placement of anchors depending on conditions of the day. Bring waders to access shoreline in low water conditions.
Staging Area:	Remote: Stage across the river at SA-J-290.8L/Port of Umatilla, it is ~1/2 mile to the site, or at Plymouth Park
Site Safety:	Water hazard, slips, trips & falls.
Field Notes:	Launch from BL-J-290.8L/Port of Umatilla
Watercourse:	River - Above a Dam - John Day pool
Resources at Risk:	Bald Eagle, Recreational Use Area, Sensitive Resources, Waterfowl and Salmonid Concentrations and Habitat, Wetlands

Recommended Equipment

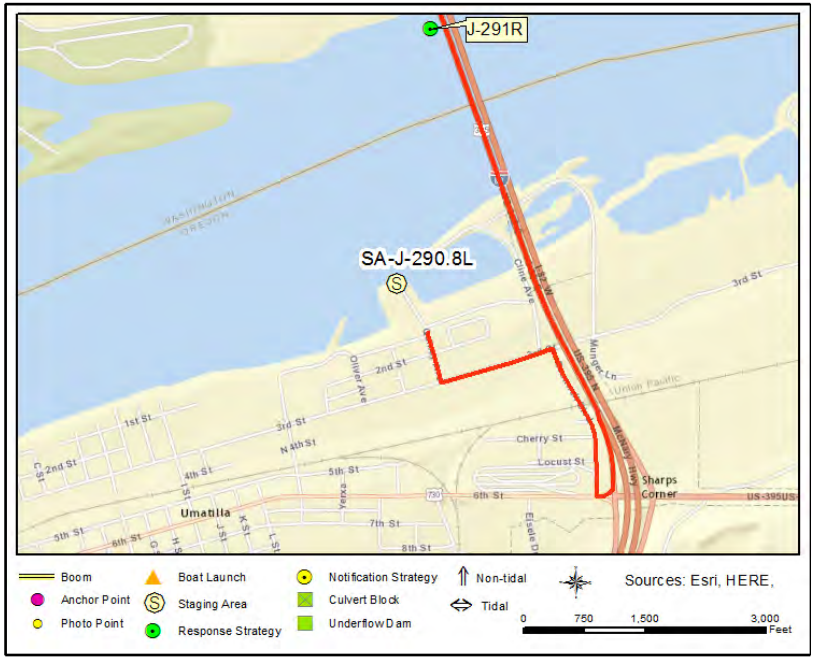
5	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

Plymouth Park East J-291R

J-291R Photo: Aerial view of Plymouth Park East N shore anchor point



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

1710 Quincy Avenue
Umatilla, OR 97882

Driving Directions

Directions from Plymouth to Port of Umatilla Boat Launch & Staging Area BL-J-290.8L
1. Start at Interstate 82 and Highway 14, Plymouth, WA 99346
2. Go east on SE 3rd Ave toward S Plymouth Rd (0.02 miles)
3. Turn left on S Plymouth Rd (0.57 miles)
4. Turn right on WA-14 (0.75 miles)
5. Turn right onto ramp and go on I-82 E toward Umatilla (1.79 miles)
6. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston (0.08 miles)
7. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot (0.15 miles)
8. Continue on US-730 (6th St) (0.01 miles)
9. Turn right on Brownell Blvd (0.37 miles)
10. Turn left on 3rd St (County Road 1275) (0.27 miles)
11. Turn right on Quincy Ave (0.12 miles)
12. Finish at 1710 Quincy Avenue, 97882, on the left

<< Go Back

John Day Lock, downstream J-292.4R

Position - Location:	45° 56.388', -119° 18.179'	45° 56' 23.3", -119° 18' 10.8"	45.93980, -119.30299	Kennewick

Strategy Objective:	Collection : Keep oil from moving downstream
Implementation:	Deploy two sections of boom across the downstream section of the lock, a 100' section at the area where the lock starts to widen out, and the second, a 500' section of boom, should be deployed at the end of the lock. Both sections of boom should be set at an angle running from NE to SW so that oil can be collected at the SW corners. Adjust angle of boom, as well as quantity and placement of anchors based on conditions of the day. Use vac truck or skimmer with portable storage; additional pumps may be needed depending on water level.
Staging Area:	Onsite: Contractors must call McNary Dam control at 541-922-2231 to access site.
Site Safety:	Water hazard, heavy equipment, slips, trips & falls.
Field Notes:	Launch from BL-J-290.8L/Port of Umatilla
Watercourse:	River - Below a Dam - Site is at the downstream side of the McNary Dam in the lock, but considered to be in the John Day pool
Resources at Risk:	Downstream Resources, Lock and Dam

Recommended Equipment

2	Each	Anchor - Danforth (or other appropriate type)
4	Each	Anchoring System(s)- Shoreside
500	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Pump - Diaphragm Pump
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

John Day Lock, downstream J-292.4R

J-292.4R Photo: Downstream aerial view of the McNary Lock

Site Contact

USACE McNary Control Room
Pre-Notification Required :

WA
541-922-2231

Nearest Address

81226 Mc Nary Rd
Kennewick, WA 99338

Driving Directions

1. Directions to the WA gate for McNary Dam & Lock. Starting at 6th street Umatilla, OR
2. Go east on US-730 (6th St) toward Yerxa Ave (0.82 miles)
3. Turn left onto ramp and go on I-82 W/US-395 N toward Kennewick/Spokane (1.77 miles)
4. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.26 miles)
5. Turn right on Mcnary Rd (2 miles)
6. Stay to the right until you reach the access gate. Finish at 81226 Mc Nary Rd, 99338

McNary Dam downstream river left fish ladder J-292.5L

Position - Location:	45° 55.934', -119° 17.869'	45° 55' 56.0", -119° 17' 52.1"	45.93223, -119.29781	Umatilla

Strategy Objective: Exclusion : Keep oil out of fish ladder

Implementation: Deploy 100' of boom across the SW corner of the dam where the fish ladder in/out take is.

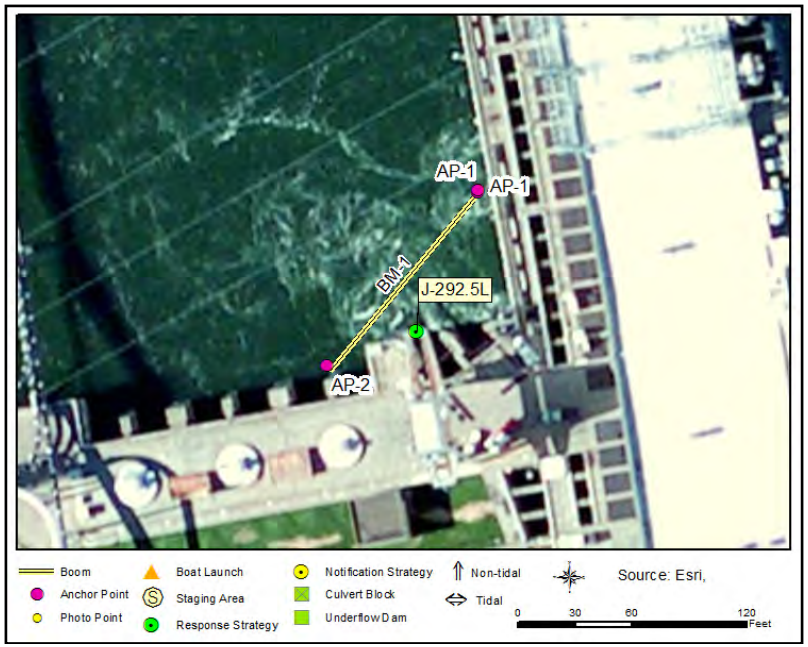
Staging Area: Onsite: USACE staff should deploy strategy. Contractors must call McNary Dam control at 541-922-2231 to access site.

Site Safety: Water hazard, heavy equipment, slips, trips, falls

Field Notes: Launch from BL-J-290.8L/Port of Umatilla

Watercourse: River - Below a Dam - West side of the McNary Dam in the John Day pool

Resources at Risk: Fish Ladder(s)



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
100	Each	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

McNary Dam downstream river left fish ladder J-292.5L

J-292.5L Photo: Aerial view of McNary Dam from river left downstream

Site Contact

USACE McNary Control Room
Pre-Notification Required :

WA
541-922-2231

Nearest Address

82790 Devore Road
Umatilla, OR 97882-1230

Driving Directions

1. Directions to McNary Dam (OR side), starting at 6th street Umatilla, OR
2. Go east on US-730 (6th St) toward Yerxa Ave (1.52 miles)
3. Turn left (0.01 miles)
4. Continue on Devore Rd (0.7 miles)
5. Turn left (0.1 miles)
6. Finish at McNary Dam, 82790 Devore Road, 97882-1230

McNary Dam downstream fishladder in/out take WA J-292.5R

Position - Location:	45° 56.380', -119° 17.970'	45° 56' 22.8", -119° 17' 58.2"	45.93967, -119.29949	Kennewick

Strategy Objective: Exclusion : Keep oil out of the fishladder

Implementation: Must notify dam & have them shut off the N spillway before deploying 100' of boom from the N corner of the fishladder in/outtake at 45.939648 N, -119.299497 W to the S corner

Staging Area: Onsite: Contractors must call McNary Dam control at 541-922-2231 to access site.

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

Field Notes: Launch from BL-J-290.8L/Port of Umatilla

Watercourse: River - Below a Dam - Downstream side of McNary Dam in the John Day pool

Resources at Risk: Fish Ladder(s)

Recommended Equipment

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

McNary Dam downstream fishladder in/out take WA J-292.5R

J-292.5R Photo: Aerial view of the McNary Lock & Dam showing the N shore fish ladder

Site Contact

Nearest Address

81226 Mc Nary Rd
Kennewick, WA 99338

Driving Directions

1. Directions to the WA entrance to McNary Dam, starting at 6th street Umatilla, OR
2. Go east on US-730 (6th St) toward Yerxa Ave (0.82 miles)
3. Turn left onto ramp and go on I-82 W/US-395 N toward Kennewick/Spokane (1.77 miles)
4. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.26 miles)
5. Turn right on Mcnary Rd (2 miles)
6. Stay to the right past the boat launch and you will come to the access gate to the dam, 81226 Mc Nary Rd, 99338. USACE personnel will escort you from there.

LePage Park campground (J-219.1L) JDR-0.5L

Position - Location:	45° 43.537', -120° 38.896'	45° 43' 32.2", -120° 38' 53.8"	45.72561, -120.64827	Arlington

Strategy Objective:	Collection : Divert oil to shore for collection - protect downstream resources
Implementation:	Call USACE, LePage Park, at 541-506-7819 or 541-739-2713 to have them clear campground if necessary. Anchor 1000' of boom to shore at the SE end of the park, tow the boom to the SE to the middle or the river and anchor offshore. Adjust angle of boom, quantity and placement of anchors, depending on conditions of the day.
Staging Area:	Onsite: Stage at LePage Park campground
Site Safety:	Water hazard, public campground, slips, trips & falls.
Field Notes:	Launch downstream at BL-JDR-0.2L/Le Page boat launch
Watercourse:	River - Above a Dam - John Day Pool
Resources at Risk:	Downstream Resources, Public Recreation Site/Area, Shorebird Concentrations, Waterfowl and Salmonid Concentrations and Habitat,

Recommended Equipment

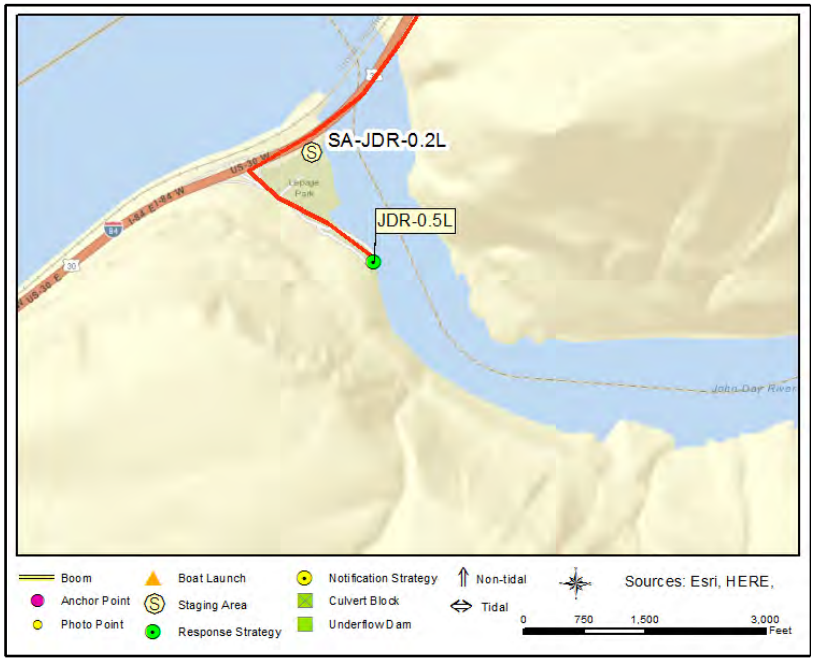
4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B2 (Contractor Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
4	Laborer

LePage Park campground (J-219.1L) JDR-0.5L

JDR-0.5L Photo: The SE end of LePage Park campground



Site Contact

LePage Park
Land/Property Contact :
541-506-7819

Nearest Address

410 Beech St
Arlington, OR 97812

Driving Directions

1. Directions to SA-JDR-0.2L/Le Page Park, starting in Pasco, WA. Take US395 S (signs for Kennewick Pendleton)
2. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Continue to follow I-82 E. Entering Oregon. (30.6 mi)
3. Take the I-84 W exit toward Portland (0.5 mi(
4. Merge onto I-84 (64.6 mi)
5. Take exit 114 for LePage Park toward John Day River (0.2 mi)
6. Turn left onto Le Page Park Road, pass through the gate house (0.1 Mi)
7. Take the first left toward the boat launch. Destination will be at the end (0.1 mi)

APPENDIX 4B

Notification Strategy 2-Pagers

NOTIFICATION STRATEGIES - LIST

John Day Lock & Dam Notification J-216.5-N

Position - Location:	45° 42.928', -120° 41.551'	45° 42' 55.7", -120° 41' 33.1"	45.71546, -120.69252	Rufus

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 in The John Day pool include: J-216.5R and J-216.7L, both exclusion strategies to protect the fish ladders on the upstream side of the dam, and J-216.55R, a collection strategy for the E end of the lock; strategies on the downstream side of the dam, in The Dalles pool, include: D-216.8L and D-216.4R to protect the fish ladders, as well as D-216.3R, a collection strategy at the end of 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.

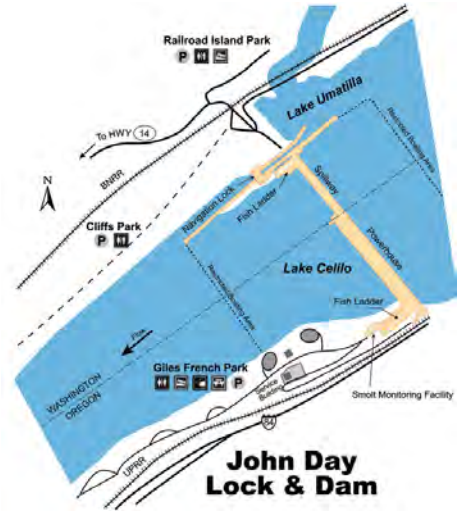
Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Lock and Dam

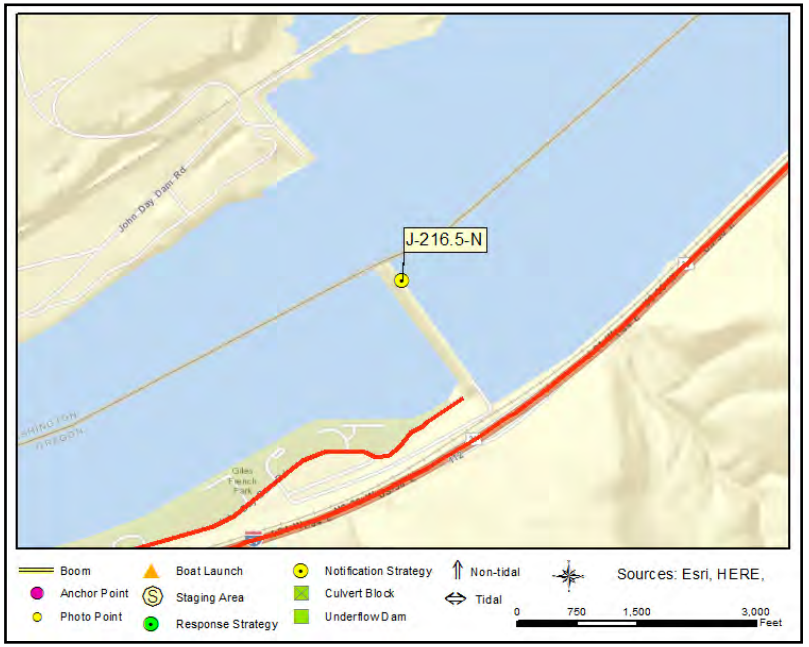
Communication Process and Action:

Call John Day Lock & Dam Control Room Operator (24/7) 541-298-9712

John Day Lock & Dam Notification J-216.5-N



J-216.5-N Photo: Map of John Day Lock & Dam



Site Contact

USACE John Day Control Room
Emergency Contact : Emergency contact & access to dam

541-298-9712

Nearest Address

John Day Dam Rd
Rufus, OR 97065

Driving Directions

1Directions to the John Day Dam on the Oregon Side.
1. Start at Boardman, Oregon
2. Go west on Boardman Ave NE toward Boardman Ave/N Main St (0.05 miles)
3. Turn left on N Main St (0.08 miles)
4. Turn right onto ramp and go on I-84 W/US-30 W (53.91 miles)
5. At exit 109 take ramp on the right to John Day Dam toward Rufus (0.3 miles)
6. Turn right (0.09 miles)
7. Bear right on John Day Dm (John Day Dam Ln) (0.07 miles)
8. Continue along John Day Dam Road up to the Dam.

