# Spokane River

## Geographic Response Plan

## (SPR GRP)

# Spokane River

Geographic Response Plan

(SPR GRP)

*July 2011*

# Spill Response Contact Sheet

| Required Notifications for Oil Spills & Hazardous Substance Releases | |
|---|---|
| **Federal Notification - National Response Center** | **(800) 424-8802*** |
| **State Notification - Washington Emergency Management Division** | **(800) 258-5990*** |
| **State Notification - Idaho State Communications Center** | **(800) 632-8000*** |

| U.S. Environmental Protection Agency | |
|---|---|
| **Region 10 - Spill Response** | **(206) 553-1263*** |
| **Idaho Ops Office** | (208) 378-5773 |

| U.S. Coast Guard | |
|---|---|
| **Pacific Strike Team** | **(415) 883-3311*** |
| **Sector Puget Sound** | |
| - Emergency | **(206) 217-6001*** |
| - Watchstander | **(206) 217-6002*** |
| - Incident Management Division | (206) 217-6066 |
| **Sector Columbia River** | |
| - Watchstander | **(503) 240-9301*** |
| - Command Center | **(503) 240-9311*** |
| - Environmental Response | (503) 240-9370 |
| - Port & Waterways Safety | (503) 240-2590 |

| National Oceanic Atmospheric Administration | |
|---|---|
| **Scientific Support Coordinator** | (206) 526-6829 |
| **Weather** | (206) 526-6087 |

| Department of Interior | |
|---|---|
| **Regional Environmental Officer** | (503) 231-6157 |

| Other Federal Agencies | |
|---|---|
| **U.S. Fish & Wildlife Service** | (509) 891-6839 |
| **U.S. Army Corps of Engineers - District** | (206) 764-3400 |

| Spokane Tribe of Indians | |
|---|---|
| **Dept of Natural Resources** | |
| - Director | (509) 626-4400 |
| - Environmental Health | (509) 626-4400 |
| - Fisheries | (509) 626-4412 |
| - Water Resources | (509) 626-4409 |
| **Tribal Historic Preservation Office** | (509) 258-4315 |
| **Tribal Police** | **(509) 258-4400*** |

| Local Government | |
|---|---|
| **City of Spokane** | (509) 625-6250 |
| **City of Post Falls (Idaho)** | (208) 773-3511 |
| **Spokane County** | (509) 532-8940 |
| **Stevens County** | (509) 684-2555 |
| **Lincoln County** | (509) 725-3501 |

| Washington State | |
|---|---|
| **Dept of Ecology** | |
| - Headquarters (Lacey) | (360) 407-6000 |
| - Spokane | (509) 329-3400 |
| - Yakima | (509) 575-2490 |
| - Bellevue | (425) 649-7000 |
| **Washington State Patrol** | (509) 456-4101 |
| **Dept of Fish & Wildlife** | (360) 902-2200 |
| - Emergency HPA Assistance | **(360) 534-8233*** |
| **Dept Archaeology & Historic Preservation** | (360) 586-3065 |
| **Dept of Transportation** | (360) 705-7000 |

| Idaho State | |
|---|---|
| **Idaho State Communications Center** | **(800) 632-8000*** |
| **Dept of Environmental Quality** | |
| - Headquarters (Boise) | (208) 373-0502 |
| - Coeur d' Alene | (208) 209-8730 |
| **Idaho State Police** | (208) 209-8730 |
| **Dept of Fish & Game** | (208) 799-5010 |
| **State Historic Preservation Office** | (877) 653-4367 |
| **Emergency Response Commission** | **(800) 632-8000*** |
| **Idaho Transportation Department** | (208) 334-8000 |

| Response Contractors (OSRO & PRC) | |
|---|---|
| **National Response Corporation (NRC)** | **(253) 872-8988*** |
| **NRC Environmental Services** | **(800) 337-7455*** |
| **Marine Spill Response Corporation** | (425) 252-1300 |
| **Big Sky Industrial** | (509) 624-4949 |

| Utilities, Pipeline Companies, & Railroads | |
|---|---|
| **Avista Utilities** | **(800) 227-9187*** |
| **Yellowstone Pipeline Company** | **(877) 267-2290*** |
| **Chevron Pipeline** | **(800) 762-3404*** |
| **BNSF Railway** | **(800) 832-5452*** |
| **Union Pacific Railroad** | **(888) 877-7267*** |

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

**<u>Before you print this document</u>:**

Chapter 4 (with appendices) and Appendix 6A of this document are provided in “landscape” page orientation; all other chapters and appendices are oriented in “portrait.” In Chapter 4, detailed (2-page) response strategy information on pages 4-39 through 4-156, staging area information on pages 4-161 through 4-170, and boat launch information on pages 4-177 through 4-196 have all been designed for duplex printing (front and back side of paper), “open to top” configuration. In Chapter 5, the Shoreline Counter Matrices on pages 5-7 through 5-14 have been designed for duplex printing, “open to left” configuration.

# Spokane River
## Geographic Response Plan

## Purpose and Use of this Plan

This Geographic Response Plan is meant to aid the response community during the initial phase of an oil spill incident; the period from when a spill occurs to the time a Unified Command is established. This plan constitutes the federal and state on-scene coordinators' orders during the initial phase of an oil spill response. The plan prioritizes response strategies based on where a spill might originate and the proximity to sensitive natural, cultural, and economic resources in the area. By using this document it is hoped that immediate and proper action can be taken to minimize oil's impact on these sensitive resources.

**Response Strategy Selection:** The bulk of this plan is contained in Chapter 4. It provides information on GRP response strategies and the order they should be implemented based on potential spill origin points and their nearness to sensitive resources. Vicinity and sector maps and information on staging areas and boat launch locations are also provided in the chapter. After a spill occurs, the booming and communication strategies provided in Chapter 4 should be implemented as soon as possible. Unless circumstances unique to a particular spill dictate otherwise, the priority tables in Section 4.3 of the chapter should be used. 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.

**"Control and containment at the source will always be a higher priority than GRP strategy implementation"** If in the responder's best judgment spill control and containment at the source is not feasible, then the priorities laid out in Section 4.3 take precedence. It is important to note that spill response strategies rely on the spill trajectory. A booming strategy listed as a high priority would not necessarily be implemented if the spill trajectory and booming location did not warrant action in that area. However, the priority tables should be followed until spill trajectory information becomes available. Modifications to any of the priority tables published in this plan must be approved by the Unified Command. The strategies discussed in this plan have been designed for use with persistent oils and may not be suitable for other petroleum products or hazardous substances. For hazardous substance spills, refer to the Northwest Area Contingency Plan, Chapter 7000.

**Resources at Risk:** Chapter 6 of this plan outlines sensitive resources at risk in the area that may be injured if impacted by oil. The implementation of certain strategies may be delayed if flight restrictions are associated with a particular resource until the required trustee consultation has

been provided. Information in the chapter regarding flight restrictions should be followed before moving to implement any strategy requiring the use of aircraft.

**Information in Other Chapters of the Plan:** Chapter 1 gives an introduction and explains the GRP development process. Chapter 2 describes the area/site, physical features, hydrology, climate & winds, river flow/currents, and risks. Chapter 5 provides information on shoreline types and oil spill countermeasures. Finally, Chapter 7 gives information needed to support logistics during the initial phase of a response.

| | |
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| Chapter 2 | Site Description |
| Chapter 3 | Reserved |
| Chapter 4 | Response Strategies & Priorities |
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**Standardized Response Language –** In order to avoid confusion in response terminology, this plan uses standard National Incident Management System, Incident Command System (NIMS ICS) terminology defined in Appendix A of this document (e.g. diversion, containment, exclusion).

# Record of Changes

| Date | Change Number | Summary of Changes | Name of Person Making Change |
|---|---|---|---|
| 3/1/2011 | SPR 001 | Significant rewrite/update of all chapters. Response strategy information in Chapter 4 also updated. | Harry Chichester |
| 1/9/2012 | SPR 002 | ID & WA EMD numbers corrected on Spill Response Contact Sheet. Staging area label for Q'emlin Park on page 4-158 corrected to read SA-SPR 102.25. | Harry Chichester |
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# Spokane River
# Geographic Response Plan

## Chapter 1 – Introduction

Geographic Response Plans (GRPs) are intended to help the response community avoid the initial confusion that sometimes accompanies the onset of an oil spill incident. This document serves as the federal and state on-scene-coordinators orders during the initial phase of a spill response for the Spokane River and its major tributaries. This plan has been approved by the Environmental Protection Agency Region 10 and the Washington State Department of Ecology Spills Program. 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 submit comments on how the plan might be improved. Please submit comments using the information provided in Appendix "C" or online at http://www.rrt10nwac.com/Comment.

GRPs have been developed for the marine and inland waters of Washington, Oregon, and Idaho. They are prepared through the efforts and cooperation of the Washington Department of Ecology, Washington Department of Fish and Wildlife, Oregon Department of Environmental Quality, Idaho State Emergency Response Commission, U.S. Coast Guard, Environmental Protection Agency, other state and federal agencies, tribal and local governments, response organizations, and emergency responders. GRPs are developed through workshops and meetings with federal, state, and local oil spill emergency response experts, response contractors, tribal representatives, industry, local governments, environmental organizations, ports, and pilots. Participants identify resources that may be at risk of injury from spills, develop oil spill response strategies to minimize injury to those resources, and provide information needed to support logistics during a spill response.

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 is 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 limitations of current response technology make the development of strategies for all resource locations impracticable. An updated (draft) plan is produced after site visits are completed. Comments on the draft plan are provided by trustee agencies, stakeholders, and the public. A final version of the GRP is produced. A responsiveness summary is generated for all public comments received but not incorporated into the final version of the updated GRP.

This plan has been developed for the greater Spokane River subbasin. It covers 77 miles of the Spokane River, over seven miles of Spring Creek, one-half mile of Chamokane Creek (aka Tshimikain Creek), 21 miles of the Little Spokane River, one-quarter mile of Dartford Creek, one-quarter mile of Dragoon Creek, five miles of Marshall Creek, and eight miles of Latah Creek (aka Hangman Creek). The coverage area extends from the Post Falls Dam in Idaho, through and beyond the city of Spokane, to the Spokane arm of Lake Roosevelt; approximately seven miles downstream of the Little Falls Dam in Washington.

- Spokane River – River mile 102.0 to river mile 25.0
- Spring Creek – Mile 7.75 to confluence with Spokane River
- Chamokane Creek (aka Tshimikain Creek) – Mile 0.5 to confluence with Spokane River
- Little Spokane River – Confluence with Dragoon Creek to confluence with Spokane River
- Dartford Creek – Mile 0.25 to confluence with Little Spokane River
- Dragoon Creek – Mile 0.25 to confluence with Little Spokane River
- Latah Creek (aka Hangman Creek) – Mile 8.0 to confluence with Spokane River
- Marshall Creek – Mile 5.0 to confluence with Latah Creek

An area site description and information on physical features, hydrology, river conditions, winds, climate, and risk are included in Chapter 2. Oil spill strategy descriptions, response priorities, and strategy maps are in Chapter 4 of this plan. Chapter 5 addresses shoreline countermeasures. Chapter 6 provides information on natural, cultural, and economic resources at risk from oil spills and discusses flight restriction zones, hazing, oiled wildlife, and the pre-cleaning of shorelines. Chapter 7 provides information on logistics and identifies resources in the area that might be available to support the initial phase of an oil spill response.

# Spokane River
# Geographic Response Plan

## Chapter 2 – Site Description

The Spokane River subbasin is bordered by the Upper Columbia subbasin to the north, the Pend Oreille subbasin to the northeast, and the Coeur d'Alene subbasin to the east. The subbasin's foremost river is the Spokane River. Its headwaters are formed by the outlet of Coeur d'Alene Lake in Idaho and flow westerly for nearly 112 miles to its confluence with the Columbia River on Lake Roosevelt in Washington. Major tributaries to the Spokane River, upstream to downstream, are Latah Creek (aka Hangman Creek), Little Spokane River, and Chamokane Creek (aka Tshimikain Creek).

Eight counties are located within the Spokane River subbasin. Washington counties include Pend Oreille, Stevens, Lincoln, Spokane, and Whitman. Idaho counties are Benewah, Kootenai, and Bonner. Nearly seventy-eight percent of the subbasin is located in Washington State. The eastern portion, with generally higher elevations, lies within the state of Idaho. Both the Coeur d'Alene and Spokane Indian Reservations are located within the subbasin. The Coeur d'Alene Indian Reservation is located in the southeastern portion of the subbasin near the upper reaches of the Latah (Hangman) Creek drainage area in Idaho. The southern boundary of the Coeur d'Alene Reservation corresponds with the southernmost extent of the subbasin. The Spokane Indian Reservation borders the northern bank of the Spokane River (river right) from Chamokane/Tshimikain Creek to the confluence of the Spokane and Columbia Rivers on Lake Roosevelt. The western boundary of the Spokane Indian Reservation coincides with the western extent of the Spokane River subbasin.

### 2.1 Physical Features

The Spokane River subbasin is represented by the Okanogan Highlands to the north and Columbia basin, also known as the Columbia Plateau, to the south. Basalt flows during the tertiary (Miocene epoch) period and glacial activity during the quaternary (Pleistocene epoch) period define the land formation and geological characteristics of the Columbia Plateau. Land formation and sculpting in the Okanogan Highlands was largely associated with glacial activity during the Pleistocene Epoch. Floods from glacial Lake Columbia and glacial Lake Missoula had the most significant impacts on the formation and shaping of the scablands characteristic of the Spokane River subbasin. Vegetation in the subbasin ranges from shrub-steppe in the far west to open dry crops (especially wheat, barley, and legumes) and grass prairies in the rolling Palouse

Hills. The vegetation transitions with increased elevation into mountainous coniferous communities.

River terrain consists mainly of fine to medium grained sand beaches, gravel beaches, or cobble beaches. Portions of the riverbank are steep, completely inaccessible unvegetated banks or steep vegetated banks. There are also areas of exposed rock shores and sheltered vertical rock shores. Other portions are relatively flat sandy beaches. Roads run along the river in many places and the shoreline at these locations is generally rip-rap or hard man-made structures. In a few places there are marshes and sheltered vegetated low bank areas. In the areas of the river that have become reservoirs, such as Long Lake, the shoreline consists of residential property with boat docks. Refer to Chapter 5 for more detailed information on shoreline types and cleanup measures.

## 2.2 Hydrology

Hydrology within this geographic response plan area includes the greater Spokane-Coeur d'Alene watershed which encompasses about 6,600 square miles in parts of northeastern Washington and Idaho. For management purposes, the Washington portion of the Spokane River watershed has been divided into the Middle Spokane (WRIA 57), Hangman (WRIA 56), Little Spokane (WRIA 55), and Lower Spokane (WRIA 54) watersheds or Water Resource Inventory Areas (WRIAs).

**2.2.1 - WRIA 57:** The Middle Spokane River is located in Spokane and Pend Oreille Counties, Washington, and includes about 285 square miles from the Washington/Idaho state line to the confluence of the river with Hangman Creek. The Spokane Valley-Rathdrum Prairie (SVRP) aquifer and the Spokane River are intimately linked. Water withdrawals from the aquifer directly affect flows in the river. The SVRP aquifer is a sole source aquifer that, with seasonal surface water inputs, provides drinking water for approximately 500,000 residents and the city of Spokane.

**Spokane River:** The mainstem of the Spokane River flows in a westerly direction for nearly 112 miles from the Post Falls Dam in Idaho at Lake Coeur d'Alene, to its confluence with the Columbia River on Lake Roosevelt in Washington State. Source surface waters originate from Lake Coeur d'Alene while groundwater from the SVRP aquifer recharges the Spokane River through hydraulic conductivity or cavities in the substrate, over an area of approximately 320 square miles. The upper Spokane River is a relatively low gradient river characterized by a wide valley and marginal channel entrenchment. Channel characteristics consist of an unembedded boulder substrate and stable banks. Spokane Falls, located near downtown Spokane, marks a point on the river's mainstem where the stream gradient changes. The falls are comprised of Miocene basalt flows with a channel that is highly entrenched. Bedrock is the dominant substrate. Below the falls, the channel is deeply entrenched with a

relatively narrow valley floor dominated by unembedded cobble to boulder substrate in areas not affected by reservoir conditions.

Flow conditions on the Spokane River fluctuate greatly between peak and base flows due to the gaining and losing effect that dams inherently have on riverine systems. Historically, peak flows have occurred between December and June, with the majority occurring in May, based on timing of rain and snow events. Peak discharge has ranged from 7,610 to 49,000 (cfs), while base flow during August and September averages approximately 1,750 (cfs).

**2.2.2 - WRIA 56:** Hangman Creek (also known as Latah Creek) is a trans-boundary watershed that begins in the foothills of the Rocky Mountains of northern Idaho, extends over the southeastern portion of Spokane County, Washington, and is a tributary to the Spokane River. It encompasses over 689 square miles; 446 square miles of which resides in Washington State. Major tributaries to Hangman Creek include Marshall, Stevens, California, Spangle, Rock, Rattler Run, Cove, and Little Hangman Creeks. Since 2005, Hangman Creek has had very little flow during the critical summer period; minimum monthly mean flow from July through October has averaged less than 3 (cfs). Agriculture, impervious surfaces, timber harvest, roads, and other land uses as well as stream channel and flood plain alterations over the last 100-years may have contributed to the creek's "flashy" flow conditions. The creek is also suspected of being the largest contributor of bed load and suspended sediment to the Spokane River. USGS data from 2008 shows Hangman Creek near Tekoa Washington with a flow maximum of 589 (cfs) and minimum flow 0.30 (cfs). At Spokane, data shows a maximum flow greater than the base flow equaling 2,500 (cfs), and a minimum flow of 9.6 (cfs).

**2.2.3 - WRIA 55:** The Little Spokane River watershed encompasses an area of approximately 675 square miles and is located within Spokane, Stevens and Pend Oreille counties. The Selkirk Mountains form the eastern boundary of WRIA 55 along the Washington-Idaho state boundary. The Huckleberry Range forms the western boundary. The major tributaries to the Little Spokane River are Deadman, Deer, Dragoon and Little Deep Creeks as well as the West Branch of the Little Spokane River. The largest lakes include Diamond, Eloika, Horseshoe and Sacheen, which are all located in the northern half of the watershed. The largest aquifers in the watershed are in the valley of the Little Spokane River. Smaller and localized aquifers occur within tributary valleys and in upland areas. The SVRP aquifer occupies a small portion of the southern part of the watershed. Between the years 1930 and 2000, the average annual flow of the Little Spokane River was 303 (cfs). The lowest flow on record was in 1994 at 68 (cfs), occurring at the end of a long drought cycle.

**2.2.4 - WRIA 54:** The Lower Spokane River watershed includes about 883 square miles in Spokane, Stevens and Lincoln counties. The cities of Spokane, Airway Heights, and Medical Lake, and the town of Springdale occupy land in the watershed, as do the Spokane Indian Reservation and Fairchild Air Force Base. The Spokane River flows west

through WRIA 54, going through Nine Mile Falls, Long Lake and Little Falls dams before reaching Lake Roosevelt near Fort Spokane. Tributary streams (Deep, Coulee, Spring, Mill, Pitney and Harker Creeks) drain from the high plateau to the south of the river. Chamokane, Little Chamokane, Blue, Orzada and Sand Creeks flow from the highlands north of the river. There are small, localized aquifers in the tributary valleys and upland areas. The SVRP aquifer occupies a small portion of the southeastern part of the watershed.

**Chamokane (Tshimikain) Creek:** Chamokane Creek basin is located in southern Stevens County, Washington, and covers an area of approximately 179 square miles. It borders and partially overlaps the Spokane Indian Reservation. Data collected between 1971 and 2002 shows the peak flow in Chamokane Creek (below Tshimikain Falls) occurring in March with an average of 175 (cfs). Flows between January and April vary. Base flows in August through November average about 30 (cfs). Peak flow was recorded in 1975 at 2,200 (cfs). USGS data from 2008 showed a peak flow (below Tshimikain Falls near Long Lake) of 625 (cfs) and a minimum flow of 24 (cfs).

**2.2.5 – Dams:** Seven hydroelectric dams are located on the mainstem of the Spokane River, six of which are managed by Avista Utilities. From east to west they are the Post Falls Dam (River Mile 102.0), Upriver Dam (RM 80.2), Upper Falls Dam (RM 76), Monroe Street Dam (RM 74), Nine Mile Falls Dam (RM 58), Long Lake Dam (River Mile 34), and Little Falls Dam (River Mile 29). Of these, Post Falls Dam located downstream from the outlet of Lake Coeur d'Alene in Idaho has the greatest control over summer flows in the river. One hydroelectric dam, the Upriver Dam near Felts Field in Spokane, is owned and operated by the City of Spokane.

**Long Lake** (aka Lake Spokane) is a 24-mile long reservoir that extends from the downstream side of the Nine Mile Falls Dam to the Long Lake Dam. It was created when Long Lake Dam impounded the Spokane River in 1915. The reservoir has a maximum depth of 175 feet, a mean depth of 50 feet, and useable storage capacity of 105,000 acre-feet. Lake Spokane is currently operated in the summer within 1 foot of full pool elevation. Under Avista Corporation's existing operating license, the maximum drawdown level is 25 feet, attempting to limit fluctuations of the reservoir levels to a maximum of 14 feet.

## 2.3 – Climate & Winds

The Spokane area has a warm, arid climate during the summer months and a cold and moist climate in the winter. Fall provides a quick transition from summer to winter type climates. Average temperatures range from $34^{o}$ F (high) and $23^{o}$ F (low) in January, to $85^{o}$ F (high) and $55^{o}$ F (low) in July. Fog is persistent in the area from November through February. Annual precipitation is usually less than 17 inches; November, December, and January are historically

the wettest months. Most snow falls between December and February; annual accumulation is about 46 inches. March and April are usually the windiest months; southwesterly winds can average nearly 9 mph. Winds throughout the area are typically south or southwesterly.

## 2.4 - Risk Assessment

The Spokane River, its tributaries, and Lake Spokane are important resources in the production of hydroelectricity, irrigation for agriculture, and recreation. The Spokane Valley-Rathdrum Prairie Aquifer (SVRPA) is located in this region and provides drinking water for thousands of people. Oil spills could potentially contaminate the aquifer because there is a direct interaction between the Spokane River, its tributaries, and SVRPA. Dams, oil pipelines, industrial and commercial facilities, rail lines and roadways near the Spokane River and its tributaries are all potential oil spill source points. It's important to note that dams are not and should not be considered as barriers to spilled oil.

**Spokane River** (Post Falls Dam downstream to confluence with Columbia River on Lake Roosevelt): Seven Dams are located on the Spokane River between Coeur D'Alene Lake and the Columbia River; Post Falls Dam (RM 102.0), Upriver Dam (RM 80.2), Upper Falls Dam (RM 76), Monroe Street Dam (RM 74), Nine Mile Falls Dam (RM 58), Long Lake Dam (RM 34), and the Little Falls Dam (RM 29). The Chevron pipeline crosses over the Spokane River well above Nine Mile Falls Dam near the Riverside Park Water Reclamation Facility in Spokane, upstream of Bowl & Pitcher (Riverside State Park). The Yellowstone Pipeline crosses under the river in two locations; one above the Upriver Dam immediately upstream of the East Trent Avenue/Hwy 290 Bridge in Spokane Valley, and the other immediately below the Upriver Dam at the west end of Felts Field in Spokane. Rail lines cross over the Spokane River in three locations; two above the Upriver Dam upstream from the East Trent Avenue/Hwy 290 Bridge in Spokane Valley, and the other downstream from Mission Park in Spokane. Roadways cross over the river in at least 24 locations, most notably the Interstate-90 Bridge at the Washington/Idaho state line; East Trent Avenue/Hwy 290 Bridge in Spokane Valley; East Trent Avenue/Hwy 290 Bridge in Spokane; North Hamilton Street/Highway 290 Bridge in Spokane; and the North Division Street/Highway 395 Bridge in Spokane. Rail lines and roadways run immediately adjacent to the river in many locations. Various commercial and industrial type facilities are located on or near the Spokane River, the majority located between downtown Spokane and the Washington/Idaho border.

**Latah/Hangman Creek** (confluence with Spokane River upstream to Washington/Idaho border near Tekoa, WA): The Yellowstone Pipeline crosses under the creek near South Inland Empire Way/Highway 195 at South Hatch Road in Spokane. Rail lines cross over Latah Creek in three locations; one immediately downstream of the Interstate-90 Bridge, upstream of West Sunset Boulevard in Spokane; another near South Inland Empire Way/Highway 195 in Spokane, upstream from South Oak Street; and the other in

Tekoa west of Sheridan Street upstream from Lone Pine Road. Roadways cross over Latah Creek in at least 24 locations, most significant are the West Sunset Boulevard Bridge and Interstate-90 Bridge in Spokane. Rail lines and roadways run immediately adjacent to the river in many locations.

**Marshall Creek** (confluence with Latah Creek upstream to its origin west of South Goss Road in Cheney, WA): The Yellowstone Pipeline crosses under the creek near South Cheney Spokane Road at West Graceland Lane in Spokane. Rail lines cross Marshall Creek in five locations; roadways seven. Culverts rather than bridges are used at nearly all rail and roadway crossings. Rail lines and roadways run immediately adjacent to the creek in many locations, especially along South Cheney Spokane Road.

**Little Spokane River** (confluence with Spokane River upstream to Eloika Lake): Rail lines cross the river in one location; southwest of North Little Spokane Road at North Meadowview Drive in Colbert, WA. Roadways cross the Little Spokane River in at least 23 locations, including the Highway 395 Bridge in Spokane; North Newport/Highway 2 Bridge in Chattaroy, WA, north of North Chattaroy Road; and again the North Newport/Highway 2 Bridge in Chattaroy, immediately south of East Eloika Road. North Nine Mile Road runs immediately adjacent to the river's edge near its confluence with the Spokane River.

**Dartford Creek** (confluence with Little Spokane River upstream to origin, near N Dartford Drive in Spokane): No known pipelines or rail lines cross Dartford Creek. Roadways cross the creek in three locations; West Hazard Road/Route 11 at North Dartford Drive in Spokane; West Austin Road at North Dartford Drive; and North Dartford Drive, north of North Hatch Road. North Dartford Drive runs very close to the edge of the creek in several locations.

**Dragoon Creek** (confluence with Little Spokane River upstream to Highway 395 in Colbert): Rail lines cross Dragoon Creek in three locations; west of North Lords Lane in Chattaroy; south of North Chattaroy Road (east of North Perry Road) in Chattaroy; and west of East Bass Road in Chattaroy. Roadways cross over the creek in at least four locations; most notably the Highway 395 Bridge, south of its intersection with North Dragoon Drive and North Road in Colbert. Rail lines run very close to the edge of the creek in various locations.

**Chamokane Creek** (confluence with Spokane River upstream to Ford-Wellpinit Road in Ford, WA): No known pipelines or rail lines cross Chamokane Creek below Ford-Wellpinit Road. Roadways cross the creek in two locations; Martha Boardman Road in Wellpinit, WA, and Ford-Wellpinit Road in Ford. The Dawn Mining Company Mill and Mill Tailings Pond is located close to the creek (creek left) downstream from Ford-Wellpinit Road west of Highway 231.

**Spring Creek** (confluence with Spokane River upstream to Highway 231 in Reardan, WA): No known pipelines or rail lines cross Spring Creek below Highway 231. Roadways cross the creek in at least nine locations, primarily through the use of culverts. Roadway bridges cross over the creek in at least three locations; Chamokane Drive East, immediately west of Bullrun Lane in Reardan; Fisher Road East, west of Spring Creek Road/Highway 231 in Reardan; and Moore Road North, immediately downstream from the eastern end of Tamarack Canyon Road East.

## 2.5 – References

Northwest Power and Conservation Council. (2004). Spokane subbasin plan. Retrieved from http://www.nwcouncil.org/fw/subbasinplanning/admin/level2/intermtn/plan/spokane.pdf

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Washington Department of Ecology, GIS Technical Services. (2009). 2008 Water Quality 303(d)-5 List: Little Spokane Water Resource Inventory Area (WRIA) 55. [Map of WRIA 55]. Retrieved from http://www.ecy.wa.gov/services/gis/maps/wria/303d/w55-303d.pdf

Washington Department of Ecology, GIS Technical Services. (2009). 2008 Water Quality 303(d)-5 List: Hangman Water Resource Inventory Area (WRIA) 56. [Map of WRIA 56]. Retrieved from http://www.ecy.wa.gov/services/gis/maps/wria/303d/w56-303d.pdf

Washington Department of Ecology, GIS Technical Services. (2009). 2008 Water Quality 303(d)-5 List: Middle Spokane Water Resource Inventory Area (WRIA) 57. [Map of WRIA 57]. Retrieved from http://www.ecy.wa.gov/services/gis/maps/wria/303d/w57-303d.pdf

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# Spokane River
## Geographic Response Plan

## Chapter 3 – (Reserved)

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Washington State Department of Ecology

**NORTHWEST AREA COMMITTEE**

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# SPOKANE RIVER

# GEOGRAPHIC RESPONSE PLAN

# (SPR GRP)

# CHAPTER 4

## *Response Strategies & Priorities*

July 2011

**<u>Before you print this document</u>:**

This chapter and appendices are provided in “landscape” page orientation. The detailed (2-page) response strategy information on pages 4-39 through 4-156, staging area information on pages 4-161 through 4-170, and boat launch information on pages 4-177 through 4-196 have all been designed for duplex printing (front and back side of paper), “open to top” configuration.

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## 4.1 - Chapter Overview

The Geographic Response Plan (GRP) strategies provided in this chapter have been created to minimize spilled oil's impact on sensitive resources. They are not everything that should or could be done during a response to reduce 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 incident, GRP response strategies may continue to be utilized as long as necessary, at the discretion of the Incident Commander or Unified Command.

This chapter provides information on GRP response strategies and the priority order they should be implemented based on potential spill origin points and their proximity to sensitive resources. Area and sector maps and information on significant staging areas and boat launch locations are also provided. During a spill incident, the GRP strategies provided in this chapter should be implemented as soon as possible. Unless circumstances unique to a particular spill dictate otherwise, the priority tables in Section 4.3 should be used to decide the order that GRP strategies should be implemented. 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. Important information on shoreline types, resources at risk/sensitive areas, and flight restrictions can be found in Chapter 5 and Chapter 6 of this plan.

### 4.1.1 – On-site Considerations:

Before Deploying a GRP Strategy: *(Questions to Ask)*

- Are conditions safe? Don't implement a response strategy if it's not safe to do so. Of particular concern are response strategies near dams and the use of personnel and workboats to implement strategies in those areas. Response managers and first responders must determine if the implementation of any strategy listed in this document poses an undue risk to worker safety or the public welfare, based on conditions at the time of the emergency. No strategy should be implemented if, beyond reason, it would pose an unwarranted threat of any kind to the safety of first responders or the public in general.

- Has initial control and containment been sufficiently achieved? Control and containment are always a higher priority than GRP strategy implementation when concurrent response activities are not possible.

- How far downstream is spilled oil likely to travel before response resources are available to deploy GRP strategies?

- Is an Emergency Hydraulic Project Approval (HPA) required prior to implementing a particular strategy? In Washington State, the implementation of any response strategy that reduces, interrupts, or diverts the flow of water in streams, including the installation of culvert blocks and underflow dams, requires an Emergency HPA from the Washington Department of Fish and Wildlife (WDFW). To obtain an Emergency HPA, contact WDFW at 360-534-8233 (24-hour pager).

- Will you need to stage equipment on or near a roadway? If so, traffic control may be required. Contact the Washington State Patrol or local county, municipality, or tribal police for assistance.

    - Washington State Patrol – District 4 (509-227-6566)
    - Kootenai County Sherriff (208-446-1300)
    - Lincoln County Sherriff (509-725-3501)
    - Stevens County Sherriff (509-684-5296 or 509-684-2555)
    - Spokane County Sherriff (509-477-2240)
    - Spokane Tribal Police (509-258-4569)
    - City of Post Falls Police (208-773-3517)
    - City of Spokane Police (509-625-4150)
    - City of Spokane Valley Police (509-477-3350)

<u>During Strategy Implementation</u>: *(Things to Remember)*

- On-scene conditions (weather, river speed, debris, dam status) may require that strategies be modified to be effective. There is a significant chance that weather and river conditions experienced at a particular strategy location during an actual spill event will be different from when data was gathered during field visits. Response managers and first responders must remain flexible and modify the strategies provided in this chapter as needed to meet the challenges experienced during a 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 (for GRP strategies involving the deployment of oil containment boom).

- Strategies were designed for use with persistent, heavy oils 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 speed will likely require modifications to boom deflection angles (see Table 4-9). 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.

**Spokane River GRP Response Strategies are numbered by river/creek mile – the approximate distance from the mouth of a river or creek to the strategy location**

Water Speed Affects Booming Angle - How to get a rough idea of the water speed:
Anchor a line with two floating buoy markers attached at a spacing 100 feet apart (measuring 100 feet along a straight portion of river bank may be more timely but also less accurate). Floating debris is then thrown into the water approximately 20 feet upstream of the first buoy marker. Determine the time it takes the debris to transit the distance between the two marker buoys in seconds. Use the following table to estimate water speed:

**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 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

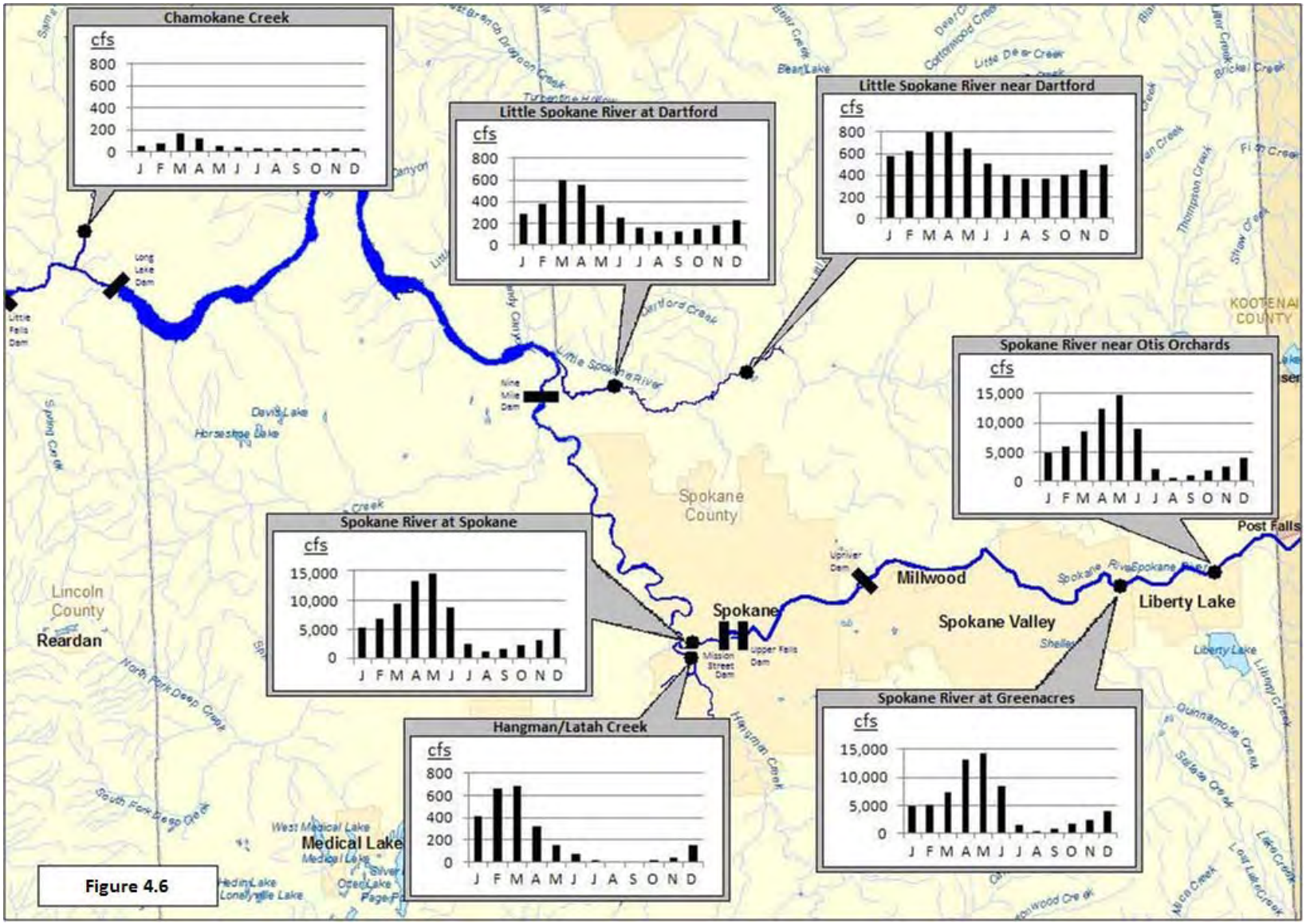
### 4.1.2 - Historical River Streamflow Ranges:

Gage/streamflow data from U.S. Geological Survey (USGS) was used to calculate mean monthly stream discharge. Where possible a 30-year average was used. Stream discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph) or nautical miles per hour (knots) are not available because they are subject to change, dependent on the configuration of the riverbed. 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 Appendix A of this plan.

**Table 4.2 - Historic Streamflow for Spokane River and Tributaries**

| | Stream Flow (cubic feet per second) - Monthly Average | | | | | | |
|---|---|---|---|---|---|---|---|
| | 30-Year Average | 30-Year Average | 30-Year Average | 30-Year Average | 30-Year Average | Since 1997 | Since 1984 |
| | **Spokane River near Otis Orchards** | **Spokane River at Greenacres** | **Spokane River at Spokane** | **Hangman/Latah Creek at Spokane** | **Little Spokane River at Dartford** | **Little Spokane River near Dartford** | **Chamokane Creek** |
| Jan | 4,890 | 4,830 | 5,250 | 415 | 284 | 573 | 58 |
| Feb | 5,920 | 5,070 | 6,720 | 659 | 380 | 625 | 78 |
| Mar | 8,480 | 7,440 | 9,310 | 689 | 596 | 814 | 173 |
| Apr | 12,300 | 13,100 | 13,200 | 321 | 556 | 861 | 125 |
| May | 14,700 | 14,200 | 14,600 | 153 | 367 | 646 | 58 |
| Jun | 8,910 | 8,430 | 8,830 | 76 | 249 | 506 | 39 |
| Jul | 2,000 | 1,470 | 2,590 | 23 | 158 | 403 | 29 |
| Aug | 627 | 329 | 1,190 | 12 | 122 | 369 | 26 |
| Sep | 1,110 | 865 | 1,550 | 12 | 125 | 372 | 27 |
| Oct | 1,770 | 1,710 | 2,200 | 17 | 145 | 407 | 28 |
| Nov | 2,460 | 2,490 | 3,190 | 42 | 184 | 447 | 29 |
| Dec | 4,090 | 3,980 | 5,020 | 158 | 223 | 494 | 33 |
| | Map | Map | Map | Map | Map | Map | Map |

**Figure 4.1 – Historic Streamflow for Spokane River and Tributaries**



## 4.2 – Area Overview Maps

The following maps are meant to provide a geographic overview of the Spokane River GRP area. Sector maps in Section 4.4 of this chapter provide more detail on the locality of response strategies, spill origin points, significant staging areas, and boat launch locations. Detailed information on strategies, staging areas, and boat launches can be found in the chapter appendices.

The following area maps are provided for reference:

- Dams on the Spokane River
- Response Strategy Locations
- Staging Areas
- Boat Launch Locations
- Spill Origin Points

**Figure 4.2 - Dams on the Spokane River**

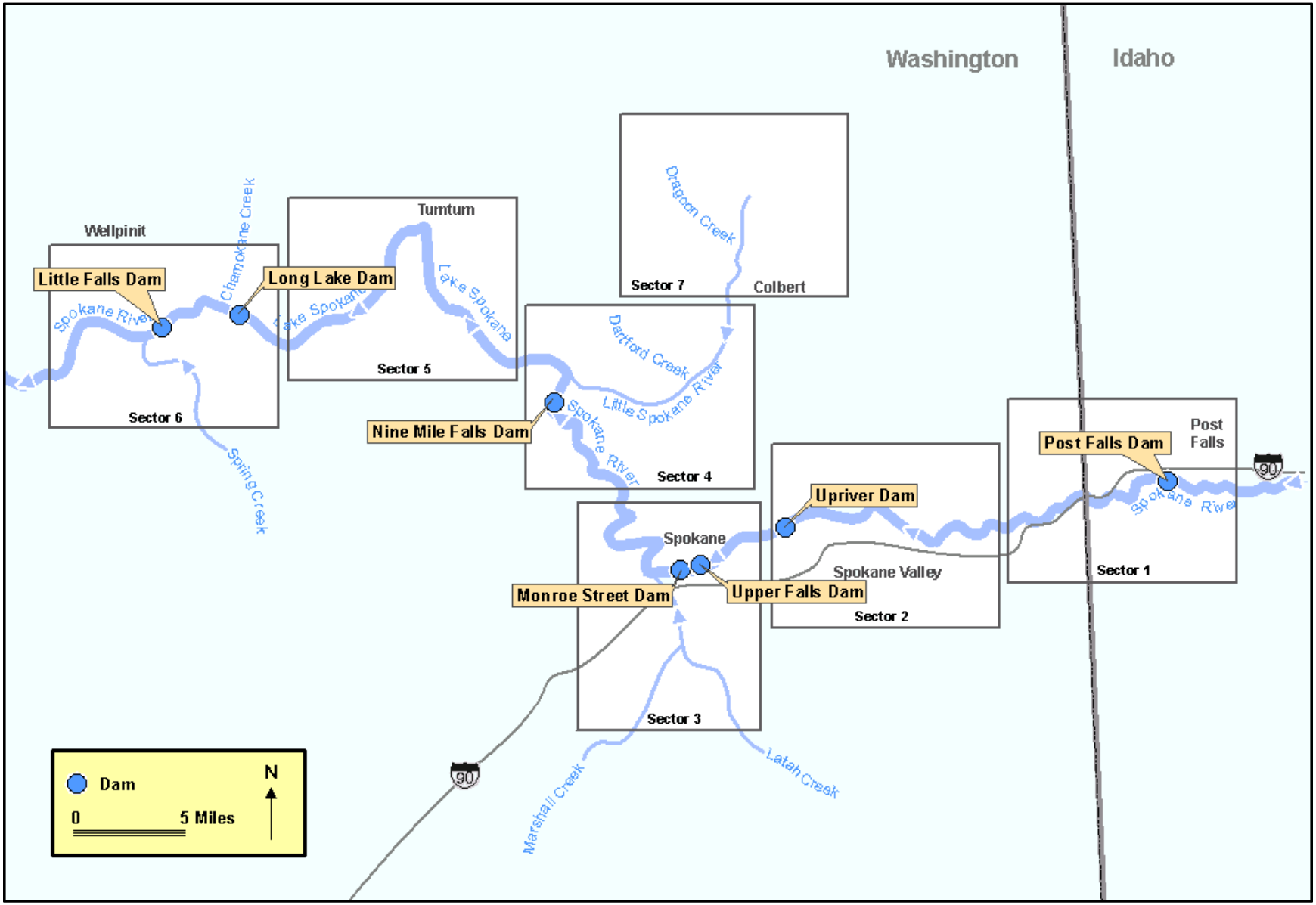


**Figure 4.3 – Response Strategy Locations for the Spokane River GRP**

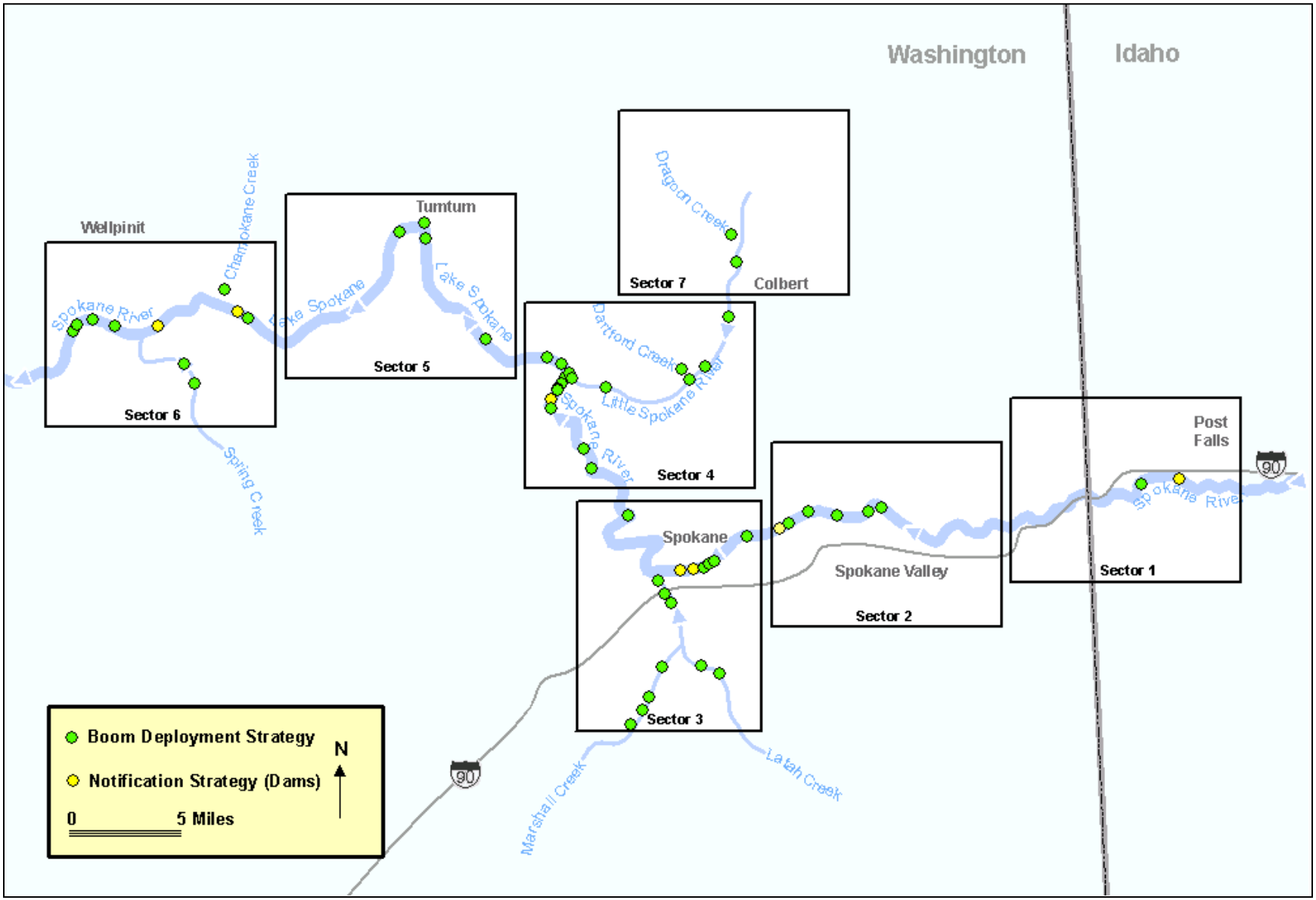


**Figure 4.4 – Significant Staging Area Locations for the Spokane River GRP**

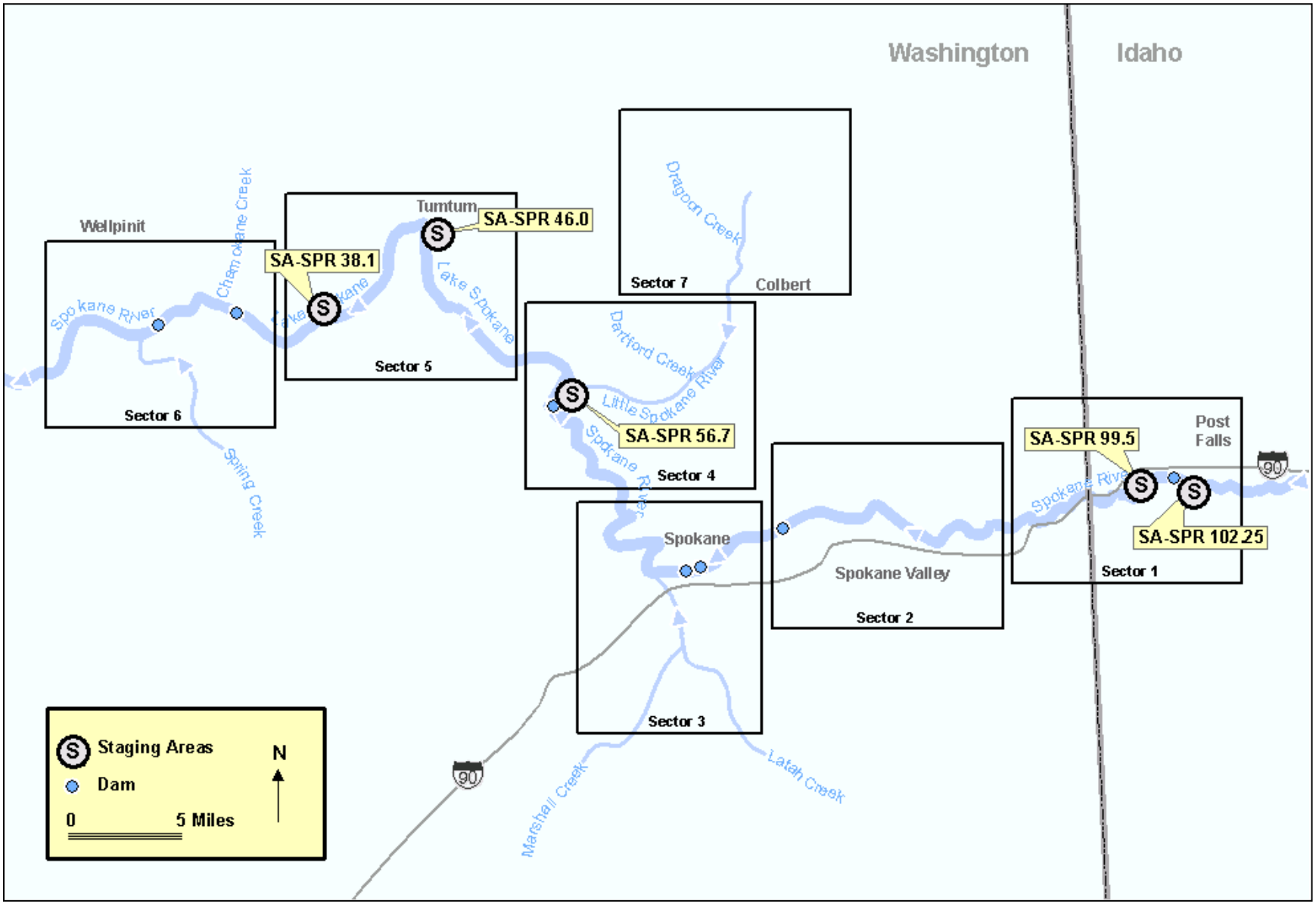


**Figure 4.5 – Boat Launch Locations for the Spokane River GRP**

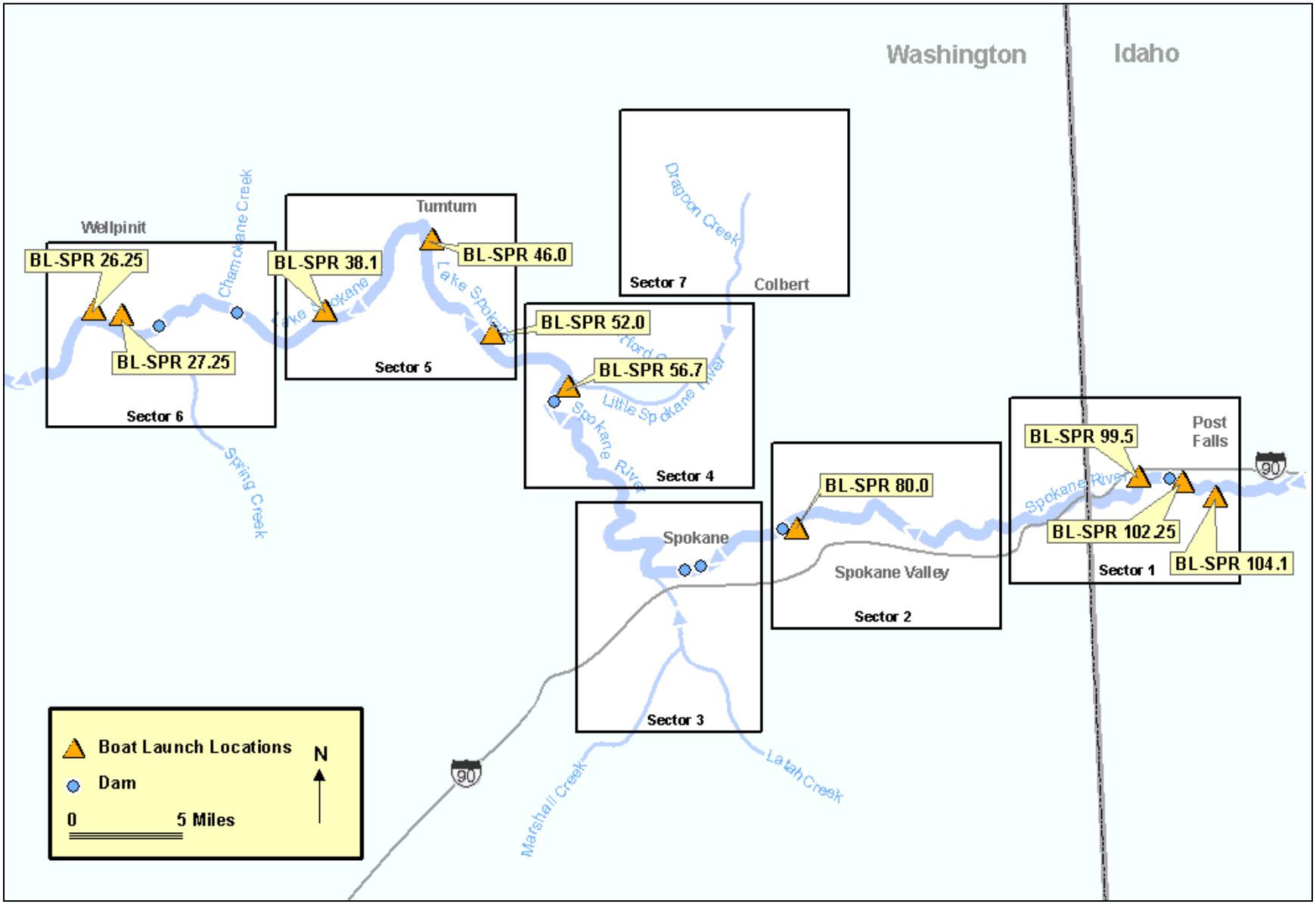
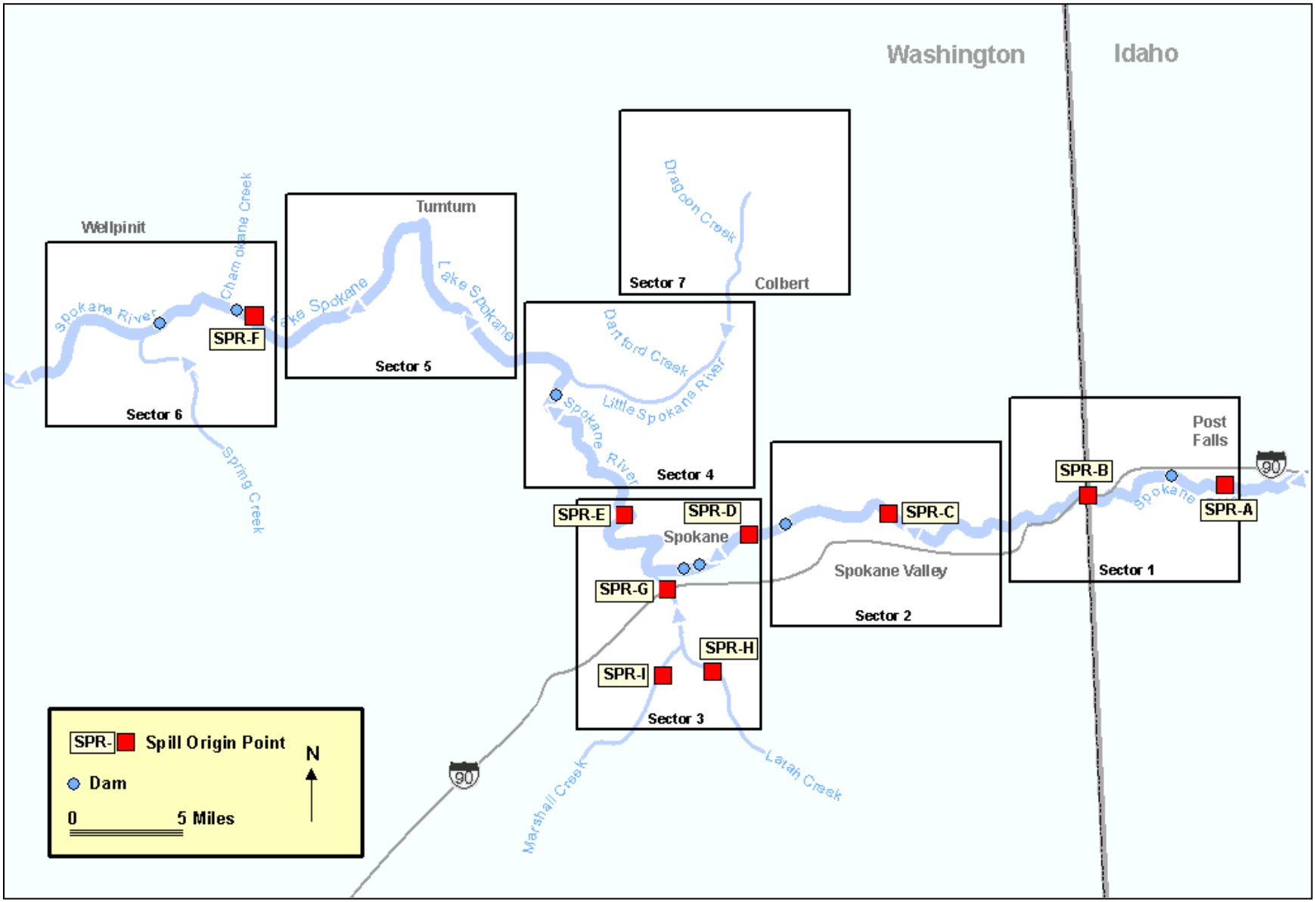


**Figure 4.6 – Spill Origin Points for the Spokane River GRP**



## 4.3 – Strategy & Response Priorities:

**4.3.1 - General Response Priorities:** The following list provides the order of response priorities after an oil spill into the Spokane River or one of its tributaries.

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. Notify any dams downstream of the spill location (Upriver Dam call the City of Spokane Water/Hydro Department at 509/742-8141. All other dams on the Spokane River call Avista at 509/495-8114).
4. Control and contain the source of the spill; mobilize resources to the spill location. Source control and containment are always a higher priority than GRP strategy implementation.
5. Determine the priority or order GRP strategies should be implemented based on the location of the spill or area affected. Priorities based on Potential Spill Origin Points are included in this chapter and should be used unless the situation or circumstances dictate otherwise (see Section 4.3.2).
6. As response resources become available, implement the GRP Strategies in order of priority.
7. 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 Spill Origin Points:** The following tables provide the strategy implementation order for particular Potential Spill Origin Points along the Spokane River and its tributaries; points A through H. These points are graphically displayed on area overview and sector maps (red boxes). In establishing response priorities, or selecting an appropriate Spill Origin Point, the downstream movement of spilled oil and the time it takes to mobilize and deploy response resources must always be considered. Generally, GRP strategies should first be implemented downstream, well beyond the furthest extent of the spill, and then continued upstream towards the spill source.

***"Source control and containment are always a higher priority than GRP strategy implementation"***

**Table 4.3**

| Point "SPR-A" – Potential spill origin on Spokane River, waters above the Post Falls Dam | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 102.0-N | 4-19 | 4-37 | 4-155 |
| 2 | SPR 80.0-N | 4-20 | 4-36 | 4-143 |
| 3 | SPR 99.5 | 4-19 | 4-37 | 4-153 |
| 4 | SPR 84.75 | 4-20 | 4-37 | 4-151 |

**Table 4.4**

| Point "SPR-B" – Potential spill origin on Spokane River, Interstate-90 at State Line | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 80.0-N | 4-20 | 4-36 | 4-143 |
| 2 | SPR 74.5-N | 4-22 | 4-36 | 4-131 |
| 3 | SPR 81.5 | 4-20 | 4-37 | 4-145 |
| 4 | SPR 82.7 | 4-20 | 4-37 | 4-147 |
| 5 | SPR 84.1 | 4-20 | 4-37 | 4-149 |
| 6 | SPR 84.75 | 4-20 | 4-37 | 4-151 |
| 7 | SPR 80.0 | 4-20 | 4-36 | 4-141 |

**Table 4.5**

| Point "SPR-C" – Potential spill origin on Spokane River, Upstream of Trent Avenue/Hwy 290 Bridge | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 80.0-N | 4-20 | 4-36 | 4-143 |
| 2 | SPR 74.5-N | 4-22 | 4-36 | 4-131 |
| 3 | SPR 77.5 | 4-21 | 4-36 | 4-139 |
| 4 | SPR 81.5 | 4-20 | 4-37 | 4-145 |
| 5 | SPR 82.7 | 4-20 | 4-37 | 4-147 |
| 6 | SPR 84.1 | 4-20 | 4-37 | 4-149 |
| 7 | SPR 84.75 | 4-20 | 4-37 | 4-151 |
| 8 | SPR 80.0 | 4-20 | 4-36 | 4-141 |

**Table 4.6**

| Point "SPR-D" – Potential spill origin on Spokane River, area immediately downstream of Upriver Dam | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 74.5-N | 4-22 | 4-36 | 4-131 |
| 2 | SPR 77.5 | 4-21 | 4-36 | 4-139 |
| 3 | SPR 74.7 | 4-22 | 4-36 | 4-135 |
| 4 | SPR 75.0 | 4-22 | 4-36 | 4-137 |
| 5 | SPR 74.5 | 4-22 | 4-36 | 4-129 |
| 6 | SPR 74.6 | 4-22 | 4-36 | 4-133 |

**Table 4.7**

| Point "SPR-E" – Potential spill origin on Spokane River, location upstream from Bowl & Pitcher | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 58.0-N | 4-24 | 4-35 | 4-119 |
| 2 | SPR 61.85 | 4-23 | 4-35 | 4-121 |
| 3 | SPR 63.0 | 4-23 | 4-35 | 4-123 |
| 4 | SPR 58.0 | 4-24 | 4-35 | 4-117 |
| 5 | SPR 56.75 | 4-24 | 4-35 | 4-115 |
| 6 | SPR 56.7 | 4-24 | 4-35 | 4-113 |

**Table 4.8**

| Point "SPR-F" – Potential spill origin on Spokane River, waters upstream of Long Lake Dam | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 34.0-N | 4-26 | 4-34 | 4-97 |
| 2 | SPR 25.0 | 4-26 | 4-33 | 4-85 |
| 3 | SPR 25.5 | 4-26 | 4-33 | 4-87 |
| 4 | SPR 26.25 | 4-26 | 4-33 | 4-89 |
| 5 | SPR 27.25 | 4-26 | 4-33 | 4-91 |

**Table 4.9**

| Point "SPR-G" – Potential spill origin on Latah/Hangman Creek, Interstate 90 | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 58.0-N | 4-24 | 4-35 | 4-119 |
| 2 | SPR 67.25 | 4-21 | 4-35 | 4-125 |
| 3 | LTC 0.5 | 4-21 | 4-31 | 4-61 |
| 4 | SPR 61.85 | 4-23 | 4-35 | 4-121 |
| 5 | SPR 63.0 | 4-23 | 4-35 | 4-123 |
| 6 | SPR 58.0 | 4-24 | 4-35 | 4-117 |

**Table 4.10**

| Point "SPR-H" – Potential spill origin on Latah Creek, upstream of confluence with Marshall Creek | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | SPR 58.0-N | 4-24 | 4-35 | 4-119 |
| 2 | LTC 0.5 | 4-21 | 4-31 | 4-61 |
| 3 | LTC 1.5 | 4-21 | 4-31 | 4-63 |
| 4 | LTC 2.0 | 4-21 | 4-31 | 4-65 |
| 5 | LTC 6.25 | 4-21 | 4-32 | 4-67 |
| 6 | LTC 7.5 | 4-21 | 4-32 | 4-69 |
| 7 | SPR 67.25 | 4-21 | 4-35 | 4-125 |

**Table 4.11**

| Point "SPR-I" – Potential spill origin on Marshall Creek, upstream of confluence with Latah Creek | | | | |
|---|---|---|---|---|
| Implementation Priority | Strategy Number | Sector Map Page Number | Strategy Matrix Page Number | Strategy Details Page Number |
| 1 | MHC 0.5 | 4-21 | 4-32 | 4-71 |
| 2 | MHC 1.75 | 4-21 | 4-32 | 4-73 |
| 3 | LTC 0.5 | 4-21 | 4-31 | 4-61 |
| 4 | LTC 1.5 | 4-21 | 4-31 | 4-63 |
| 5 | LTC 2.0 | 4-21 | 4-31 | 4-65 |