City of Boardman Public Works Department J-270.1L-N

Position - Location:	45° 50.931', -119° 41.963'	45° 50' 55.8", -119° 41' 57.8"	45.84885, -119.69938	Boardman

Strategy Objective: Notification : Alert to need to monitor and potentially shut off transient, non-community well located less than 500 feet

Implementation: Determine if water intake/well need to be shut down.

Field Notes: This well is shown as being both a surface water and groundwater withdrawal.

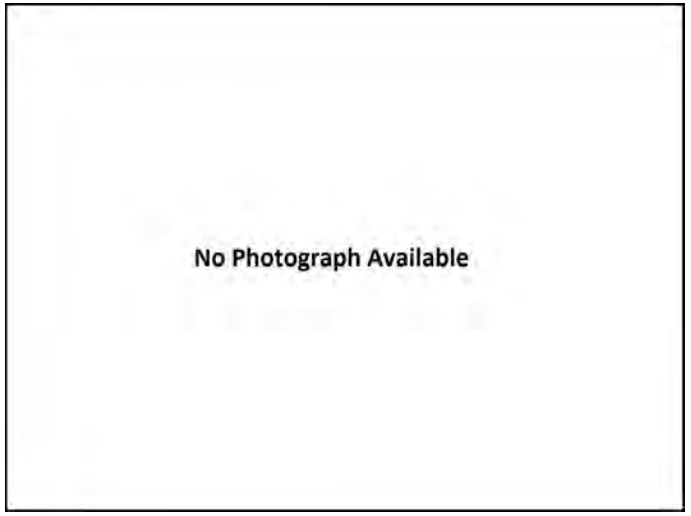
Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Public Health and Safety, Water Intakes

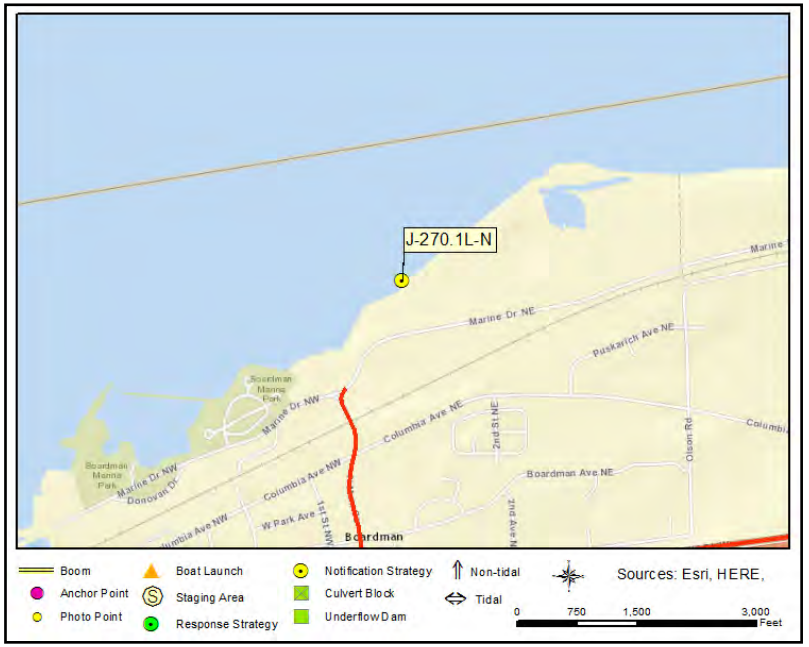
Communication Process and Action:

Call 541-571-0272, Public Works Director 24 hour #

City of Boardman Public Works Department J-270.1L-N



J-270.1L-N Photo: No Photo Available



Site Contact

City of Boardman Public Works
Emergency Contact : Director of Public Works
200 City Center Circle
Boardman, OR 97818
541-571-0272

Nearest Address

1A Marine Drive
Boardman, OR 97818

Driving Directions

1. Directions to the City of Boardman Public Works Department, starting from McNary Highway, Umatilla, OR
2. Go west on US-730 (6th St) toward I St (14.91 miles)
3. Make sharp left (0.04 miles)
4. Take ramp and go on I-84 W/US-30 W (3.8 miles)
5. At exit 164 take ramp toward Boardman (0.28 miles)
6. Turn right on N Main St (0.45 miles)
7. Bear right on Marine Dr NE (0.01 miles)
8. Finish at 1A Marine Drive, 97818, on the right

City of Irrigon Public Works J-281.5L-N

Position - Location:	45° 54.217', -119° 31.027'	45° 54' 13.0", -119° 31' 1.6"	45.90362, -119.51712	Irrigon

Strategy Objective: Notification : Alert to need to monitor and potentially shut off large municipal well located less than 500 feet from river

Implementation: May shut down intakes or wells

Field Notes: This well is shown as being both a surface water and groundwater withdrawal. Well serves multiple municipalities, including the cities of Umatilla and Hermiston.

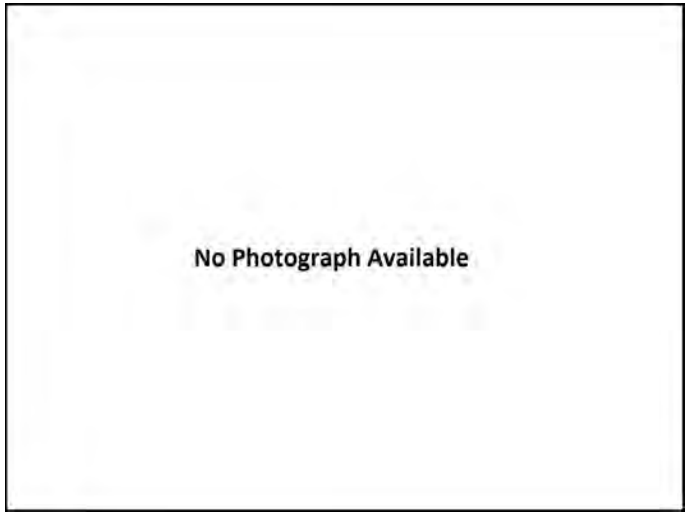
Watercourse: River - Above a Dam - John Day Pool

Resources at Risk: Public Health and Safety, Water Intakes

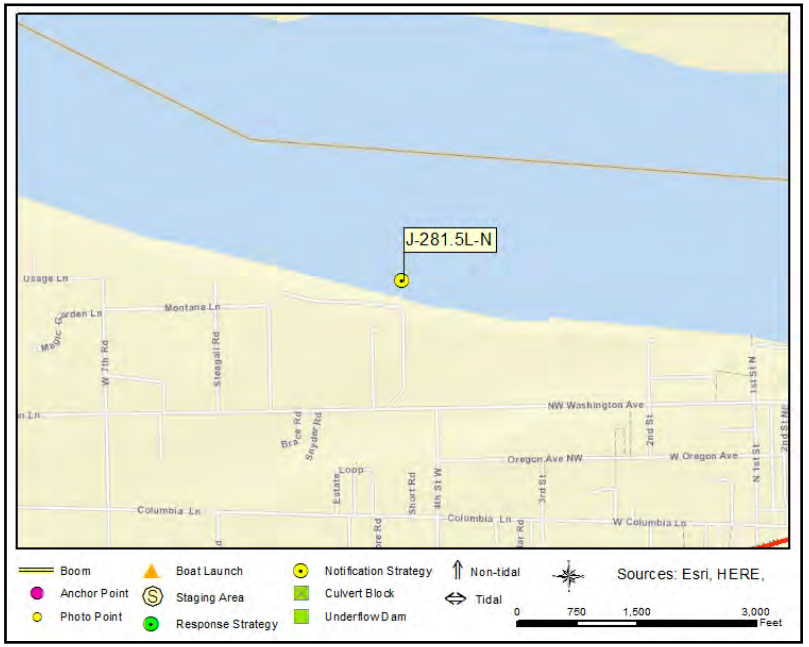
Communication Process and Action:

Call 541-922-6022, Public Works Director, Keith White

City of Irrigon Public Works J-281.5L-N



J-281.5L-N Photo: No Photo Available



Site Contact

City of Irrigon Public Works Dept.
Emergency Contact : Public Works Director
1095 North East Main Avenue
Irrigon, OR 97844
541-922-6022

Nearest Address

1095 North East Main Avenue
Irrigon, OR 97844

Driving Directions

1. Directions to City of Boardman Pulic Works Department, starting at McNary Highway, Umatilla, OR
2. Go northwest on I-82 (US-395 N) toward 131 (0.76 miles)
3. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.26 miles)
4. Turn left on WA-14 (0.11 miles)
5. Make sharp left onto ramp and go on I-82 E toward Umatilla/Pendleton (1.79 miles)
6. At exit 1 take ramp on the right to US-395/US-730 toward Umatilla/Hermiston (0.08 miles)
7. Take ramp to US-730 W toward Umatilla/Weigh Sta.-Odot (0.15 miles)
8. Continue on US-730 (6th St) (8.72 miles)
9. Turn left on 1st St W (S First St) (0.28 miles)
10. Turn right on W California Ave (0.16 miles)
11. Finish at 1095 North East Main Avenue, 97844, on the left

McNary Dam Boat Launch M-292.63R

Position - Location:	45° 56.625', -119° 17.892'	45° 56' 37.5", -119° 17' 53.5"	45.94375, -119.29821	Kennewick

Strategy Objective: Collection : Collect oil at boat launch area on Washington side of river.

Implementation: Use 1200' of boom. Angle one 400' section towards the shoreline from the collection point, and one 800' section towards the locks. Keep launch open unless oil is entering along the shoreline. Adjust angle of boom, placement & number of anchors according to conditions of the day.

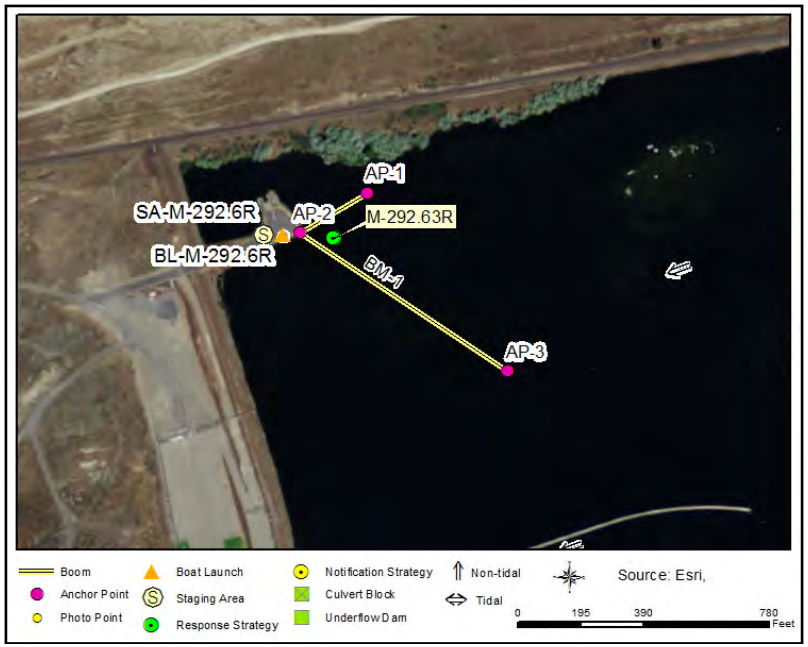
Staging Area: Onsite: SA-M-292.6R/N McNary Dam boat launch and parking on site

Site Safety: Boat & Vehicle Traffic, Slips, Trips, Falls, Water Hazard, & Active Railroad, expect trains on the track at any time/from either direction. D

Field Notes: Launch boat from McNary Dam boat launch, BL-M-292.6R

Watercourse: River - Above a Dam - McNary Pool

Resources at Risk: Osprey, Raptors, Waterfowl Concentrations



Recommended Equipment

4	Each	Anchor - Danforth (or other appropriate type)
1	Each	Anchoring System(s)- Shoreside
1200	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

McNary Dam Boat Launch M-292.63R

M-292.63R Photo: View of boat launch and collection area.

Site Contact

USACE McNary Control Room
Land/Property Contact :
541-922-2231

Nearest Address

81226 Mc Nary Rd
Kennewick, WA 99338

Driving Directions

Directions to McNary boat launch from S bound I-82
1. Starting at I-82 take Exit 131
2. Head north on Exit 131 toward WA-14 W (0.2 mi)
3. Turn right on McNary Rd (1.0 mi)
4. Keep right on McNary Rd, your destination will be on the left (0.7 mi)
5. Finish at 81226 Mc Nary Rd, 99338, on the right

Oregon Water Resources Dept M-309.4-N

Position - Location:	45° 59.974', -118° 59.249'	45° 59' 58.5", -118° 59' 14.9"	45.99957, -118.98749	Pendleton

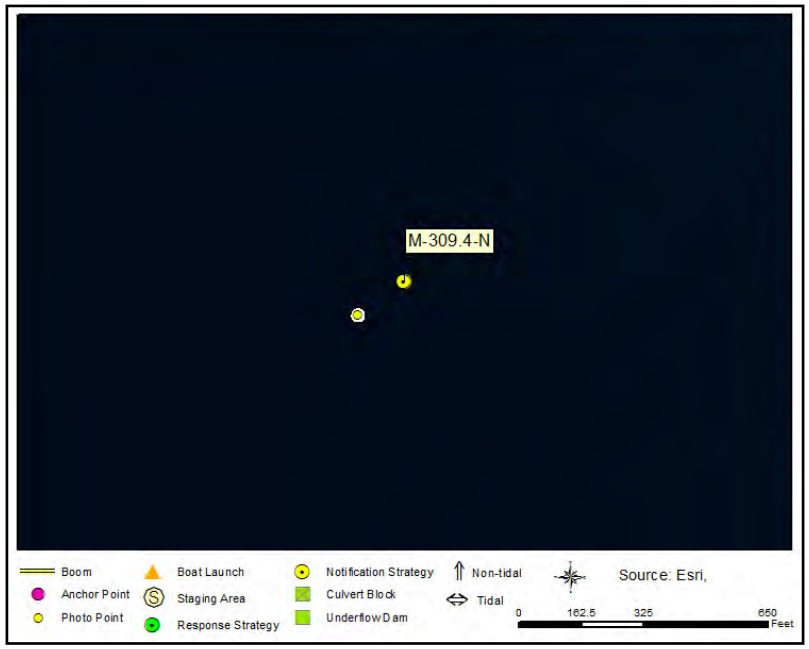
Strategy Objective: Notification : Notify Oregon Water Resources Department for the need for water intake closures

Implementation: The Oregon Water Resources Department will notify the following municipalities' who divert water directly or indirectly (Ranney wells, shallow gravel wells) from the Columbia River for Human Consumption: Port of Umatilla 541-922-3224, City of Hermiston 541-567-5521, City of Irrigon 541-922-2047, City of Boardman 541-481-9252

Field Notes: As of February 2015, the Oregon Water Resources Department does not know of any other municipalities in the area of the Middle Columbia River-GRP (between river mile 149-291)who have water rights and are diverting water directly or indirectly from the Columbia