## 4.4 – Response Strategy Locations (Sector Maps)

**Figure 4.7 – Map of Sector #1**

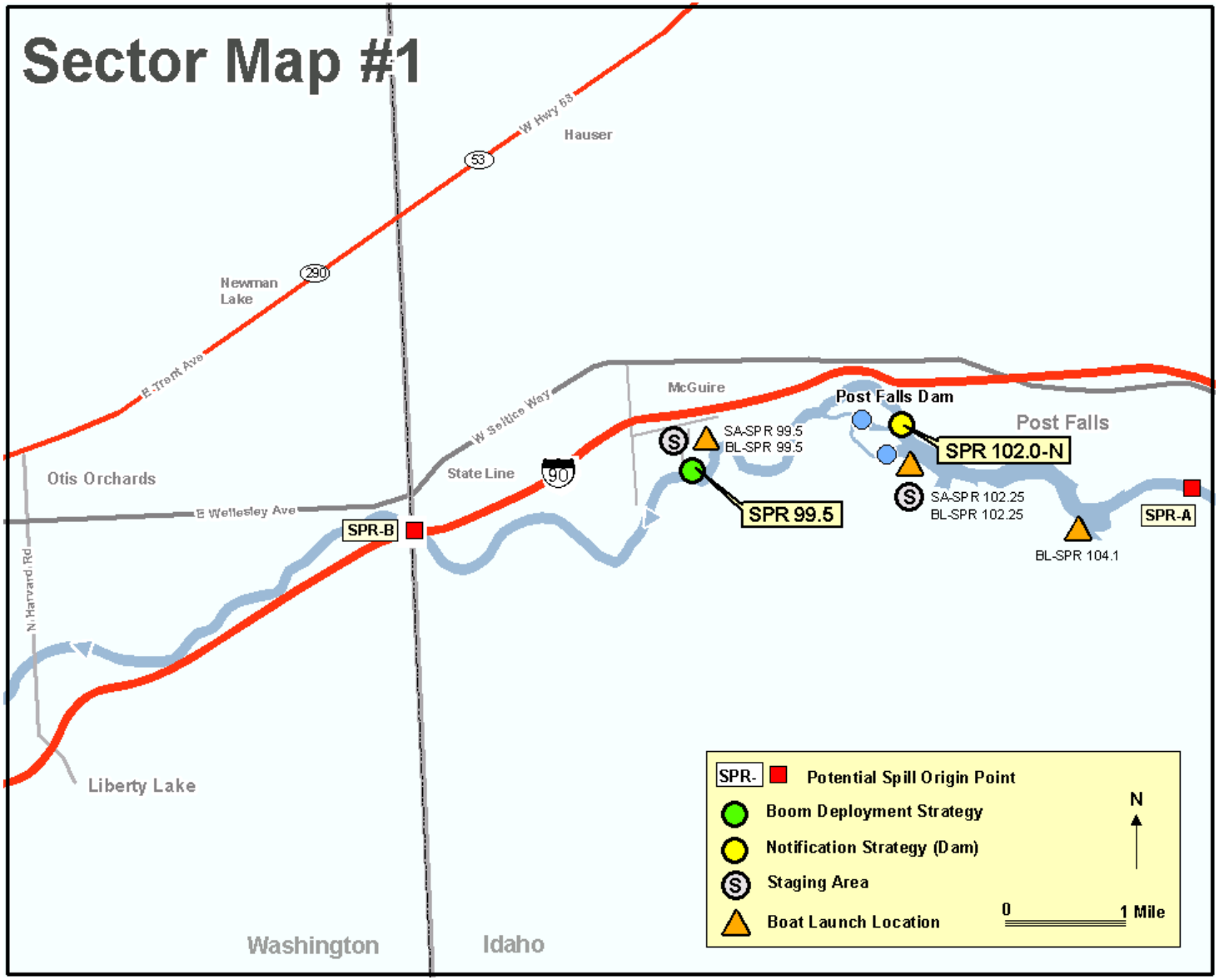


**Figure 4.8 – Map of Sector #2**

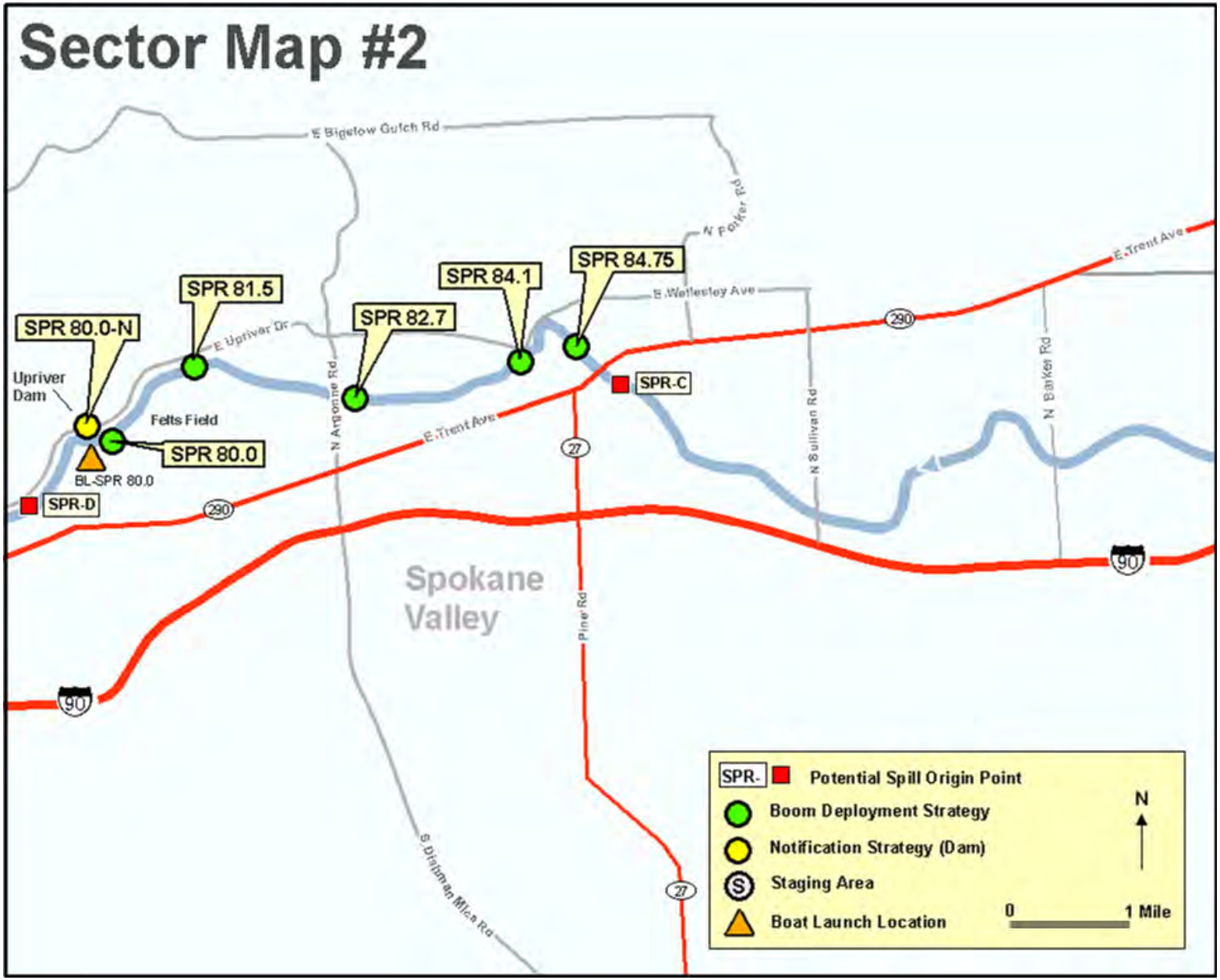


**Figure 4.9 – Map of Sector #3**

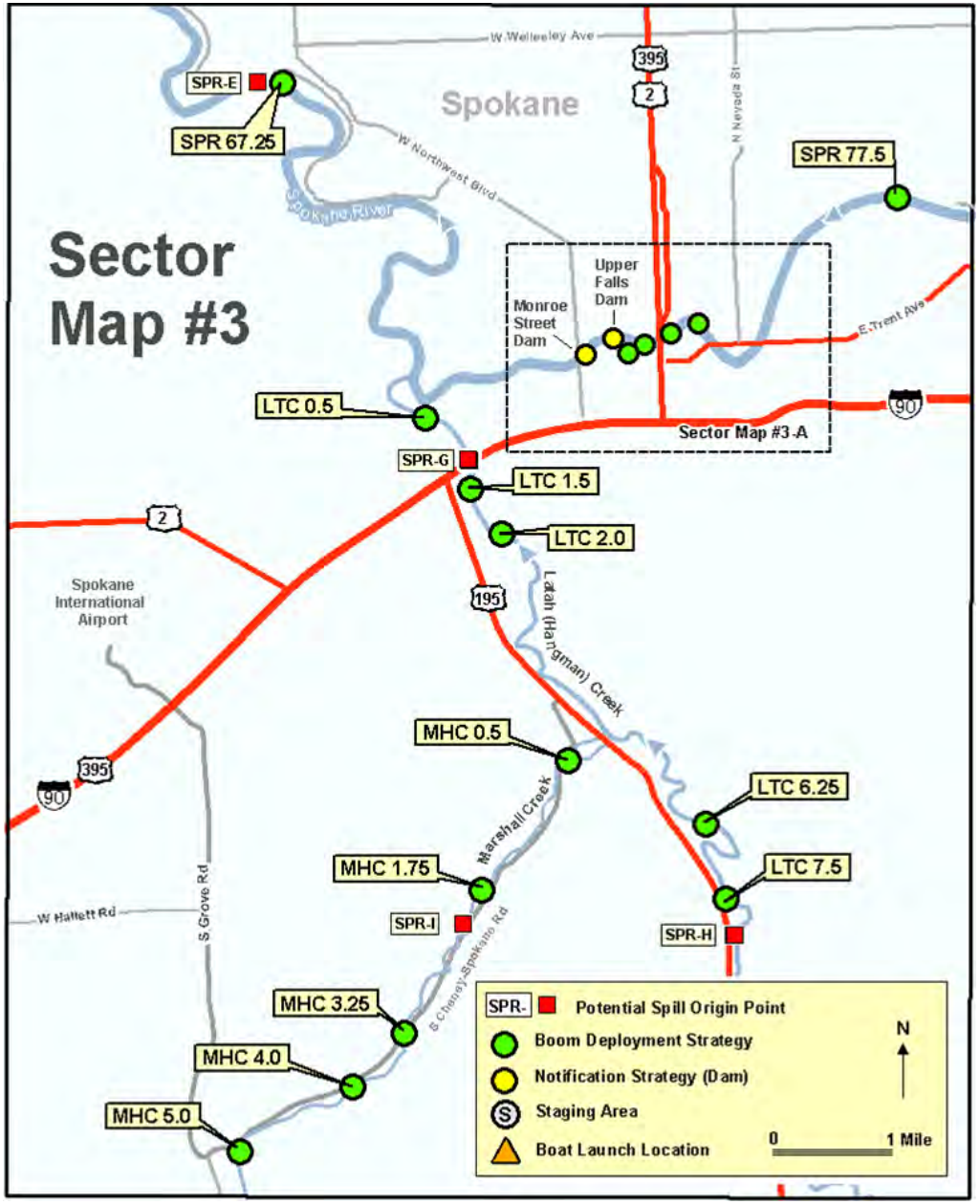


**Figure 4.10 – Map of Sector #3-A**

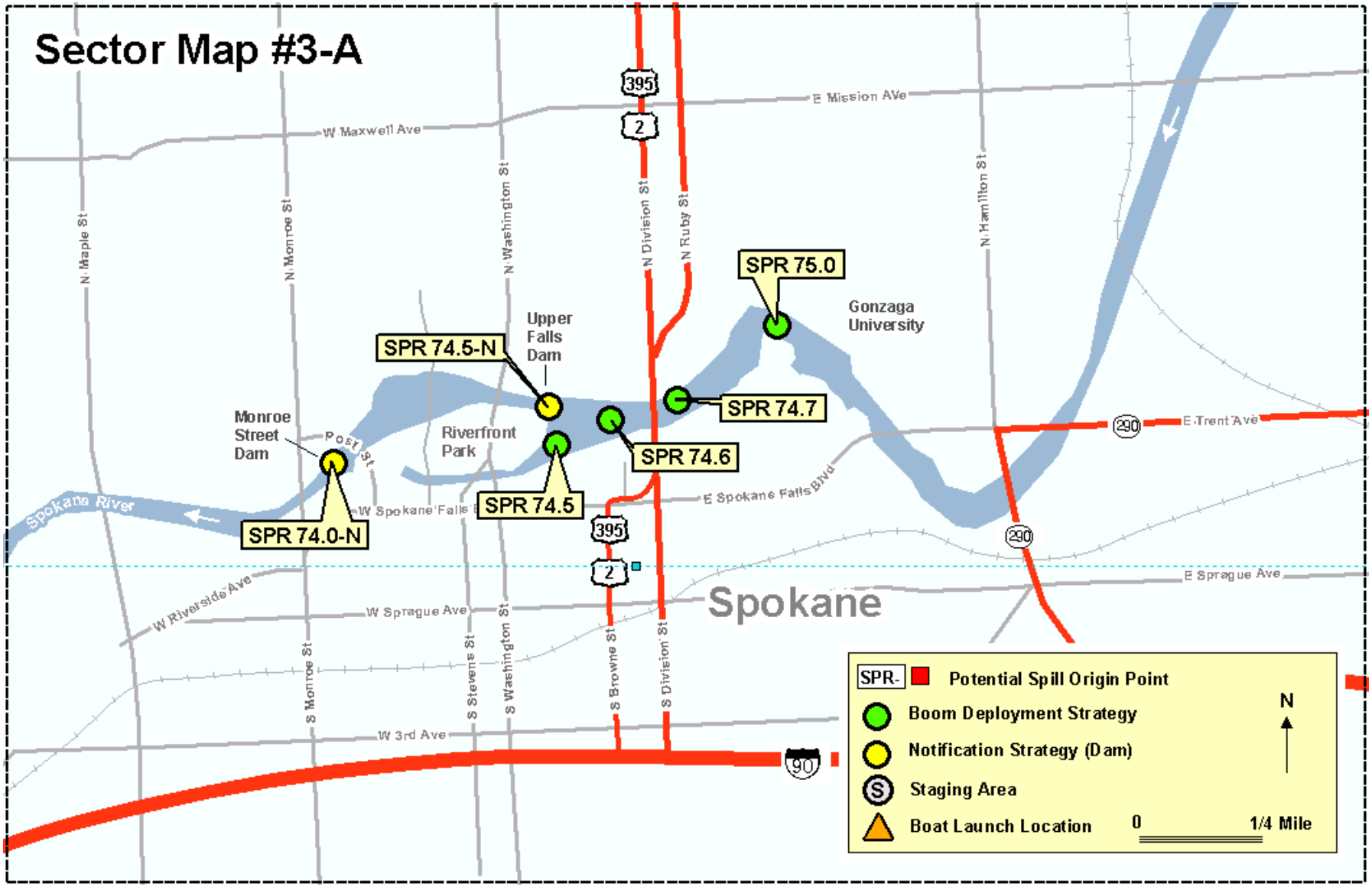


**Figure 4.11 – Map of Sector #4**

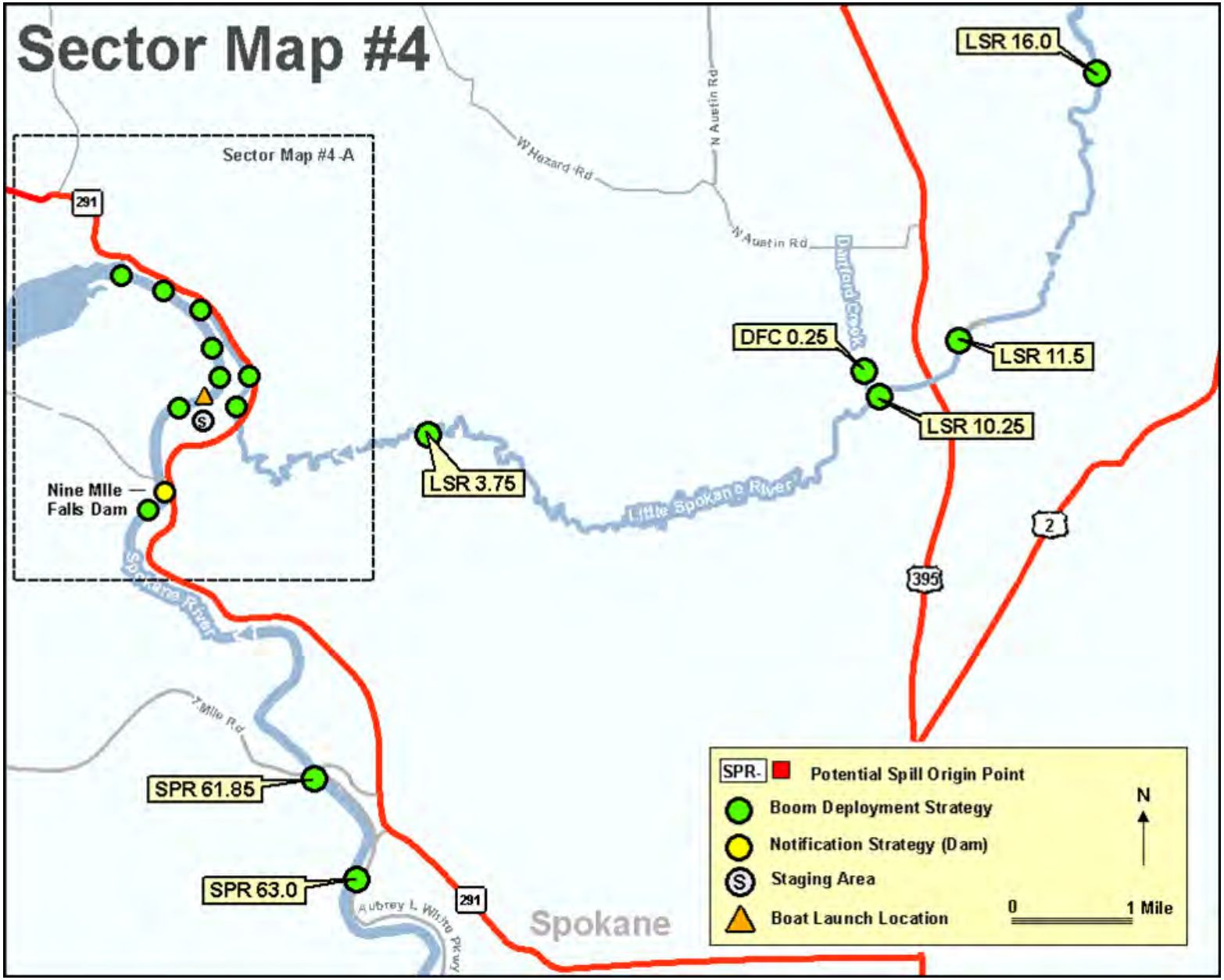


**Figure 4.12 – Map of Sector #4-A**

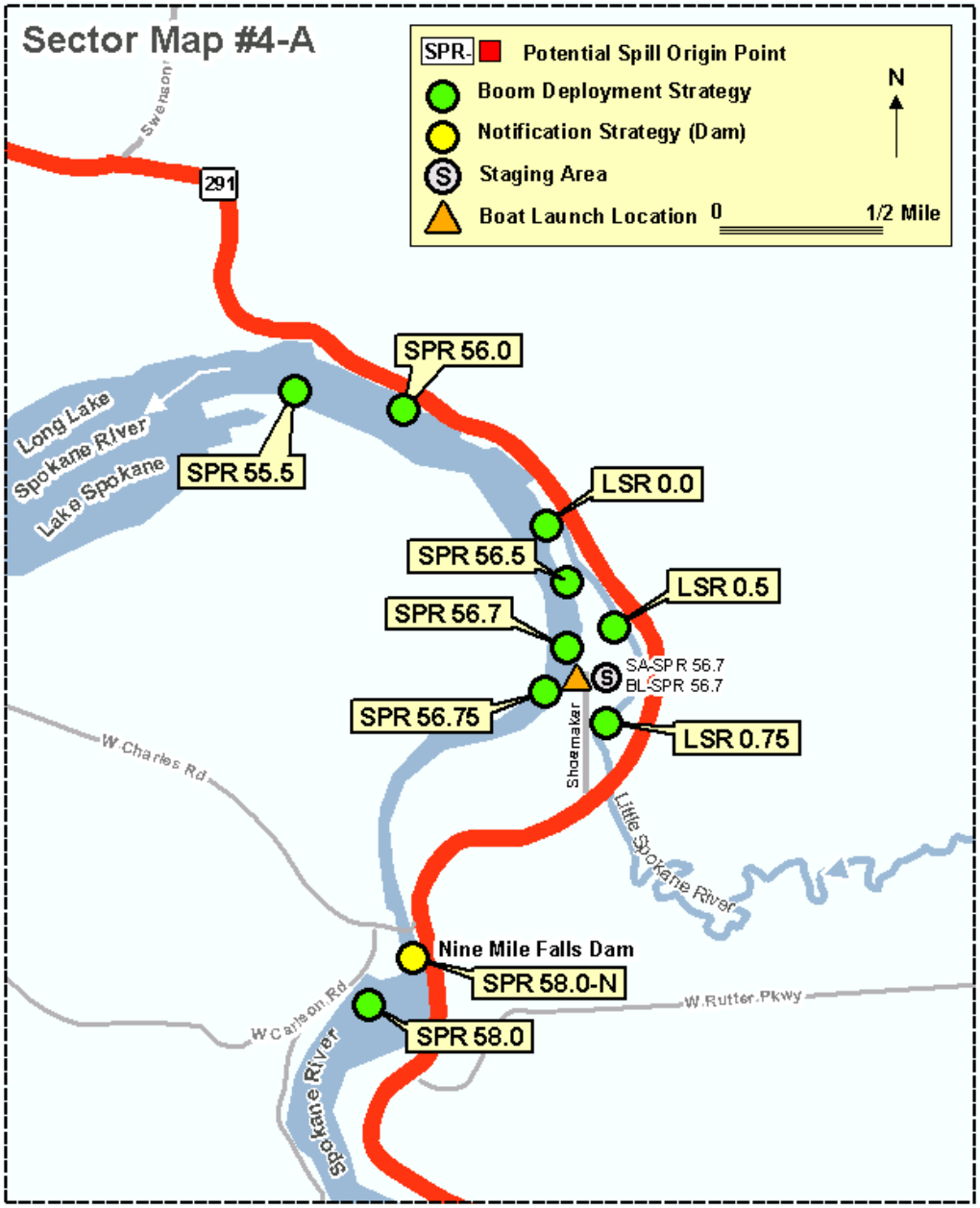


**Figure 4.13 – Map of Sector #5**

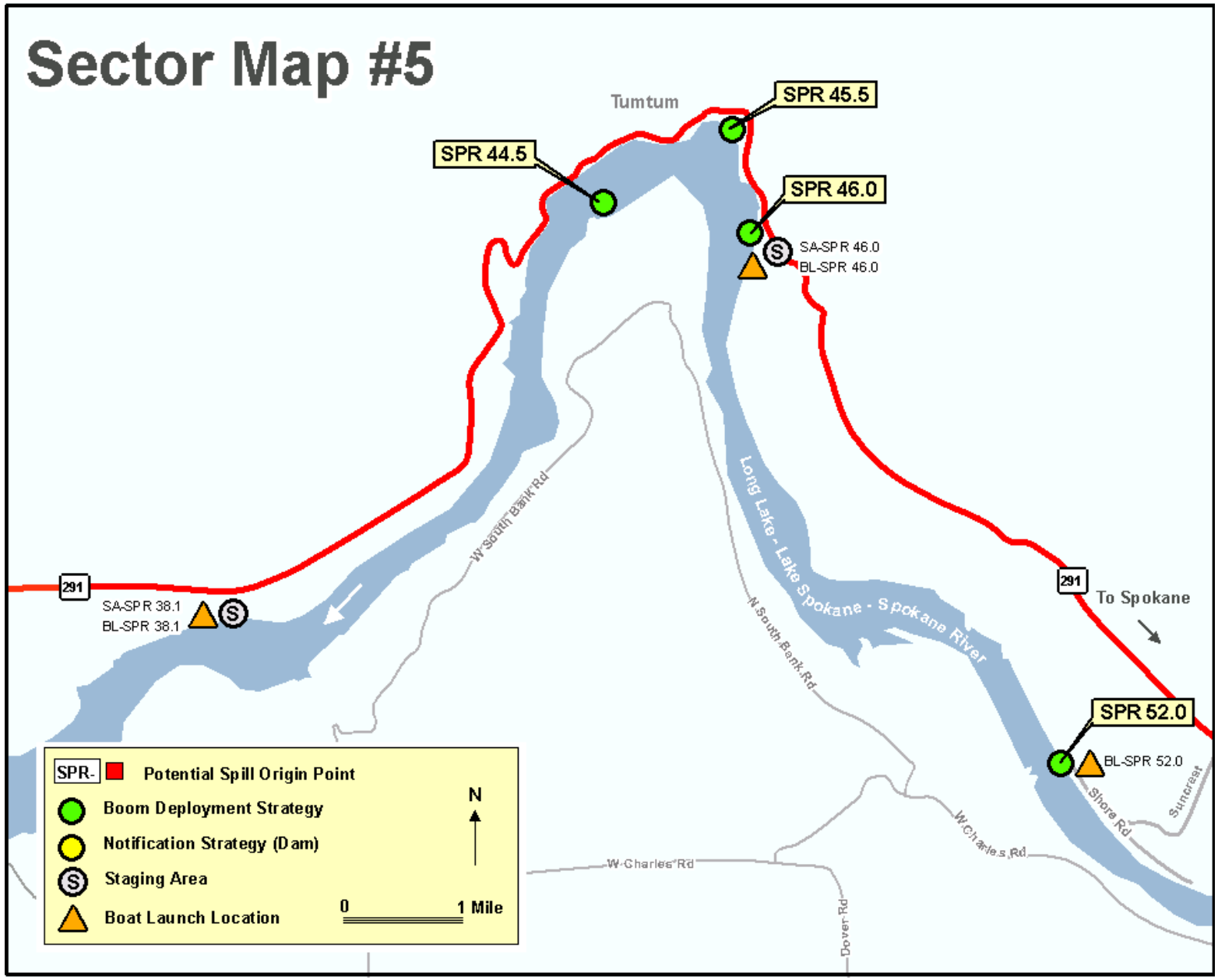


**Figure 4.14 – Map of Sector #6**

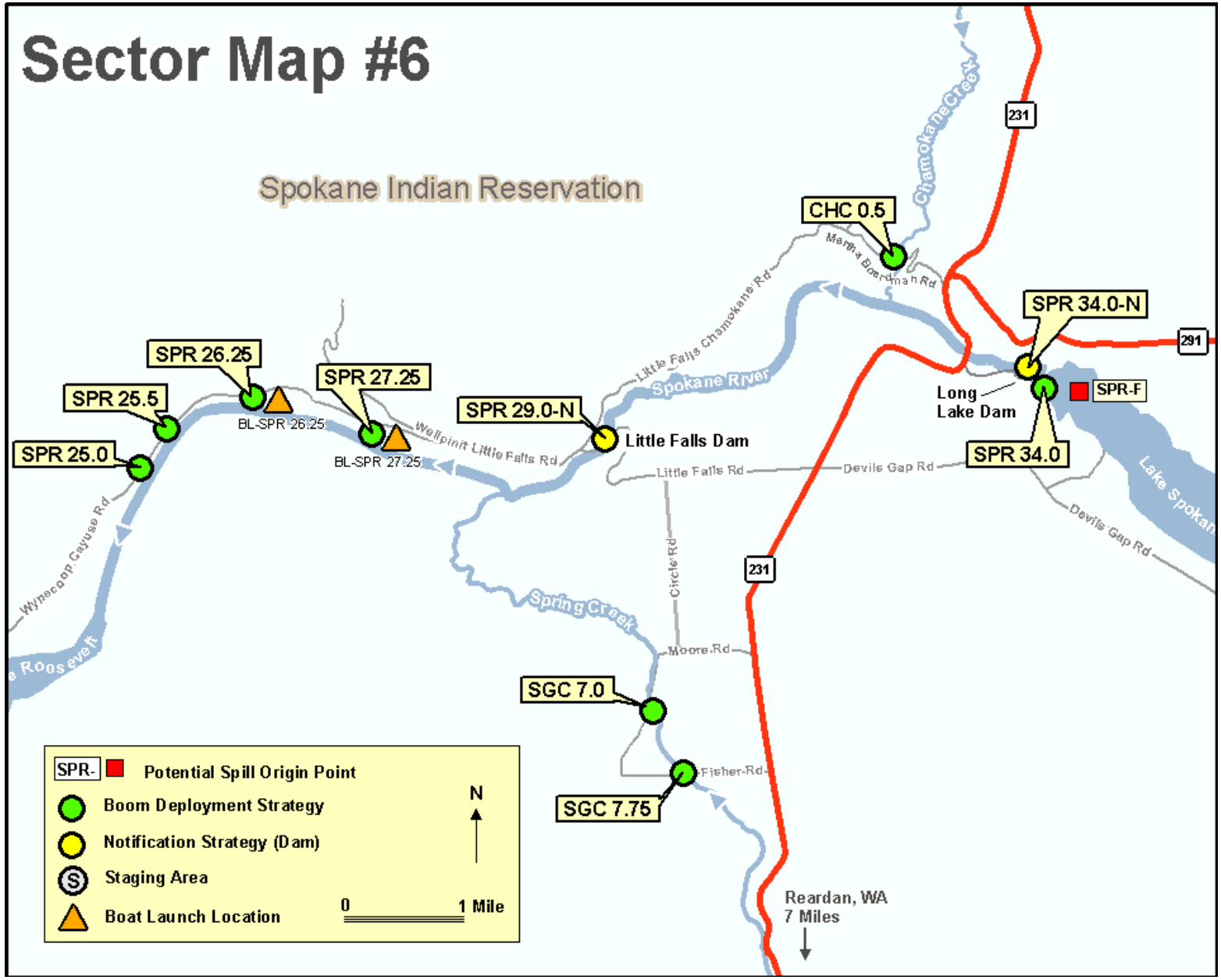
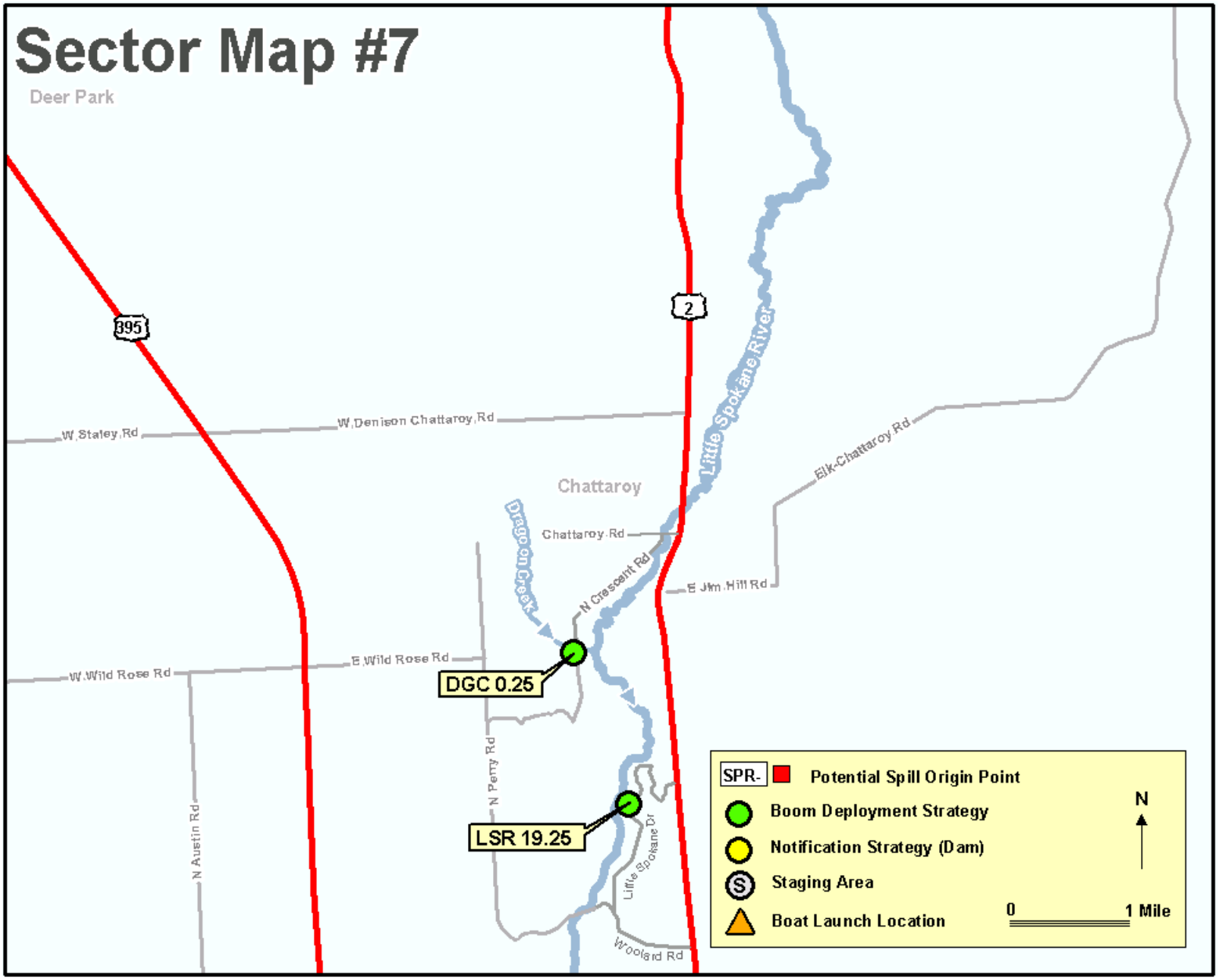


**Figure 4.15 – Map of Sector #7**



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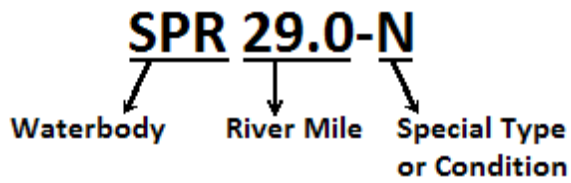
## 4.5 – Response Strategy Information (Matrices)

**4.5.1 – Response Strategy Names/Numbers:** Each strategy in this document begins with three letters denoting the associated waterbody. Following the letters are numbers that specify the river mile of the strategy; the distance from the mouth of the river or creek upstream to the strategy location. Several strategies have a letter or letters at the end of their string, after the numbers. These letters indicates a special strategy type or condition.




**SPR** = Spokane River
**SGC** = Spring Creek
**CHC** = Chamokane Creek
**LSR** = Little Spokane River

**LTC** = Latah/Hangman Creek
**DNC** = Dragoon Creek
**DFC** = Dartford Creek
**MHC** = Marshall Creek

**N** = Notification Strategy

**4.5.2 – Response Strategy Matrices:** Information on each strategy listed in this document is provided in brief on the following response strategy matrices. Each matrix lists the strategy number, associated waterway & location, latitude and longitude position, strategy type, boom and workboat needs, staging area locations, resources at risk, and strategy status. Contact information and important field notes are contained in the comments section of the matrix. Sector map and strategy detail (2-pager) references are provided in the far right columns. See Section 4.6 of this chapter (Strategy Details) for detailed information on each strategy, including maps, photographs, driving directions, and strategy implementation and equipment recommendations.

The following Response Strategy Matrices are listed by strategy number in alphanumeric order.

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CHC 0.5 | Chamokane Creek *Wellpinit, WA* | N 47.8507 W 117.8645 | Collection | 100ft | No | Martha Boardman Rd *picnic area* | Downstream Habitat; Freshwater Fish & Wildlife Resources | Contact Spokane Tribal Police before strategy implementation Police: 509-258-4569 | Visited but Not Tested 11/2009 | Page 4-26 Sector 6 | Page 4-39 |
| DFC 0.25 | Dartford Creek | N 47.7847 W 117.4175 | Collection *culvert block* | N/A | No | W Hazard Road & Dartford Dr *off roadway* | Downstream habitat; freshwater wildlife | WDFW Emergency HPA Permit required before strategy implementation (24-hour pager: 360-534-8233) | Visited and Not Tested 10/2005 | Page 4-23 Sector 4 | Page 4-41 |
| DGC 0.25 | Dragoon Creek | N 47.8750 W 117.3728 | Collection | 100ft | No | Crescent Rd *off roadway* | Downstream habitat; freshwater wildlife | Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233. Strategy may be difficult to implement depending on debris & conditions. | Visited and Not Tested 10/2005 | Page 4-27 Sector 7 | Page 4-43 |
| LSR 0.0 | Little Spokane River | N 47.7951 W 117.5346 | Exclusion | 500ft | Yes | Spokane House *parking lot* | Sensitive habitat; freshwater wildlife | Notify Washington State Parks Riverside Manager for staging area access: 509-465-5064 or 509-290-3239. Strategy may be difficult during high-water conditions. | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-45 |
| LSR 0.5 | Little Spokane River | N 47.789762 W 117.529056 | Exclusion | 200ft | Yes | Spokane House *parking lot* | Sensitive habitat; freshwater wildlife | Notify Washington State Parks Riverside Manager for staging area access: 509-465-5064 or 509-290-3239. Anything beyond cutting vegetation requires a WDFW HPA: 360-534-8233. | Visited and Not Tested 09/2009 | Page 4-24 Sector 4A | Page 4-47 |
| LSR 0.75 | Little Spokane River | N 47.78565 W 117.531196 | Collection | 200ft | No | Spokane House *parking lot* | Downstream habitat; freshwater wildlife | Use of line throwing gun is recommended. Notify Washington State Parks Riverside Manager for staging area access: 509-465-5064 or 509-290-3239. Boat launch available. | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-49 |
| LSR 3.75 | Little Spokane River | N 47.780798 W 117.496035 | Collection | 300ft | No | Indian Painted Rocks *parking lot* | Downstream habitat; freshwater wildlife | Notify Washington State Parks Riverside Manager for staging area access: 509-465-5064 or 509-290-3239. Anything beyond cutting vegetation requires a WDFW HPA: 360-534-8233. | Visited and Not Tested 10/2005 | Page 4-23 Sector 4 | Page 4-51 |

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LSR 10.25 | Little Spokane River | N 47.783267 W 117.415352 | Collection | 200ft | No | N Dartford Dr $ N Minidoka Trail *off roadway* | Downstream habitat; freshwater wildlife | Use of line throwing gun is recommended. Anything beyond the hand cutting of vegetation requires an WDFW Emergency HPA Permit: 360-534-8233. | Visited and Not Tested 10/2005 | Page 4-23 Sector 4 | Page 4-53 |
| LSR 11.5 | Little Spokane River | N 47.7897 W 117.4006 | Collection | 250ft | No | Pine River Park *parking lot* | Downstream habitat; freshwater wildlife | Use of line throwing gun is recommended. Access river left by using foot bridge to cross rive Notify Spokane County Parks, Recreation & Golf: 509-477-4730. | Visited and Not Tested 10/2005 | Page 4-23 Sector 4 | Page 4-55 |
| LSR 16.0 | Little Spokane River | N 47.821504 W 117.37396 | Collection | 150ft | No | N Meadowbrook Road *off roadway* | Downstream habitat; freshwater wildlife | Use of line throwing gun is recommended. Access river right through private property at 18010 N Little Spokane Drive. | Visited and Not Tested 09/2009 | Page 4-23 Sector 4 | Page 4-57 |
| LSR 19.25 | Little Spokane River | N 47.8564 W 117.3665 | Collection | 200ft | Yes *hand launch* | North Glen Homeowners Association *private park* | Downstream habitat; freshwater wildlife | Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233. | Visited and Not Tested 10/2005 | Page 4-27 Sector 7 | Page 4-59 |
| LTC 0.5 | Latah Creek | N 47.654534 W 117.453847 | Collection | 300ft | No | W Riverside Ave & A St *dirt lot* | Downstream habitat; freshwater wildlife | Vegetation restoration on both banks downstream of Marne bridge. Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233. | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-61 |
| LTC 1.5 | Latah Creek | N 47.64602 W 117.447367 | Collection | 250ft | No | W 11th Ave & S Highbridge Park *off roadway* | Downstream habitat; freshwater wildlife | Use of line throwing gun is recommended. Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233 | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-63 |
| LTC 2.0 | Latah Creek | N 47.6396 W 117.4415 | Collection | 300ft | No | Wentel Grant Park | Downstream habitat; freshwater wildlife | A Use of line throwing gun is recommended. Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233 | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-65 |

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LTC 6.25 | Latah Creek | N 47.602995<br>W 117.406082 | Collection | 250ft | No | Qualchan Park | Downstream habitat; freshwater wildlife | A Use of line throwing gun is recommended. Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233. | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-67 |
| LTC 7.5 | Latah Creek | N 47.5930<br>W 117.4029 | Collection | 300ft | Yes *hand launch* | Unnamed dirt lot on creek left | Downstream habitat; freshwater wildlife | Anything beyond the hand cutting of vegetation requires a WDFW Emergency HPA Permit: 360-534-8233 | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-69 |
| MHC 0.5 | Marshall Creek | N 47.6115<br>W 117.4316 | Collection *culvert block* | N/A | No | S Cheney-Spokane Rd & W Qualchan Dr *gravel lot* | Downstream habitat; freshwater wildlife | Emergency HPA Permit from WDFW required before strategy implementation (WDFW 24-hour pager: 360-534-8233) | Visited and Not Tested 09/2009 | Page 4-21 Sector 3 | Page 4-71 |
| MHC 1.75 | Marshall Creek | N 47.5955<br>W 117.4476 | Collection *underflow dam* | N/A | No | Marshall Rd *railroad access road/lot* | Downstream habitat; freshwater wildlife | Emergency HPA Permit from WDFW required before strategy implementation (WDFW 24-hour pager: 360-534-8233) | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-73 |
| MHC 3.25 | Marshall Creek | N 47.5784<br>W 117.4625 | Collection *culvert block* | N/A | No | S Cheney-Spokane Rd *off roadway* | Downstream habitat; freshwater wildlife | Emergency HPA Permit from WDFW required before strategy implementation: WDFW 24-hour pager: 360-534-8233. Traffic control may be required: contact WSP 509-227-6566 or Spokane County Sherriff: 509-477-2240. | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-75 |
| MHC 4.0 | Marshall Creek | N 47.572268<br>W 117.473025 | Collection *culvert block* | N/A | No | S Cheney-Spokane Rd *off roadway* | Downstream habitat; freshwater wildlife | Emergency HPA Permit from WDFW required before strategy implementation (WDFW 24-hour pager: 360-534-8233). Traffic control may be required: contact WSP: 509-227-6566 or Spokane County Sherriff: 509-477-2240. | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-77 |
| MHC 5.0 | Marshall Creek | N 47.565871<br>W 117.493198 | Collection | 100ft | No | McKenzie Road *off roadway* | Downstream habitat; freshwater wildlife | Access creek left by using private bridge upstream or by using S Cheney Spokane Bridge downstream. Traffic control may be required: contact WSP: 509-227-6566 or Spokane County Sherriff: 509-477-2240. | Visited and Not Tested 10/2005 | Page 4-21 Sector 3 | Page 4-79 |

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SGC 7.0 | Spring Creek *Reardon, WA* | N 47.79631 W 117.91207 | Collection | 100ft | No | Moore Rd N *off roadway* | Downstream Habitat; Freshwater Wildlife | No Information | Visited but Not Tested 10/2009 | Page 4-26 Sector 6 | Page 4-81 |
| SGC 7.75 | Spring Creek *Reardon, WA* | N 47.788683 W 117.905968 | Collection | 100ft | No | Fisher Rd N *off roadway* | Downstream Habitat; Freshwater Wildlife | No Information | Visited but Not Tested 10/2009 | Page 4-26 Sector 6 | Page 4-83 |
| SPR 25.0 | Spokane River *Waters below Little Falls Dam* | N 47.82654 W 118.0024 | Collection | 1000ft | Yes | Wynecoop Cayuse Rd *off roadway* | Downstream Habitat; Freshwater Wildlife | Contact Spokane Tribal Police before strategy implementation Police: 509-258-4569 | Visited but Not Tested 11/2009 | Page 4-26 Sector 6 | Page 4-85 |
| SPR 25.5 | Spokane River *Waters below Little Falls Dam* | N 47.831664 W117.996764 | Exclusion | 300ft | Yes | Wynecoop Cayuse Rd *off roadway* | Water Intakes | Contact Spokane Tribal Police before strategy implementation Police: 509-258-4569 | Visited but Not Tested 11/2009 | Page 4-26 Sector 6 | Page 4-87 |
| SPR 26.25 | Spokane River *Waters below Little Falls Dam* | N 47.835352 W 117.982022 | Collection | 200ft | Yes | Wynecoop Cayuse Rd *campground* | Downstream Habitat; Freshwater Wildlife | Contact Spokane Tribal Police before strategy implementation Police: 509-258-4569 | Visited but Not Tested 11/2009 | Page 4-26 Sector 6 | Page 4-89 |
| SPR 27.25 | Spokane River *Waters below Little Falls Dam* | N 47.830067 W 117.960851 | Collection | 200ft | Yes | Wynecoop Cayuse Rd *dirt road off roadway* | Downstream Habitat; Freshwater Wildlife | Contact Spokane Tribal Police before strategy implementation Police: 509-258-4569 | Visited but Not Tested 10/2005 | Page 4-26 Sector 6 | Page 4-91 |
| SPR 29.0-N | Spokane River Waters above *Little Falls Dam* | N 47.829993 W 117.918427 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes – Little Falls Dam | Call Avista GCC at 509-495-8114 | Not Tested | Page 4-26 Sector 6 | Page 4-93 |
| SPR 34.0 | Spokane River Waters above *Long Lake Dam* | N 47.83524 W 117.837188 | Diversion | 900ft | Yes | Lake Spokane Campground *Off Hwy 291* | Downstream habitat; freshwater wildlife; energy/power generation water Intakes | Call Avista GCC at 509-495-8114 before strategy implementation. Call WA-DNR at 800-562-6010 for staging area access (Lake Spokane Campground/SA-SPR 38.1) | Visited and Not Tested 11/2009 | Page 4-26 Sector 6 | Page 4-95 |