Watercourse: River - Above a Dam - McNary Pool

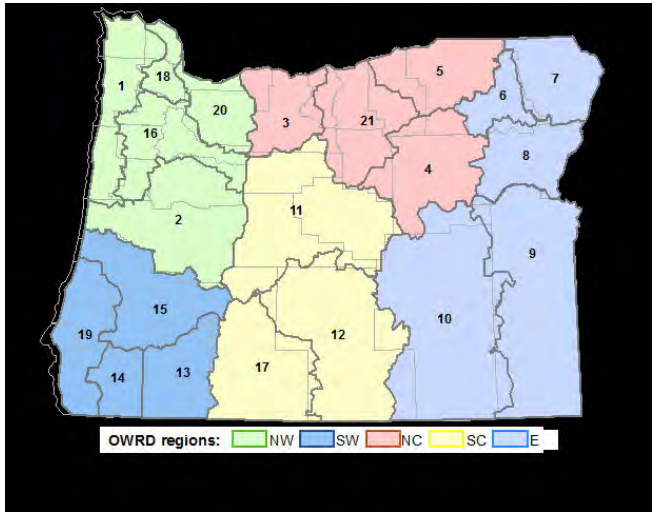
Resources at Risk: Water Intakes



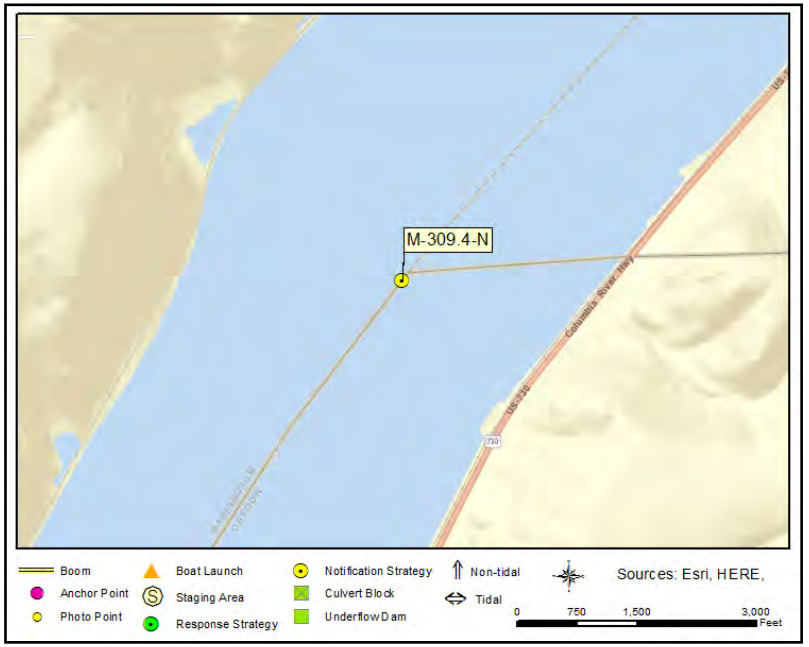
Communication Process and Action:

Call Michael Ladd, Oregon Water Resources Dept., 541-278-5456 wk., 541-310-0620 cell

Oregon Water Resources Dept M-309.4-N



M-309.4-N Photo: OWRD OR Water Regional Districts



Site Contact

Oregon Water Resources Department
Primary Contact : OR Water Master Regions: 3, 21, & 5
116 Southeast Dorion Avenue
Pendleton, OR 97801
541-310-0620

Nearest Address

116 Southeast Dorion Avenue
Pendleton, OR 97801

Driving Directions

1. Directions to Oregon Water Resources Department/Umatilla County Watermast's Office, starting at1800 6th St, Umatilla, OR 97882
2. Go east on US-730 (6th St) (0.21 miles)
3. Bear right onto ramp and go on I-82 E toward Pendleton/I-84/Portland (9.4 miles)
4. Take ramp on the left and go on I-84 E toward Pendleton (31.52 miles)
5. At exit 210 take ramp on the right to OR-11 toward Pendleton/Milton-Freewater (0.24 miles)
6. Turn left on OR-11 (Oregon-Washington Hwy) (0.36 miles)
7. Turn left on SE Isaac Ave (0.06 miles)
8. Turn right on SE 3rd St (0.31 miles)
9. Turn left on SE Emigrant Ave (0.1 miles)
10. Turn right on SE 1st St (0.08 miles)
11. Turn right on US-30 (SE Dorion Ave) (0.01 miles)
12. Finish at 116 Southeast Dorion Avenue, 97801, on the right

APPENDIX 4C

Staging Area 2-Pagers

STAGING AREAS - LIST

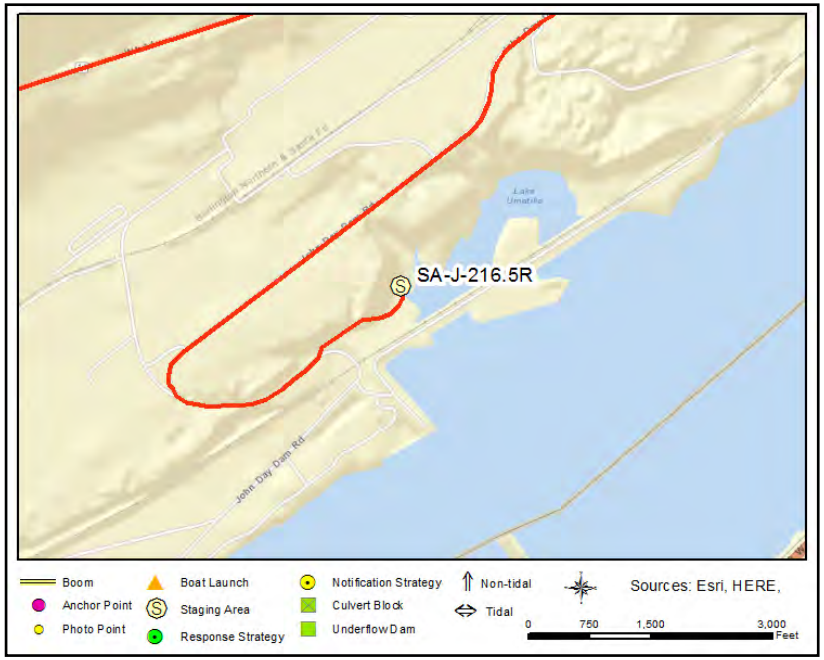
SA-J-216.5R	SA-J-227.4R	SA-J-237.3R	SA-J-241.7R	SA-J-242.5L
SA-J-251.2R	SA-J-256.6L	SA-J-262.7R	SA-J-269.5L	SA-J-277.7R
SA-J-282.6L	SA-J-289.9R	SA-J-290.8L	SA-JDR-0.2L	SA-RC-1.3L

<< Go Back

86SA-J-216.5R

USACE Railroad Island boat launch SA-J-216.5R

SA-J-216.5R Photo: USACE Railroad Island boat launch



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

John Day Dam Road
Goldendale, WA 98620

Driving Directions

1. Directions to SA-J-216.5R/Railroad Island, starting at the intersection of WA Hwy-97 & WA Hwy-14, head east on WA-14 E toward Stonehenge Dr (6.9 mi)
2. Turn right onto John Day Dam Rd (2.0 mi)
3. Turn left toward Railroad Island boat launch (0.3 mi)

Pasture Point In-Lieu Site, E of Goodnoe Rd SA-J-227.4R

Staging Area

Position - Location:	45° 42.370', -120° 30.107'	45° 42' 22.2", -120° 30' 6.4"	45.70616, -120.50179	Roosevelt

Comments: Pasture Point In-Lieu Site with power, water, parking, lights, & a single, concrete boat launch

Location Information

Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	1 Single concrete ramp
Covered Spaces	Yes	
Power	Yes	
Restroom	Restroom - Vault	1 Mens & Womens
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

J-227.4R

Pasture Point In-Lieu Site, E of Goodnoe Rd SA-J-227.4R

SA-J-227.4R Photo: Pasture Point Tribal In-Lieu Site boat launch

Site Contact

USACE John Day pool
Tribal Contact : Natural Resource Manager
541-506-4805

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

Nearest Address

Highway 14
Roosevelt, WA 99356

Driving Directions

1. Directions to Pasture Point Tribal In-Lieu Site starting at WA Hwy14 in Roosevelt, WA go west 9 miles, - or - coming from WA Hwy 14 in Maryhill WA go east 17.6 miles, to a gravel road located at Lat 45.710149, Long -120.499682 (this unmarked gravel rd is ~.75 miles EAST of Goodnoe Station Road)
2. Turn onto gravel road, go southwest until you come to the railroad tracks (0.3 mi), continue straight across the tracks (0.7 miles) to launch on the left.

Sundale Park (In-Lieu Site) SA-J-237.3R

Staging Area

Position - Location:	45° 43.157', -120° 18.895'	45° 43' 9.4", -120° 18' 53.7"	45.71929, -120.31492	Roosevelt

Comments: Staging area & boat launch with one concrete ramp 7 degree grade. This is an in-lieu site which is open to the public (at this time)

Location Information

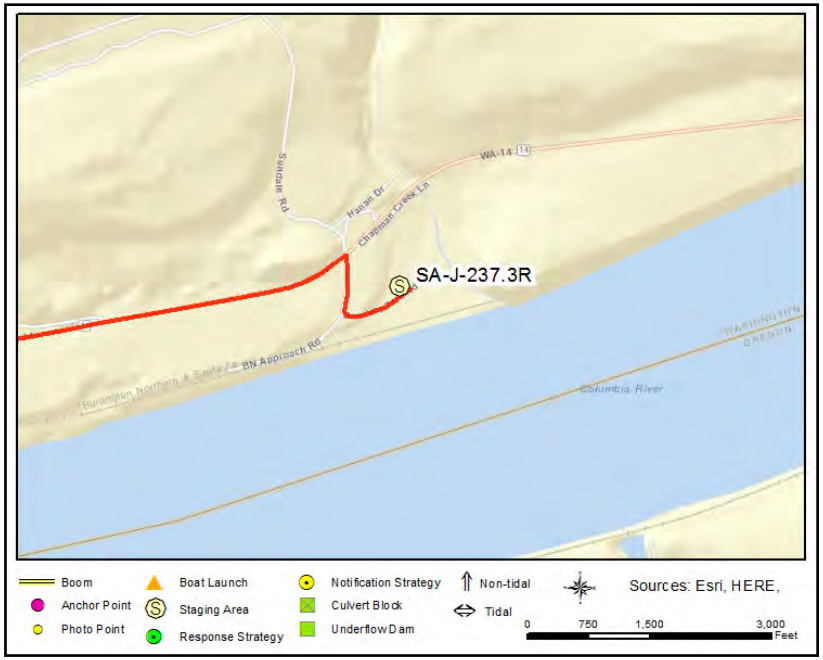
Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	Single ramp 7 degree grade
Estimated Lot Size		16000 sq ft
Parking - Car	Marked	Spaces for 4 cars
Parking - Trailer	Marked	Spaces for 5 trailers
Power	No	
Restroom	Restroom - Vault	
Waste Disposal	Trash Receptacle	Dumpster
Water (potable)	No	

GRP Response Strategies Served:

J-237.6L, J-237.6R

Sundale Park (In-Lieu Site) SA-J-237.3R

SA-J-237.3R Photo: Sundale Park 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

Sundale Park Rd
Roosevelt, WA 99356

Driving Directions

1. From US-97 turn onto WA-14 E (26.7 mi)
2. Turn right onto Sundale Rd (0.3 m)

<< Go Back

Roosevelt Park (USACE) boat launch SA-J-241.7R

Staging Area

Position - Location:	45° 43.863', -120° 13.482'	45° 43' 51.8", -120° 13' 28.9"	45.73105, -120.22470	Roosevelt

Comments: Lighted staging area with double boat ramp

GRP Response Strategies Served:

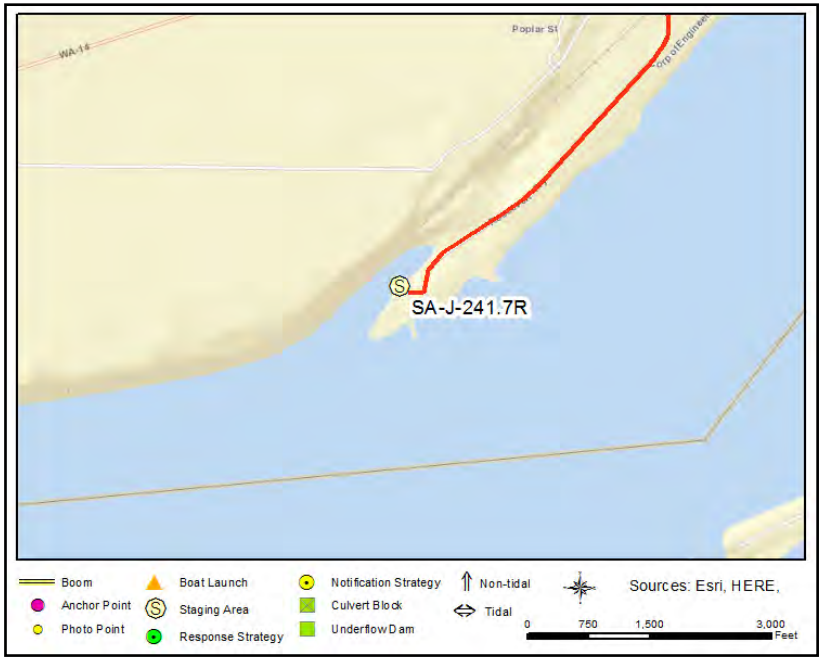
J-242.3R, J-245.1R, J-242.7L, J-244.5R, J-244.4R

Location Information

Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	Double ramp 7 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		34,000 sq ft plus 18,500 in rec area
Parking - Car	Not Marked	35 w/ more parking in rec area
Parking - Trailer	Not Marked	35 w/ more parking in rec area
Restroom	Restroom - Vault	Two w/ restroom in rec area also
Waste Disposal	Trash Receptacle	with additional cans in recreation area
Water (potable)	Yes	In rec area

Roosevelt Park (USACE) boat launch SA-J-241.7R

SA-J-241.7R Photo: Roosevelt Park double boat ramp7 degree grade



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Roosevelt Ferry Rd.
Roosevelt, WA 99356

Driving Directions

1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (47.1 mi)
2. Turn left onto Roosevelt Ferry Rd (1.3 mi)
3. Turn right, destination will be on the right just passed the in-lieu site (148 ft)

Arlington Point Marina & Campground SA-J-242.5L

Staging Area

Position - Location:	45° 43.368', -120° 12.380'	45° 43' 22.1", -120° 12' 22.8"	45.72279, -120.20633	Port of Arlington

Comments: Paved staging area, marina, campground & boat launch

Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	Dock space for 24 boats
Boat Ramp(s)	Concrete, Solid	2 Concrete ramps 9* grade + gravel ramp
Cell Phone Coverage	Yes	1 G with 2 bars in 2014
Estimated Lot Size		>130,000 sq ft lot, some paved & lined
Parking - Car	Gravel	Large gravel lot, space for 100 cars
Parking - Trailer	Marked	Paved area striped for 15 trailers
Power	Yes	In bathroom & campground
Telephone	Yes	Port of Arlington office has a phone
Waste Disposal	Trash Receptacle	2 Additional in campground
Water (potable)	Yes	In bathroom & campground

GRP Response Strategies Served:

J-240.7L

Arlington Point Marina & Campground SA-J-242.5L

SA-J-242.5L Photo: Arlington Point Marina Boat Launch

Site Contact

Port of Arlington
Land/Property Contact : Arlington Point Marina (boat launch) & Campground

Port of Arlington, OR 97812
541-454-2868

Nearest Address

Arlington Port Rd
Port of Arlington, OR 97812

Driving Directions

1. From Pasco take US-395 S
3. Keep left at the fork, follow signs for I-82 E/ US-395 S/ Pendleton/ Umatilla and merge onto I-82 E/ US-395 S
Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (40.5 mi)
6. Take exit 137 toward OR-19/ Arlington Condon (0.6 mi)
7. Continue onto Beech St (417 ft)
8. Turn right onto Arlington Port Rd - go to end of road on the left (0.4 mi)

Pine Creek In-Lieu Treaty Fishing Site SA-J-251.2R

Staging Area

Position - Location:	45° 47.642', -120° 4.132'	45° 47' 38.5", -120° 4' 7.9"	45.79403, -120.06887	Bickleton

Comments: Gated, paved, launch & staging area (may need bolt cutters to cut lock)

GRP Response Strategies Served:

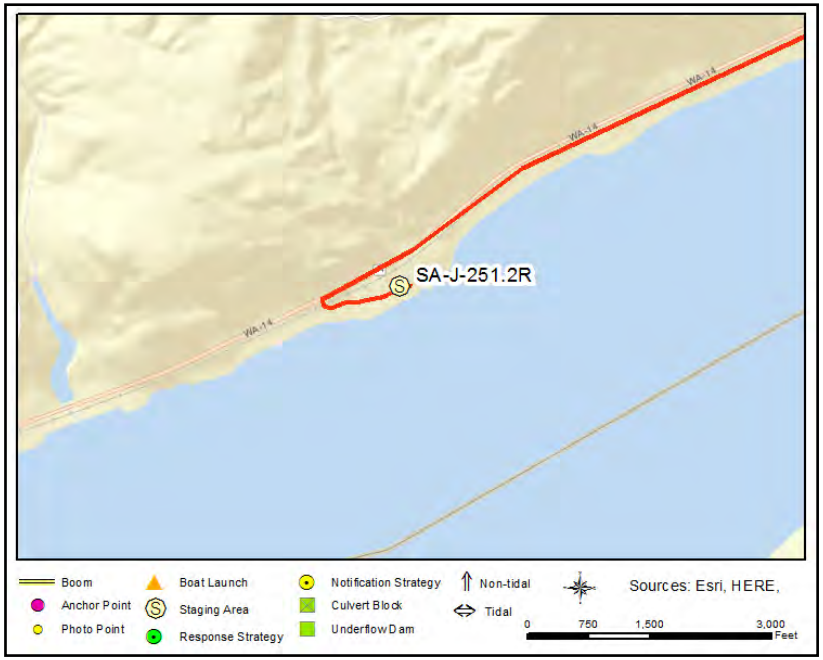
J-251R, J-253.6L, J-250.3R

Location Information

Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	Single ramp 7.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		6,000 sq ft of lot w/ roadside parking
Moorage - Perm, Open	51-55 Feet	2 floating docks and 1 pier
Parking - Car	Not Marked	Parking for 25 cars on the side of road
Parking - Trailer	Marked	10 Lined spaces for trailers
Power	No	
User Fee	No	
Waste Disposal	Trash Receptacle	1 Dumpster there during fishing season
Water (potable)	No	

Pine Creek In-Lieu Treaty Fishing Site SA-J-251.2R

SA-J-251.2R Photo: Pine Creek 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
Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
800-487-3474

Nearest Address

Washington 14
Bickleton, WA 99322

Driving Directions

Directions to SA-J-251.2R / Pine Creek In-Lieu Site
1. From Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.9 mi)
3. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.3 mi)
4. Turn right on WA-14 (39.2 mi)
5. Turn Left on gravel road (Lat 45.793613, Long -120.073161) (0.2 mi)
6. Cross the railroad tracks and bear right to the end.

<< Go Back

Quesnel Park Boat Launch SA-J-256.6L

Staging Area

Position - Location:	45° 48.691', -119° 58.179'	45° 48' 41.4", -119° 58' 10.8"	45.81151, -119.96966	Boardman

Comments: Gravel lot staging area & boat launch

GRP Response Strategies Served:

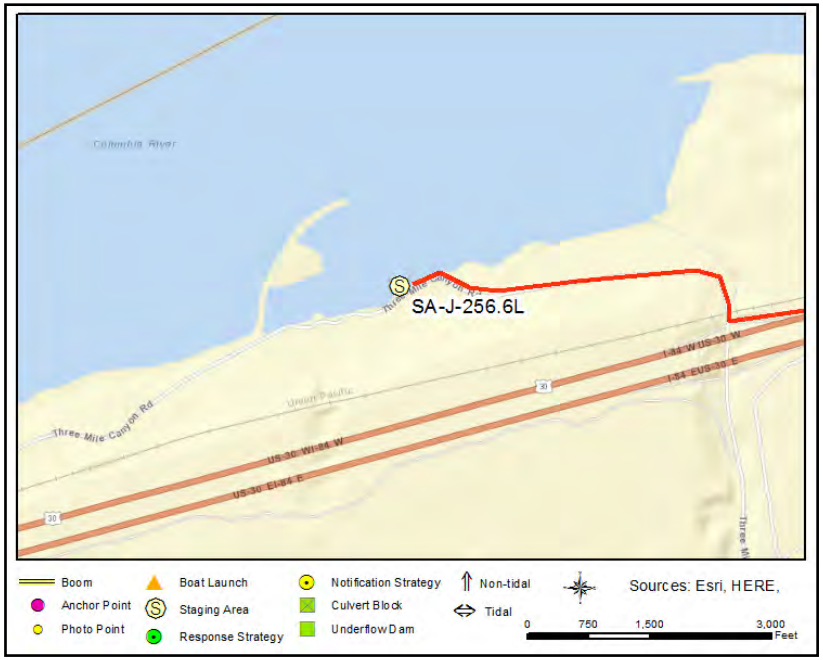
J-257.3L, J-255.7R, J-256.8M, J-255.2M, J-256.5M

Location Information

Asset	Type/Status	Amount/Number
		Gravel lot
Boat Ramp(s)	Concrete, Solid	Concrete ramp 7.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		40,000 sq ft of gravel parking
Restroom	Restroom - Vault	
User Fee	No	
Water (potable)	No	

Quesnel Park Boat Launch SA-J-256.6L

SA-J-256.6L Photo: Quesnel Park 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

Tower Rd
Boardman, OR 97818

Driving Directions

Directions to J-256.6L / Quesnel Boat Launch
1.Start at U.S. Hwy 395, Pasco, WA
2. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla
3. Take ramp on the right and go on I-84 W toward Portland (27 mi)
4. Take the ramp at Exit 151 and go north on 3 Mile Canyon Rd to the end (0.85 mi).

Crow Butte Park boat launch SA-J-262.7R

Staging Area

Position - Location:	45° 51.376', -119° 51.177'	45° 51' 22.5", -119° 51' 10.6"	45.85626, -119.85295	Prosser

Comments: Lighted staging area with Marina, Campground & double boat launch, ramps have a 6.5 degree grade. This is a gated facility.

GRP Response Strategies Served:

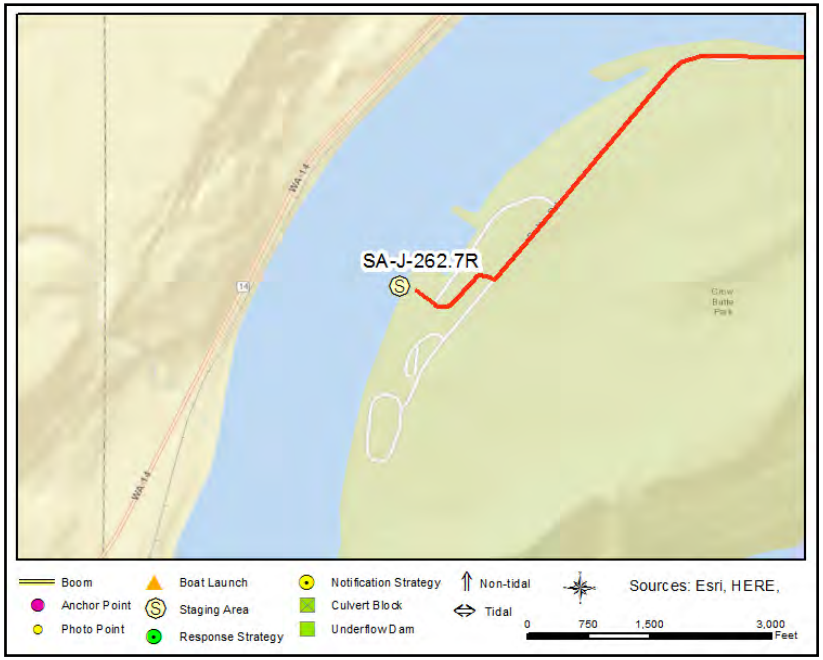
J-266.4R, J-264.6R, J-262.5M, J-266R, J-266.6R, J-265M, J-262.3M

Location Information

Asset	Type/Status	Amount/Number
		3 Asphalt lot with marina and campground
Boat Dock(s)	Yes	16 berth marina
Boat Ramp(s)	Concrete, Solid	Double ramps 6.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		84,500 sq ft of paved parking
Parking - Car	Marked	Spaces for 32 cars
Parking - Trailer	Marked	Spaces for 35 trailers
Power	Yes	Power at marina and campground
Waste Disposal	Dump Station	Dumpsters, dump station, trashcans
Water (potable)	Yes	Water @ fishcleaning station & marina

Crow Butte Park boat launch SA-J-262.7R

SA-J-262.7R Photo: Crow Butte State Park boat launch



Site Contact

Washington State Parks and Recreation Commission
Primary Contact : Crow Butte State Park

Paterson, WA 993454
509-875-2644

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Boardman Marina & RV Park SA-J-269.5L

Staging Area

Position - Location:	45° 50.550', -119° 42.766'	45° 50' 33.0", -119° 42' 45.9"	45.84250, -119.71276	Boardman

Comments: Paved, lighted, staging area, launch, marina & RV park

GRP Response Strategies Served:

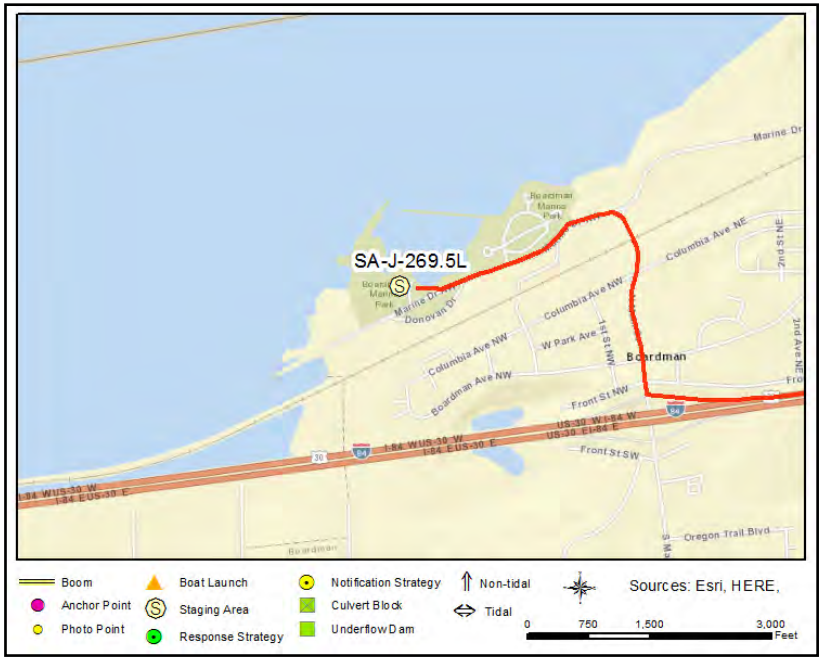
J-273.2R, J-275L, J-270.2L, J-274.91M, J-272.2R, J-274.95M, J-271.4L, J-269.3L, J-269.9R, J-274.85M, J-275R

Location Information

Asset	Type/Status	Amount/Number
		2 Two asphalt parking lots
Boat Ramp(s)	Concrete, Solid	Two concrete ramps 7.2 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		80,000 sq ft of paved parking
Parking - Car	Marked	Spaces for 30 cars
Parking - Trailer	Marked	Spaces for 50 trailers
Power	Yes	
User Fee	No	
Water (potable)	Yes	Water in restrooms, marina & RV park

Boardman Marina & RV Park SA-J-269.5L

SA-J-269.5L Photo: Boardman Marina Boat Launch



Site Contact

Boardman Parks and Recreation
Land/Property Contact :

Boardman, OR 97818
541-481-721

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

1. Directions to SA-J-269.5L/Boardmand Marina, starting from Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US395 S (18.9 mi)
3.Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (14.6 mi)
6. Take exit 164 toward Boardman (0.3 mi)
7. Turn right onto N Main St (0.4 mi)
8. Turn left onto Marine Dr NW
9. Finish at 1 Marine Dr. NW,97818, on the right

<< Go Back

Paterson Boat Launch, Umatilla National Wildlife R SA-J-277.7R

Staging Area

Position - Location:	45° 56.015', -119° 35.561'	45° 56' .9", -119° 35' 33.7"	45.93358, -119.59269	Paterson

Comments: Dirt & gravel lot, no amenities

GRP Response Strategies Served:

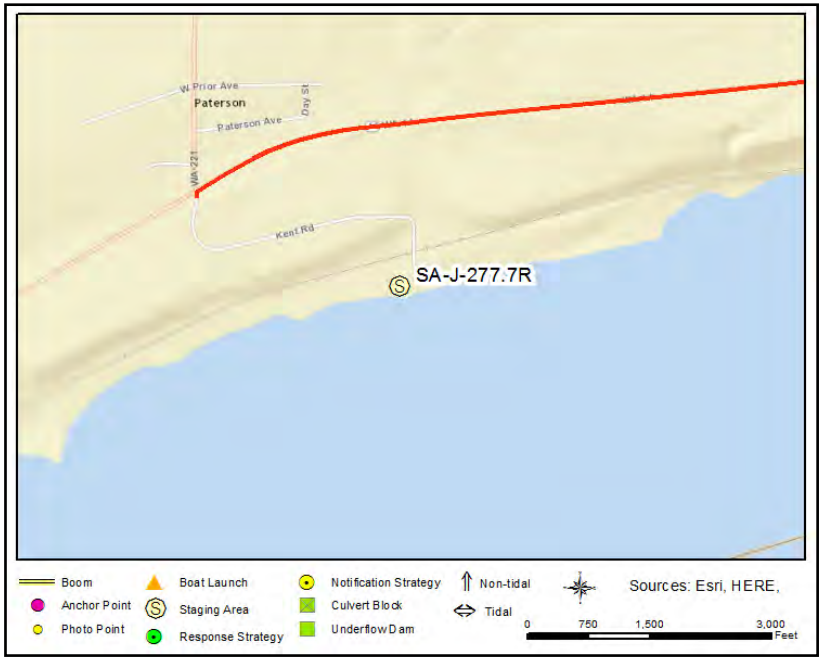
J-277.7R

Location Information

Asset	Type/Status	Amount/Number
Boat Ramp(s)	Gravel	Single ramp, 6 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Gravel lot 4,000 sq ft
Parking - Car	Gravel	Space for 6 cars
Parking - Trailer	Gravel	Space for 6 trailers
Power	No	
User Fee	No	
Waste Disposal	None	None
Water (potable)	No	

Paterson Boat Launch, Umatilla National Wildlife R SA-J-277.7R

SA-J-277.7R Photo: Umatilla N Wildlife Refuge Boat Launch on Kent Rd, Paterson, WA



Site Contact

US Fish & Wildlife Service, McNary and Umatilla National Wildlife Refuges
Land/Property Contact : Property Contact

Burbank, WA 99323
509-546-8300

Nearest Address

48915 Kent Rd
Paterson, WA 99345

Driving Directions

1. From Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US-395 S (18.9 mi)
3. Take exit 131 W for WA-14 E toward Plymouth/ Vancouver (0.3 mi)
4. Turn right onto WA-14 W (13.4 mi)
5. Turn left onto Kent Rd/ Paterson Rd, Destination will be at the end of the road (0.5 mi)

<< Go Back

Irrigon Marina Park SA-J-282.6L

Staging Area

Position - Location:	45° 54.039', -119° 29.528'	45° 54' 2.4", -119° 29' 31.7"	45.90065, -119.49213	Irrigon

Comments: Paved launch, marina, & picnic area, 85,000 sq ft of paved parking

Location Information

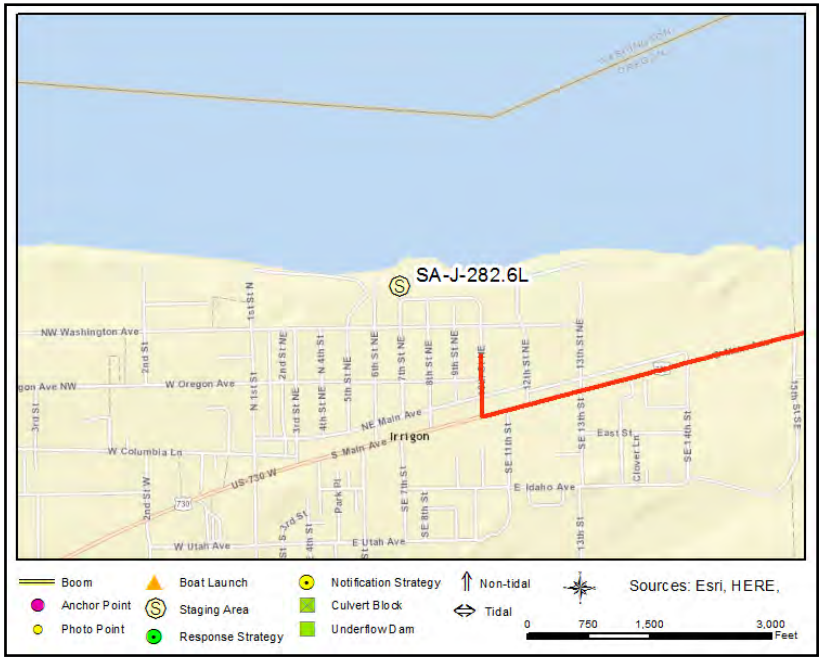
Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	Space for 75, berths & floating docks
Boat Ramp(s)	Concrete, Solid	Two concrete ramps, 8 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		75,000 sq ft of paved parking
Parking - Car	Marked	Paved and striped for 50 cars
Parking - Trailer	Marked	Paved and lined for 55 trailers
Power	Yes	Power at restroom
Restroom	Restroom - Flush	2 Restrooms and portable john
User Fee	No	
Water (potable)	Yes	Water at restroom
Water (potable)	Yes	Water at marina