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SPR 34.0- N | Spokane River Waters above *Long Lake Dam* | N 47.836796 W 117.8409 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes – Long Lake Dam | Call Avista GCC at 509-495-8114 | Not Tested | Page 4-26 Sector 6 | Page 4-97 |
| SPR 44.5 | Spokane River Waters above *Long Lake Dam* | N 47.8837 W 117.6861 | Exclusion | 1700ft | Yes | Willow Bay Resort *1 mile upstream of strategy* | Sensitive Habitat on river left; south side of small islands. | Contact Willow Bay Resort Manager Willow Bay Resort: 209-276-2350 | Visited and Not Tested 10/2005 | Page 4-25 Sector 5 | Page 4-99 |
| SPR 45.5 | Spokane River Waters above *Long Lake Dam* | N 47.892349 W 117.661943 | Exclusion | 600ft | Yes | Willow Bay Resort *1 mile upstream of strategy* | Downstream habitat; freshwater wildlife | Contact Willow Bay Resort Manager Willow Bay Resort: 209-276-2350 | Visited and Not Tested 10/2005 | Page 4-25 Sector 5 | Page 4-101 |
| SPR 46.0 | Spokane River Waters above *Long Lake Dam* | N 47.879398 W 117.659175 | Exclusion | 550ft | Yes | Willow Bay Resort *boat launch* | Downstream habitat; freshwater wildlife | Contact Willow Bay Resort Manager Willow Bay Resort: 209-276-2350 | Visited and Not Tested 10/2005 | Page 4-25 Sector 5 | Page 4-103 |
| SPR 52.0 | Spokane River Waters below *Nine Mile Falls Dam* | N 47.813212 W 117.608063 | Collection | 600ft | Yes | Suncrest Park *boat launch* | Downstream habitat; freshwater wildlife | Contact Suncrest Park Directors Suncrest Park: 509-466-6839 | Visited and Not Tested 10/2005 | Page 4-25 Sector 5 | Page 4-105 |
| SPR 55.5 | Spokane River Waters below *Nine Mile Falls Dam* | N 47.801179 W 117.550471 | Deflection | 600ft | Yes | Spokane House *parking lot* | Sensitive habitat on shore at river left; freshwater wildlife | Contact Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-107 |
| SPR 56.0 | Spokane River Waters below *Nine Mile Falls Dam* | N 47.799636 W 117.543411 | Exclusion | 2100ft | Yes | Spokane House *parking lot* | Sensitive habitat behind islands on river right; freshwater wildlife | Contact Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-109 |
| SPR 56.5 | Spokane River Waters below *Nine Mile Falls Dam* | N 47.79204 W 117.532918 | Exclusion | 500ft | Yes | Spokane House *parking lot* | Sensitive habitat in small slough on river right; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710 & Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-111 |

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SPR 56.7 | Spokane River Waters below *Nine Mile Falls Dam* | N 47.789066 W 117.532817 | Deflection | 450ft | Yes | Spokane House *parking lot* | Sensitive habitat in slough on river right; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710 & Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-113 |
| SPR 56.75 | Spokane River Waters below *Nine Mile Falls Dam* | N 47.788255 W 117.53338 | Collection | 1200ft | Yes | Spokane House *parking lot* | Downstream habitat; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710 & Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 10/2005 | Page 4-24 Sector 4A | Page 4-115 |
| SPR 58.0 | Spokane River Waters above *Nine Mile Falls Dam* | N 47.773267 W 117.547252 | Collection | 1800ft | Yes *hand launch* | Carlson Rd *off roadway* | Downstream habitat; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710, Avista GCC 509-495-8114 & Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 09/2009 | Page 4-24 Sector 4A | Page 4-117 |
| SPR 58.0-N | Spokane River Waters above *Nine Mile Falls Dam* | N 47.774976 W 117.543765 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes – Nine Mile Falls Dam | Call Avista GCC at 509-495-8114 | Not Tested | Page 4-24 Sector 4A | Page 4-119 |
| SPR 61.85 | Spokane River Waters above *Nine Mile Falls Dam* | N 47.7276 W 117.51156 | Collection | 600ft | Yes *hand launch* | W 7 Mile Rd & Riverside State Park Dr *off roadway* | Downstream habitat; freshwater wildlife; general fish & wildlife | Notify Spokane County Fire Dispatch: 509-535-6710 & Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 09/2009 | Page 4-19 Sector 1 | Page 4-121 |
| SPR 63.0 | Spokane River Waters below *Monroe Street Dam* | N 47.727504 W 117.512652 | Collection | 800ft | Yes | Plese Flats *campground* | Downstream habitat; freshwater wildlife; general fish & wildlife | Notify Spokane County Fire Dispatch: 509-535-6710 & Washington State Parks Riverside Park Manager: 509-465-5064 or 509-290-3239 | Visited and Not Tested 09/2009 | Page 4-23 Sector 4 | Page 4-123 |
| SPR 67.25 | Spokane River Waters below *Monroe Street Dam* | N 47.696635 W 117.47906 | Collection | 350ft | Yes *hand launch* | West of Spokane Waste Water Facility *off roadway* | Downstream habitat; freshwater wildlife; general fish & wildlife | Notify Spokane County Fire Dispatch: 509-535-6710, City of Spokane Public Works 509-625-4600 & Chevron 800-762-3404 | Visited and Tested 09/2009 | Page 4-21 Sector 3 | Page 4-125 |
| SPR 74.0-N | Spokane River Waters above *Monroe Street Dam* | N 47.661709 W 117.425319 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes – Monroe Street Dam | Call Avista GCC at 509-495-8114 | Not Tested | Page 4-22 Sector 3A | Page 4-127 |

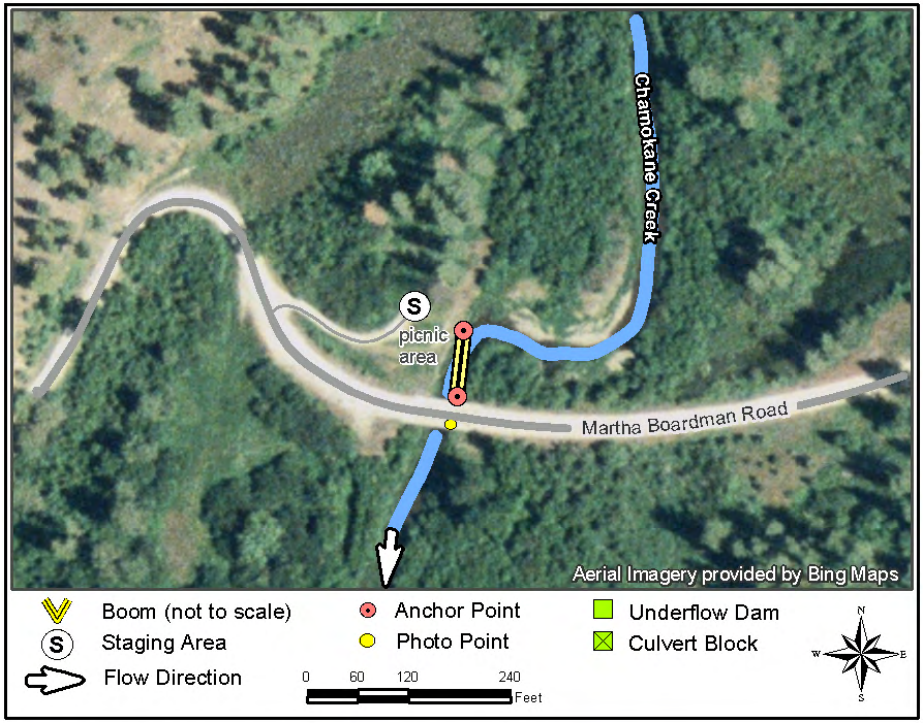
| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SPR 74.5 | Spokane River Waters above *Upper Falls Dam* | N 47.662031 W 117.415416 | Exclusion | 300 | Yes *hand launch* | Riverfront Park *east end* | Public Health & Safety | Notify Spokane County Fire Dispatch: 509-535-6710 & Riverfront Park Security 509-625-6609 or 509-994-1424; vehicle access permit required. | Visited and Not Tested 10/2005 | Page 4-22 Sector 3A | Page 4-129 |
| SPR 74.5-N | Spokane River Waters above *Upper Falls Dam* | N 47.663046 W 117.414644 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes - Upper Falls Dam | Call Avista GCC at 509-495-8114 | Not Tested | Page 4-22 Sector 3A | Page 4-131 |
| SPR 74.6 | Spokane River Waters above *Upper Falls Dam* | N 47.662353 W 117.412949 | Diversion | 600 | Yes *hand launch* | Shenanigans Restaurant *parking lot* | Public Health & Safety; downstream habitat | Notify Spokane County Fire Dispatch: 509-535-6710 & Shenanigans Restaurant 509-445-6690 | Not Visited and Not Tested | Page 4-22 Sector 3A | Page 4-133 |
| SPR 74.7 | Spokane River Waters above *Upper Falls Dam* | N 47.663133 W 117.409472 | Collection | 600ft | Yes *hand launch* | Red Lion Hotel *parking lot* | Public Health & Safety; downstream habitat | Notify Spokane County Fire Dispatch: 509-535-6710 & Red Lion Hotel 509-326-5577 | Not Visited and Not Tested | Page 4-22 Sector 3A | Page 4-135 |
| SPR 75.0 | Spokane River Waters above *Upper Falls Dam* | N 47.665156 W 117.405546 | Collection | 500ft | Yes *hand launch* | Gonzaga University Schoenberg Center. *parking lot* | Public Health & Safety; downstream habitat | Notify Spokane County Fire Dispatch: 509-535-6710 & Gonzaga University's On-Call Security Administrator 509-313-2222 | Not Visited and Not Tested | Page 4-22 Sector 3A | Page 4-137 |
| SPR 77.5 | Spokane River Waters below *Upriver Dam* | N 47.679417 W 117.367458 | Collection | 1000ft | Yes *hand launch* | E Upriver Dr & N Regal St *off roadway* | Downstream habitat; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710. River speeds may warrant use of shorter sections of boom. | Visited and Not Tested 10/2009 | Page 4-21 Sector 3 | Page 4-139 |
| SPR 80.0 | Spokane River Waters above *Upriver Dam* | N 47.685759 W 117.326796 | Collection | 1800ft | Yes | Waterworks St *Dirt road before boat ramp at Upriver Dam* | Downstream habitat; freshwater wildlife | Notify Spokane Water Department (Upriver Dam Operations) for access 509-742-8141. River speeds may warrant use of shorter sections of boom. | Visited and Not Tested 11/2009 | Page 4-20 Sector 2 | Page 4-141 |
| SPR 80.0-N | Spokane River Waters above *Upriver Dam* | N 47.685824 W 117.328556 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes – Upriver Dam | Contact Upriver Control Room Operator before strategy implementation Upriver Control Room: 509-742-8141 | Not Tested | Page 4-20 Sector 2 | Page 4-143 |

| Strategy Number | Waterway & Location | Position (Lat/Long) | Strategy Type | Boom Length | Boat? | Staging Area | Resource at Risk | Comments | Status | Sector Map | Strategy Details (2-Pager) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SPR 81.5 | Spokane River Waters above *Upriver Dam* | N 47.694043 W 117.307709 | Collection | 700ft | Yes *hand launch* | Boulder Beach *parking lot* | Downstream habitat; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710. River speeds may warrant use of shorter sections of boom and cascade configuration. | Visited and Not Tested 09/2009 | Page 4-20 Sector 2 | Page 4-145 |
| SPR 82.7 | Spokane River Waters above *Upriver Dam* | N 47.68963 W 117.281671 | Collection | 600ft | Yes *hand launch* | N Argonne Rd & E Maringo Dr *empty lot* | Downstream habitat; freshwater wildlife | Notify Inland Empire Paper Company shift supervisor before staging to approval: 509-924-1911. River speeds may warrant use of shorter sections of boom and cascade configuration. | Visited and Not Tested 04/2010 | Page 4-20 Sector 2 | Page 4-147 |
| SPR 84.1 | Spokane River Waters above *Upriver Dam* | N 47.693212 W 117.250214 | Collection | 500ft | No | Centennial Trail *parking lot* | Downstream habitat; freshwater wildlife | Notify Spokane County Fire Dispatch: 509-535-6710. "Coyote Rock" cultural site in area - notify cultural offices of Spokane Tribe (509-258-4060/509-258-4569) & Coeur d'Alene Tribe (208-686-1572/208-686-0675) if strategy implemented. | Visited and Tested 04/2010 | Page 4-20 Sector 2 | Page 4-149 |
| SPR 84.75 | Spokane River Waters above *Upriver Dam* | N 47.695619 W 117.240345 | Collection | 1000ft | Yes *hand launch* | Spokane River Centennial Trail 2000ft down-stream from Trent Ave Bridge | Downstream habitat; freshwater wildlife | Notify Spokane County Fire Dispatch for access to Centennial Trail: 509-535-6710 Enter trail from E Trent Ave. Contact Spokane County Parks for access to Antoine Plante Site Park: 509-477-4730. "Coyote Rock" cultural site in area - notify cultural offices of Spokane Tribe (509-258-4060/509-258-4569) & Coeur d'Alene Tribe (208-686-1572/208-686-0675) if strategy implemented. | Not Visited and Not Tested | Page 4-20 Sector 2 | Page 4-151 |
| SPR 99.5 | Spokane River Waters below *Post Falls Dam* | N 47.702556 W 116.991692 | Collection | 600ft | Yes *hand launch* | Corbin Park | Downstream habitat; freshwater wildlife | Notify City of Post Falls Parks Department: 208-773-0539. River speeds may warrant use of shorter sections of boom and cascade configuration. | Visited and Not Tested 09/2009 | Page 4-19 Sector 1 | Page 4-153 |
| SPR 102.0-N | Spokane River Waters above Post Falls Dam | N 47.708578 W 116.95369 | Notification | N/A | N/A | N/A | Energy/Power Generation Water Intakes – Post Falls Dam | Call Avista GCC at 509-495-8114 | Not Tested | Page 4-22 Sector 3A | Page 4-155 |

- **CHC 0.5** (p. 4-39)
- **DFC 0.25** (p. 4-41)
- **DGC 0.25** (p. 4-43)
- **LSR 0.0** (p. 4-45)
- **LSR 0.5** (p. 4-47)
- **LSR 0.75** (p. 4-49)
- **LSR 3.75** (p. 4-51)
- **LSR 10.25** (p. 4-53)
- **LSR 11.5** (p. 4-55)
- **LSR 16.0** (p. 4-57)
- **LSR 19.25** (p. 4-59)
- **LTC 0.5** (p. 4-61)
- **LTC 1.5** (p. 4-63)
- **LTC 2.0** (p. 4-65)
- **LTC 6.25** (p. 4-67)
- **LTC 7.5** (p. 4-69)
- **MHC 0.5** (p. 4-71)
- **MHC 1.75** (p. 4-73)
- **MHC 3.25** (p. 4-75)
- **MHC 4.0** (p. 4-77)
- **MHC 5.0** (p. 4-79)
- **SGC 7.0** (p. 4-81)
- **SGC 7.75** (p. 4-83)
- **SPR 25.0** (p. 4-85)
- **SPR 25.5** (p. 4-87)
- **SPR 26.25** (p. 4-89)
- **SPR 27.25** (p. 4-91)
- **SPR 29.0-N** (p. 4-93)
- **SPR 34.0** (p. 4-95)
- **SPR 34.0- N** (p. 4-97)
- **SPR 44.5** (p. 4-99)
- **SPR 45.5** (p. 4-101)
- **SPR 46.0** (p. 4-103)
- **SPR 52.0** (p. 4-105)
- **SPR 55.5** (p. 4-107)
- **SPR 56.0** (p. 4-109)
- **SPR 56.5** (p. 4-111)
- **SPR 56.7** (p. 4-113)
- **SPR 56.75** (p. 4-115)
- **SPR 58.0** (p. 4-117)
- **SPR 58.0-N** (p. 4-119)
- **SPR 61.85** (p. 4-121)
- **SPR 63.0** (p. 4-123)
- **SPR 67.25** (p. 4-125)
- **SPR 74.0-N** (p. 4-127)
- **SPR 74.5** (p. 4-129)
- **SPR 74.5-N** (p. 4-131)
- **SPR 74.6** (p. 4-133)
- **SPR 74.7** (p. 4-135)
- **SPR 75.0** (p. 4-137)
- **SPR 77.5** (p. 4-139)
- **SPR 80.0** (p. 4-141)
- **SPR 80.0-N** (p. 4-143)
- **SPR 81.5** (p. 4-145)
- **SPR 82.7** (p. 4-147)
- **SPR 84.1** (p. 4-149)
- **SPR 84.75** (p. 4-151)
- **SPR 99.5** (p. 4-153)
- **SPR 102.0** (p. 4-155)

# Chamokane Creek CHC 0.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.8507, W 117.8645 |
| ***Strategy Objective:*** | Collection - Collect oil moving down Chamokane Creek from upstream source |
| ***Implementation:*** | Secure boom on creek right of Chamokane Creek at picnic area for Spokane Tribe (upstream of bridge). Float line downstream to creek left before bridge. Pull boom downstream and across to creek left using line. Angle boom as needed for stream flow conditions and then secure to bank on creek left. Form collection pocket on creek left as needed. Use additional lines to keep boom secure in creek. Use the bridge, other existing structures, or trees to secure boom and lines to creek banks (use anchoring posts only if nothing else available). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near creek banks. |
| ***Staging Area:*** | Martha Boardman Picnic Area (Wellpinit, WA) |
| ***Field Notes:*** | Notify the Spokane Tribe before implementation **(Spokane Tribal Police: 509-258-4569).** Underflow dams and anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater fish & wildlife resources |
| ***Watercourse Description:*** | Creek – Chamokane Creek – Width 25ft (variable) – Depth 2.5ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 300ft | 1/2 " dbl braided propylene line w safety clasps |
| 100ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 11/2009

# Chamokane Creek CHC 0.5

**CHC-0.5 Photo:** Downstream side of bridge on Martha Boardman Road at creek left, looking across Chamokane Creek towards creek right.

**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

Natural Resources: 509-626-4400

Historic Preservation: 509-258-4060

**Closest Address**

Chamokane Road

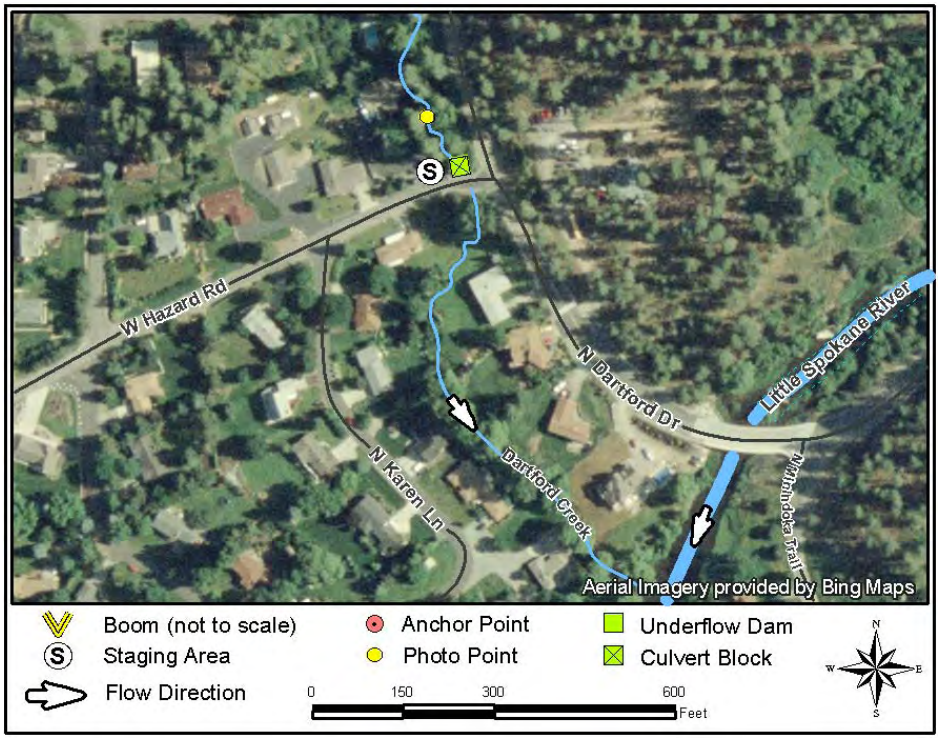
Wellpinit, WA 99040

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 14.2 Miles
- Turn left onto Martha Boardman Road
- After 0.6 Miles stay to the left, continuing on Martha Boardman Road
- After another 0.2 Miles, you will cross over Chamokane Creek.
- To the right, 200ft after the bridge, take the dirt road leading to Martha Boardman Picnic Area
- The staging area for strategy is at the picnic area near the end of the dirt road before creek

# Dartford Creek DFC 0.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.7847, W -117.4175 |
| ***Strategy Objective:*** | Collection – Using Culvert Block collect oil moving downstream on Dartford Creek from upstream source |
| ***Implementation:*** | Install culvert block at 4ft (box) & 4-1/2ft (round) culverts on Dartford Creek immediately upstream of W Hazard Road. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near creek banks. |
| ***Staging Area:*** | Stage on W Hazard Road west of intersection with N Dartford Drive, Spokane. Traffic control may be required if blocking or working near roadway; contact WSP-District 4 (509-227-6566) or Spokane County Sherriff (509-477-2240) for assistance. |
| ***Field Notes:*** | WDFW Emergency HPA Permit required before strategy implementation (**24-hour pager: 360-534-8233)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Dartford Creek - Width 10ft (variable) - Depth 3ft (variable) |

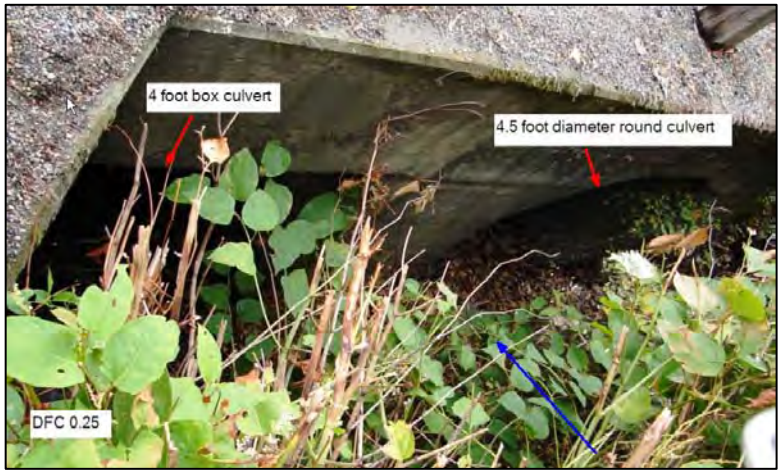



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 100ft | 1/2 " dbl braided propylene line w safety clasps |
| 4 each | Plywood sheets (4ft x 8ft) |
| 2 kits | Shoring material (posts, blocks, wedges, screen, & material) |
| Assortment | Equipment (shovels, pickaxes, tamper bars, sledge hammers) |
| 2 each | Hand saw |
| 2 each | Heavy duty pruners (for hand removal of vegetation) |

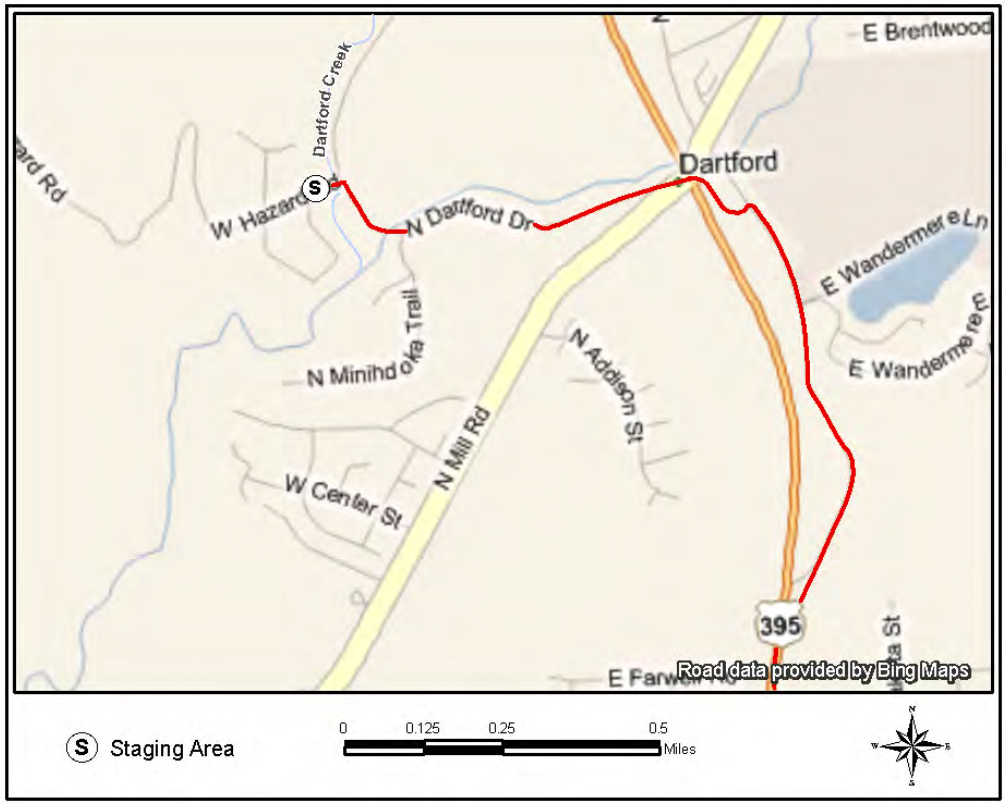
| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |

Status: Visited and Not Tested 10/2005

# Dartford Creek DFC 0.25




**DFC 0.25 Photo #1:** On Dartford Creek, immediately upstream of W Hazard Road, looking downstream towards 4ft (box) & 4-1/2ft (round) culverts on north side of roadway.




**Site Contact Information**

Spokane County Stormwater Utility
509-477-3600

**Closest Address**

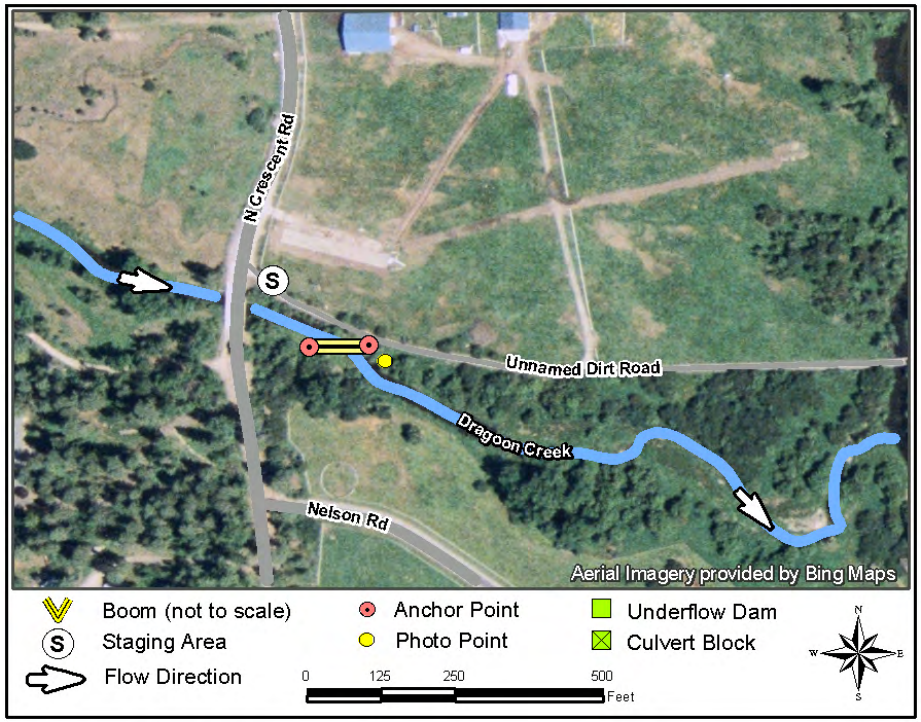
418 W Hazard Road
Spokane, WA 99208

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 8.5 Miles bear right onto N Wandermere Road
- After 0.8 Miles turn left onto N Dartford Drive
- After 0 .6 Miles stay (to the right) on Dartford Drive and go over (Little Spokane River) bridge
- After bridge, travel 0.1 Miles and take left onto W Hazard Road
- Strategy location is on North side of W Hazard Road at Dartford Drive. Stage on W Hazard Road.

# Dragoon Creek DGC 0.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.8750, W 117.3728 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on Dragoon Creek from upstream source |
| ***Implementation:*** | Secure boom to creek left of Dragoon Creek, downstream of bridge. From creek right, float line downstream to creek left. Pull boom upstream and across to creek right using line. Angle boom as needed for stream flow conditions and then secure to bank on creek right. Form collection pocket on creek left as needed. Use additional lines to keep boom secure in creek. Use anchor posts to secure boom and lines to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; brush near creek banks. |
| ***Staging Area:*** | Stage equipment on dirt road at creek left, and on N Crescent Road. |
| ***Field Notes:*** | Strategy may be difficult to implement depending on debris & conditions. Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Dragoon Creek - Width 20ft (variable) - Depth 3ft (variable) |

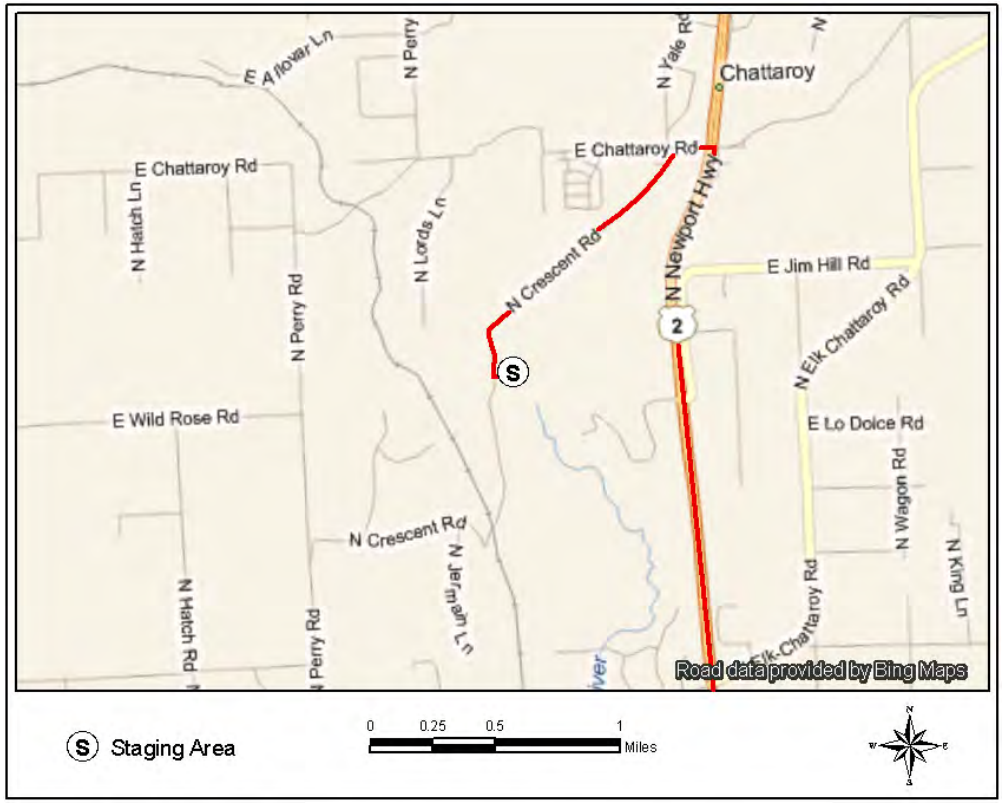



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 200ft | 1/2 " dbl braided propylene line w safety clasps |
| 100ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

**DGC 0.25 Photo #1:** On creek left at Dragoon Creek, looking upstream towards creek right and bridge at N Crescent Road. Proposed booming strategy angle indicated.




**Site Contact Information**

No information available

**Closest Address**

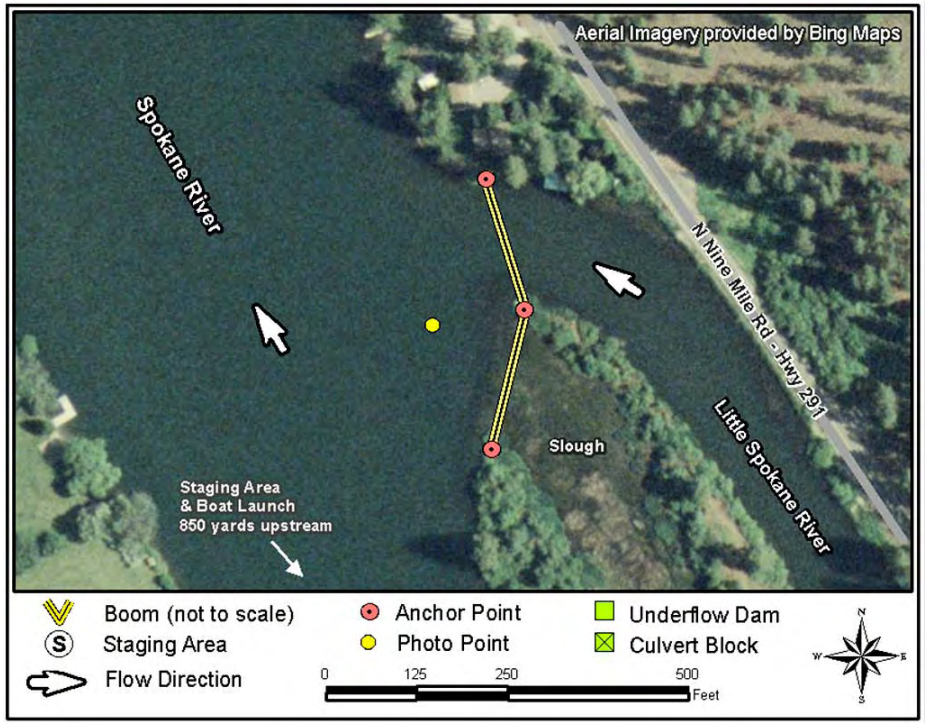
23902 N Crescent Road
Chattaroy, WA 99003

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 6.1 Miles keep right staying on Hwy 2 (US-2) "East Newport"
- After 11.6 Miles turn left onto E Chattaroy Road
- After 0.2 Miles turn left onto N Crescent Road
- After 1.3 Miles turn left onto dirt road immediately before creek
- Strategy location is about 200ft down dirt road on creek left. Stage at dirt road & N Crescent Road

# Little Spokane River LSR 0.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.7951, W -117.5346 |
| ***Strategy Objective:*** | Exclusion – Prevent oil from impacting sensitive habitat near the mouth of the Little Spokane River |
| ***Implementation:*** | Using workboat, secure boom on river right of the Little Spokane River near N 47.795568, W 117.534437. Tow boom to point on river left of Little Spokane River near N 47.79506, W 117.534168 and secure to shore. Extend boom from river left across opening of slough, securing boom end to shore on river right of the Spokane River near N 47.794552, W 117.534431. Angle boom as needed for stream flow/conditions. Use existing structures or trees to secure boom and lines to creek banks (use anchoring posts only if nothing else available). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard. |
| ***Staging Area:*** | Spokane House Parking Area (near 14400 N Shoemaker Lane, Nine Mile Falls, WA) – 850yds upstream from site |
| ***Field Notes:*** | Notify **Washington State Parks for Staging Area Use – Riverside Park Manager (509-465-5064 or 509-290-3239)** Strategy may be difficult during high-water conditions due to flow from Little Spokane River. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 500ft | B3 – River Boom, or other appropriate type |
| 9 each | Shoreside anchoring post |
| 1 each | Workboat |
| 1 each | Post driver |
| 5 each | Anchor systems (anchor, lines, floats) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Little Spokane River LSR 0.0

**LSR 0.0 Photo:** On Spokane River looking upstream towards at slough at confluence of Little Spokane River with the Spokane River. Proposed booming strategy angle and flow indicated on photograph.

**<u>Site Contact Information</u>**

No Information

**<u>Closest Address</u> (Staging Area)**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**<u>Closest Address</u> (Strategy Location)**

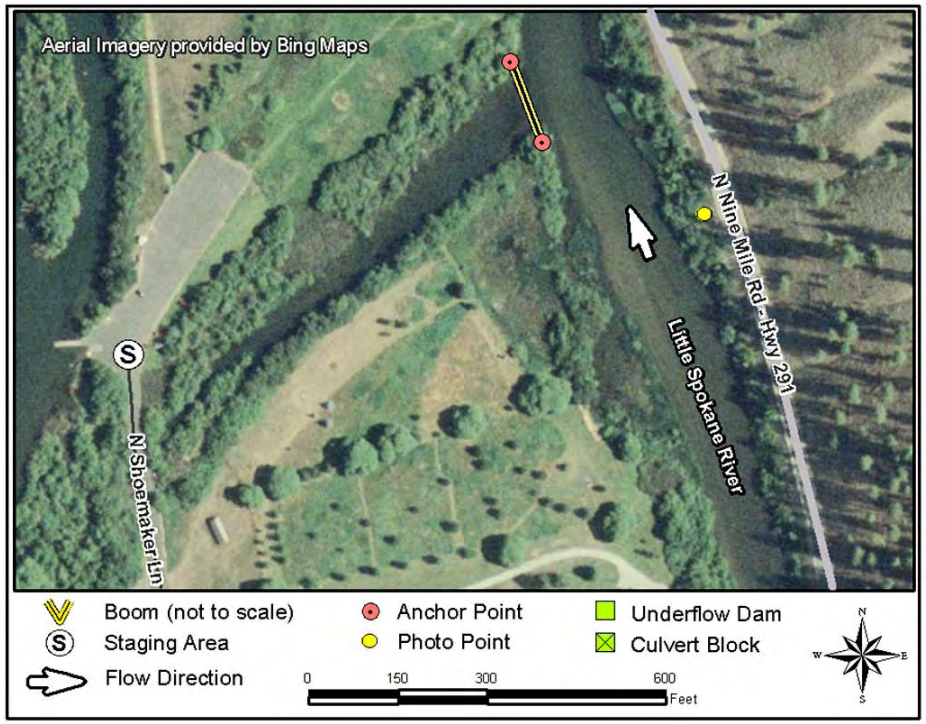
15520 N 9 Mile Road (Hwy 291)
Spokane, WA 99208

**<u>Driving Directions</u> (Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch & Parking Area
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Little Spokane River LSR 0.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.789762, W 117.529056 |
| ***Strategy Objective:*** | Exclusion – Prevent oil in the Little Spokane River from entering sensitive inlet. |
| ***Implementation:*** | On river left of the Little Spokane River, use hand-launch workboat to deploy boom across the length of the inlet. Use existing structures, or trees to secure boom to river banks (use anchoring posts only if nothing else available). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near river banks. |
| ***Staging Area:*** | On-site, the Spokane House parking lot is located at the end of N Shoemaker Lane. Boat launch available for Spokane River access. Private property located on the north bank of the inlet. |
| ***Field Notes:*** | Launch workboat into the inlet and deploy boom across the mouth of the inlet.<br>Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Sensitive wetland/habitat within inlet; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 200ft | 1/2 " dbl braided propylene line w safety clasps |
| 200ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 4 each | Shoreside anchoring post |
| 1 each | Post driver |
| 1 each | Heaving line |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 9/2009

# Little Spokane River LSR 0.5

**LSR 0.5 Photo:** On N Nine Mile Road above river right of the Little Spokane River looking west toward river left and mouth of inlet.

**<u>Site Contact Information</u>**

No Information

**<u>Closest Address</u> (Staging Area)**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**<u>Closest Address</u> (Strategy Location)**

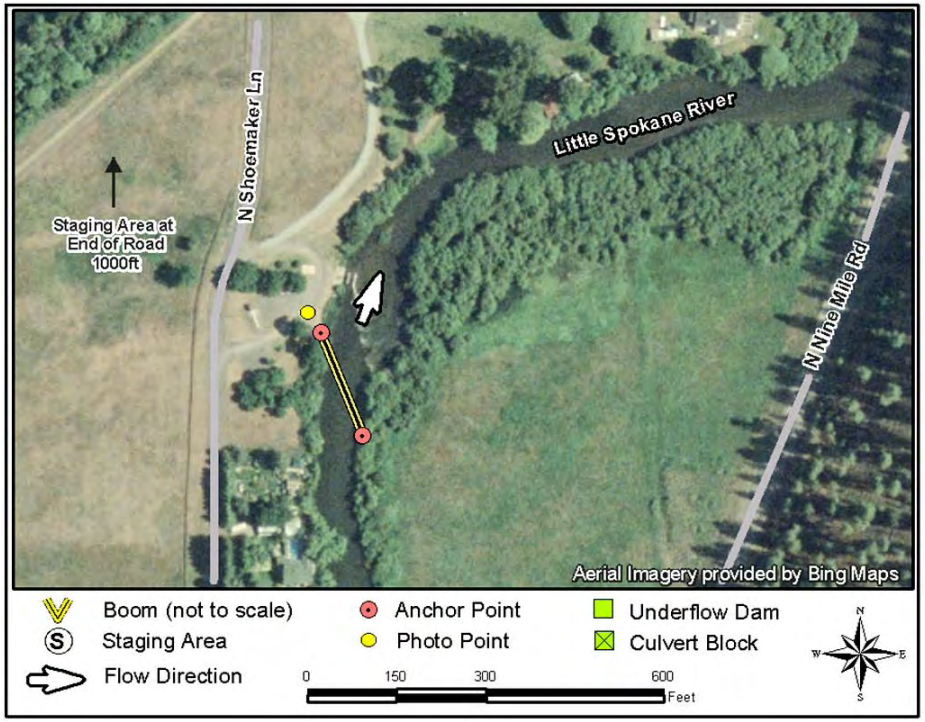
No Information

**<u>Driving Directions</u> (To Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch & Parking Area
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Little Spokane River LSR 0.75

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.78565, W 117.531196 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Little Spokane River from an upstream source. |
| ***Implementation:*** | Secure boom on river left of the Little Spokane River. Using line throwing gun, transport larger line across to river right. Pull boom upstream and across to river right using line. Angle boom as needed for stream flow conditions and then secure to bank on river right using existing structures or trees. Form collection pocket on river left as needed. Use additional lines to keep boom secure in river. *Do not use anchor posts or disturb soil on river right or river left.* |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near river banks. |
| ***Staging Area:*** | Notify **Washington State Parks for Staging Area Use – Riverside Park Manager (509-465-5064 or 509-290-3239)** Spokane House parking lot is located at the end of N Shoemaker Lane. Boat launch available for Spokane River access. Small boat launch available for Little Spokane River access. |
| ***Field Notes:*** | Access river right by foot; 800ft West of N Nine Mile Road, across field. Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 80ft (variable) - Depth (variable) |

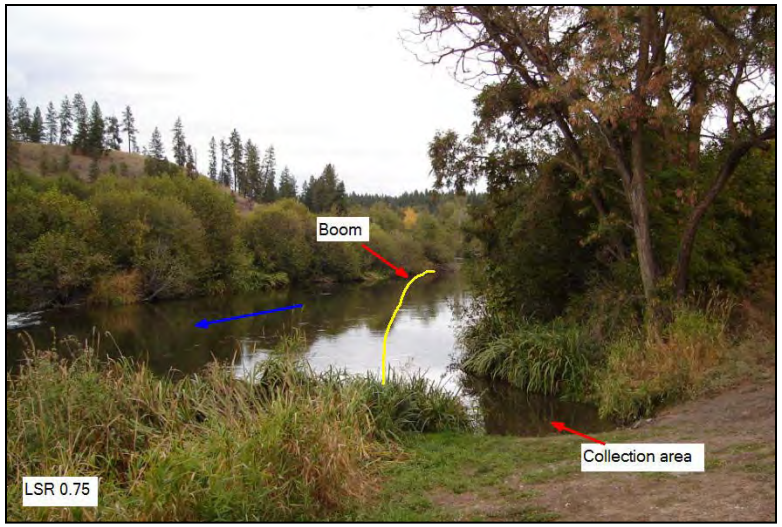



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 200ft | B3 – River Boom, or other appropriate type |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Little Spokane River LSR 0.75




**LSR 0.75 Photo:** On river left at Little Spokane River collection point looking upstream towards river right.

**Site Contact Information**

No Information

**Closest Address (Staging Area)**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Closest Address (Strategy Location)**

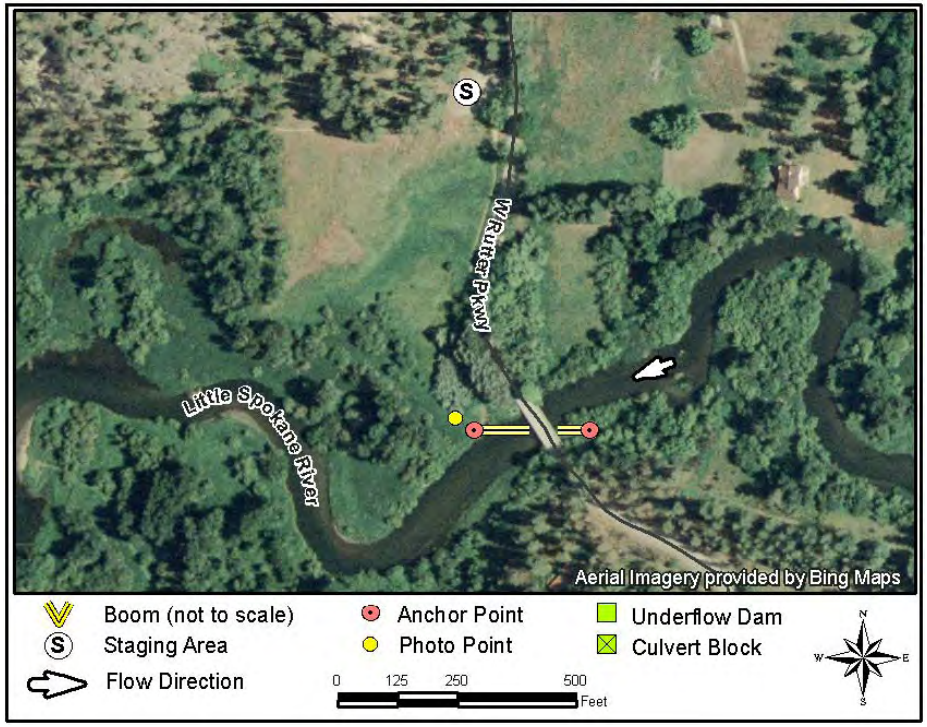
14210 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Driving Directions (Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch & Parking Area
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Little Spokane River LSR 3.75

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.7808, W -117.4964 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Little Spokane River from an upstream source. |
| ***Implementation:*** | Secure boom on river left of the Little Spokane River upstream of Rutter Pkwy Bridge. Using bridge as an aid, float a line from river left to river right (downstream side of bridge). Using line, pull boom downstream and across the river, under the bridge, to river right. Angle the boom as needed for stream flow conditions and then secure boom end to bank on river right. Form collection pocket on river right as needed. Use additional lines to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom and lines to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near creek banks. |
| ***Staging Area:*** | Indian Painted Rocks trailhead parking lot, 800ft North of strategy location on W Rutter Pkwy. |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 300ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Little Spokane River LSR 3.75

**LSR 3.75 Photo:** On river right at Little Spokane River collection point looking upstream towards river left. Proposed booming strategy indicated.

**Site Contact Information**
No information available

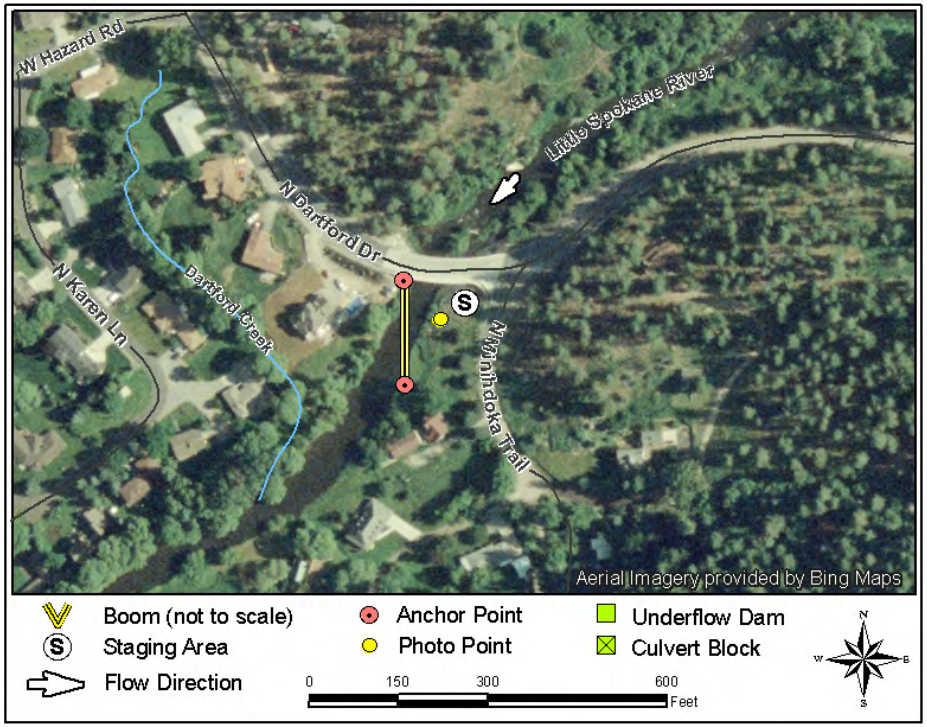
**Closest Address**
5745 W Rutter Pkwy
Spokane, WA 99218

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 2.2 miles bear right onto W Indian Trail Road (becomes N Indian Trail Road)
- After 4.7 miles stay strait onto W Rutter Pkwy
- After 0.8 miles you have reached the staging area (Indian Painted Rocks trailhead parking lot)
- Strategy location is 1000ft South of staging area on W Rutter Pkwy

# Little Spokane River LSR 10.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.783267, W 117.415352 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Little Spokane River from upstream source |
| ***Implementation:*** | Secure boom to creek left of Little Spokane River, downstream of bridge. From river right, float line downstream to river left. Pull boom upstream and across to river right using line. Angle boom as needed for stream flow conditions and then secure to bank on river right. Form collection pocket on river left as needed. Use additional lines to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom and lines to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near creek banks. |
| ***Staging Area:*** | On site, off roadway (behind guardrail) at intersection of N Dartford Drive & N Minihdoka Trail. |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires an **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |

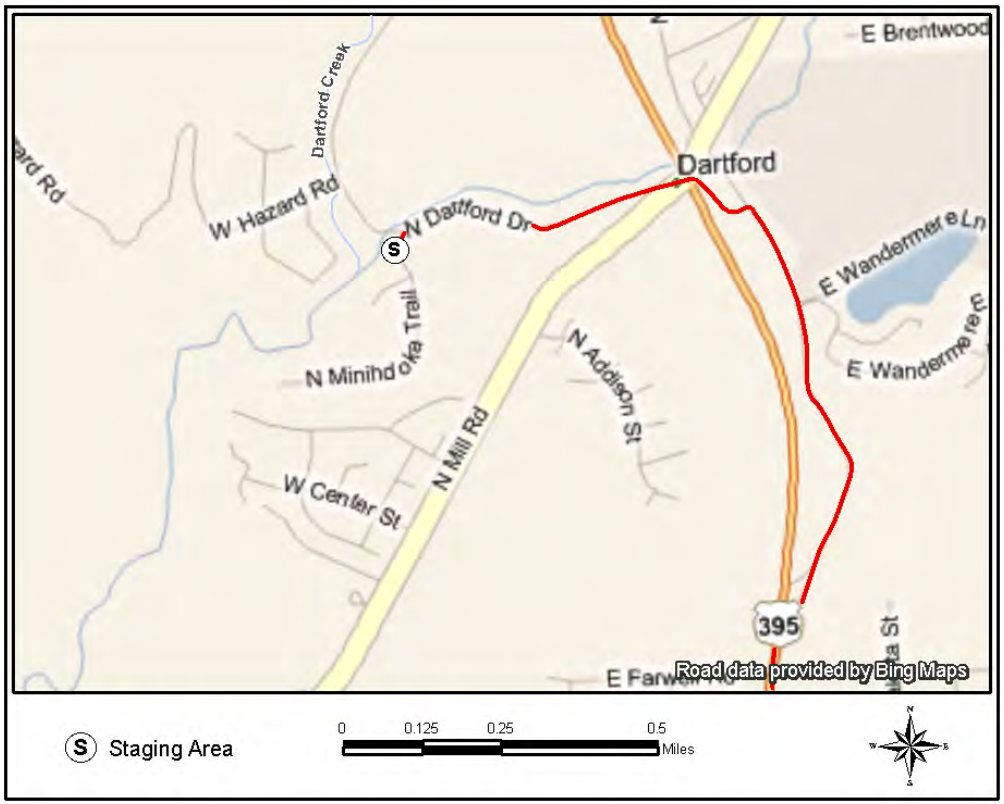



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 300ft | 1/2 " dbl braided propylene line w safety clasps |
| 200ft | B3 – River Boom, or other appropriate type |
| 4 each | Shoreside anchoring post |
| 1 each | Post driver |
| 1 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

**LSR 10.25:** On Little Spokane River on river left looking upstream towards Dartford Drive Bridge and river right. Proposed booming strategy and stream flow direction depicted on photograph.




**Site Contact Information**

No Information Available

**Closest Address**

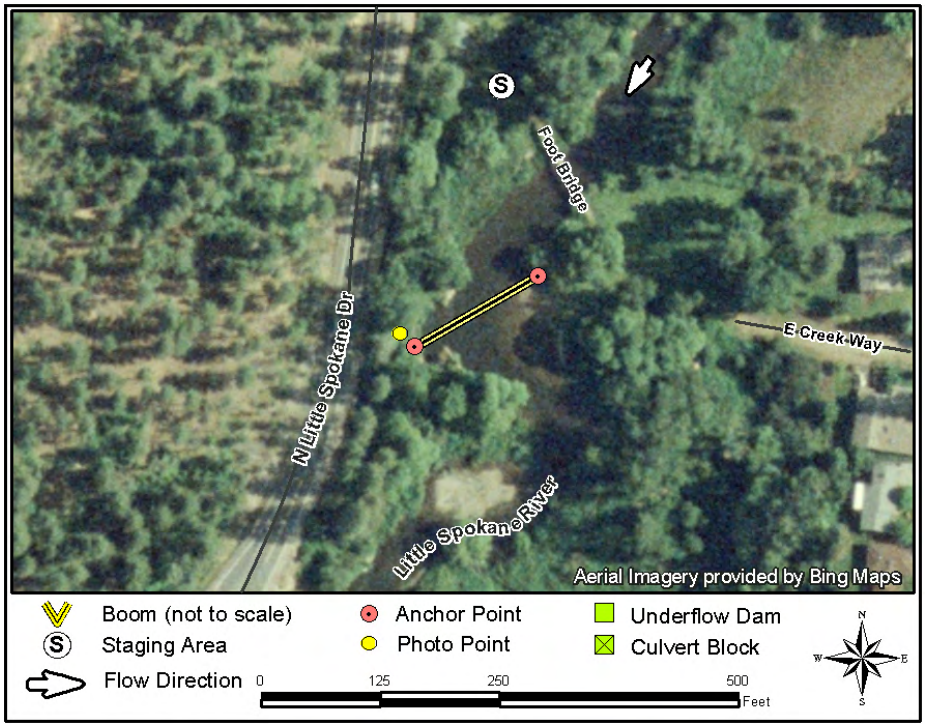
13917 N Dartford Drive
Spokane, WA 99208

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 8.5 Miles bear right onto N Wandermere Road
- After 0.8 Miles turn left onto N Dartford Drive
- After 0 .6 Miles you have reached the strategy location (N Dartford Drive & Minihdoka Trail)
- Stage on Minihdoka Trail (river left) behind roadway guardrail

# Little Spokane River LSR 11.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.7897, W -117.4006 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Little Spokane River from an upstream source. |
| ***Implementation:*** | Secure boom to river left of the Little Spokane River, downstream from foot bridge. Using line throwing gun, transport line across to river right. Pull boom downstream and across to river right using line. Angle boom as needed for stream flow conditions and then secure to bank on river right. Form collection pocket on river right as needed. Use additional lines to keep boom secure in river. Use anchor posts, structures, or trees to secure boom and lines to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near river banks. |
| ***Staging Area:*** | On-site, Pine River Park is located 200 feet northeast of the strategy location. |
| ***Field Notes:*** | Use of line throwing gun to transport line from river left to river right is recommended. Access river left by using foot bridge to cross river. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |



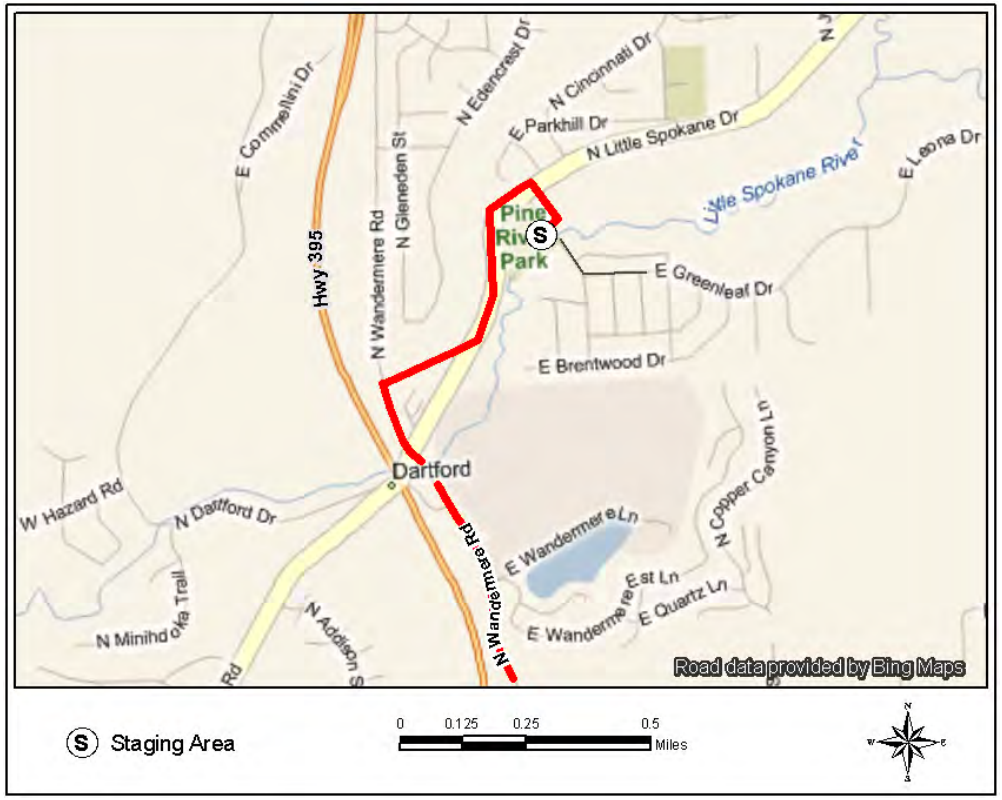

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 250ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Little Spokane River LSR 11.5

**LSR 11.5 Photo:** On river right at Little Spokane River collection point looking upstream towards river left. Proposed booming strategy and river flow direction depicted in photograph




**Site Contact Information**
No information available

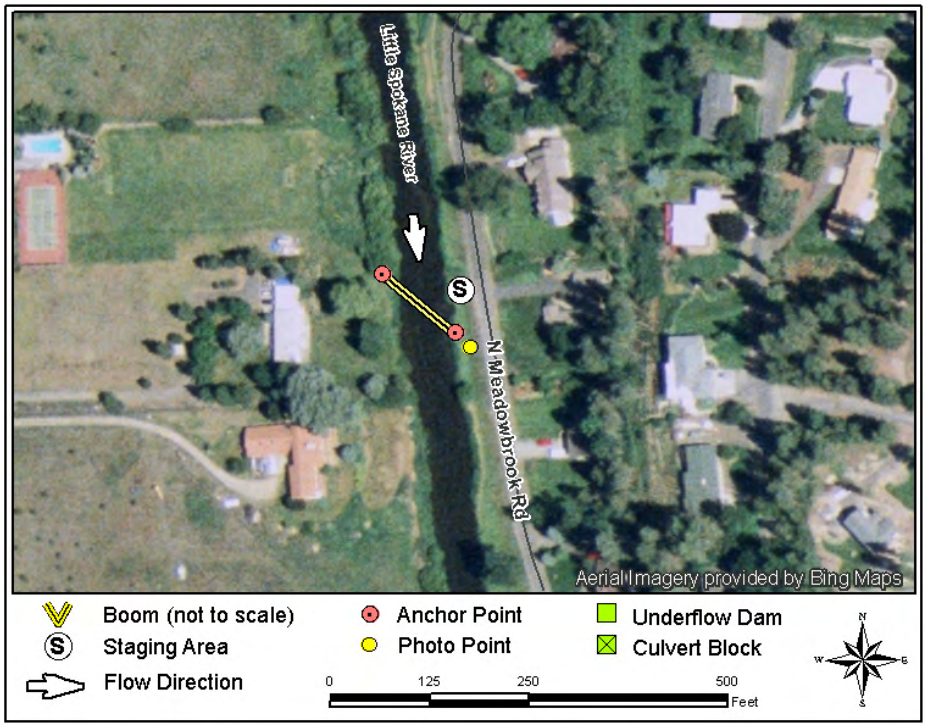
**Closest Address**
625 E Greenleaf Drive
Spokane, WA 99208

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 8.5 Miles bear right onto N Wandermere Road
- After 1.1 Miles turn right onto E Little Spokane Connection Road
- After 0.2 Miles continue onto N Little Spokane Drive
- After 0.3 Miles turn right onto E Greenleaf Drive
- After 100yds, turn right into Pine River Park.
- Stage at far end of parking area near river & foot bridge.

# Little Spokane River LSR 16.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.82144, W -117.37375 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Little Spokane River from an upstream source. |
| ***Implementation:*** | Secure boom on river right of the Little Spokane River. Using line throwing gun, transport line across to river left. Using line, pull boom downstream & across to river left. Angle boom as needed for stream flow conditions and then secure end to bank on river left. Form collection pocket on river left as needed. Use additional lines to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom and lines to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard. |
| ***Staging Area:*** | On-site, stage on N Medowbrook Road |
| ***Field Notes:*** | Use of line throwing gun to transport line from river right to river left is recommended. Access river right through private property at 18010 N Little Spokane Dive (see site contact information below). |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 150ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 9/2009

# Little Spokane River LSR 16.0

**LSR 16.0 Photo:** On river left at Little Spokane River collection point looking upstream towards river right.

**Site Contact Information**

Property Owner (on River Right)
18010 N Little Spokane Dr
Colbert, WA 99005
360-467-8331 (Terri)

**Closest Address**

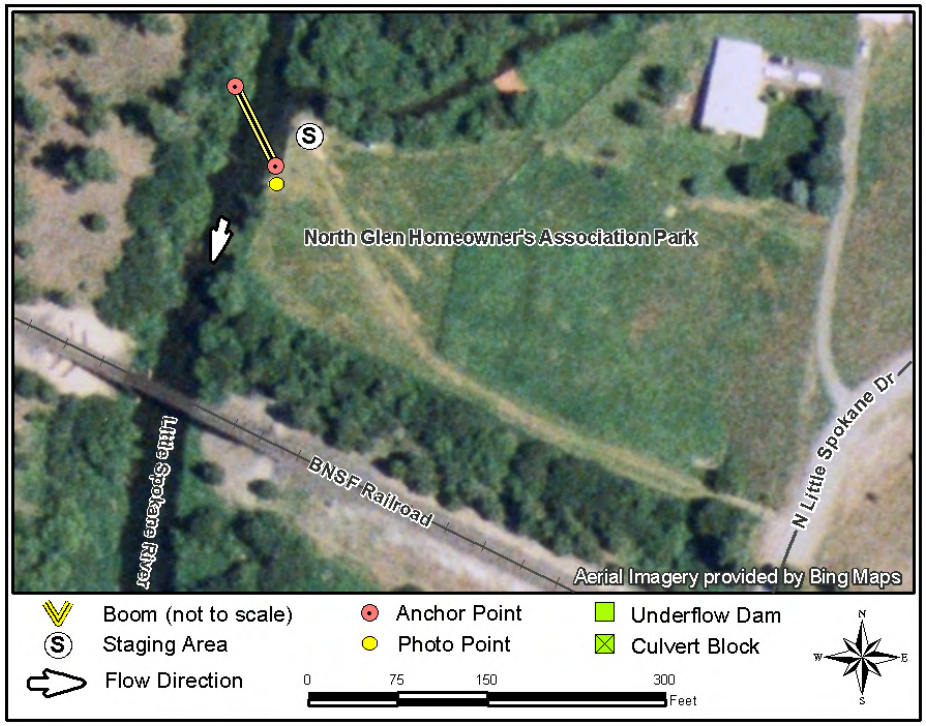
18014 N Meadowbrook Rd
Colbert, WA 99005

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 6.0 miles, bear right onto US-2 East/N Newport Hwy
- After 7.1 miles, turn left onto E Colbert Road
- After 1.2 miles, turn left onto N Meadowbrook Road
- After 0.2 miles, you have reached the strategy location
- Staging area on the right (across from 18014 N Meadowbrook Road)

# Little Spokane River LSR 19.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.8564, W -117.3665 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Little Spokane River from an upstream source. |
| ***Implementation:*** | Secure boom on river left of the Little Spokane River, upstream from railroad bridge. Using workboat, tow remaining boom end upstream to river right. Angle boom as needed for stream flow conditions and then secure boom end to bank on river right. Form collection pocket on river left as needed. Use additional lines to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom and lines to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near river banks. Railroad bridge should not be used to access river right. |
| ***Staging Area:*** | On-site, stage at North Glen Homeowners Association private park. |
| ***Field Notes:*** | Hand launch boat can be deployed from site on river left. Anything beyond the hand cutting of vegetation requires an **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River - Little Spokane River - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 200ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Towing bridle (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

**LSR 19.25 Photo:** On river left at Little Spokane River collection point looking upstream towards river right. Proposed booming strategy and stream flow direction depicted on photograph.

**Site Contact Information**

North Glen Homeowners Association
22011 N Glen Court
Colbert, WA 99005

**Closest Address**

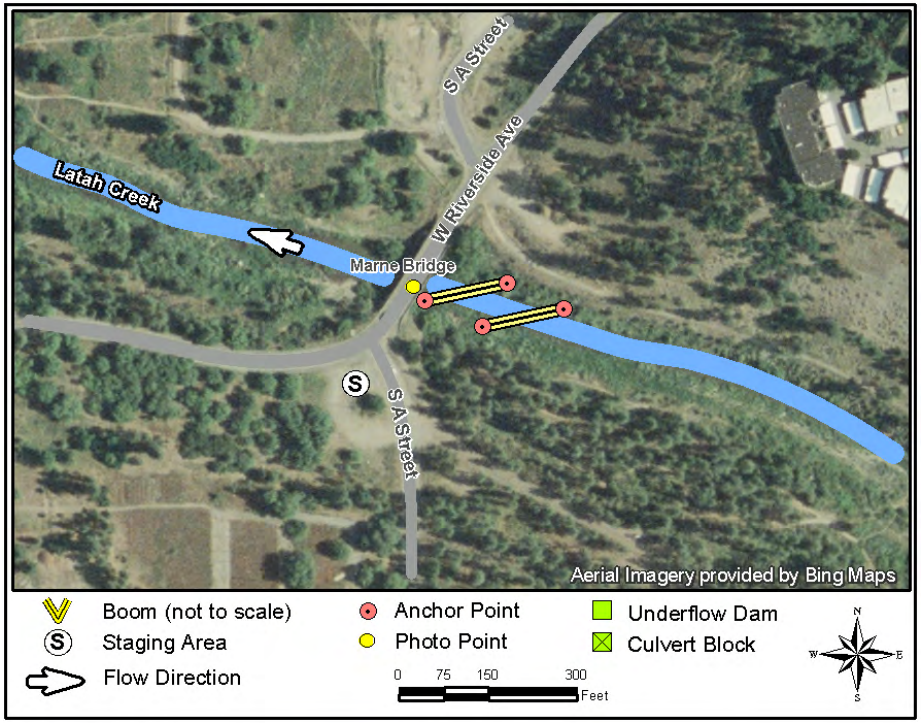
21823 N Meadowview Drive
Colbert, WA 99005

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 6.0 miles, bear right onto US-2 East/N Newport Hwy
- After 8.1 miles, turn left onto E Woolard Road
- After 0.8 miles, bear right onto N Little Spokane Drive
- After 1.0 miles (immediately after railroad tracks/trestle), turn left into field and follow dirt/grass path NW, back towards river
- After 600ft you have reached the Staging Area & Strategy Location

# Latah Creek LTC 0.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.6546, W -117.4540 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on Latah Creek from an upstream source. |
| ***Implementation:*** | Secure first 150ft segment of boom on creek right of the Latah Creek, upstream of Riverside Avenue Bridge (aka Marne Bridge). Using line throwing gun, transport line across to creek left. Using line, pull boom downstream & across to creek left. Angle boom as needed for stream flow conditions and then secure end to bank on creek left near base of bridge (upstream side). Form collection pocket on creek left as needed. Deploy second segment of boom in same manner, 100ft further upstream from first segment. Use additional lines to keep booms secure in creek. Use anchor posts, structures, or trees to secure boom and lines to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush at creek banks. |
| ***Staging Area:*** | Dirt lot on South side of intersection at W Riverside Avenue and A Street |
| ***Field Notes:*** | Vegetation restoration on both banks downstream of Marne bridge. Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233.** Strategy may have to be modified during low creek flow. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Latah Creek - Width 50ft (variable) - Depth (variable) |



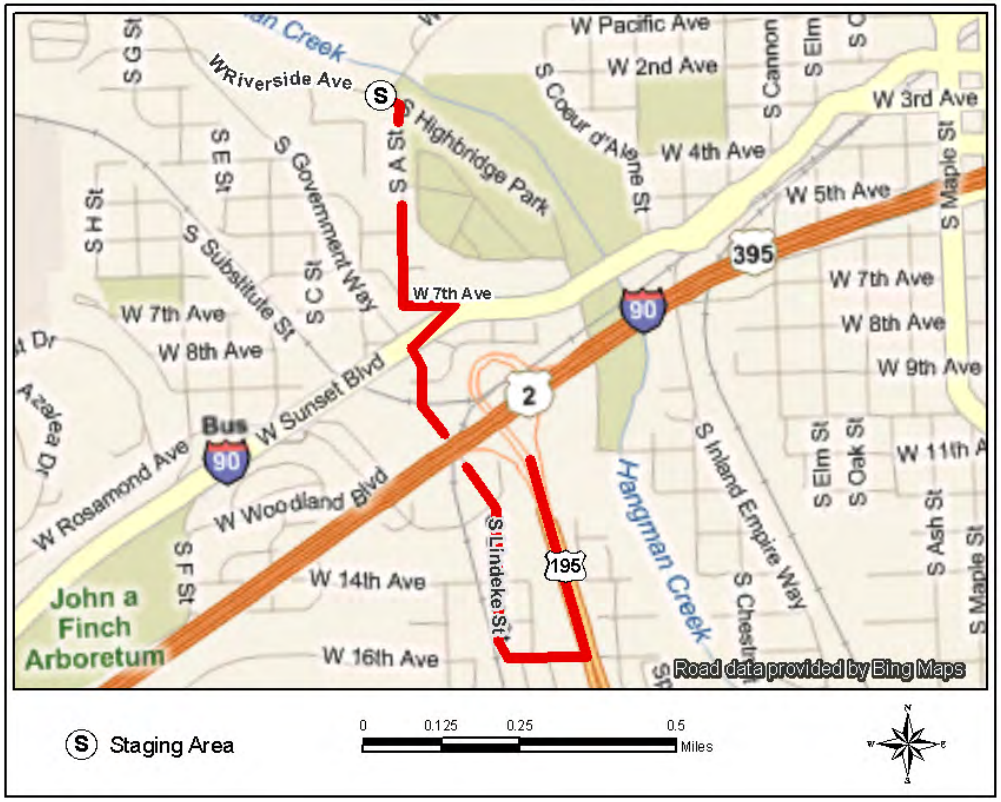

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 300ft | B3 – River Boom, or other appropriate type (2 x 150ft) |
| 12 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Latah Creek LTC 0.5

**LTC 0.5 Photo:** On creek left at Latah Creek collection point looking upstream towards creek right. Proposed booming strategy and stream flow direction depicted on photograph.




**Site Contact Information**
No information available

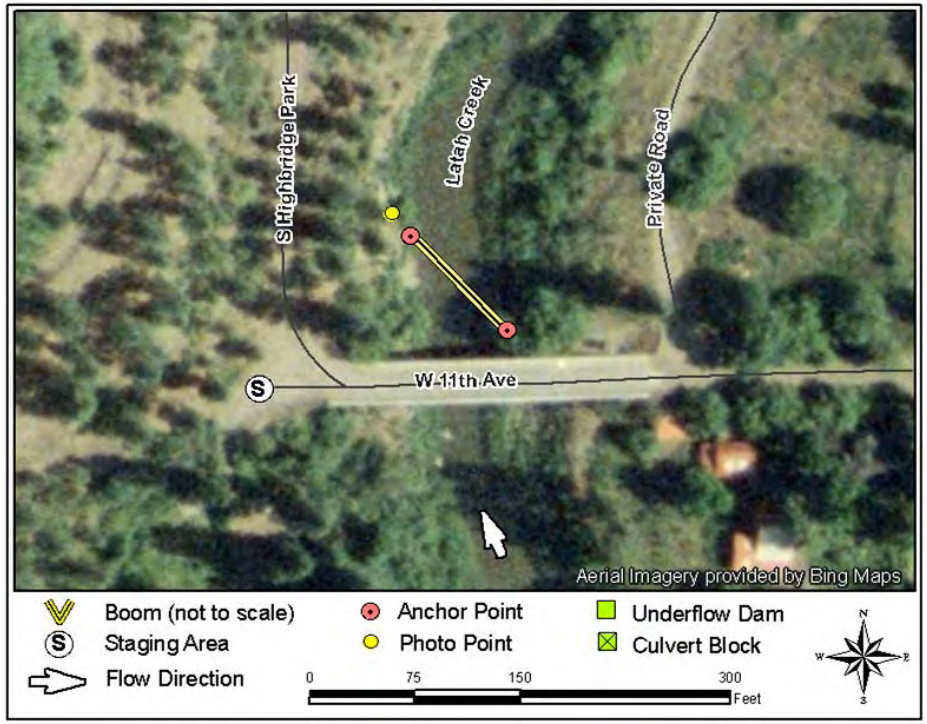
**Closest Address**
212 S A St
Spokane, WA 99224

**Driving Directions**

- From I-90, take exit 279 for US-195 South toward Colfax/Pulman
- After 0.5 miles, turn right onto W 16th Avenue (becomes S Lindeke Street, S Government Way)
- After 0.5 miles, turn right onto W Sunset Blvd
- After < 0.1 miles, turn left onto W 7th Avenue
- After < 0.1 miles, turn right onto S A Street
- Staging area is located on South side of intersection at S "A" Street & W Riverside Avenue

# Latah Creek LTC 1.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.6460, W -117.4476 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on Latah Creek from an upstream source. |
| ***Implementation:*** | Secure boom on creek right of Latah Creek, immediately downstream from 11th Avenue Bridge. Using line throwing gun, transport line across to creek left. Pull boom downstream and across to creek left using line. Angle the boom as needed for stream flow conditions and then secure boom end to bank on creek left. Form collection pocket on creek left as needed. Use additional lines to keep boom secure in creek. Use anchor posts, existing structures, or trees to secure boom and lines to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; high banks; trip & fall hazards; roadway hazards; water hazard; heavy brush near banks |
| ***Staging Area:*** | Intersection of W 11th Ave and S Highbridge Park, Spokane. |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Latah Creek - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 400ft | 1/2 " dbl braided propylene line w safety clasps |
| 250ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Latah Creek LTC 1.5

**LTC 1.5 Photo:** On creek left at Latah Creek collection point looking upstream towards creek right. Proposed booming strategy and stream flow direction depicted on photograph.