GRP Response Strategies Served:

J-278.9M, J-275.8R, J-283.2R, J-275.9M, J-277.3L, J-284.5R

Irrigon Marina Park SA-J-282.6L

SA-J-282.6L Photo: Irrigon Marina



Site Contact

City of Irrigon-Marina Manager
Land/Property Contact :

Irrigon, OR 97844
541-922-4933

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

1. From Pasco, WA take US-395 S toward Kennewick Pendleton, follow signs for I-82 E/ US-395 S/ Pendleton/ Umatilla and merge onto I-82 E/ US-395 S
Entering Oregon
2. Merge onton I-82E/US-395 S (21 mi)
3. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
4. Turn right onto US-730 W/6th St (signs for Weigh Station)
Continue to follow US-730 W (8.2 mi)
5. Turn right toward 10th St NE (249 ft)
6. Continue onto 10th St NE, Destination will be on the right (0.3 mi)

Plymouth Park boat launch SA-J-289.9R

Staging Area

Position - Location:	45° 55.785', -119° 21.164'	45° 55' 47.1", -119° 21' 9.9"	45.92974, -119.35274	Plymouth

Comments: Staging area with paved lot, campground and boat launch with 8 degree grade

Location Information

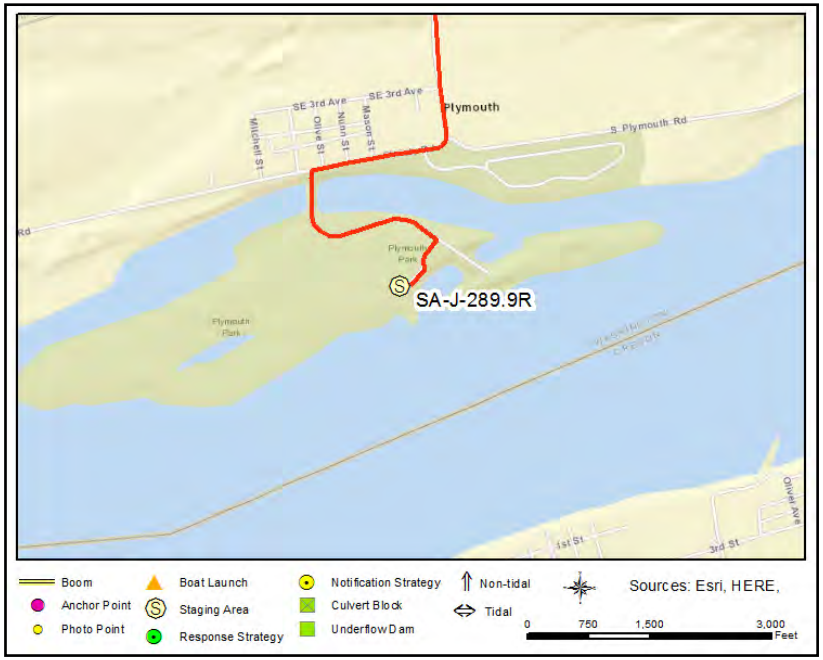
Asset	Type/Status	Amount/Number
		2 Asphalt lot by ramp and rec area
Boat Dock(s)	Yes	Two floating docks
Boat Ramp(s)	Concrete, Solid	Double concrete ramp with 8 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Two lots 20,000 sq ft of parking
Parking - Car	Marked	Parking for 4 & additional by rec area
Parking - Trailer	Marked	Parking for 14 trailers by ramp
Power	Yes	Lighted lot with power in campground
User Fee	Yes	3 $3.00 user fee
Water (potable)	Yes	In rec area bathrooms

GRP Response Strategies Served:

J-288.8R, J-289.9R, J-287.1L

Plymouth Park boat launch SA-J-289.9R

SA-J-289.9R Photo: Plymouth Park boat launch



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Christy Rd
Plymouth, WA 99346

Driving Directions

Directions to SA-J-289.9R Plymouth Park
1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (0.7 mi)
2. Take the 1st left onto Plymouth Rd (0.7 mi)
3. Plymouth Rd turns slightly right and becomes Christie Rd (0.3 mi)
4. Take the second left (0.4 mi)
5. Take the first right toward the boat launch (377 ft)
Lat 45.929676, Long -119.352524

Umatilla Marina & RV Park SA-J-290.8L

Staging Area

Position - Location:	45° 55.533', -119° 19.919'	45° 55' 32.0", -119° 19' 55.1"	45.92555, -119.33198	Umatilla

Comments: Paved, 106,860 sq ft area with three ramps. Port of Umatilla manages (541) 922-3939, RV park and marina.

GRP Response Strategies Served:

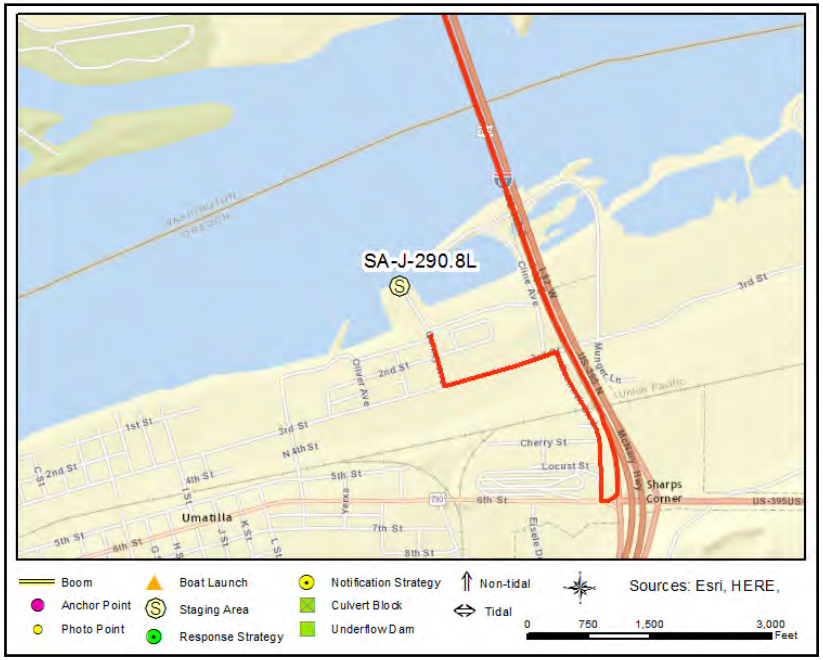
J-289.6L, J-291R, J-290.8L, J-290.9L

Location Information

Asset	Type/Status	Amount/Number
		Asphalt
Boat Ramp(s)	Concrete, Solid	Three ramps 8.9 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Paved & lined 106,860 sq ft plus more
Parking - Car	Not Marked	Two lots w/o striping for ~100 cars
Parking - Trailer	Marked	Stiped for 75 trailers, extra lots
Power	Yes	Power at marina and campground
Restroom	Restroom - Portable	3 Portable w/Flush @ marina & campground
User Fee	Yes	
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	Water at marina and campground

Umatilla Marina & RV Park SA-J-290.8L

SA-J-290.8L Photo: Photo Not Available



Site Contact

Port of Umatilla
Land/Property Contact :

Umatilla, OR 97882
541-922-3939

Nearest Address

1710 Quincy Avenue
Umatilla, OR 97882

Driving Directions

1. Directions to BL-J-290.8L/Port of Umatilla Marina from Pasco, WA
2. Merge onto US-395 S (1.5 mi)
3. Continue straight to stay on US-395 S (signs for Kennewick Pendleton) (5.2 mi)
4. Keep left at the fork, follow signs for I-82 E/ US-395 S/ Pendleton/ Umatilla and merge onto I-82 E/ US-395 S Entering Oregon (21.0 mi)
5. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
6. Turn right onto US-730 W/6th St (signs for Weigh Station) (292 ft)
7. Take the 1st right onto Brownell Blvd (0.4 mi)
8. Turn left onto 3rd St/ Co1275 Rd (0.3 mi)
9. Take the 2nd right onto Quincy Ave, destination will be on the right

LePage Park SA-JDR-0.2L

Staging Area

Position - Location:	45° 43.761', -120° 39.047'	45° 43' 45.6", -120° 39' 2.8"	45.72935, -120.65078	Arlington

Comments: Paved, lighted, 139,350 sq ft

GRP Response Strategies Served:

JDR-0.5L, J-219.1L

Location Information

Asset	Type/Status	Amount/Number
		Asphalt
Boat Dock(s)	Yes	4 floating docks
Cell Phone Coverage	Yes	
Estimated Lot Size		86,625 sq ft of parking
Parking - Car	Marked	50 spaces
Parking - Trailer	Marked	95 spaces
Power	Yes	Power in bathroom
Restroom	Restroom - Flush	3 Brick bldg w/ flush toilets + portables
User Fee	Yes	$3.00 per launch
Waste Disposal	Trash Receptacle	Dumpster and cans
Water (potable)	Yes	Water in bathroom

LePage Park SA-JDR-0.2L

SA-JDR-0.2L Photo: LePage Park Boat Launch

Site Contact

LePage Park
Land/Property Contact :

OR
541-506-7819

Nearest Address

410 Beech St
Arlington, OR 97812

Driving Directions

1. Directions to SA-JDR-0.2L/Le Page Park, starting in Pasco, WA. Take US395 S (signs for Kennewick Pendleton)
2. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Continue to follow I-82 E. Entering Oregon. (30.6 mi)
3. Take the I-84 W exit toward Portland (0.5 mi(
4. Merge onto I-84 (64.6 mi)
5. Take exit 114 for LePage Park toward John Day River (0.2 mi)
6. Turn left onto Le Page Park Road, pass through the gate house (0.1 Mi)
7. Take the first left toward the boat launch. Destination will be at the end (0.1 mi)

Rock Creek Park boat launch SA-RC-1.3L

Staging Area

Position - Location:	45° 43.172', -120° 27.680'	45° 43' 10.3", -120° 27' 40.8"	45.71954, -120.46133	Roosevelt

Comments: Rock Creek feeds into the John Day Pool at river mile 230.2; staging area and boat launch with a 7 degree grade

GRP Response Strategies Served:

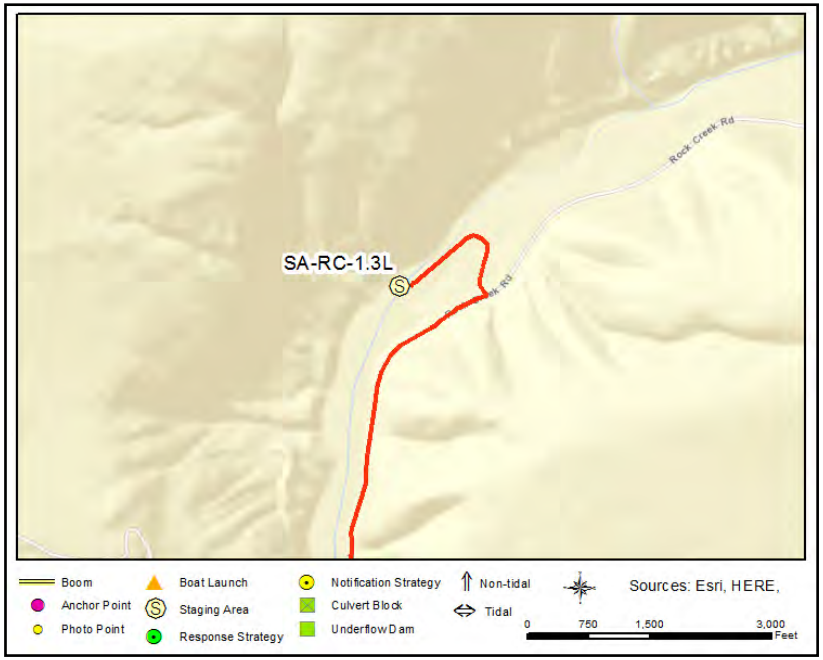
J-230.2R

Location Information

Asset	Type/Status	Amount/Number
		Asphalt
Boat Ramp(s)	Concrete, Solid	Single ramp 7 degree grade
Cell Phone Coverage	Yes	Only had one bar with Verizon in 2014
Estimated Lot Size		24,000 sq ft of pavement
Parking - Car	Marked	12 spaces for cars
Parking - Trailer	Marked	24 spaces for trailers
Power	No	
Restroom	Restroom - Portable	1
Waste Disposal	Other	No waste disposal in Oct 2014
Water (potable)	No	

Rock Creek Park boat launch SA-RC-1.3L

SA-RC-1.3L Photo: Rock Creek boat launch



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Rock Creek Rd
Roosevelt, WA 99356

Driving Directions

Directions to SA-1.3L Rock Creek Boat Launch
1. From WA-97 head east on WA-14 toward Stonehenge Dr (19.7 mi)
2. Turn left on Rock Creek Rd (1.3 mi)
3. Take the first left into Rock Creek Park, road ends at boat launch (0.35 mi)

APPENDIX 4D

Boat Launch 2-Pagers

BOAT LAUNCHES - LIST

BL-J-216.5R	BL-J-227.4R	BL-J-237.3R	BL-J-241.7R	BL-J-242.5L
BL-J-251.2R	BL-J-256.6L	BL-J-262.7R	BL-J-269.5L	BL-J-277.7R
BL-J-282.6L	BL-J-289.9R	BL-J-290.8L	BL-JDR-0.2L	BL-RC-1.3L

<< Go Back

USACE Railroad Island boat launch BL-J-216.5R

Boat Launch Location

Position - Location:	45° 43.466', -120° 41.882'	45° 43' 28.0", -120° 41' 52.9"	45.72444, -120.69804	Goldendale

Comments: Lighted staging area with 2 concrete boat rams ~ 8 degree grade

Location Information

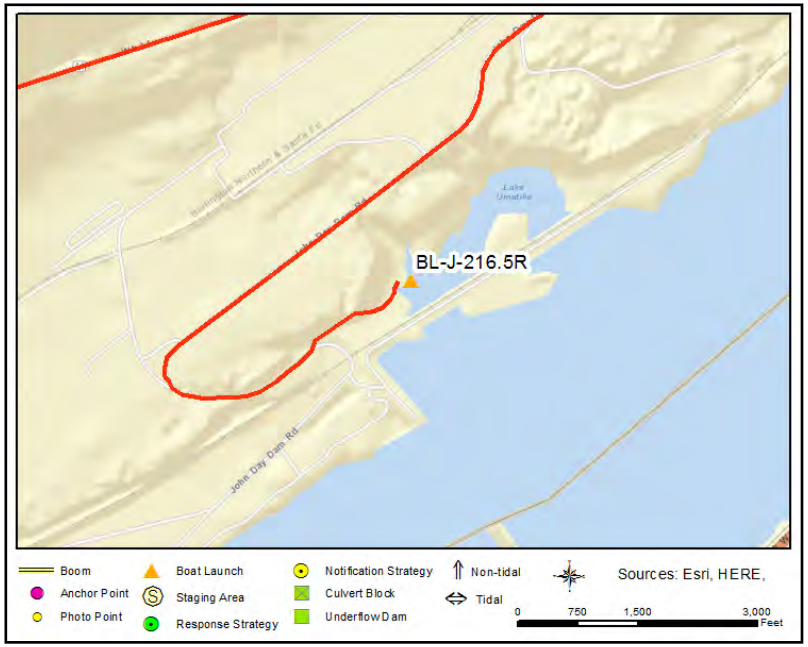
Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	1 Floating dock
Boat Ramp(s)	Concrete, Solid	2 concrete ramps 7.8 & 8.7 degree grades
Cell Phone Coverage	Yes	
Estimated Lot Size		20,000 sq ft of gravel parking
Parking - Car	Gravel	Room for 20 cars, 10 trailers
Parking - Trailer	Gravel	Room for 20 cars, 10 trailers
Power	No	
Restroom	Restroom - Vault	
User Fee	No	
Waste Disposal	Trash Receptacle	
Water (potable)	No	

GRP Response Strategies Served:

J-216.55R, J-217.1R, J-216.5R

USACE Railroad Island boat launch BL-J-216.5R

SA-J-216.5R Photo: USACE Railroad Island boat launch



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

John Day Dam Road
Goldendale, WA 98620

Driving Directions

1. Directions to SA-J-216.5R/Railroad Island, starting at the intersection of WA Hwy-97 & WA Hwy-14, head east on WA-14 E toward Stonehenge Dr (6.9 mi)
2. Turn right onto John Day Dam Rd (2.0 mi)
3. Turn left toward Railroad Island boat launch (0.3 mi)

Pasture Point In-Lieu Site, E of Goodnoe Rd BL-J-227.4R

Boat Launch Location

Position - Location:	45° 42.370', -120° 30.107'	45° 42' 22.2", -120° 30' 6.4"	45.70616, -120.50179	Roosevelt