**Site Contact Information**

Property Owner (Creek Right)
E C Crawford
381 S Gulf Rd
Belchertown, MA 01007
Parcel No. 25243.3701

**Closest Address**

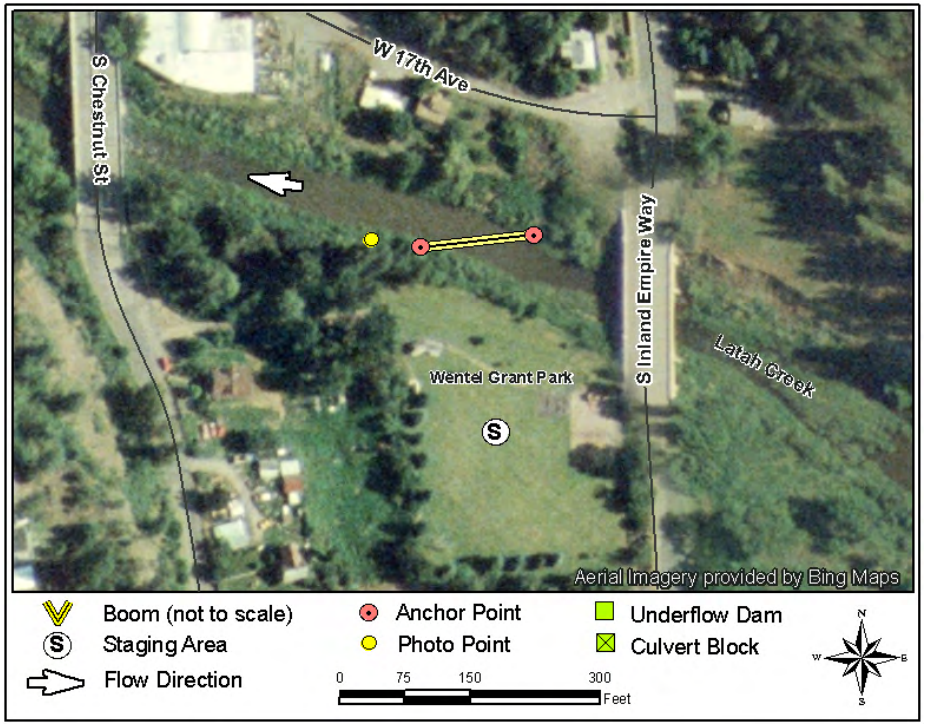
2403 W 11th Ave
Spokane, WA 99224

**Driving Directions**

- From I-90, at exit 280A, take ramp right toward Maple Street, keep straight onto W 4th Avenue
- Turn left onto S Maple Street
- Turn right onto W 7th Avenue
- Turn left onto S Inland Empire Way
- Bear right onto S Coeur d'Alene Street
- Turn right onto W 11th Avenue
- Staging area is located at cross streets W 11th Avenue and S Highbridge Park

# Latah Creek LTC 2.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.6396, W -117.4415 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on Latah Creek from an upstream source |
| ***Implementation:*** | Secure boom on creek right of Latah Creek, immediately downstream from Inland Empire Way Bridge. Using line throwing gun, transport line across to creek left. Pull boom downstream and across to creek left using line. Angle boom as needed for stream flow conditions and then secure to bank on creek left. Form collection pocket on creek left as needed. Use additional lines to keep boom secure in creek. Use anchor posts to secure boom to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; high banks; trip & fall hazards; roadway hazards; water hazard; heavy brush near banks |
| ***Staging Area:*** | Wentel Grant Park located (on creek left) - 1708 S Inland Empire Way, Spokane, WA |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Latah Creek - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 300ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Latah Creek LTC 2.0

**LTC 2.0 Photo:** On creek left at Latah Creek looking upstream towards creek right and Inland Empire Way bridge. Proposed booming strategy and stream flow direction depicted in photograph.

**Site Contact Information**
No information available

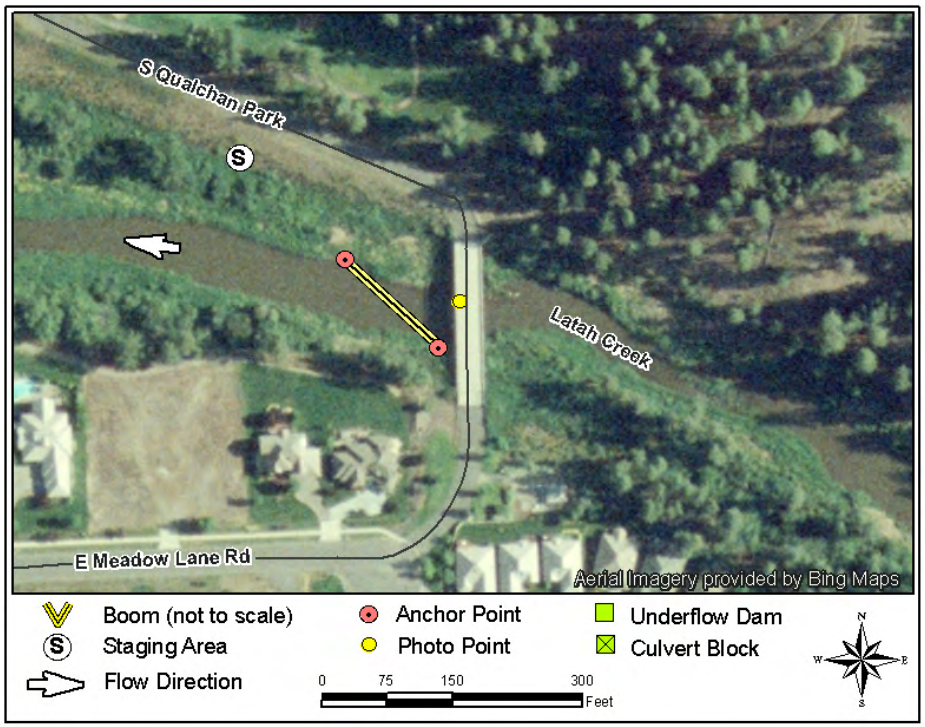
**Closest Address**
1708 S Inland Empire Way
Spokane, WA 99224

**Driving Direction**

- From I-90, at exit 280A, take ramp right toward Maple St, keep straight onto W 4th Avenue
- Turn right onto S Walnut Street
- Turn left onto W 3rd Avenue
- Keep left to stay on W Sunset Blvd
- Keep left onto S Inland Empire Way
- After 0.9 Miles (after bridge) turn right into parking area for Wentel Grant Park
- Wentel Grant Park is the staging area for this strategy

# Latah Creek LTC 6.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.6030, W -117.4058 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on Latah Creek from an upstream source. |
| ***Implementation:*** | Secure boom on creek left of Latah Creek, immediately downstream of (golf course) bridge. Using bridge as an aid (or line throwing gun), transport line across to creek right. Using line, pull boom downstream & across to creek right. Angle boom as needed for stream flow conditions and then secure end to bank on creek right. Form collection pocket on creek right as needed. Use additional lines to keep boom secure in creek. Use anchor posts, structures, or trees to secure boom and lines to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip; & fall hazards; roadway hazards; water hazard. |
| ***Staging Area:*** | On-site, stage on the north side of the creek along Qualchan Park. |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Latah Creek - Width 50ft (variable) - Depth (variable) |

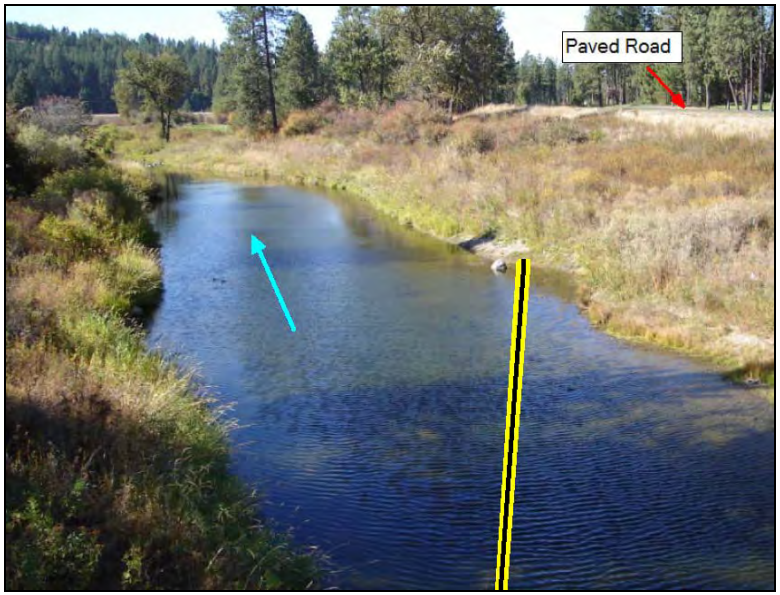



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 250ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Latah Creek LTC 6.25




**LTC 6.25 Photo:** On S Qualchan Park bridge looking downstream at Latah Creek. Proposed booming strategy and stream flow direction depicted on photograph.

**Site Contact Information**
No information available

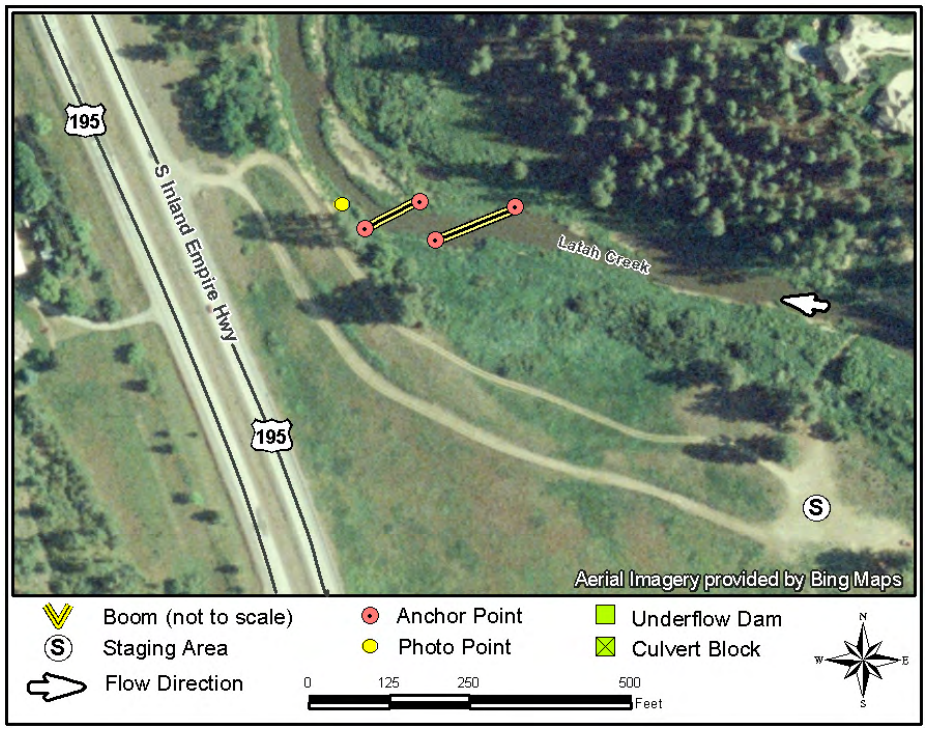
**Closest Address**
215 E Meadow Lane Rd
Spokane, WA 99224

**Driving Directions**

- From I-90, at exit 279, take ramp right for US-195 South toward Pullman/Colfax
- After 4.0 miles, turn left onto E Meadow Lane Road
- Road name changes to S Qualchan Park
- Staging area is located across the creek on S Qualchan Park

# Latah Creek LTC 7.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.5930, W -117.4029 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on Latah Creek from an upstream source. |
| ***Implementation:*** | Secure first (125ft) segment of boom on creek left of Latah Creek, just upstream of northward bend in creek. Using hand launch workboat, tow remaining boom end upstream and across to creek right. Angle the boom as needed for stream flow conditions and then secure boom end to bank on creek right. Form collection pocket on creek left as needed. Deploy second (175ft) segment of boom in same manner, 100ft further upstream from first segment. Use additional lines to keep booms secure in creek. Use anchor posts, structures, or trees to secure boom and lines to creek |
| ***Site Safety Note:*** | Slippery banks when wet or icy; high banks on creek left; trip; & fall hazards; mud/muddy; water hazard.<br>Beware of high banks on southern shore - collect upstream of them. Staging area muddy in winter. |
| ***Staging Area:*** | Stage at creek left on dirt lot near end of dirt road (or on dirt road near creek) |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Latah Creek - Width 50ft (variable) - Depth (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 300ft | B3 – River Boom, or other appropriate type (125ft & 175ft) |
| 12 each | Shoreside anchoring post |
| 1 each | Workboat (hand launch) |
| 2 each | Post driver |
| 2 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Latah Creek LTC 7.5

**LTC 7.5 Photo:** On creek right at Latah Creek looking upstream. Proposed booming strategy and stream flow direction depicted on photograph.

**Site Contact Information**
No information available

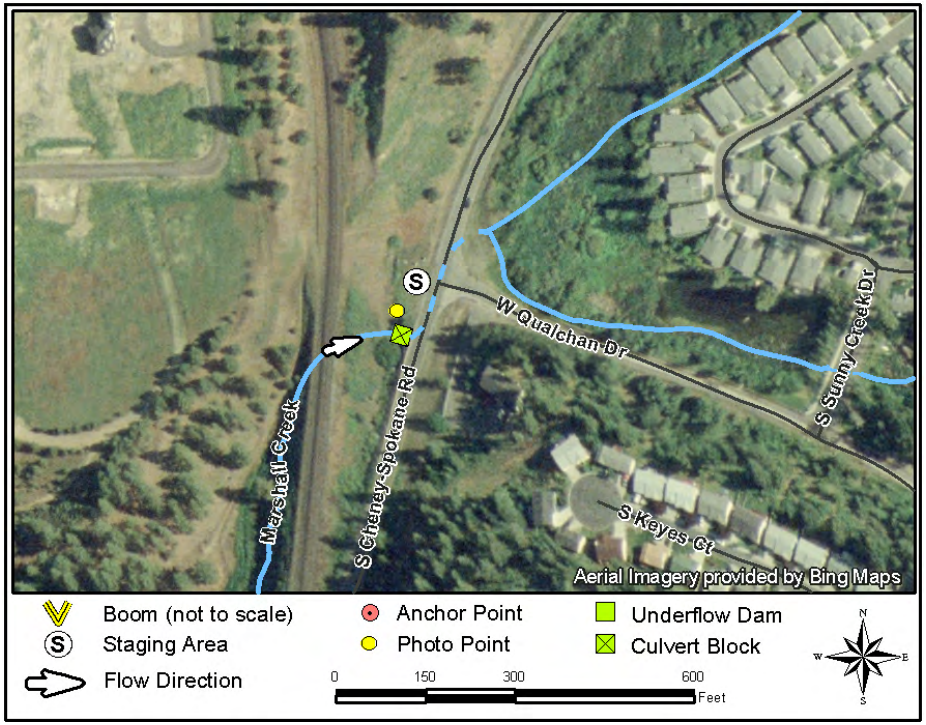
**Closest Address**
6706 S Inland Empire Way
Spokane, WA 99224

**Driving Directions**

- From I-90 East, at exit 279, take ramp right for US-195 South toward Pullman/Colfax
- After 4.9 miles, turn left onto S Hatch Rd
- Make a U-turn at S Hatch Rd and turn right onto US-195.
- After 0.4 miles, turn right onto dirt road
- Staging area is located at the end of the dirt road.

# Marshall Creek MHC 0.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.6115, W 117.4316 |
| ***Strategy Objective:*** | Collection – Using Culvert Block collect oil moving downstream on Marshall Creek from upstream source |
| ***Implementation:*** | Install culvert block at culvert on Marshall Creek upstream of W Qualchan Drive |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near creek banks |
| ***Staging Area:*** | Stage on gravel lot at the intersection of S Cheney Spokane Road and W Qualchan Drive |
| ***Field Notes:*** | Emergency HPA Permit from WDFW required before strategy implementation **(WDFW 24-hour pager: 360-534-8233)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Marshall Creek - Width 10ft (variable) - Depth 3ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 100ft | 1/2 " dbl braided propylene line w safety clasps |
| 2 each | Plywood sheets (5ft x 6ft) |
| 1 kit | Shoring material (posts, blocks, wedges, screen, & material) |
| Assortment | Equipment (shovels, pickaxes, tamper bars, sledge hammers) |
| 1 each | Hand saw |
| 1 each | Heavy duty pruners (for hand removal of vegetation) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |

Status: Visited and Not Tested 9/2009

# Marshall Creek MHC 0.5

**MHC 0.5 Photo:** On Marshall Creek, upstream of W Qualchan Drive, looking downstream towards culvert entrance on west side of S Cheney Spokane Road.

**Site Contact Information**

Spokane County Stormwater Utility
509-477-3600

**Closest Address**

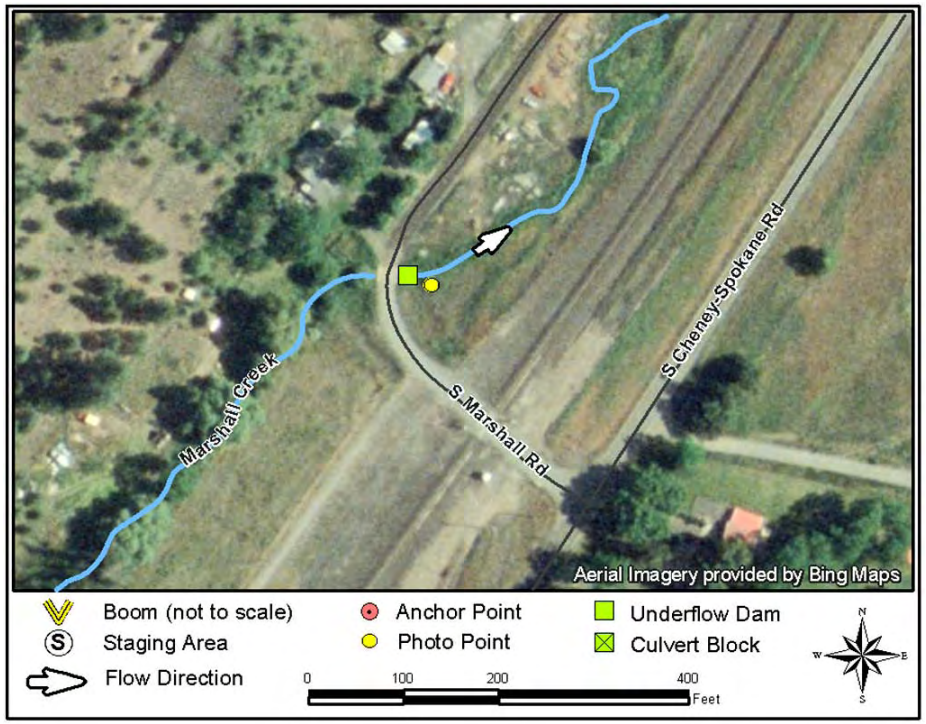
1323 W Qualchan Dr
Spokane, WA 99224

**Driving Directions**

- From I-90 take exit 279 and head south on US-195 towards Colfax/Pullman
- After 2.2 miles, turn right onto S Cheney-Spokane Road
- After 0 .6 miles and after crossing W Qualchan Drive, you have reached the strategy location.
- Stage on gravel lot located on West side of the intersection of W Qualchan Drive & S Cheney-Spokane Road

# Marshall Creek MHC 1.75

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.5955, W -117.4476 |
| ***Strategy Objective:*** | Collection – Use Underflow Dam to collect oil moving downstream on Marshall Creek from upstream source |
| ***Implementation:*** | Install underflow dam at Marshall Creek undercrossing upstream of S Marshall Road |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; tall grass near creek banks |
| ***Staging Area:*** | Stage at railroad access road/lot at Marshall Road, Spokane |
| ***Field Notes:*** | Emergency HPA Permit from WDFW required before strategy implementation **(WDFW 24-hour pager: 360-534-8233)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Marshall Creek - Width 10ft (variable) - Depth 3ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 100ft | 1/2 " dbl braided propylene line w safety clasps |
| 3 each | 10" Pipes |
| 1 roll | Plastic sheeting |
| Assortment | Equipment (shovels, pickaxes, tamper bars, sledge hammers) |
| Assortment | Fill material (sand, earth, gravel, sandbags) |
| 1 each | Pump |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |

Status: Visited and Not Tested 10/2005

# Marshall Creek MHC 1.75

**MHC 1.75 Photo:** On Marshall Creek, upstream of S Marshall Road, looking downstream towards undercrossing of Marshall Road

**Site Contact Information**

No Information Available

**Closest Address**

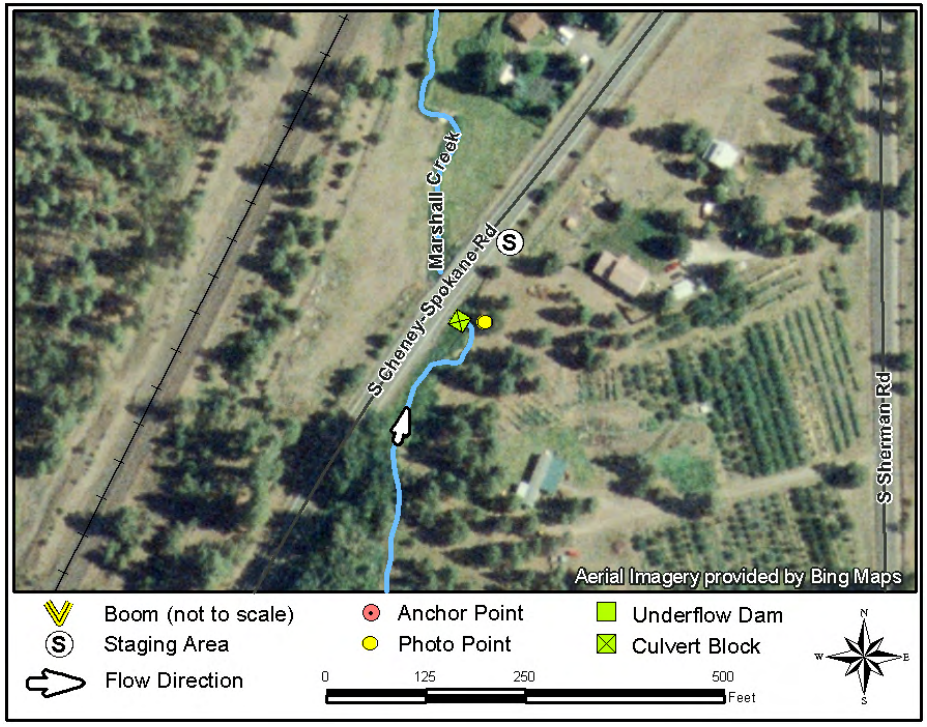
6326 S Marshall Road
Spokane, WA 99224

**Driving Directions**

- From I-90 take exit 279 and head south on US-195 towards Colfax/Pullman
- After 2.2 miles, turn right onto S Cheney-Spokane Road
- After 2 .0 miles, turn right onto S Marshall Road (unpaved road).
- Strategy location is on the east side of Marshall Road. Stage on railroad access road/lot on east side of Marshall Road

# Marshall Creek MHC 3.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.5784, W -117.4625 |
| ***Strategy Objective:*** | Collection – Using Culvert Block collect oil moving downstream on Marshall Creek from upstream source |
| ***Implementation:*** | Install culvert block at culvert on Marshall Creek upstream of S Cheney-Spokane Road |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; heavy brush near creek banks |
| ***Staging Area:*** | Stage on S Cheney-Spokane Road. Traffic control may be required if blocking or working near roadway; contact WSP-District 4 (509-227-6566) or Spokane County Sherriff (509-477-2240) for assistance. |
| ***Field Notes:*** | Emergency HPA Permit from WDFW required before strategy implementation **(WDFW 24-hour pager: 360-534-8233)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Marshall Creek - Width 10ft (variable) - Depth 3ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 100ft | 1/2 " dbl braided propylene line w safety clasps |
| 2 each | Plywood sheets (4ft x 5ft) |
| 1 kit | Shoring material (posts, blocks, wedges, screen, & material) |
| Assortment | Equipment (shovels, pickaxes, tamper bars, sledge hammers) |
| 1 each | Hand saw |
| 1 each | Heavy duty pruners (for hand removal of vegetation) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |

Status: Visited and Not Tested 10/2005

**MHC 3.25 Photo:** On Marshall Creek, upstream of S Cheney-Spokane Road, looking downstream towards culvert entrance on east side of S Cheney Spokane Road.

**Site Contact Information**

Spokane County Stormwater Utility
509-477-3600

**Closest Address**

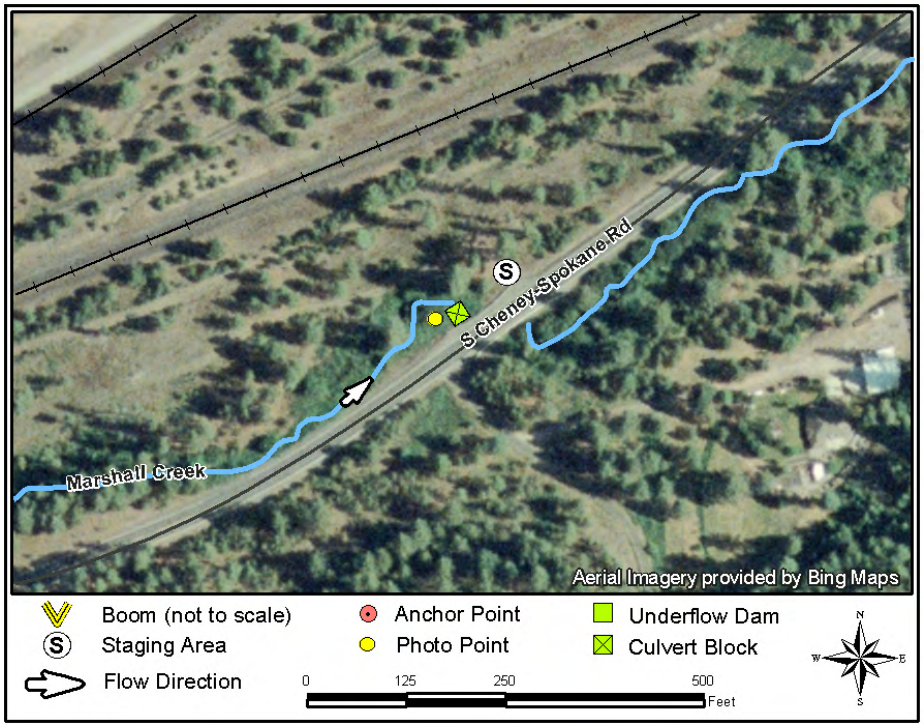
8411S Cheney-Spokane Road
Spokane, WA 99224

**Driving Directions**

- From I-90 take exit 279 and head south on US-195 towards Colfax/Pullman
- After 2.2 miles, turn right onto S Cheney-Spokane Road
- After 3.3 miles you will reach the strategy location. Stage on gravel lot on the east side of the S Cheney-Spokane Road before the culvert undercrossing

# Marshall Creek MHC 4.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.5723, W -117.4731 |
| ***Strategy Objective:*** | Collection – Using Culvert Block collect oil moving downstream on Marshall Creek from upstream source |
| ***Implementation:*** | Install culvert block at culvert on Marshall Creek upstream of S Cheney-Spokane Road |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; tall grass near creek banks |
| ***Staging Area:*** | Stage on S Cheney-Spokane Road. Traffic control may be required if blocking or working near roadway; contact WSP-District 4 (509-227-6566) or Spokane County Sherriff (509-477-2240) for assistance. |
| ***Field Notes:*** | Emergency HPA Permit from WDFW required before strategy implementation **(WDFW 24-hour pager: 360-534-8233)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Marshall Creek - Width 10ft (variable) - Depth 3ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 100ft | 1/2 " dbl braided propylene line w safety clasps |
| 2 each | Plywood sheets (4ft round) |
| 1 kit | Shoring material (posts, blocks, wedges, screen, & material) |
| Assortment | Equipment (shovels, pickaxes, tamper bars, sledge hammers) |
| 1 each | Hand saw |
| 1 each | Heavy duty pruners (for hand removal of vegetation) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |

Status: Visited and Not Tested 10/2005

**MHC 4.0 Photo:** On Marshall Creek, upstream of S Cheney-Spokane Road, looking downstream towards culvert entrance on west side of S Cheney Spokane Road.

**Site Contact Information**

Spokane County Stormwater Utility
509-477-3600

**Closest Address**

8925 S Cheney-Spokane Rd
Spokane, WA 99224

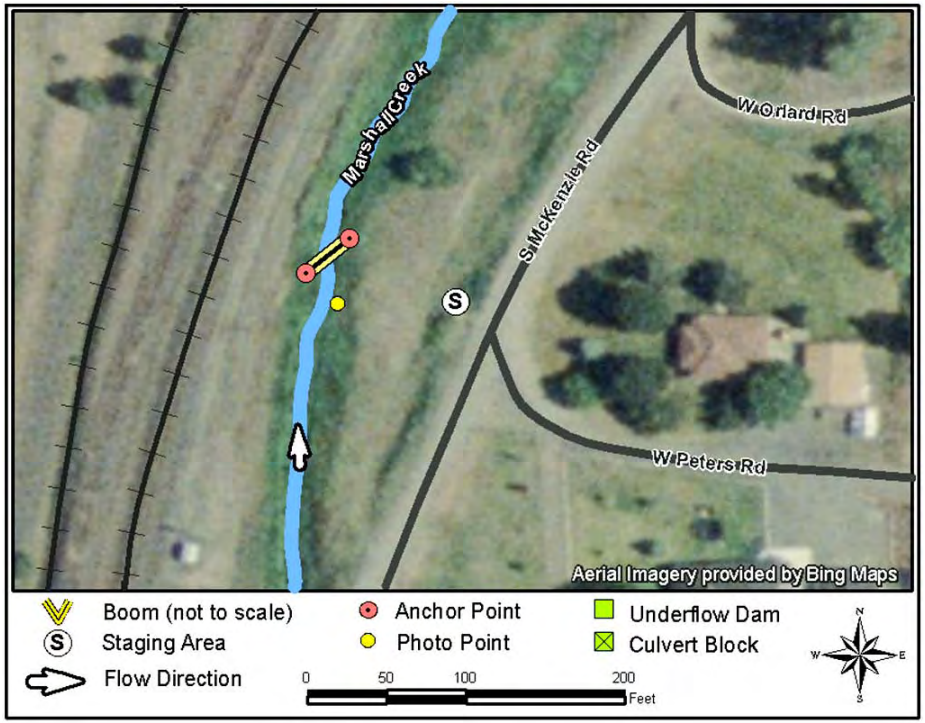
**Driving Directions**

- From I-90 take exit 279 and head south on US-195 towards Colfax/Pullman
- After 2.2 miles, turn right onto S Cheney-Spokane Road
- After 4.0 miles you will reach the strategy location.

  Stage on the west side of the S Cheney-Spokane Road before the culvert undercrossing

# Marshall Creek MHC 5.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.5658, W -117.4933 |
| ***Strategy Objective:*** | Collection - Collect oil moving down Marshall Creek from upstream source |
| ***Implementation:*** | Secure boom on creek right of Marshall Creek, about 300ft upstream from the S Cheney Spokane Bridge Using heaving line or line throwing gun, transport line across to creek left (see safety & field notes). Pull boom upstream and across to creek left using line. Angle boom as needed for stream flow conditions and then secure boom end to bank on creek left. Form a collection pocket on creek right as needed. Use additional lines to keep boom secure in creek. Use anchor posts existing structures, or trees to secure boom and lines to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; roadway hazards; water hazard; rail lines – use extreme caution near rail lines when accessing or working on creek left - these are active rail lines and trains may cross at any time. |
| ***Staging Area:*** | Stage on S McKenzie Road at W Peters Road, Cheney, WA. Traffic control may be required if blocking or working near roadway; contact WSP-District 4 (509-227-6566) or Spokane County Sherriff (509-477-2240) for assistance. |
| ***Field Notes:*** | Access creek left by using private bridge upstream or by using S Cheney Spokane Bridge downstream |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Marshall Creek - Width 10ft (variable) - Depth 3ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 300ft | 1/2 " dbl braided propylene line w safety clasps |
| 100ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |
| 1 each | Line throwing gun |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |

Status: Visited and Not Tested 10/2005

**MHC 5.0 Photo:** On creek right at Marshall Creek collection site, looking upstream towards S Cheney-Spokane Road Bridge. Proposed booming strategy and stream flow direction depicted on photograph.

**Site Contact Information**

No information available

**Closest Address**

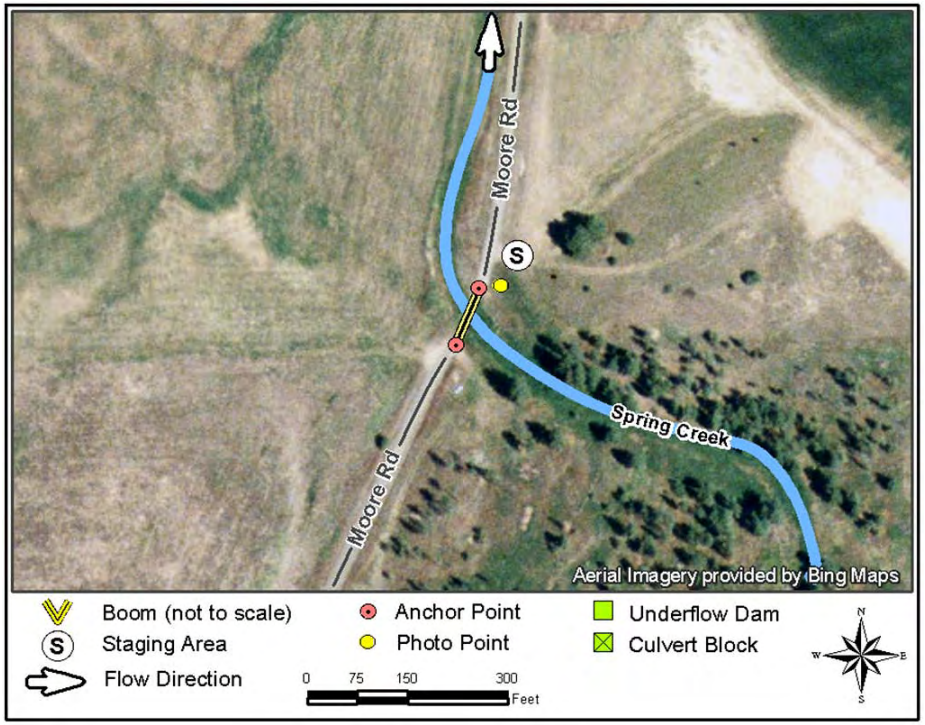
9603 S McKenzie Rd
Cheney, WA 99004

**Driving Directions**

- From I-90 take exit 279 and head south on US-195 towards Colfax/Pullman
- After 2.2 miles, turn right onto S Cheney-Spokane Road
- After 4.9 miles, turn left onto S McKenzie Road
- After 0.1 miles, you will reach the strategy location
- Stage on the West side of the S McKenzie Road across from W Peters Road

# Spring Creek SGC 7.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.79631, W 117.91207 |
| ***Strategy Objective:*** | Collection – Collect oil moving down Spring Creek from upstream source |
| ***Implementation:*** | Secure boom on creek right of Spring Creek, immediately upstream of roadway (Moore Road). Using heaving line, transport line across to creek left. Pull boom upstream and across to creek left using line. Angle boom as needed for stream flow conditions and then secure boom end to bank on creek left. Form a collection pocket on creek right as needed. Use additional lines to keep boom secure in creek. Use anchor posts existing structures, or trees to secure boom and lines to creek banks. Underflow dam installation may be possible depending on stream conditions. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; mud/muddy; trip & fall hazards; roadway hazards, wash-out; water hazard. |
| ***Staging Area:*** | Moore Road N (via Circle Rd N, off roadway to left before creek) – Davenport, WA |
| ***Field Notes:*** | Access creek left by driving around to other side via Fisher Road E to Moore Road. If underflow dam used, obtain Emergency HPA permit from WDFW before implementation **(WDFW 24-hour pager: 360/534-8233)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Spring Creek – Width 40ft (variable) – Depth 2ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 300ft | 1/2 " dbl braided propylene line w safety clasps |
| 100ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2009

**SGC-7.0 Photo:** On creek right where Spring Creek crosses Moore Road. Roadway washed out.

**Site Contact Information**

No contact information available

**Closest Address**

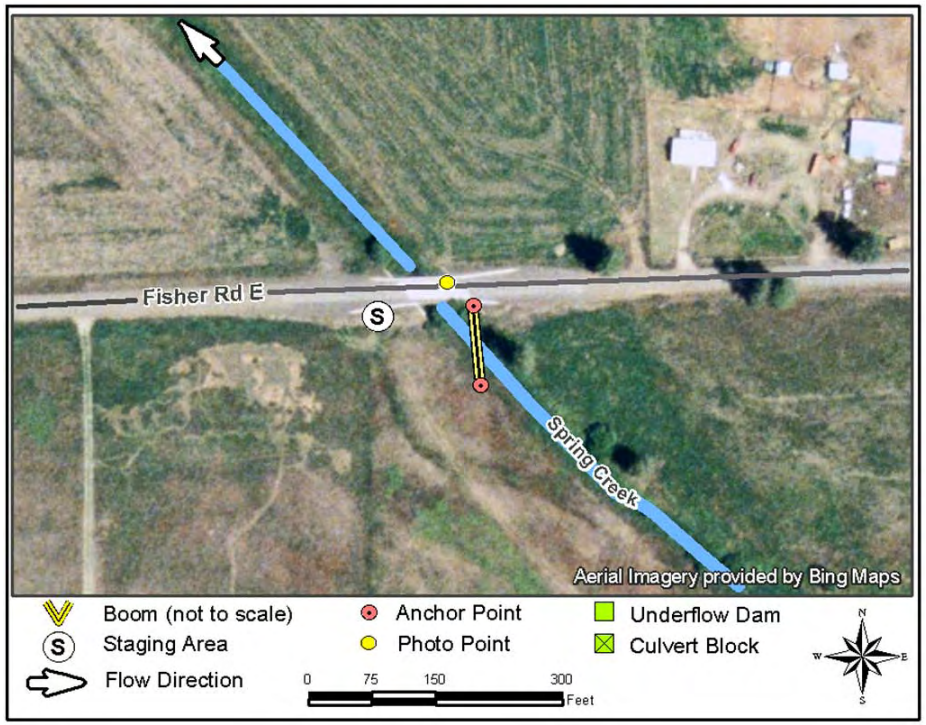
36001 Moore Road N
Reardan, WA 99029

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 9.9 Miles
- Turn left onto Circle Road N
- After .7 Miles stay strait onto Moore Road N (Circle Road N continues to the right)
- After another .7 Miles the road meets Spring Creek; the strategy location. Staging area along roadway to left before creek.

# Spring Creek SGC 7.75

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.788683, W 117.905968 |
| ***Strategy Objective:*** | Collection - Collect oil moving down Spring Creek from upstream source |
| ***Implementation:*** | Secure boom on creek right of Spring Creek, immediately upstream of Fisher Road E Bridge. Using heaving line, transport line across to creek left. Pull boom upstream and across to creek left using line. Angle boom as needed for stream flow conditions and then secure boom end to bank on creek left. Form a collection pocket on creek right as needed. Use additional lines to keep boom secure in creek. Use anchor posts existing structures, or trees to secure boom and lines to creek banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; mud/muddy; trip & fall hazards; roadway & water hazards; brush near creek banks. Traffic control may be required if blocking or working near roadway; contact WSP-District 4 (509-227-6566) or Lincoln County Sherriff (509-725-3501) for assistance. |
| ***Staging Area:*** | On Fisher Road at turnout on south side of roadway on west side of bridge (creek left) – Reardon, WA |
| ***Field Notes:*** | Anything beyond the hand cutting of vegetation requires a **WDFW Emergency HPA Permit; call 360-534-8233** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | Creek - Spring Creek – Width 40ft (variable) – Depth 4ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 300ft | 1/2 " dbl braided propylene line w safety clasps |
| 100ft | B3 – River Boom, or other appropriate type |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving line |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |

Status: Visited and Not Tested 10/2005

# Spring Creek SGC 7.75

**SGC-7.75 Photo:** At bridge on Fisher Rd E, looking downstream towards creek left.

**Site Contact Information**

No contact information available

**Closest Address**

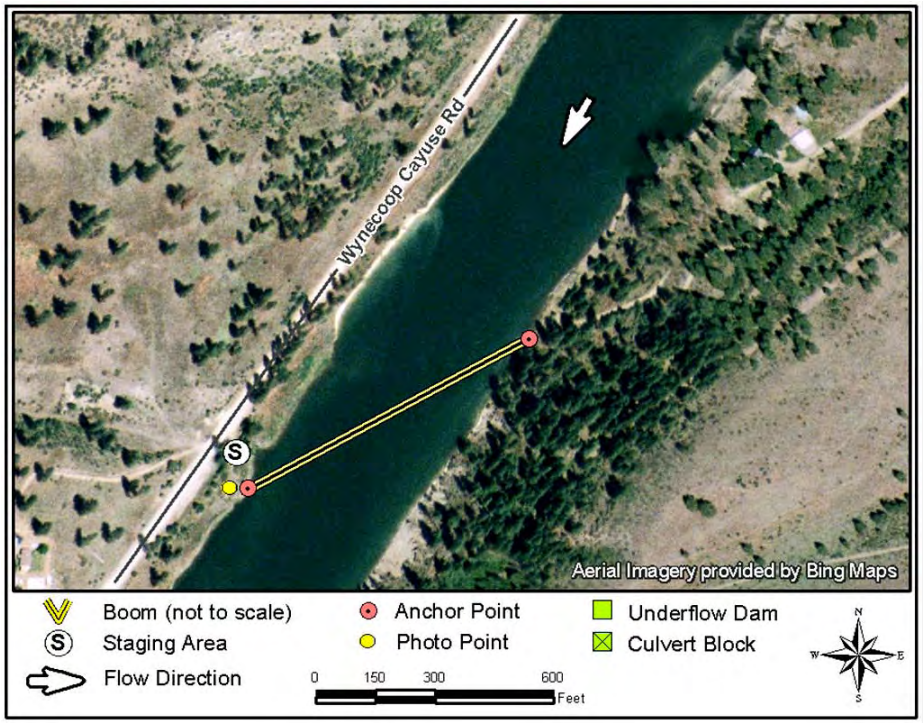
50079 Fisher Road E
Reardan, WA 99029

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 9.6 Miles
- Turn left onto Fisher Road E
- After .7 Miles you have reached the strategy location (bridge over Spring Creek)
- Stage at turnout on south side of roadway after bridge (west of bridge on creek left)

# Spokane River SPR 25.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.82713, W 118.000717 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right of Spokane River, near N 47.826493, W 118.00208. Using hand-launch workboat, tow boom upstream and across to river left. Angle boom as needed for stream flow conditions and then secure boom end to bank on river left. Form a collection pocket on river right as needed. Use anchoring systems to keep boom secure in river. Use existing structures or trees to secure boom to river banks. *Do not use anchor posts or disturb soil on river left.* |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards, hillside; roadway hazards; water hazard. |
| ***Staging Area:*** | Wynecoop-Cayuse Road; turnout/dirt road off roadway near N 47.826864, W 118.002225 |
| ***Field Notes:*** | Notify the Spokane Tribe before implementation **(Spokane Tribal Police: 509-258-4569).** Hand launch boat can be deployed from site. For larger craft, a dirt boat ramp is available at SPR 26.25 and SPR 27.25. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 435ft - Depth 40-50ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 1000ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 1 each | Heaving Line |
| 12 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 11/2009

**SPR 25.0 Photo:** On Spokane River at strategy location on river right looking upstream towards river left.

**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

Natural Resources: 509-626-4400

Historic Preservation: 509-258-4060

**Closest Address**

Wynecoop-Cayuse Road

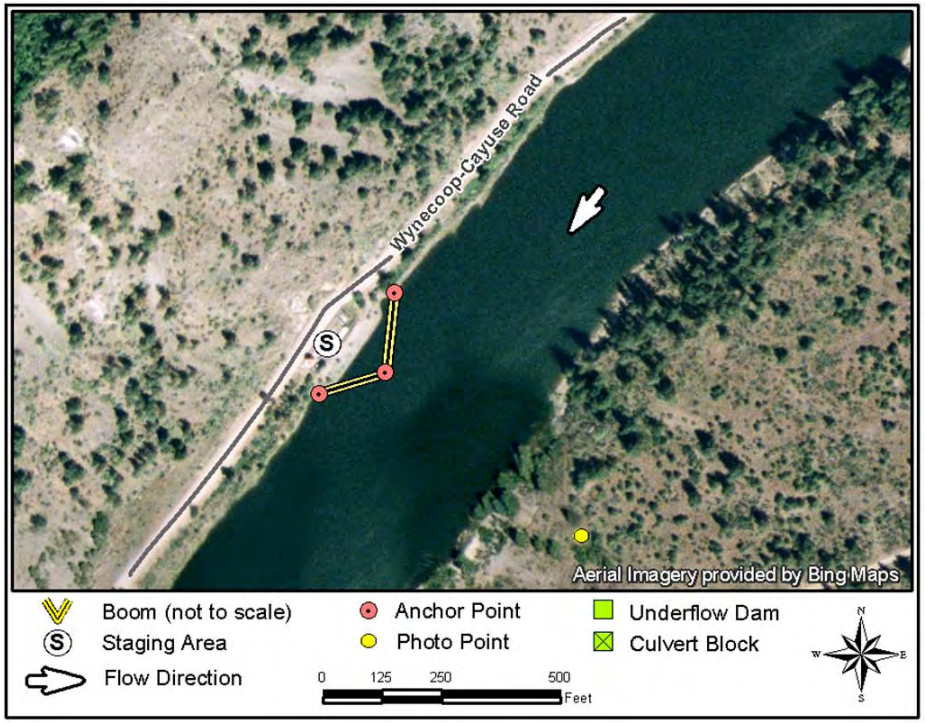
Davenport, WA 99122

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 11.6 miles
- Turn left onto Little Falls Road
- After 2.7 Miles road ends (Little Falls Dam). Turn left onto Wellpinit-Little Falls Road (BIA Hwy 27)
- After 1.3 Miles, turn left onto Wynecoop-Cayuse Road (BIA Hwy 36)
- After 2.9 Miles, take turn out to the left of roadway
- Stage on dirt road at turnout

# Spokane River SPR 25.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.831502, W 117.996404 |
| ***Strategy Objective:*** | Exclusion – Prevent oil moving downstream on the Spokane River from impacting water intakes on river right |
| ***Implementation:*** | Secure boom to river right of the Spokane River near N 47.831913, W 117.996259, just upstream of water intake station. Using workboat, tow remaining boom end downstream and secure to river right near N 47.831351, W 117.996871, just downstream of intake station. Pull center point of boom out from shore about 100ft, forming chevron, and anchor in place. Use additional anchoring systems as needed to keep boom secure in river. Use existing structures or trees to secure boom to river banks (use anchor posts only if nothing else available). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards, hillside, rocky; roadway hazards; water hazard. |
| ***Staging Area:*** | Water Intake Station off Wynecoop-Cayuse Road - Spokane Reservation, WA near N 47.83169, W 117.996737 |
| ***Field Notes:*** | Notify the Spokane Tribe before implementation **(Spokane Tribal Police: 509-258-4569).**<br>Dirt boat ramp is available at SPR 26.25 and SPR 27.25. |
| ***Resources Targeted:*** | Public Health & Safety |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 400ft - Depth 40-50ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 200ft | 1/2 " dbl braided propylene line w safety clasps |
| 400ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 1 each | Post driver |
| 1 each | Heaving Line |
| 4 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 11/2009

**SPR 25.0 Photo:** On Spokane River at altitude on river left looking at Spokane River and across to strategy location on river right.

**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

Natural Resources: 509-626-4400

Historic Preservation: 509-258-4060

**Closest Address**

Wynecoop-Cayuse Road

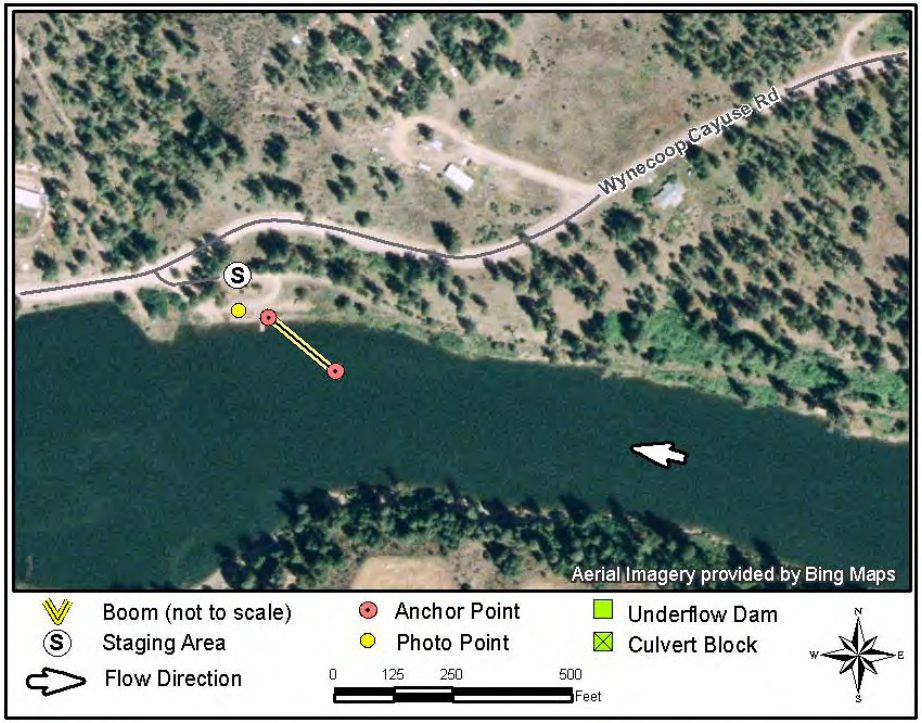
Spokane Reservation, WA

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 11.6 miles
- Turn left onto Little Falls Road
- After 2.7 Miles road ends (Little Falls Dam). Turn left onto Wellpinit-Little Falls Road (BIA Hwy 27)
- After 1.3 Miles, turn left onto Wynecoop-Cayuse Road (BIA Hwy 36)
- After 2.5 Miles, turn left into parking area for water intake station
- Stage in parking lot of intake station

# Spokane River SPR 26.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.835179, W 117.981845 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom to river right of the Spokane River at the Spokane Tribal Campground, immediately upstream of small dock, near N 47.83533, W 117.98199. Using workboat, tow remaining boom end upstream and out from shore about 150ft. Angle boom as needed for stream flow conditions and then anchor boom end in river. Form collection pocket on river right as needed. Use additional anchoring systems to keep boom secure in river. Use existing structures or trees to secure boom to river banks (use anchor posts only if nothing else available). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; water hazard. |
| ***Staging Area:*** | Spokane Tribal Campground off Wynecoop Cayuse Road - Spokane Reservation, WA - N 47.835669, W 117.982671 |
| ***Field Notes:*** | Notify the Spokane Tribe before implementation **(Spokane Tribal Police: 509-258-4569).**<br>Dirt boat ramp is available on site and at SPR 27.25 |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 304ft - Depth 40-50ft (variable) |



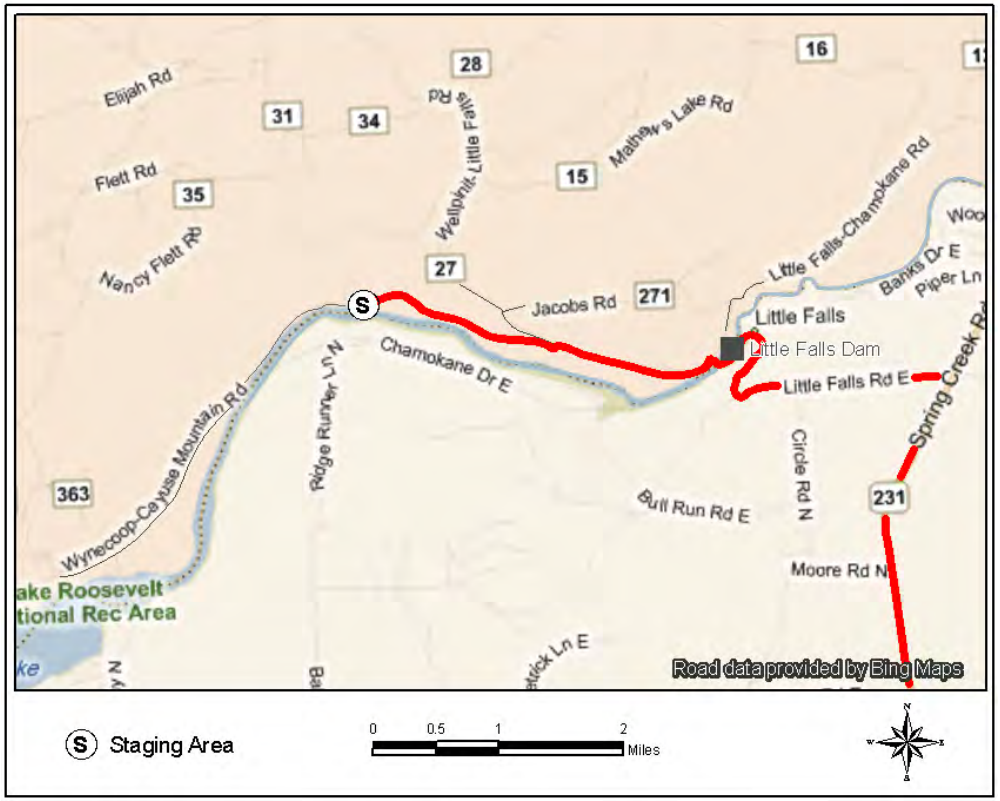

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 250ft | 1/2 " dbl braided propylene line w safety clasps |
| 250ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 1 each | Heaving Line |
| 3 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 11/2009

# Spokane River SPR 26.25

**SPR 26.25 Photo:** On Spokane River on river right, looking upstream across river to river left.




**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

Natural Resources: 509-626-4400

Historic Preservation: 509-258-4060

**Closest Address**

Wynecoop-Cayuse Road

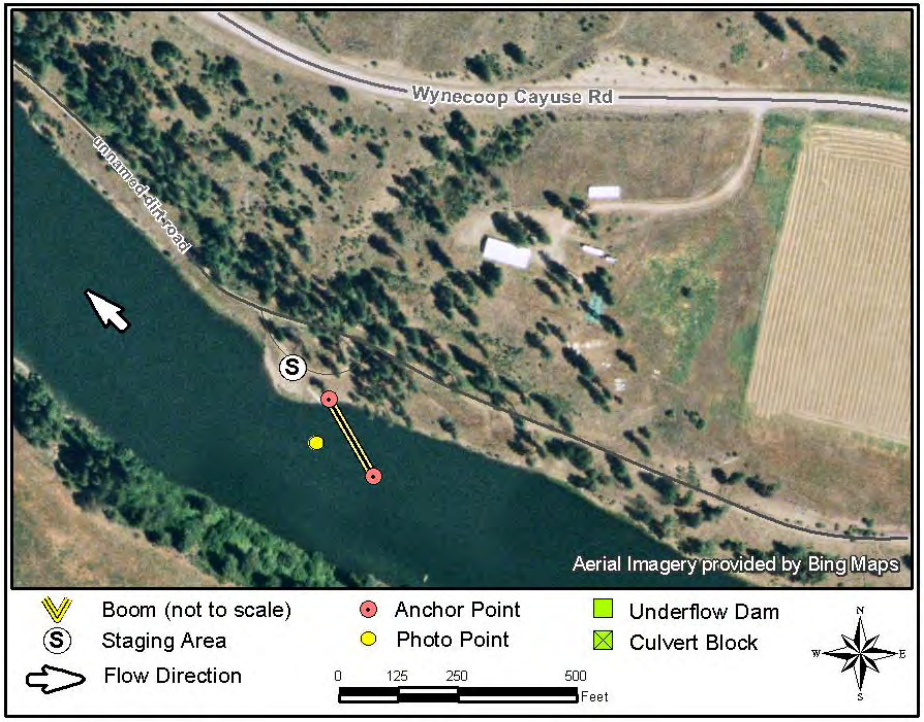
Spokane Reservation, WA 99122

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 11.6 Miles
- Turn left onto Little Falls Road
- After 2.7 Miles road ends (Little Falls Dam). Turn left onto Wellpinit-Little Falls Road (BIA Hwy 27)
- After 1.3 Miles, turn left onto Wynecoop-Cayuse Road (BIA Hwy 36)
- After 1.7 Miles, turn left into pull out leading to Spokane Tribe Campground
- Follow dirt road/path from pull out to campground
- Staging area is at Spokane Tribe campground off of Wynecoop Cayuse Road

# Spokane River SPR 27.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.829777, W 117.960707 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom to river right of the Spokane River on upstream side of boat ramp off unnamed dirt road near N 47.830083, W 117.960919. Using workboat, tow remaining boom end upstream and out from shore about 150ft. Angle boom as needed for stream flow conditions and then anchor boom end in river. Form collection pocket on river right as needed. Use additional anchoring systems to keep boom secure in river. Use existing structures or trees to secure boom to river banks (use anchor posts only if nothing else available). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; water hazard. |
| ***Staging Area:*** | Unnamed Dirt Road near boat ramp - Spokane Reservation, WA - N 47.830299, W 117.961192 |
| ***Field Notes:*** | Notify the Spokane Tribe before implementation **(Spokane Tribal Police: 509-258-4569).** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 300ft - Depth (variable) |

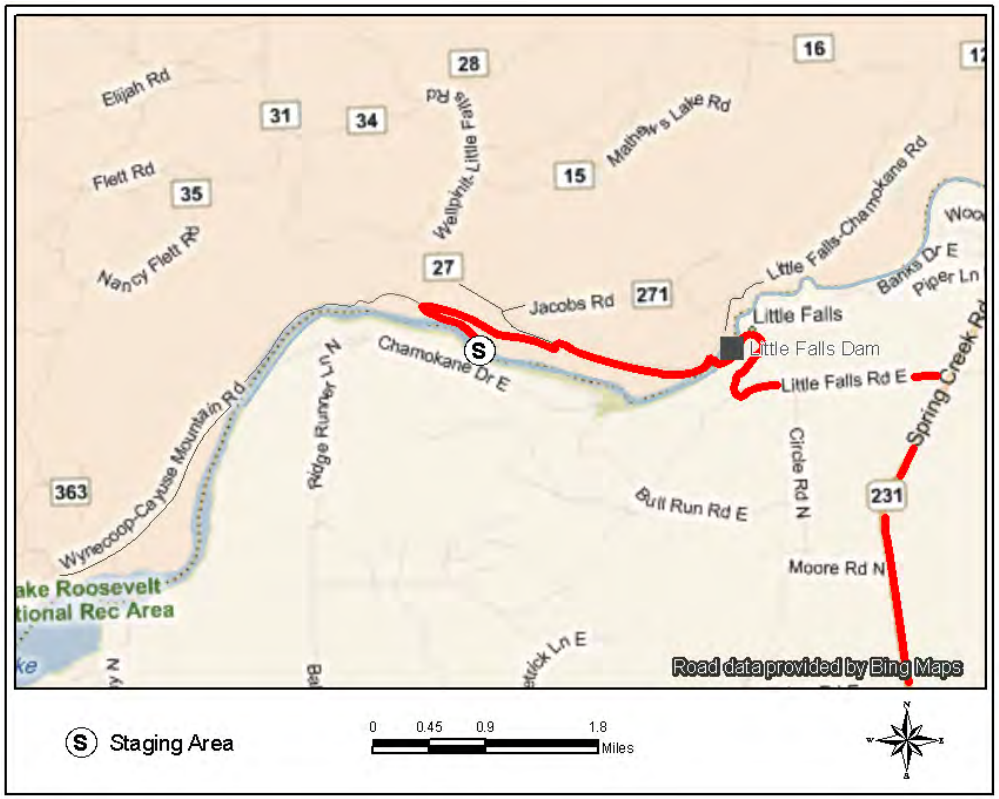



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 250ft | 1/2 " dbl braided propylene line w safety clasps |
| 250ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 3 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

**SPR 27.25 Photo:** On Spokane River looking at strategy location on river right and dirt boat ramp.




**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

Natural Resources: 509-626-4400

Historic Preservation: 509-258-4060

**Closest Address**

Wynecoop-Cayuse Road

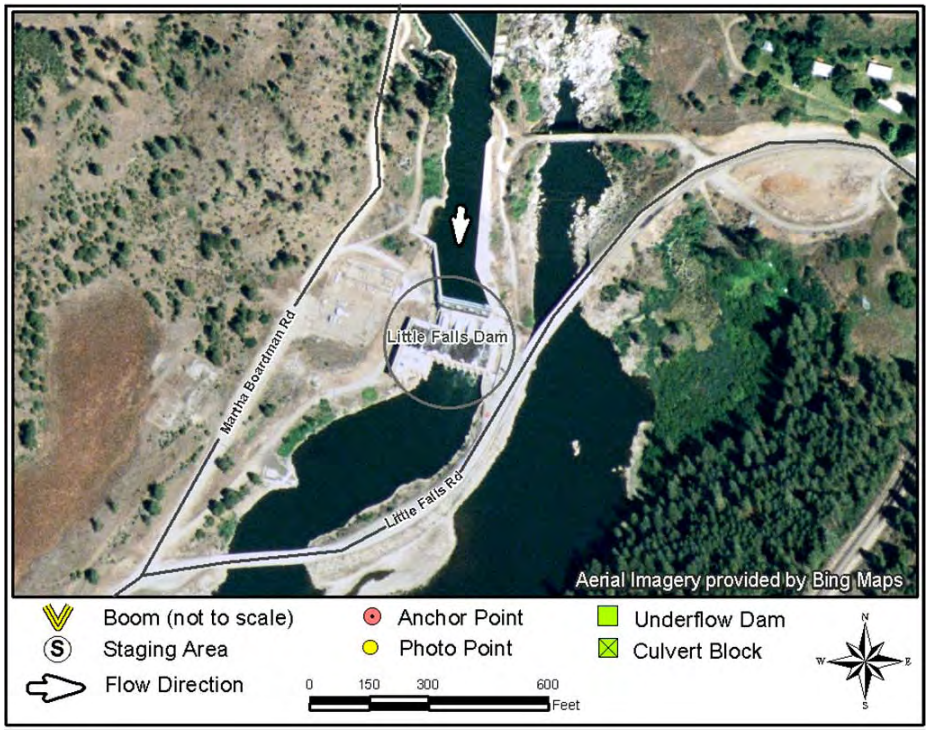
Spokane Reservation, WA 99122

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 11.6 Miles
- Turn left onto Little Falls Road
- After 2.7 Miles road ends (Little Falls Dam). Turn left onto Wellpinit-Little Falls Road (BIA Hwy 27)
- After 1.3 Miles, turn left onto Wynecoop-Cayuse Road (BIA Hwy 36)
- After 1.1 Miles, turn left (very sharp turn) onto dirt road heading upstream along Spokane River
- Strategy location & boat ramp are about ½ Mile ahead

# Spokane River - Little Falls Dam SPR 29.0-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.829993, W 117.918427 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-495-8114** - Immediately call Avista's General Control Center (GCC) and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the GCC operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes – Little Falls Dam |
| ***Watercourse Description:*** | River below a dam - Spokane River - Waters upstream of River Mile 29.0 |




**Communication Process & Action:**

Responsible parties and the Incident Command agency must immediately contact Avista's Generation Control Center (GCC) at **509-495-8114** (24 hour). The GCC inside operator should immediately contact the Spokane River Manager and the Little Falls and/or Long Lake operator(s). Under the protection of RCWs 70.136.050, 70.136.060, and 70.136.070, Avista, will, if possible, implement the following preferred courses of action unless modified or altered at the specific direction of Unified Command:

(a) Shut down the generating units at Little Falls and evacuate plant.

(b) Maintain current outflows. This may eventually result in the oil release passing through the Little Falls spill gates and/or over the dam's overflow spillway.

**Note:** Avista GCC personnel will not implement the above procedures without verification of the emergency. This will entail a return "call back" to the responsible party or to Unified Command.

# Spokane River - Little Falls Dam

**SPR 29.0-N**

**Site Contact Information**

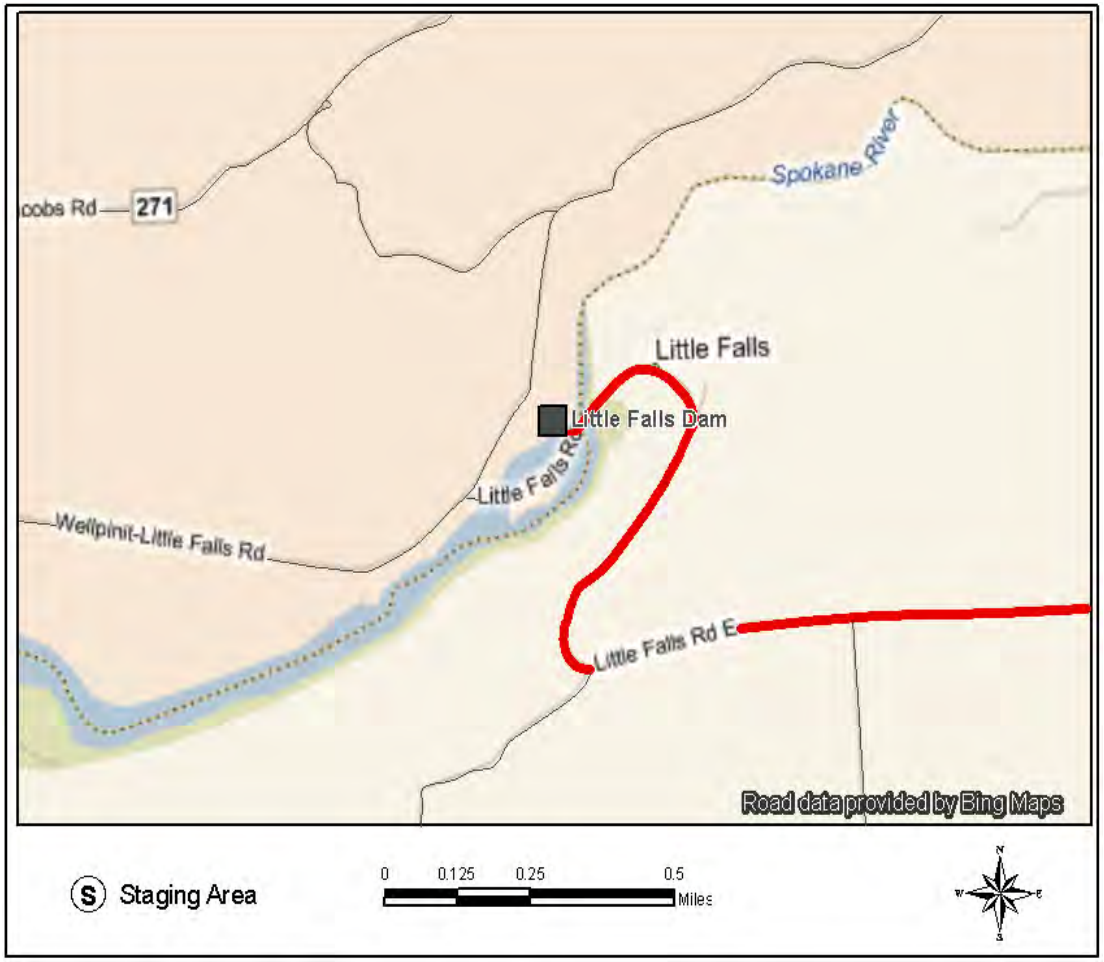
Avista - General Control Center (GCC)

**509/495-8114**

(24 hour)

**Closest Address**

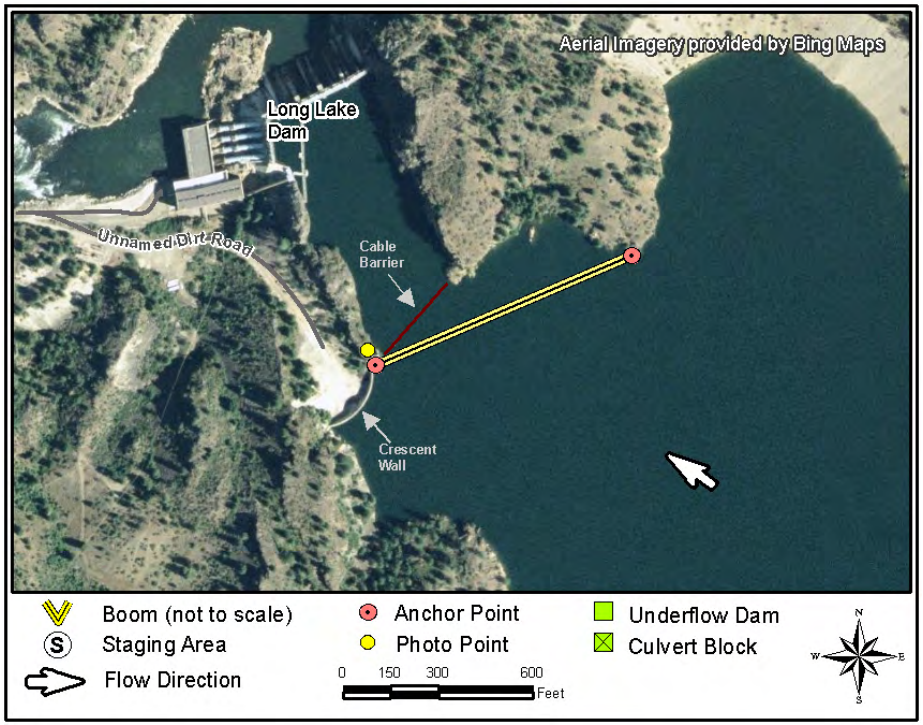
Little Falls Road
Wellpinit, WA 99040




**Driving Directions**

- From Spokane, depart I-90 West/US-2 South/US-395 West
- At exit 277, take ramp right for US-2 West toward Fairchild AFB/Davenport/Spokane Airport
- Turn right onto SR-231/N Aspen Street
- Keep left to stay on SR-231/Spring Creek Road
- Turn left onto Little Falls Road E
- Road name changes to Little Falls Road

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.83524, W 117.837188 |
| ***Strategy Objective:*** | Diversion – Divert oil moving downstream on the Spokane River (Long Lake) towards river left |
| ***Implementation:*** | Using workboat, tow boom from Lake Spokane Campground (see SA-SPR-38.1) downstream and secure to NE corner of crescent dam wall on river left near N 47.834866, W 117.838634. Deploy boom across to river right and secure to shore near (N 47.835744, W 117.835257). Use additional anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river banks. On water skimming near the crescent dam wall should be considered; oil storage can be staged immediately below crescent dam wall. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; ladder/catwalk hazards, water hazard, dam hazard. |
| ***Staging Area:*** | Lake Spokane Campground (see SA-SPR 38.1 in Appendix B of this Chapter) |
| ***Field Notes:*** | Call Avista GCC (509-495-8114) before strategy implementation. Call WA-DNR (800-562-6010) for campground access. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife; energy/power generation water Intakes & equipment |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 450ft – Depth 150ft |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 900ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 4 each | Shoreside anchoring post |
| 2 each | Post driver |
| 11 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 11/2009

# Spokane River SPR 34.0

**SPR 34.0 Photo:** Strategy location on Spokane River at Long Lake Dam. At northeast corner of crescent dam wall (river left) near anchor point for cable barrier, looking across to river right.

**Site Contact Information**

Avista Utilities GCC: **509-495-8114**

WA-DNR Lake Spokane Campground
**800-562-6010** (24-hour)

**Closest Address (Staging Area)**

7530 Hwy 291
Tumtum, WA 99034

**Closest Address (Strategy Location)**

53200 Long Lake Road E
Tumtum, WA 99034

**Driving Directions (to Staging Area at Lake Spokane Campground) *See SA-SPR 38.1 for details**

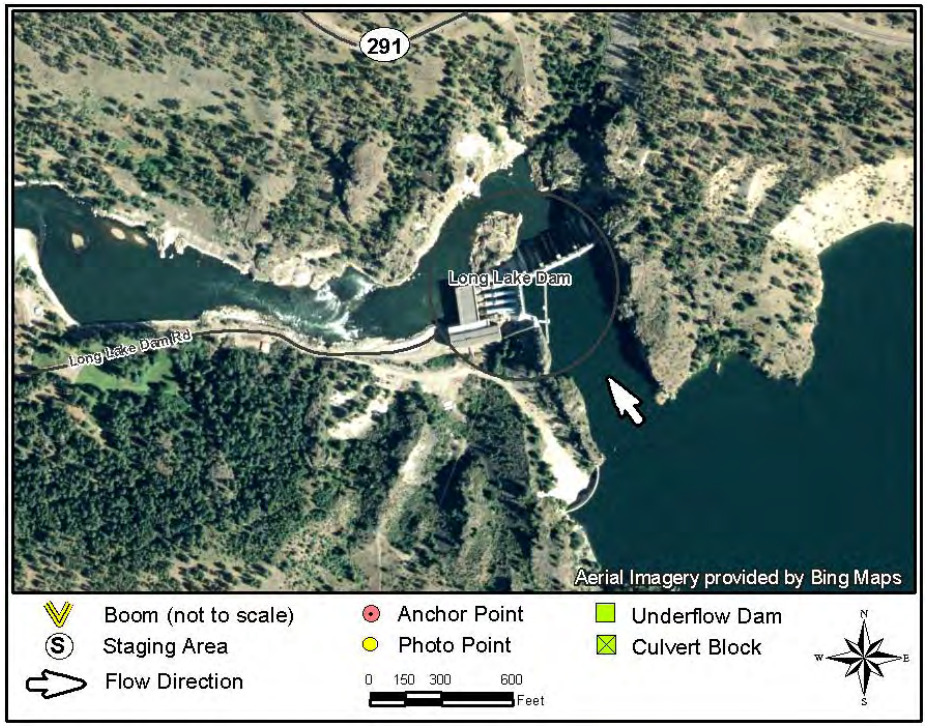
- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway (Hwy 291)
- After 19.1 Miles keep left, staying on Hwy 291
- After 6.2 miles Lake Spokane (Long Lake) Campground will be on your left-hand side.