Comments: Pasture Point In-Lieu Site with power, water, parking, lights, & a single, concrete boat launch 7 degree grade

Location Information

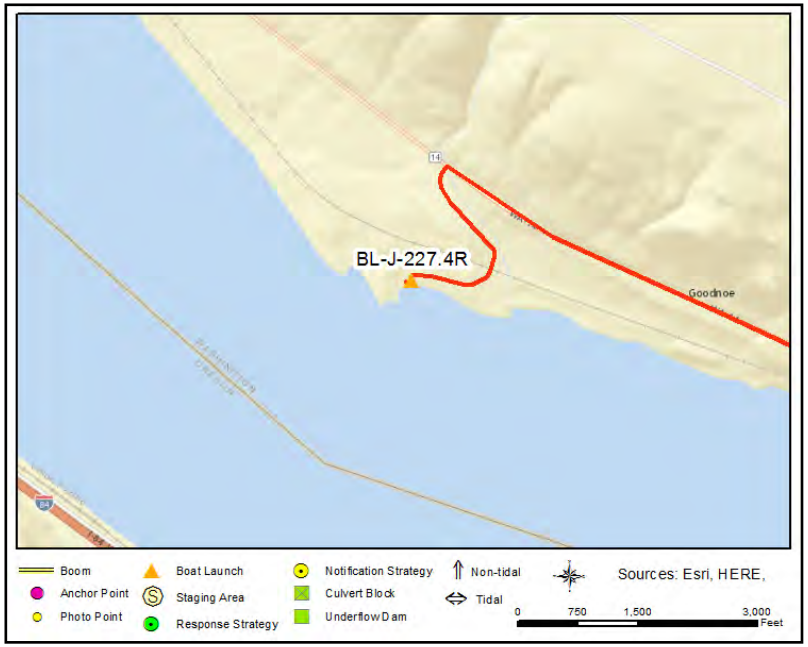
Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	1 Single concrete ramp
Covered Spaces	Yes	
Power	Yes	
Restroom	Restroom - Vault	1 Mens & Womens
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	

GRP Response Strategies Served:

J-224R, J-227.4R, J-228.5R

Pasture Point In-Lieu Site, E of Goodnoe Rd BL-J-227.4R

SA-J-227.4R Photo: Pasture Point Tribal In-Lieu Site boat launch



Site Contact

USACE John Day pool
Tribal Contact : Natural Resource Manager
541-506-4805

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

Nearest Address

Highway 14
Roosevelt, WA 99356

Driving Directions

1. Directions to Pasture Point Tribal In-Lieu Site starting at WA Hwy14 in Roosevelt, WA go west 9 miles, - or - coming from WA Hwy 14 in Maryhill WA go east 17.6 miles, to a gravel road located at Lat 45.710149, Long -120.499682 (this unmarked gravel rd is ~.75 miles EAST of Goodnoe Station Road)
2. Turn onto gravel road, go southwest until you come to the railroad tracks (0.3 mi), continue straight across the tracks (0.7 miles) to launch on the left.

<< Go Back

Sundale Park (In-Lieu Site) BL-J-237.3R

Boat Launch Location

Position - Location:	45° 43.157', -120° 18.895'	45° 43' 9.4", -120° 18' 53.7"	45.71929, -120.31492	Roosevelt

Comments: Boat launch with one concrete ramp 7 degree grade in an in-lieu site which is open to the public (at this time). Clearance under train bridge is 29' H & 25' W at average water level.

Location Information

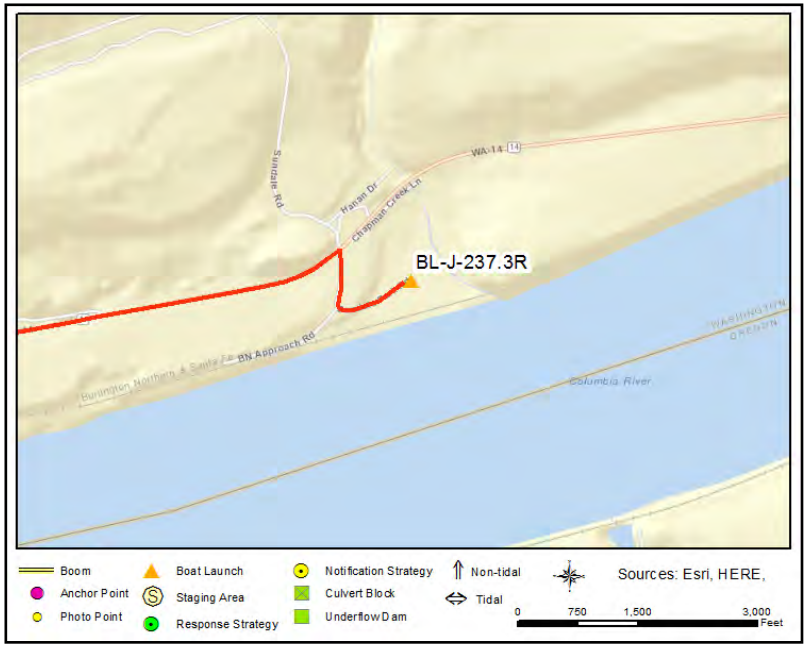
Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	Single ramp 7 degree grade
Estimated Lot Size		16000 sq ft
Parking - Car	Marked	Spaces for 4 cars
Parking - Trailer	Marked	Spaces for 5 trailers
Power	No	
Restroom	Restroom - Vault	
Waste Disposal	Trash Receptacle	Dumpster
Water (potable)	No	

GRP Response Strategies Served:

J-237.6L, J-237.6R

Sundale Park (In-Lieu Site) BL-J-237.3R

SA-J-237.3R Photo: Sundale Park 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

Sundale Park Rd
Roosevelt, WA 99356

Driving Directions

1. From US-97 turn onto WA-14 E (26.7 mi)
2. Turn right onto Sundale Rd (0.3 m)

<< Go Back

Roosevelt Park (USACE) boat launch BL-J-241.7R

Boat Launch Location

Position - Location:	45° 43.863', -120° 13.482'	45° 43' 51.8", -120° 13' 28.9"	45.73105, -120.22470	Roosevelt

Comments: Lighted staging area with double boat ramp

Location Information

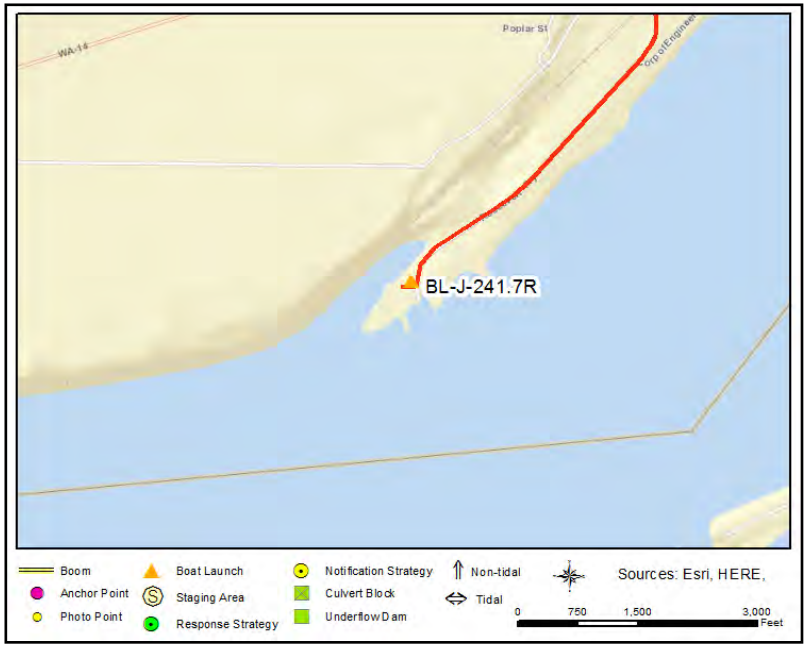
Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	Double ramp 7 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		34,000 sq ft plus 18,500 in rec area
Parking - Car	Not Marked	35 w/ more parking in rec area
Parking - Trailer	Not Marked	35 w/ more parking in rec area
Restroom	Restroom - Vault	Two w/ restroom in rec area also
Waste Disposal	Trash Receptacle	with additional cans in recreation area
Water (potable)	Yes	In rec area

GRP Response Strategies Served:

J-242.3R, J-245.1R, J-244.5R, J-244.4R

Roosevelt Park (USACE) boat launch BL-J-241.7R

SA-J-241.7R Photo: Roosevelt Park double boat ramp7 degree grade



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Roosevelt Ferry Rd.
Roosevelt, WA 99356

Driving Directions

1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (47.1 mi)
2. Turn left onto Roosevelt Ferry Rd (1.3 mi)
3. Turn right, destination will be on the right just passed the in-lieu site (148 ft)

Arlington Point Marina & Campground BL-J-242.5L

Boat Launch Location

Position - Location:	45° 43.368', -120° 12.380'	45° 43' 22.1", -120° 12' 22.8"	45.72279, -120.20633	Port of Arlington

Comments: Paved staging area, marina, campground & boat launch

Location Information

Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	Dock space for 24 boats
Boat Ramp(s)	Concrete, Solid	2 Concrete ramps 9* grade + gravel ramp
Cell Phone Coverage	Yes	1 G with 2 bars in 2014
Estimated Lot Size		>130,000 sq ft lot, some paved & lined
Parking - Car	Gravel	Large gravel lot, space for 100 cars
Parking - Trailer	Marked	Paved area striped for 15 trailers
Power	Yes	In bathroom & campground
Telephone	Yes	Port of Arlington office has a phone
Waste Disposal	Trash Receptacle	2 Additional in campground
Water (potable)	Yes	In bathroom & campground

GRP Response Strategies Served:

J-242.7L, J-240.7L

Arlington Point Marina & Campground BL-J-242.5L

SA-J-242.5L Photo: Arlington Point Marina Boat Launch

Site Contact

Port of Arlington
Land/Property Contact : Arlington Point Marina (boat launch) & Campground

Port of Arlington, OR 97812
541-454-2868

Nearest Address

Arlington Port Rd
Port of Arlington, OR 97812

Driving Directions

1. From Pasco take US-395 S
3. Keep left at the fork, follow signs for I-82 E/ US-395 S/ Pendleton/ Umatilla and merge onto I-82 E/ US-395 S
Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (40.5 mi)
6. Take exit 137 toward OR-19/ Arlington Condon (0.6 mi)
7. Continue onto Beech St (417 ft)
8. Turn right onto Arlington Port Rd - go to end of road on the left (0.4 mi)

Pine Creek In-Lieu Treaty Fishing Site BL-J-251.2R

Boat Launch Location

Position - Location:	45° 47.642', -120° 4.132'	45° 47' 38.5", -120° 4' 7.9"	45.79403, -120.06887	Bickleton

Comments: Gated, paved, launch & staging area

Location Information

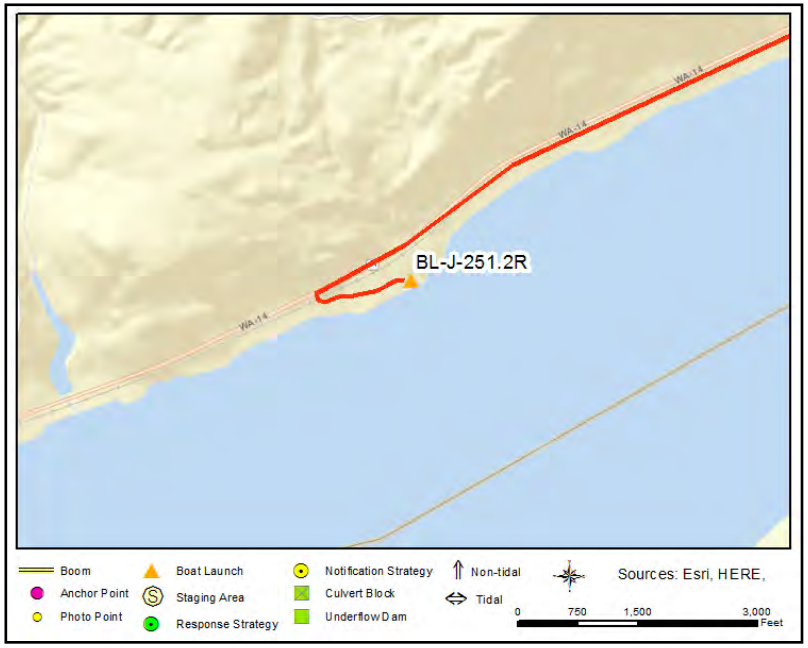
Asset	Type/Status	Amount/Number
Boat Ramp(s)	Concrete, Solid	Single ramp 7.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		6,000 sq ft of lot w/ roadside parking
Moorage - Perm, Open	51-55 Feet	2 floating docks and 1 pier
Parking - Car	Not Marked	Parking for 25 cars on the side of road
Parking - Trailer	Marked	10 Lined spaces for trailers
Power	No	
User Fee	No	
Waste Disposal	Trash Receptacle	1 Dumpster there during fishing season
Water (potable)	No	

GRP Response Strategies Served:

J-251R, J-253.6L, J-250.3R

Pine Creek In-Lieu Treaty Fishing Site BL-J-251.2R

SA-J-251.2R Photo: Pine Creek 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
Tribal Contact : Fishing Treaty In-lieu Site - Law Enforcement
800-487-3474

Nearest Address

Washington 14
Bickleton, WA 99322

Driving Directions

Directions to SA-J-251.2R / Pine Creek In-Lieu Site
1. From Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla (18.9 mi)
3. At exit 131 take ramp on the right to WA-14 W toward Plymouth/Vancouver (0.3 mi)
4. Turn right on WA-14 (39.2 mi)
5. Turn Left on gravel road (Lat 45.793613, Long -120.073161) (0.2 mi)
6. Cross the railroad tracks and bear right to the end.

Quesnel Park Boat Launch BL-J-256.6L

Boat Launch Location

Position - Location:	45° 48.691', -119° 58.179'	45° 48' 41.4", -119° 58' 10.8"	45.81151, -119.96966	Boardman

Comments: Concrete boat launch & gravel lot staging area

Location Information

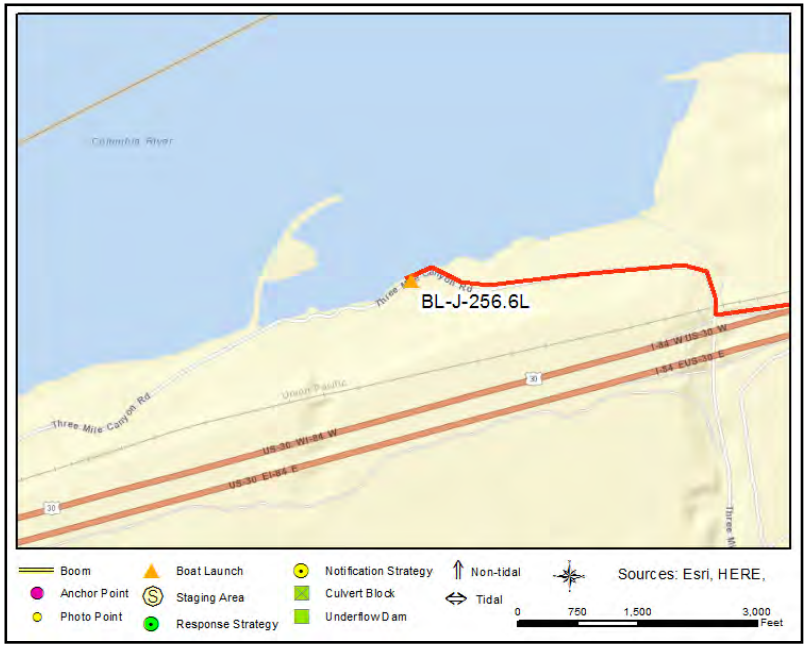
Asset	Type/Status	Amount/Number
		Gravel lot
Boat Ramp(s)	Concrete, Solid	Concrete ramp 7.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		40,000 sq ft of gravel parking
Restroom	Restroom - Vault	
User Fee	No	
Water (potable)	No	

GRP Response Strategies Served:

J-257.3L, J-255.7R, J-258.6R, J-259.8L, J-258.65R, J-256.8M, J-255.2M, J-256.5M

Quesnel Park Boat Launch BL-J-256.6L

SA-J-256.6L Photo: Quesnel Park 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

Tower Rd
Boardman, OR 97818

Driving Directions

Directions to J-256.6L / Quesnel Boat Launch
1.Start at U.S. Hwy 395, Pasco, WA
2. Take ramp on the left and go on I-82 E/US-395 S toward Pendleton/Umatilla
3. Take ramp on the right and go on I-84 W toward Portland (27 mi)
4. Take the ramp at Exit 151 and go north on 3 Mile Canyon Rd to the end (0.85 mi).

Crow Butte Park boat launch BL-J-262.7R

Boat Launch Location

Position - Location:	45° 51.376', -119° 51.177'	45° 51' 22.5", -119° 51' 10.6"	45.85626, -119.85295	Prosser

Comments: Lighted staging area with Marina, Campground & double boat launch, ramps with a 6.5 degree grade. This is a gated facility.

Location Information

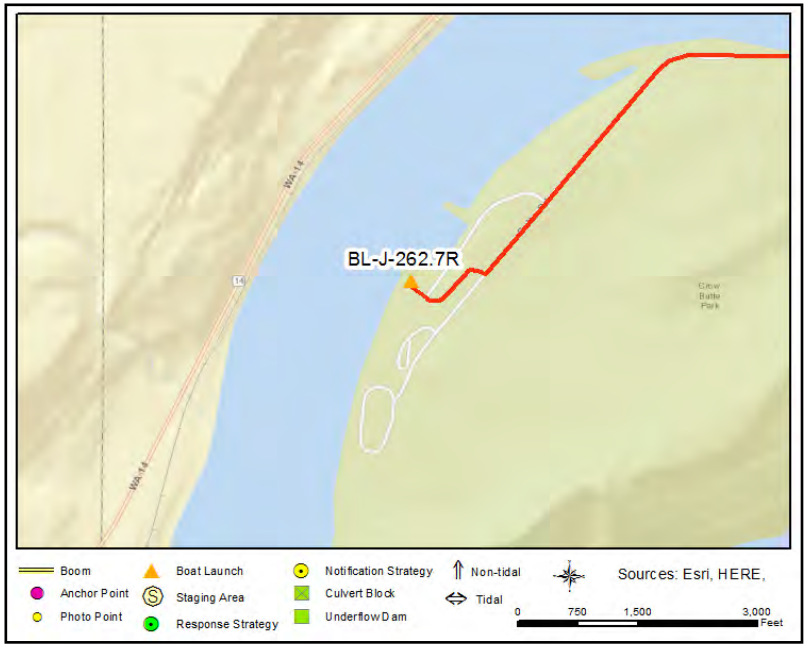
Asset	Type/Status	Amount/Number
		3 Asphalt lot with marina and campground
Boat Dock(s)	Yes	16 berth marina
Boat Ramp(s)	Concrete, Solid	Double ramps 6.5 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		84,500 sq ft of paved parking
Parking - Car	Marked	Spaces for 32 cars
Parking - Trailer	Marked	Spaces for 35 trailers
Power	Yes	Power at marina and campground
Waste Disposal	Dump Station	Dumpsters, dump station, trashcans
Water (potable)	Yes	Water @ fishcleaning station & marina

GRP Response Strategies Served:

J-266.4R, J-264.6R, J-265.3R, J-262.5M, J-264.8R, J-266R, J-266.6R, J-265M, J-262.3M

Crow Butte Park boat launch BL-J-262.7R

SA-J-262.7R Photo: Crow Butte State Park boat launch



Site Contact

Washington State Parks and Recreation Commission
Primary Contact : Crow Butte State Park

Paterson, WA 993454
509-875-2644

Nearest Address

1 Butte Road
Prosser, WA 99350

Driving Directions

1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (25.7 mi)
2. Turn right onto Sonova Rd)51 ft
3. Take the 1st right onto W Crow Butte Rd (1.7 mi)
4. Turn right (0.2 mi)
5. Continue straight, destination will be on the right just past the marina (341 ft)

Boardman Marina & RV Park BL-J-269.5L

Boat Launch Location

Position - Location:	45° 50.550', -119° 42.766'	45° 50' 33.0", -119° 42' 45.9"	45.84250, -119.71276	Boardman

Comments: Two concrete ramps, 7.2 degree grade, paved lot, marina& RV park

Location Information

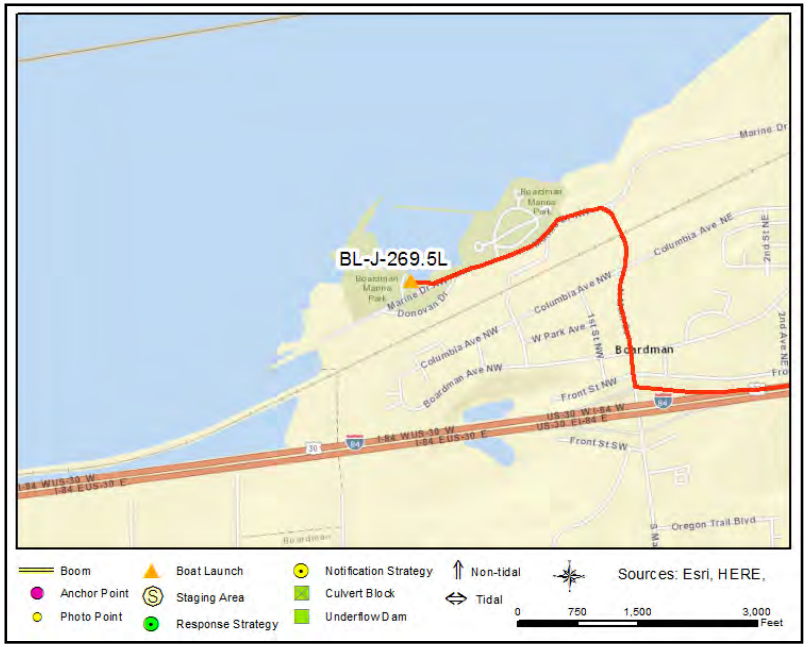
Asset	Type/Status	Amount/Number
		2 Two asphalt parking lots
Boat Ramp(s)	Concrete, Solid	Two concrete ramps 7.2 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		80,000 sq ft of paved parking
Parking - Car	Marked	Spaces for 30 cars
Parking - Trailer	Marked	Spaces for 50 trailers
Power	Yes	
User Fee	No	
Water (potable)	Yes	Water in restrooms, marina & RV park

GRP Response Strategies Served:

J-273.2R, J-275L, J-270.2L, J-274.91M, J-272.2R, J-274.95M, J-271.4L, J-269.3L, J-275.5L, J-269.9R, J-274.85M, J-275R

Boardman Marina & RV Park BL-J-269.5L

SA-J-269.5L Photo: Boardman Marina Boat Launch



Site Contact

Boardman Parks and Recreation
Land/Property Contact :

Boardman, OR 97818
541-481-721

Nearest Address

1 Marine Dr. NW
Boardman, OR 97818

Driving Directions

1. Directions to SA-J-269.5L/Boardmand Marina, starting from Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US-395 S (18.9 mi)
3. Continue to follow I-82 E Entering Oregon (30.6 mi)
4. Take the I-84 W exit toward Portland (0.5 mi)
5. Merge onto I-84 (14.6 mi)
6. Take exit 164 toward Boardman (0.3 mi)
7. Turn right onto N Main St (0.4 mi)
8. Turn left onto Marine Dr NW
9. Finish at 1 Marine Dr. NW,97818, on the right

<< Go Back

Paterson Boat Launch, Umatilla National Wildlife R BL-J-277.7R

Boat Launch Location

Position - Location:	45° 56.015', -119° 35.561'	45° 56' .9", -119° 35' 33.7"	45.93358, -119.59269	Paterson

Comments: Primitive ramp, dirt & gravel

Location Information

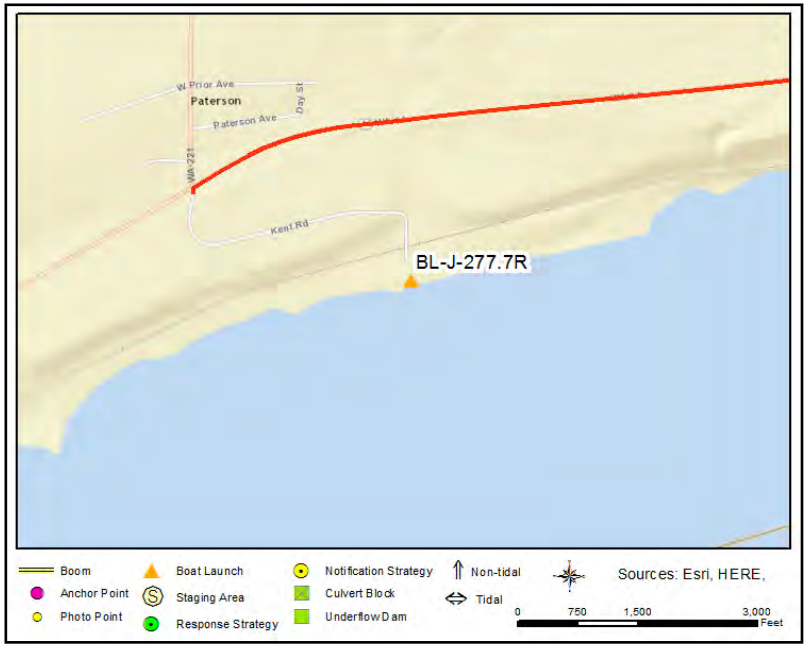
Asset	Type/Status	Amount/Number
Boat Ramp(s)	Gravel	Single ramp, 6 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Gravel lot 4,000 sq ft
Parking - Car	Gravel	Space for 6 cars
Parking - Trailer	Gravel	Space for 6 trailers
Power	No	
User Fee	No	
Waste Disposal	None	None
Water (potable)	No	

GRP Response Strategies Served:

J-277.7R

Paterson Boat Launch, Umatilla National Wildlife R BL-J-277.7R

SA-J-277.7R Photo: Umatilla N Wildlife Refuge Boat Launch on Kent Rd, Paterson, WA



Site Contact

US Fish & Wildlife Service, McNary and Umatilla National Wildlife Refuges
Land/Property Contact : Property Contact

Burbank, WA 99323
509-546-8300

Nearest Address

48915 Kent Rd
Paterson, WA 99345

Driving Directions

1. From Pasco take US-395 S, follow signs for I-82E/ US-395 S/ Pendleton/ Umatilla
2. Merge onto I-82 E/ US-395 S (18.9 mi)
3. Take exit 131 W for WA-14 E toward Plymouth/ Vancouver (0.3 mi)
4. Turn right onto WA-14 W (13.4 mi)
5. Turn left onto Kent Rd/ Paterson Rd, Destination will be at the end of the road (0.5 mi)

Irrigon Marina Park BL-J-282.6L

Boat Launch Location

Position - Location:	45° 54.039', -119° 29.528'	45° 54' 2.4", -119° 29' 31.7"	45.90065, -119.49213	Irrigon

Comments: Two paved ramps, 85,000 sq ft of paved parking

Location Information

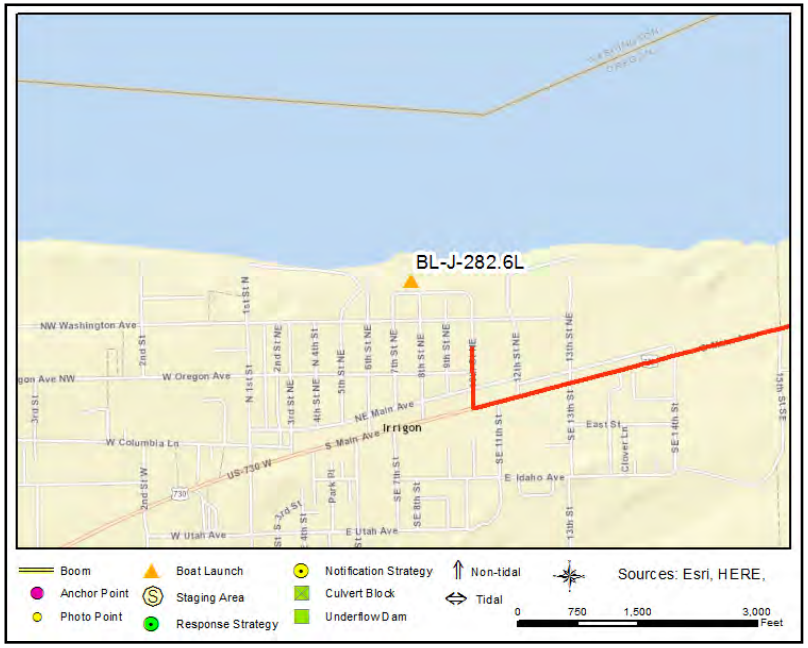
Asset	Type/Status	Amount/Number
Boat Dock(s)	Yes	Space for 75, berths & floating docks
Boat Ramp(s)	Concrete, Solid	Two concrete ramps, 8 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		75,000 sq ft of paved parking
Parking - Car	Marked	Paved and striped for 50 cars
Parking - Trailer	Marked	Paved and lined for 55 trailers
Power	Yes	Power at restroom
Restroom	Restroom - Flush	2 Restrooms and portable john
User Fee	No	
Water (potable)	Yes	Water at restroom
Water (potable)	Yes	Water at marina

GRP Response Strategies Served:

J-278.9M, J-275.8R, J-283.2R, J-275.9M, J-277.3L, J-284.5R

Irrigon Marina Park BL-J-282.6L

SA-J-282.6L Photo: Irrigon Marina



Site Contact

City of Irrigon-Marina Manager
Land/Property Contact :

Irrigon, OR 97844
541-922-4933

Nearest Address

NE 10th St. Irrigon,
Irrigon, OR 97844

Driving Directions

1. From Pasco, WA take US-395 S toward Kennewick Pendleton, follow signs for I-82 E/ US-395 S/ Pendleton/ Umatilla and merge onto I-82 E/ US395 S
Entering Oregon
2. Merge onton I-82E/US-395 S (21 mi)
3. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
4. Turn right onto US-730 W/6th St (signs for Weigh Station)
Continue to follow US-730 W (8.2 mi)
5. Turn right toward 10th St NE (249 ft)
6. Continue onto 10th St NE, Destination will be on the right (0.3 mi)

Plymouth Park boat launch BL-J-289.9R

Boat Launch Location

Position - Location:	45° 55.785', -119° 21.164'	45° 55' 47.1", -119° 21' 9.9"	45.92974, -119.35274	Plymouth

Comments: Staging area with paved lot, campground and boat launch with 8 degree grade

Location Information

Asset	Type/Status	Amount/Number
		2 Asphalt lot by ramp and rec area
Boat Dock(s)	Yes	Two floating docks
Boat Ramp(s)	Concrete, Solid	Double concrete ramp with 8 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Two lots 20,000 sq ft of parking
Parking - Car	Marked	Parking for 4 & additional by rec area
Parking - Trailer	Marked	Parking for 14 trailers by ramp
Power	Yes	Lighted lot with power in campground
User Fee	Yes	3 $3.00 user fee
Water (potable)	Yes	In rec area bathrooms

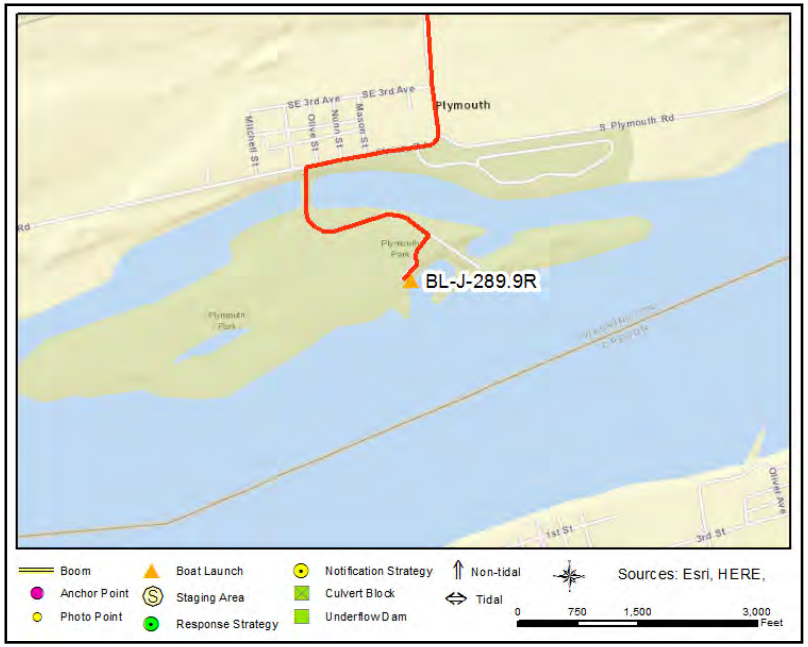
GRP Response Strategies Served:

J-288.8R, J-289.9R, J-287.1L

<< Go Back

Plymouth Park boat launch BL-J-289.9R

SA-J-289.9R Photo: Plymouth Park boat launch



Site Contact

USACE John Day pool
Primary Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Christy Rd
Plymouth, WA 99346

Driving Directions

Directions to SA-J-289.9R Plymouth Park
1. From I-82 take exit 131 and head west on WA-14 W toward Plymouth Rd (0.7 mi)
2. Take the 1st left onto Plymouth Rd (0.7 mi)
3. Plymouth Rd turns slightly right and becomes Christie Rd (0.3 mi)
4. Take the second left (0.4 mi)
5. Take the first right toward the boat launch (377 ft)
Lat 45.929676, Long -119.352524

Umatilla Marina & RV Park BL-J-290.8L

Boat Launch Location

Position - Location:	45° 55.533', -119° 19.919'	45° 55' 32.0", -119° 19' 55.1"	45.92555, -119.33198	Umatilla

Comments: Paved, 106,860 sq ft area with three ramps Port of Umatilla manages (541) 922-3939

GRP Response Strategies Served:

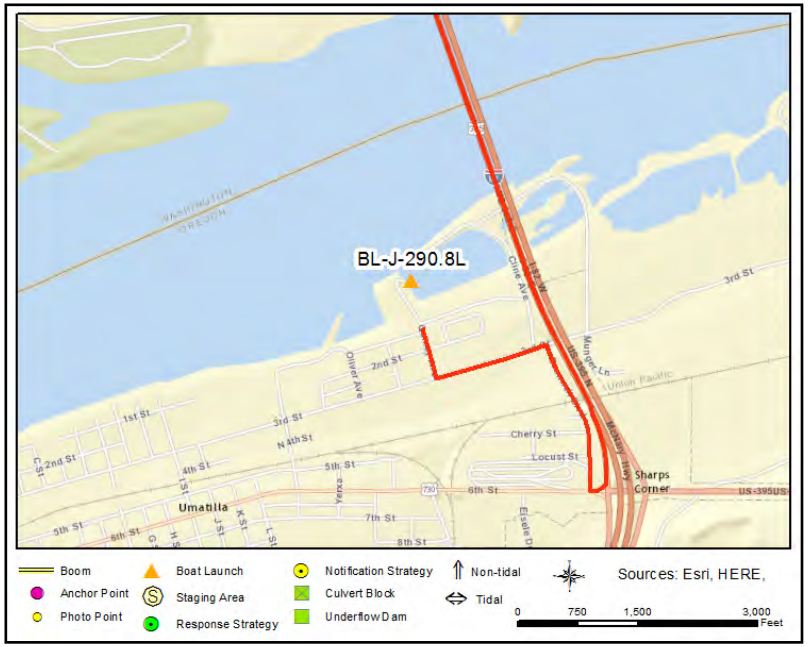
J-292.5L, J-289.6L, J-292.5R, J-291R, J-288L, J-290.8L, J-290.9L, J-292.4R

Location Information

Asset	Type/Status	Amount/Number
		Asphalt
Boat Ramp(s)	Concrete, Solid	Three ramps 8.9 degree grade
Cell Phone Coverage	Yes	
Estimated Lot Size		Paved & lined 106,860 sq ft plus more
Parking - Car	Not Marked	Two lots w/o striping for ~100 cars
Parking - Trailer	Marked	Stiped for 75 trailers, extra lots
Power	Yes	Power at marina and campground
Restroom	Restroom - Portable	3 Portable w/Flush @ marina & campground
User Fee	Yes	
Waste Disposal	Trash Receptacle	
Water (potable)	Yes	Water at marina and campground

Umatilla Marina & RV Park BL-J-290.8L

SA-J-290.8L Photo: Photo Not Available



Site Contact

Port of Umatilla
Land/Property Contact :

Umatilla, OR 97882
541-922-3939

Nearest Address

1710 Quincy Avenue
Umatilla, OR 97882

Driving Directions

1. Directions to BL-J-290.8L/Port of Umatilla Marina from Pasco, WA
2. Merge onto US-395 S (1.5 mi)
3. Continue straight to stay on US-395 S (signs for Kennewick Pendleton) (5.2 mi)
4. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Entering Oregon (21.0 mi)
5. Take exit 1 for U.S. 395/ U.S.730 toward Umatilla Hermiston (0.2 mi)
6. Turn right onto US-730 W/6th St (signs for Weigh Station) (292 ft)
7. Take the 1st right onto Brownell Blvd (0.4 mi)
8. Turn left onto 3rd St/ Co1275 Rd (0.3 mi)
9. Take the 2nd right onto Quincy Ave, destination will be on the right

LePage Park BL-JDR-0.2L

Boat Launch Location

Position - Location:	45° 43.761', -120° 39.047'	45° 43' 45.6", -120° 39' 2.8"	45.72935, -120.65078	Arlington

Comments: Three paved ramps with floating docks, $3 fee, open all year

Location Information

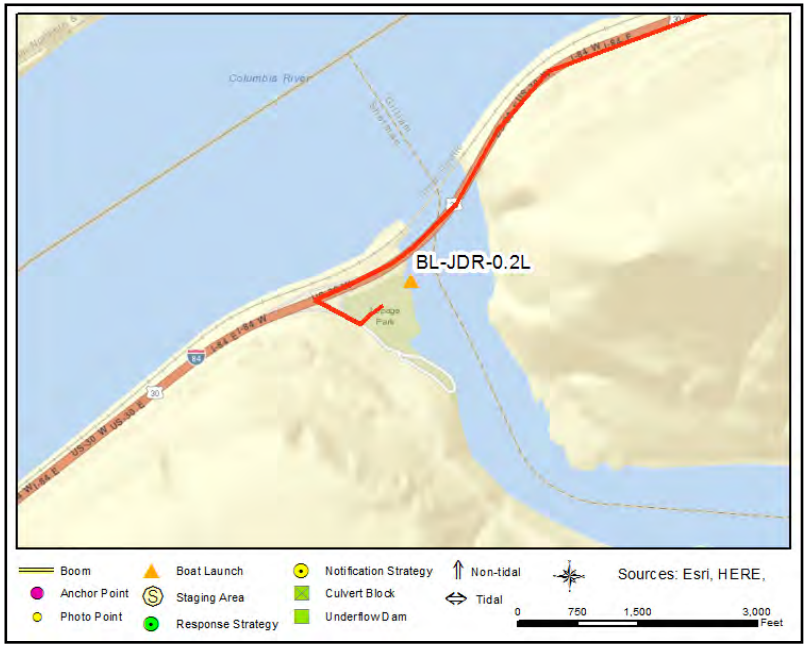
Asset	Type/Status	Amount/Number
		Asphalt
Boat Dock(s)	Yes	4 floating docks
Cell Phone Coverage	Yes	
Estimated Lot Size		86,625 sq ft of parking
Parking - Car	Marked	50 spaces
Parking - Trailer	Marked	95 spaces
Power	Yes	Power in bathroom
Restroom	Restroom - Flush	3 Brick bldg w/ flush toilets + portables
User Fee	Yes	$3.00 per launch
Waste Disposal	Trash Receptacle	Dumpster and cans
Water (potable)	Yes	Water in bathroom

GRP Response Strategies Served:

J-216.7L, JDR-0.5L, J-219.1L, J-220.7R

LePage Park BL-JDR-0.2L

SA-JDR-0.2L Photo: LePage Park Boat Launch



Site Contact

LePage Park
Land/Property Contact :

OR
541-506-7819

Nearest Address

410 Beech St
Arlington, OR 97812

Driving Directions

1. Directions to SA-JDR-0.2L/Le Page Park, starting in Pasco, WA. Take US395 S (signs for Kennewick Pendleton)
2. Keep left at the fork, follow signs for I-82 E/ US395 S/ Pendleton/ Umatilla and merge onto I82 E/ US395 S Continue to follow I-82 E. Entering Oregon. (30.6 mi)
3. Take the I-84 W exit toward Portland (0.5 mi(
4. Merge onto I-84 (64.6 mi)
5. Take exit 114 for LePage Park toward John Day River (0.2 mi)
6. Turn left onto Le Page Park Road, pass through the gate house (0.1 Mi)
7. Take the first left toward the boat launch. Destination will be at the end (0.1 mi)

Rock Creek Park boat launch BL-RC-1.3L

Boat Launch Location

Position - Location:	45° 43.172', -120° 27.680'	45° 43' 10.3", -120° 27' 40.8"	45.71954, -120.46133	Roosevelt

Comments: Rock Creek feeds into the John Day Pool at river mile 230.2; staging area and boat launch with a 7 degree grade

Location Information

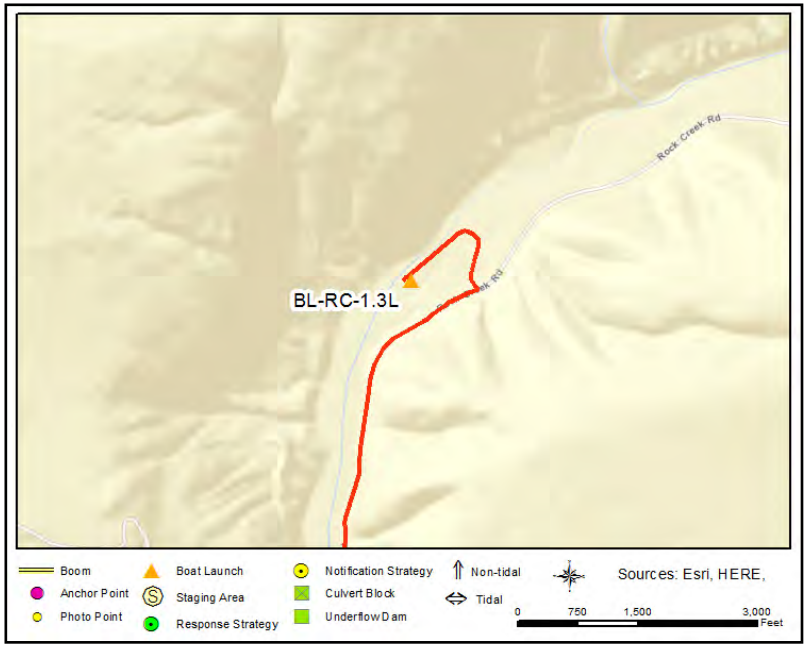
Asset	Type/Status	Amount/Number
		Asphalt
Boat Ramp(s)	Concrete, Solid	Single ramp 7 degree grade
Cell Phone Coverage	Yes	Only had one bar with Verizon in 2014
Estimated Lot Size		24,000 sq ft of pavement
Parking - Car	Marked	12 spaces for cars
Parking - Trailer	Marked	24 spaces for trailers
Power	No	
Restroom	Restroom - Portable	1
Waste Disposal	Other	No waste disposal in Oct 2014
Water (potable)	No	

GRP Response Strategies Served:

J-231.6R, J-230.2R

Rock Creek Park boat launch BL-RC-1.3L

SA-RC-1.3L Photo: Rock Creek boat launch



Site Contact

USACE John Day pool
Land/Property Contact : Natural Resource Manager

John Day Dam, OR
541-506-4805

Nearest Address

Rock Creek Rd
Roosevelt, WA 99356

Driving Directions

Directions to SA-1.3L Rock Creek Boat Launch
1. From WA-97 head east on WA-14 toward Stonehenge Dr (19.7 mi)
2. Turn left on Rock Creek Rd (1.3 mi)
3. Take the first left into Rock Creek Park, road ends at boat launch (0.35 mi)

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 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],
- 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)].

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 [ST] and Great blue herons** are nesting residents and may be found year-round throughout the region. Peregrine falcons [FCo/SS] 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, John Day Pool, Lake Umatilla (~RM 215-292). See Figure 6-3.

1. **Railroad Island (~RM 216):** Waterfowl breeding and winter concentration areas. Salmonid concentration and rearing habitat. Public recreation area (Army Corp of Engineers Park).
2. **John Day River (~RM 218):** Breeding waterfowl, salmon concentrations and habitat, cultural resource area, resident warm water fish, winter waterfowl concentrations, heavy shorebird use.
3. **Goodnoe Waterfowl area (~RM 226):** Waterfowl concentration area. Public recreation area.
4. **Chapman Creek Waterfowl area (~RM 236):** Impounded wetland. Sensitive nesting species; goose wintering/loafing area; salmonid spawning and rearing area, cultural resources. Public recreation area (Sundale Park).
5. **Wood Gulch (~RM 243):** Salmonid concentrations and habitat, resident warm-water fish nursery and adult fishery, cultural sensitive area. Concentration area for breeding, migrating and wintering waterfowl.
6. **Willow Creek (~RM 252):** Impounded shallow water habitat. Salmonid concentration and rearing habitat, resident warm-water fish, winter waterfowl production, shorebirds.
7. **Three Mile Canyon (~RM 256):** Colonial nesting birds (including Caspian tern), salmonid concentrations, habitat and waterfowl.
8. **Umatilla National Wildlife Refuge (~RM 261-283):** Numerous islands, sloughs and wetlands provide rearing habitat for juvenile salmonids and resident fish. Very large (hundreds of thousands) waterfowl concentration and breeding area, also provides nesting

habitat for shorebirds, herons, and sensitive species (including the American White pelican [SE], Bald eagle [FCo/SS(WA)/ST(OR)], Burrowing owl [SC]). Numerous mammals present such as deer, otter, beaver, the Townsend's ground squirrel [SC], and the Black-tailed jackrabbit [SC].

9. **Plymouth Island (~RM 288-290):** Shrub steppe interspersed with wetlands and riparian areas. Large waterfowl breeding and winter concentration areas (including American white pelican [SE]), Bald eagles [FCo/SS], shorebirds, herons. Salmonid concentration and rearing habitat. Miscellaneous small mammals present. Public recreation area.
10. **Umatilla River/McNary Wildlife Nature Area (~RM 289):** Salmonid concentration and rearing habitat, sturgeon spawning, resident fish habitat.

Figure 6-1: Middle Columbia River, John Day Pool, Lake Umatilla (~RM 215-292).

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).

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APPENDIX 6A

The John Day 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 Irrigon	1095 North East Main Avenue, Irrigon, OR 97844	45.903649/-119517125	Public Works Director	541-922-6022	
A-1 Drinking Water Intakes	City of Boardman Public Works	1A Marine Drive, Boardman, OR 97818	45.85132/-119.698999	Public Works Director	541-571-0272	
A2 - Energy/Power Generation Water Intakes	John Day Lock & Dam	John Day Dam Rd, Rufus, OR 97065	45.72/-120.686	Control Room Operator (24/7)	541-298-9712	
B4 - Marinas	Umatilla Marina & RV Park	1710 Quincy Avenue, Umatilla, OR 97882	45.93266/-119.332195	Umatilla Marina & RV Park	541-922-3939	
B4 - Marinas	Irrigon Marina Park	NE 10th St. Irrigon, OR 9784	45.90091/-119.49206	City of Irrigon	541-922-4933	
B4 - Marinas	Boardman Marina & RV Park	1 Marine Drive Northwest, Boardman, OR 97818	45.842462/-119.712145	Boardman Parks & Recreation	541-481-7217	
B4 - Marinas	Arlington Point Marina and Boat Launch	Arlington Port Rd, Port of Arlington, OR 97812	45.722274/-120.207002	Arlington Point Marina and Boat Launch	541-454-2868	
C2 - Public Recreation Areas	Umatilla National Wildlife Refuge	48915 Kent Rd, Paterson, WA 99345	45.933452/-119.592505	US Fish and Wildlife Service	509-545-8670	
C4 - Parks & Beaches	Giles French Park	John Day Dam Rd., Wasco, OR 97065	45.701274/-120.729231	US Army Corp of Engineers	541-506-4807	
C4 - Parks & Beaches	LePage Park	410 Beech St, Arlington, OR 97812	45.729289/-120.650688	US Army Corp of Engineers	541-506-7819	
C4 - Parks & Beaches	Rock Creek Park	SR14, Roosevelt, WA, 99356	45.719575/-120.462291	US Army Corp of Engineers	541-506-7819	
C4 - Parks & Beaches	Sundale Park	100 Sundale Road, Goldendale, WA 98620	45.719576/-120.315619	US Army Corp of Engineers	541-506-7819	

Category	Name	Location/Address	Lat/Long	Contact	Phone	Email
C4 - Parks & Beaches	Roosevelt Park	Roosevelt Ferry Rd. Roosevelt, WA 99356	45.731091/-120.224737	US Army Corp of Engineers	541-506-7819	
C4 - Parks & Beaches	Quesnel Park (Three Mile Canyon)	Un-named Rd (Exit 151 off I-84) Three Mile Canyon, Boardman, OR 97818	45.811619/-119.970072	US Army Corp of Engineers	541-506-7819	
C4 - Parks & Beaches	Crow Butte State Park	1 Crow Butte State Park Rd, Paterson, WA 99345	45.856246/-119.853936	Port of Benton County	509-948-6069	
C4 - Parks & Beaches	Plymouth Park	Christy RD, Plymouth, WA 99346	45.929676/-119.352524	US Army Corp of Engineers	541-506-7819	
C4 - Parks & Beaches	Railroad Island Park	John Day Dam Road, Goldendale, WA 98620	45.724573/-120.698689	US Army Corp of Engineers	541-506-7819	