**Driving Directions (to Long Lake Dam from Lake Spokane Campground)**

- From Lake Spokane Campground, turn left onto Hwy 291 and head west for 4.6 Miles
- Turn left onto Hwy 231, then, after 0.8 Miles, turn left onto Eagle View Lane (becomes Long Lake Rd)
- After 0.6 Miles, take unnamed dirt road to the right; Crescent Dam Wall 1200ft ahead.

# Spokane River - Long Lake Dam SPR 34.0-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.836796, W 117.8409 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-495-8114** - Immediately call Avista's General Control Center (GCC) and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the GCC operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes – Little Falls Dam |
| ***Watercourse Description:*** | River below a dam - Spokane River - Waters upstream of River Mile (RM) 34.0 |




**Communication Process & Action:**

Pipeline owner or other responsible party and the Incident Command agency must immediately contact Avista's Generation Control Center (GCC) at **509-495-8114** (24 hour). The GCC inside operator should immediately contact the Spokane River Manager and the Long Lake operator. Under the protection of RCWs 70.136.050, 70.136.060, and 70.136.070, and per input from the Washington State Department of Ecology (WDOE), U.S. Environmental Protection Agency (EPA), Spokane County Emergency Management, Stevens County Fire District #1, and the upstream pipeline companies (Chevron and Yellowstone/Conoco-Phillips), Avista will, if possible, implement the following preferred courses of action unless modified or altered at the specific direction of Unified Command:

(a) Maintain current plant operations.

(b) Continue to man plant, depending on situation.

(c) If possible, use Long Lake tugboat to stretch containment booms across boater safety cable to keep oil release out of forebay.

(d) If possible (and plant is not currently spilling water), stretch second set of booms across trash boom to keep oil release away from trash racks.

**Note:** Avista GCC personnel will not implement the above procedures without verification of the emergency. This will entail a return "call back" to the responsible party or to Unified Command. In the event of a Chevron Pipeline rupture/spill, Avista will verify the incident via a return call to the Chevron Pipeline Safety emergency number (24 hour) at **800-762-3404**. In the event of a Yellowstone Pipeline (ConocoPhillips) rupture/spill, Avista will verify the emergency via a return call to the ConocoPhillips Transportation number (24 hour) at **877-267-2290**.

# Spokane River - Long Lake Dam

**SPR 34.0-N**

**Site Contact Information**

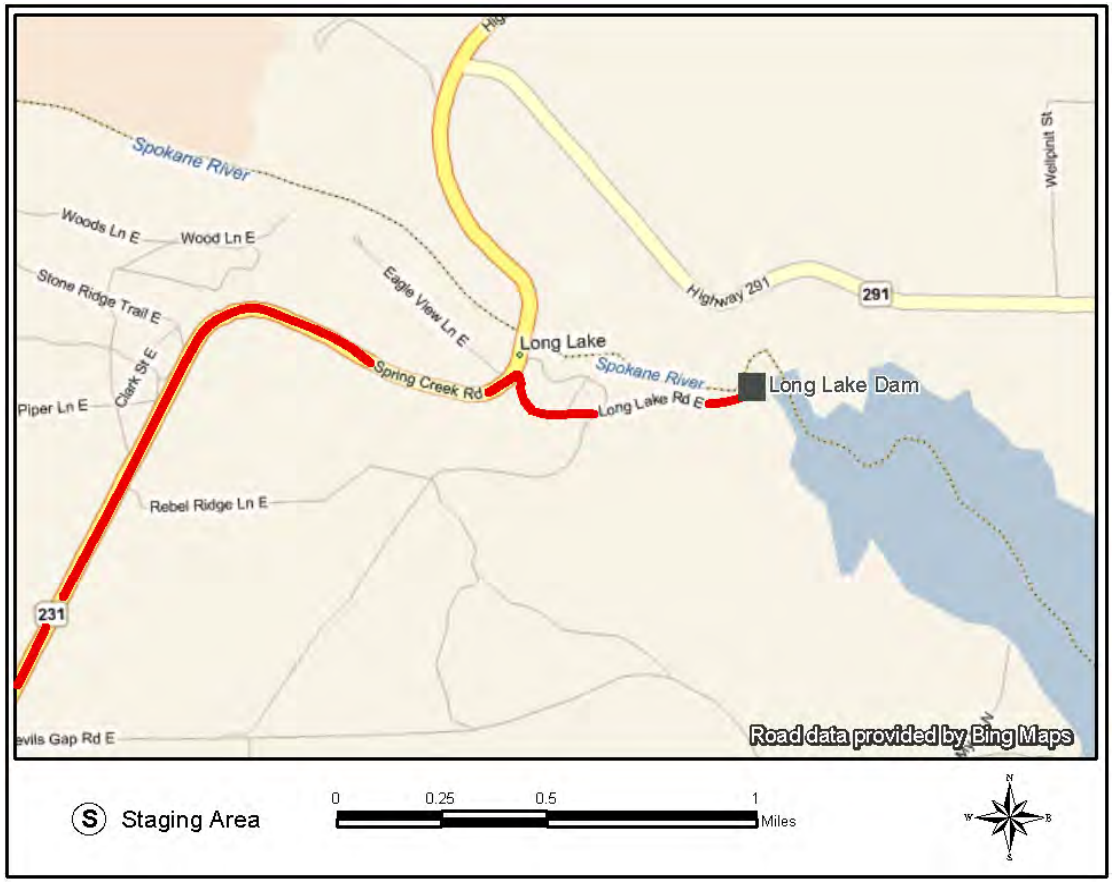
Avista - General Control Center (GCC)

**509/495-8114**

(24 hour)

**Closest Address**

Long Lake Road E
Ford, WA 99013

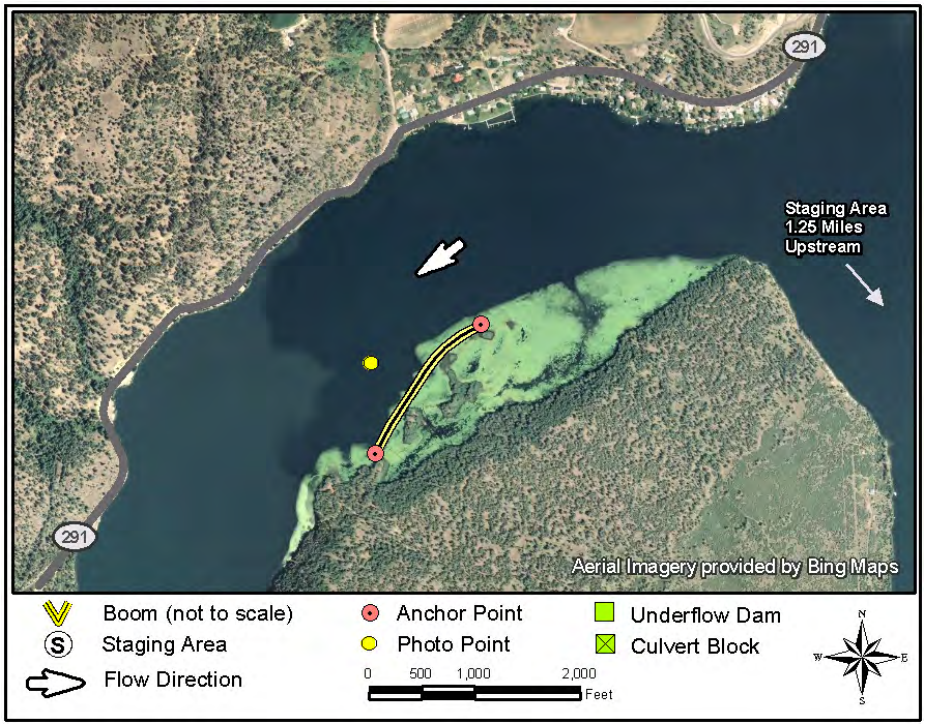



**Driving Directions**

- From Spokane, depart I-90 West/US-2 South/US-395 West
- At exit 277, take ramp right for US-2 West toward Fairchild AFB/Davenport/ Spokane Airport
- Turn right onto SR-231/N Aspen Street
- Keep left to stay on SR-231/Spring Creek Road
- Turn right onto Long Lake Dam Road
- Keep right onto Long Lake Road E

# Spokane River SPR 44.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.8837, W 117.6861 |
| ***Strategy Objective:*** | Exclusion – Exclude oil moving downstream on the Spokane River from habitat on river left (south of small islands) |
| ***Implementation:*** | Using workboat, secure 1700ft of boom to shore on river left near N 47.881974, W 117.687896 (just over 1.25 Miles downstream from staging area at Willow Bay Resort). Tow remaining boom end outward and upstream from grouping of small islands, anchoring it in river near N 47.885312, W117.683262. Use additional anchoring systems as needed to keep boom secure in river. Use anchor posts or trees to secure boom end to shore on river left. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Willow Bay Resort (6607 Corkscrew Highway/Hwy 291, Loon Lake, WA) – 1-Mile upstream from strategy location |
| ***Field Notes:*** | Must notify & make arrangements with Willow Bay Resort Mgr before use **(509-276-2350)** – Use Charge/Fuel Available |
| ***Resources Targeted:*** | Sensitive Habitat on river left; south side of small islands. |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 2500ft - Depth (unavailable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 1700ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (of adequate size) |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 22 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

**SPR 27.25 Photo:** Aerial view above strategy location looking south. Proposed booming strategy and stream flow direction depicted on photograph.

**Site Contact Information**

No Information

**Closest Address (Staging Area)**

6607 Corkscrew Highway (Hwy 291)
Loon Lake, WA, 99026

**Closest Address (Strategy Location)**

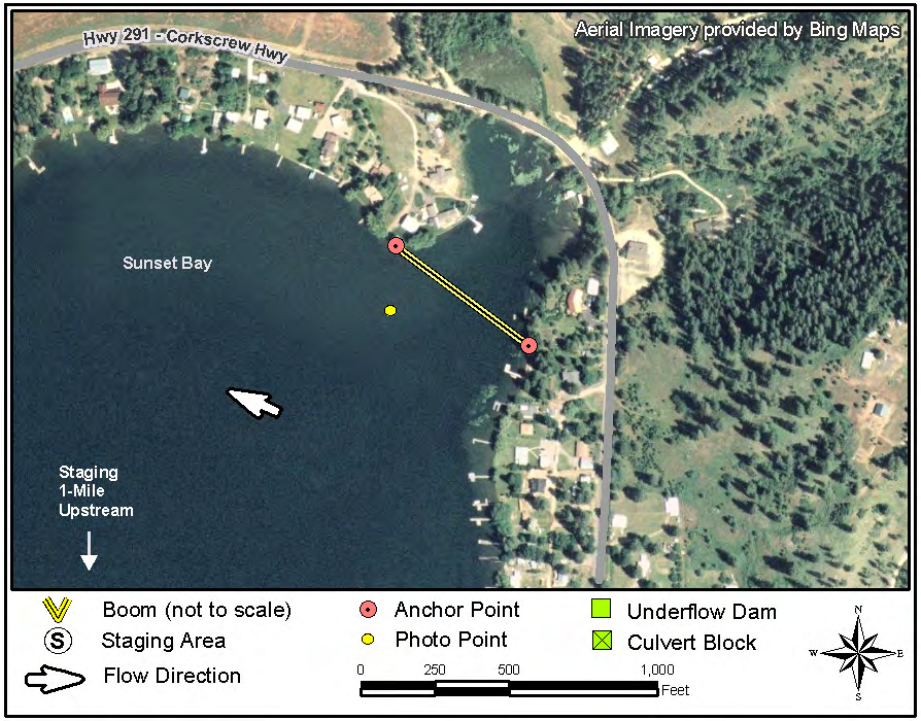
No Address Available

**Driving Directions (Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway
- After 16.8 Miles turn left into Willow Bay Resort
- Stage at Resort, near boat launch if possible, after access granted by facility manager

# Spokane River SPR 45.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.892349, W 117.661943 |
| ***Strategy Objective:*** | Exclusion – Prevent oil moving downstream on the Spokane River from entering cove on river right |
| ***Implementation:*** | Using workboat, secure boom near south end of cove in Sunset Bay on river right (near N 47.891982, W 117.660916 ). Tow remaining boom end NW across cove and secure to shore near NW corner of cove (near N 47.892992, W 117.662882). Use additional anchoring systems as needed to keep boom secure. Use anchor posts, existing structures, or trees to secure boom to banks of cove on river right. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Willow Bay Resort (6607 Corkscrew Highway/Hwy 291, Loon Lake, WA) – 1-Mile upstream from strategy location |
| ***Field Notes:*** | Must notify & make arrangements with Willow Bay Resort Mgr before use **(509-276-2350)** – Use Charge/Fuel Available |
| ***Resources Targeted:*** | Sensitive habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 3300ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 1 each | Post driver |
| 7 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Spokane River SPR 45.5

**SPR 45.5 Photo:** On Spokane River at Sunset Bay looking NE towards cove.

**Site Contact Information**

No Information

**Closest Address (Staging Area)**

6607 Corkscrew Highway (Hwy 291)
Loon Lake, WA, 99026

**Closest Address (Strategy Location)**

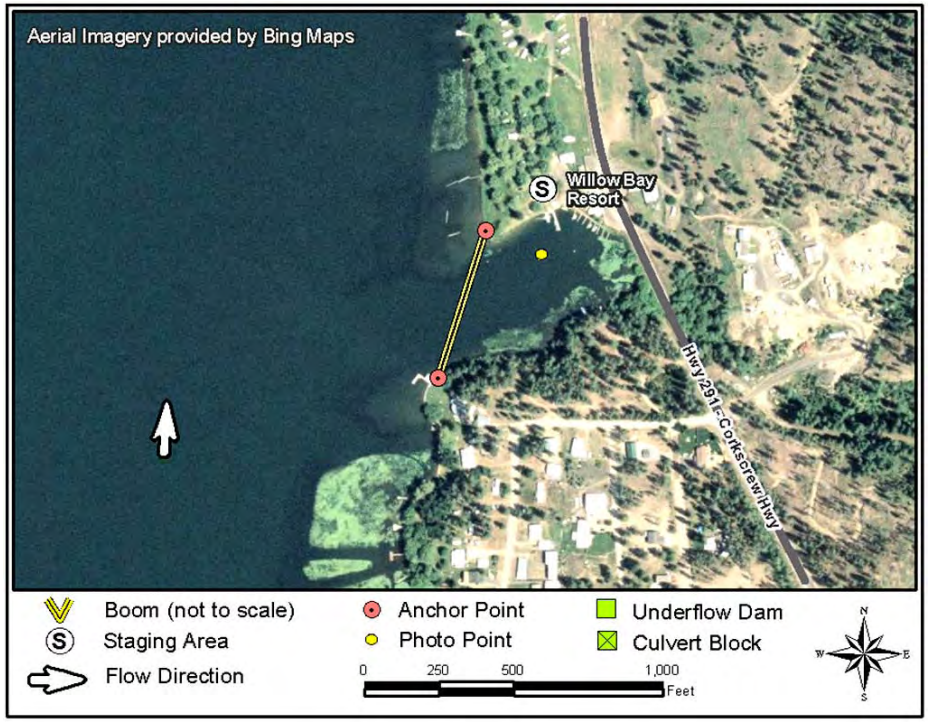
6713 Corkscrew Highway (Hwy 291)
Loon Lake, WA, 99026

**Driving Directions (Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway
- After 16.8 Miles turn left into Willow Bay Resort
- Stage at Resort, near boat launch if possible, after access granted by facility manager

# Spokane River SPR 46.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.879398, W 117.659175 |
| ***Strategy Objective:*** | Exclusion – Prevent oil moving downstream on the Spokane River from entering bay on river right |
| ***Implementation:*** | Using workboat, secure boom on river right at SW corner of Willow Bay near N 47.878693, W 117.659444 (immediately east of existing dock). Tow remaining boom end across bay and secure to shore at NW corner of Willow Bay near N 47.879975, W 117.658752. Use additional anchoring systems as needed to keep boom secure in waterway. Use anchor posts, existing structures, or trees to secure boom to banks of Willow Bay. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Willow Bay Resort (6607 Corkscrew Highway/Hwy 291, Loon Lake, WA) – Stage near boat launch if possible |
| ***Field Notes:*** | Must notify & make arrangements with Willow Bay Resort Mgr before use **(509-276-2350)** – Use Charge/Fuel Available |
| ***Resources Targeted:*** | Sensitive habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 2000ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 550ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 1 each | Post driver |
| 6 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Spokane River SPR 46.0

**SPR 46.0 Photo:** On Spokane River at Willow Bay looking across to Willow Bay Resort boat launch on river right .

**Site Contact Information**

Willow Bay Resort (Private Facility)
Manager: 509-276-2350

**Closest Address**

6607 Corkscrew Highway (Hwy 291)
Loon Lake, WA, 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway
- After 16.8 Miles turn left into Willow Bay Resort
- Stage at Resort, near boat launch if possible, after access granted by facility manager

# Spokane River SPR 52.0

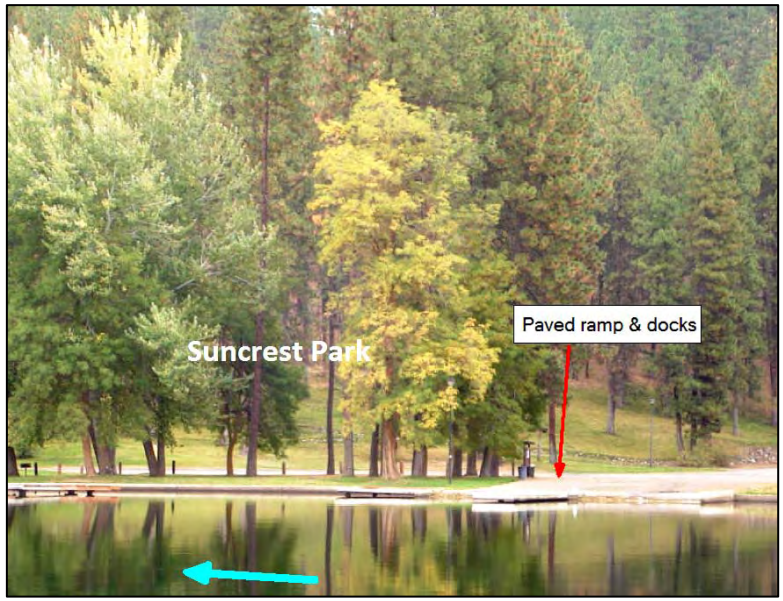
| | |
|---|---|
| ***Site Lat/Long:*** | N 47.813212, W 117.608063 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | On river right at Suncrest Park boat launch, secure end of 600ft length of boom to shore on upstream side of boat ramp. Using workboat, tow remaining boom end upstream to point before mid-river and anchor in place (a point about 400ft upstream from ramp and 400ft out from river right). Ensure boom angle is appropriate for stream flow/conditions - cascade boom configuration may be required. Use additional anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to bank on river right. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Suncrest Park (13534 W Shore Road, Nine Mile Falls, WA) |
| ***Field Notes:*** | Must notify and make arrangements with Suncrest Park Directors before use **(509-466-6839)** |
| ***Resources Targeted:*** | Sensitive habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 1100ft - Depth (no information) |

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 7 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Spokane River SPR 52.0




**SPR 52.0 Photo:** On Spokane River looking across to Sunset Park boat launch/collection point on river right (river flow direction depicted on photograph).

**Site Contact Information**

Suncrest Park (Private Park)
Park Directors: 509-466-6839
ContactUs@SuncrestPark.com

**Closest Address**

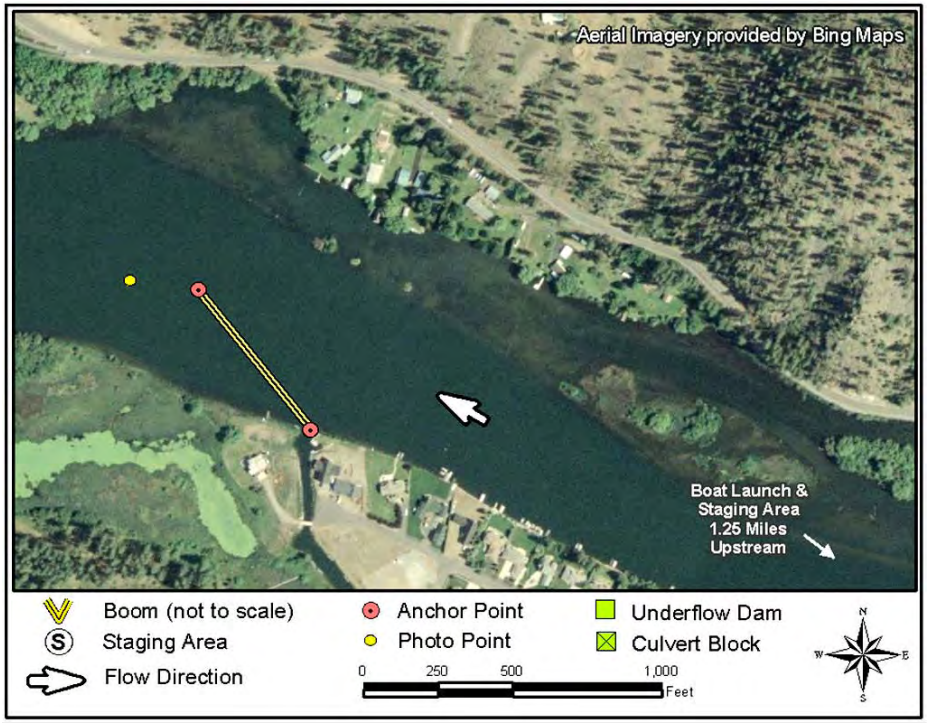
13534 W Shore Road
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 10.7 Miles turn left onto N Suncrest Drive
- After 1.4 Miles turn right onto N Shore Road
- After 0.6 Miles at the end of the road, you have reached Suncrest Park (Private Park)
- Stage in Parking Area near boat ramp after access has been provided by Park Directors or designate

# Spokane River SPR 55.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.801179, W 117.550471 |
| ***Strategy Objective:*** | Deflection – Deflect oil moving downstream on the Spokane River away from river left |
| ***Implementation:*** | Using workboat, secure end of 600ft length of boom to shore, immediately upstream of canal on river left near N 47.800256, W 117.549307 (about 1-1/4 mile downstream from boat launch and staging area). Tow remaining boom end downstream to mid-river and anchor in place. Ensure deflection angle is appropriate for stream flow/conditions - cascade boom configuration may be required. Use additional anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to bank on river left. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Spokane House Parking Area (near 14400 N Shoemaker Lane, Nine Mile Falls, WA) – 1-1/4 mile upstream from site |
| ***Field Notes:*** | Notify Washington State Parks for Staging Area Use – Riverside Park Manager **(509-465-5064 or 509-290-3239)** |
| ***Resources Targeted:*** | Sensitive habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 750ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 7 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Spokane River SPR 55.5

**SPR 55.5 Photo:** On Spokane River looking upstream towards strategy location on river left (river flow direction depicted on photograph).

**Site Contact Information**

No Information

**Closest Address (Staging Area)**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Closest Address (Strategy Location)**

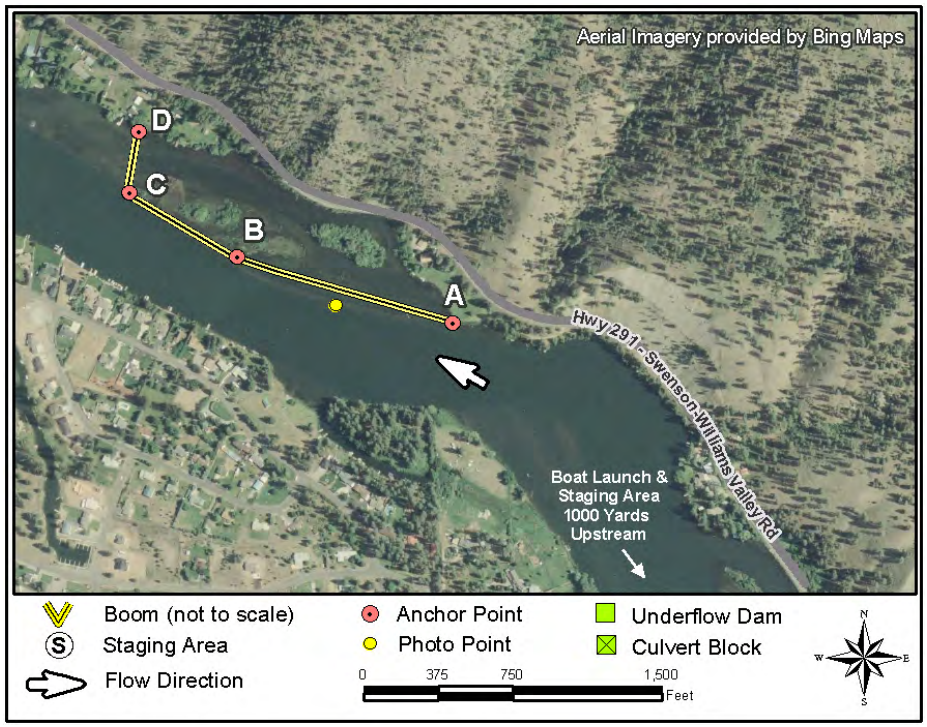
9826 W Ownby Drive
Nine Mile Falls, WA 99026

**Driving Directions (To Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Spokane River SPR 56.0

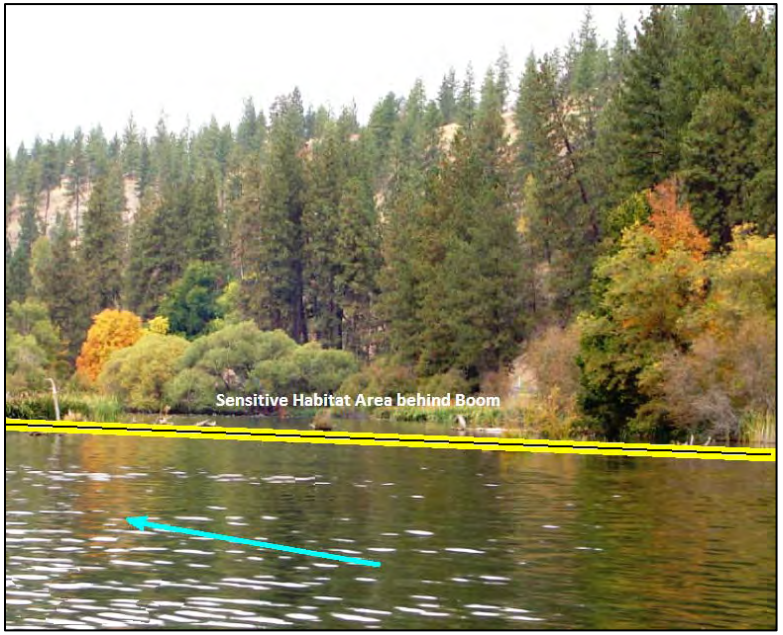
| | |
|---|---|
| ***Site Lat/Long:*** | N 47.799636, W 117.543411 |
| ***Strategy Objective:*** | Exclusion – Prevent oil moving downstream on the Spokane River from impacting sensitive habitat on river right |
| ***Implementation:*** | Using workboat, secure end of 1900ft length of boom to shore on river right near Anchor Point "A" (N 47.798627, W 117.539506), about 1300 yards downstream from boat launch and staging area. Deploy boom downstream from Point "A" along river right (riverside of grouping of small islands) anchoring boom near Anchor Point "B" (N 47.799642, W 117.544058), Anchor Point "C" (N 47.800581, W 117.546187), and Anchor Point D (N 47.801431, W 117.545938). Use line and additional anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river bank. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Spokane House Parking Area (near 14400 N Shoemaker Lane, Nine Mile Falls, WA) – 1300yds upstream from site |
| ***Field Notes:*** | Notify Washington State Parks for Staging Area Use – Riverside Park Manager **(509-465-5064 or 509-290-3239)** |
| ***Resources Targeted:*** | Sensitive habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 500ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 2100ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 1 each | Post driver |
| 24 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 4 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005




**SPR 56.0 Photo:** On Spokane River looking towards strategy location on river right. Suggested boom configuration depicted on photograph.

**Site Contact Information**

No Information

**Closest Address (Staging Area)**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Closest Address (Strategy Location)**

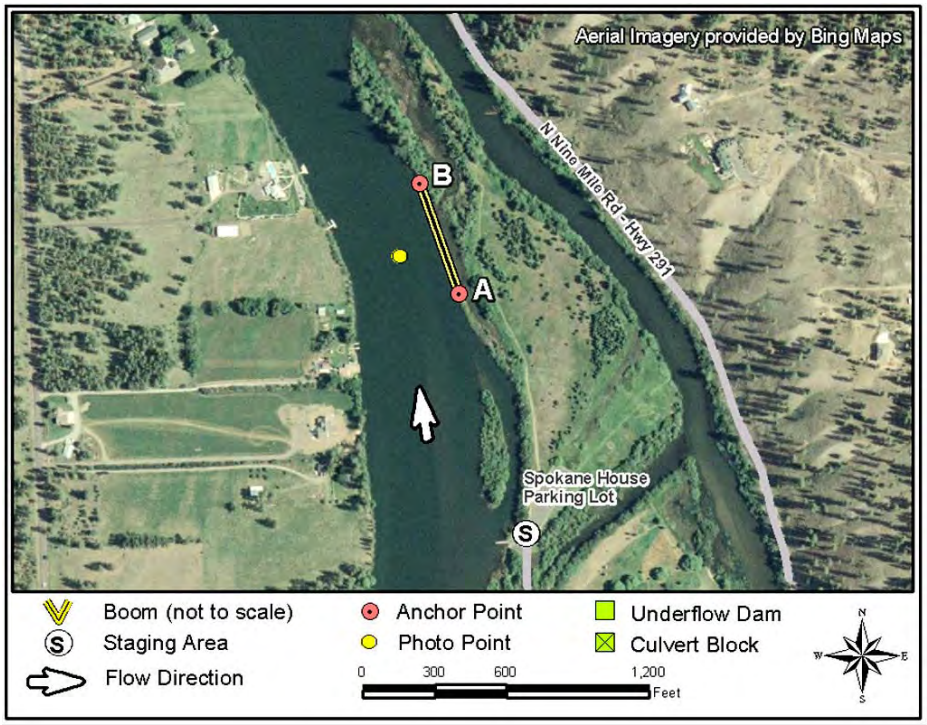
5670 Hwy 291
Nine Mile Falls, WA 99026

**Driving Directions (To Staging Area)**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Spokane River SPR 56.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.79204, W 117.532918 |
| ***Strategy Objective:*** | Exclusion – Prevent oil moving downstream on the Spokane River from impacting river right at this location |
| ***Implementation:*** | Using workboat, secure end of 500ft length of boom to shore on river right near Anchor Point "A" (N 47.791602, W 117.532875), approximately 1000ft downstream from Spokane House boat launch. Deploy boom along river right to downstream location near Anchor Point "B" (N 47.792891, W 117.533457) and secure to shore. Use line and anchoring systems as needed to keep boom secure in river Use anchor posts, existing structures, or trees to secure boom to river bank. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Spokane House Parking Area (near 14400 N Shoemaker Lane, Nine Mile Falls, WA) |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)** & Washington State Parks – Riverside Park Manager **(509-465-5064 or 509-290-3239)** |
| ***Resources Targeted:*** | Sensitive habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 500ft - Depth (no information) |

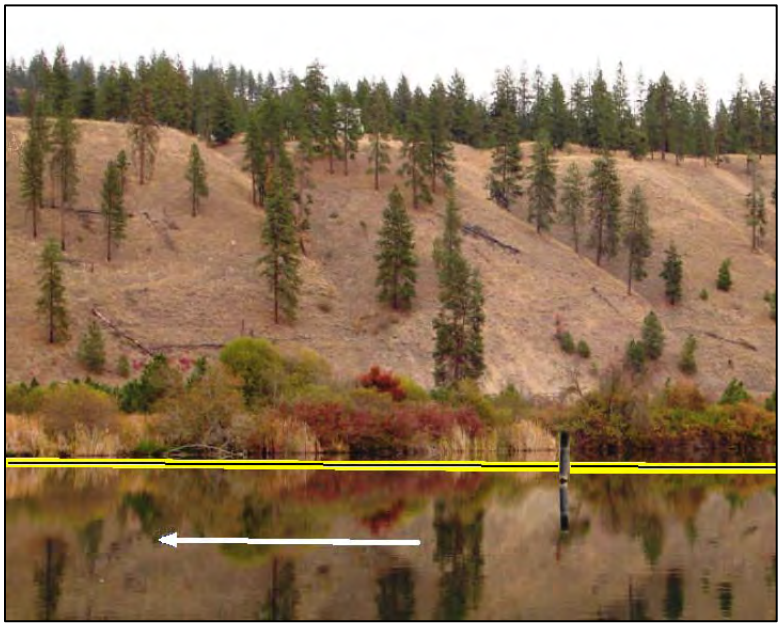



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 500ft | B3 – River Boom, or other appropriate type (10 x 50ft) |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 1 each | Post driver |
| 6 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Spokane River SPR 56.5



**SPR 56.5 Photo:** On Spokane River looking towards strategy location on river right. Suggested boom configuration depicted on photograph.

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

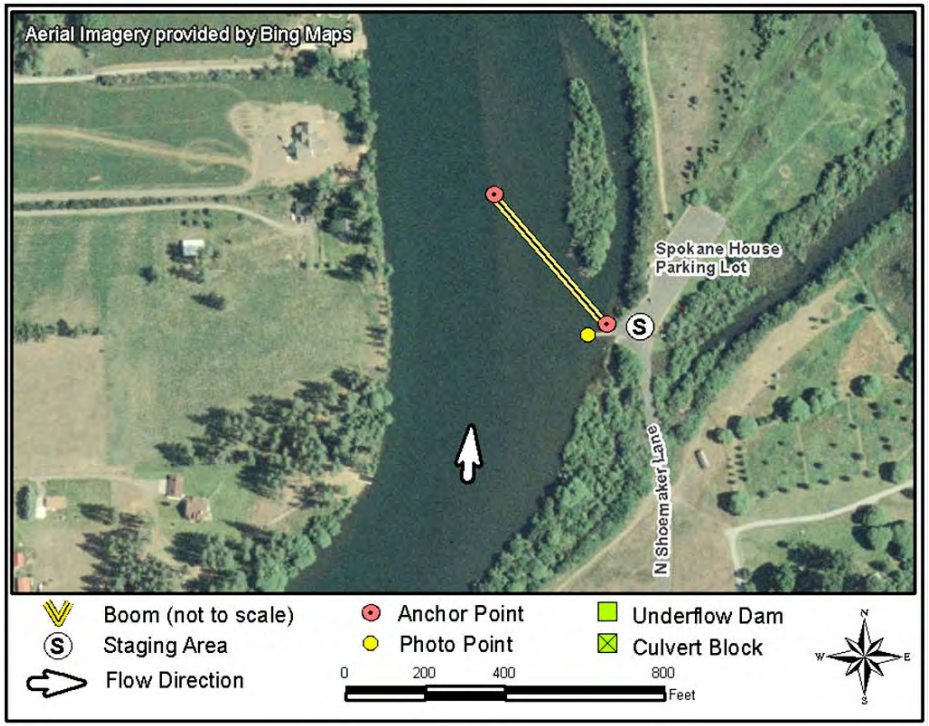
14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Spokane River SPR 56.7

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.789111, W 117.531553 |
| ***Strategy Objective:*** | Deflection – Deflect oil moving downstream on the Spokane River away from river right |
| ***Implementation:*** | On river right at Spokane House boat launch, secure end of 450ft length of boom to shore near downstream side of dock. Using workboat, tow remaining boom end downstream to mid-river and anchor in place. Ensure deflection angle is appropriate for stream flow/conditions - cascade boom configuration may be required. Use line & anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to bank. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Spokane House Parking Area (near 14400 N Shoemaker Lane, Nine Mile Falls, WA) |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)** & Washington State Parks – Riverside Park Manager **(509-465-5064 or 509-290-3239)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 550ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1000ft | 1/2 " dbl braided propylene line w safety clasps |
| 450ft | B3 – River Boom, or other appropriate type (9 x 50ft) |
| 1 each | Workboat |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 5 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

**SPR 56.7 Photo:** On river right near Spokane House Boat Ramp looking downstream towards back channel on river right. Deflection boom (as noted in this strategy) would help ensure oil moving downstream on the Spokane River does not enter this side channel.

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

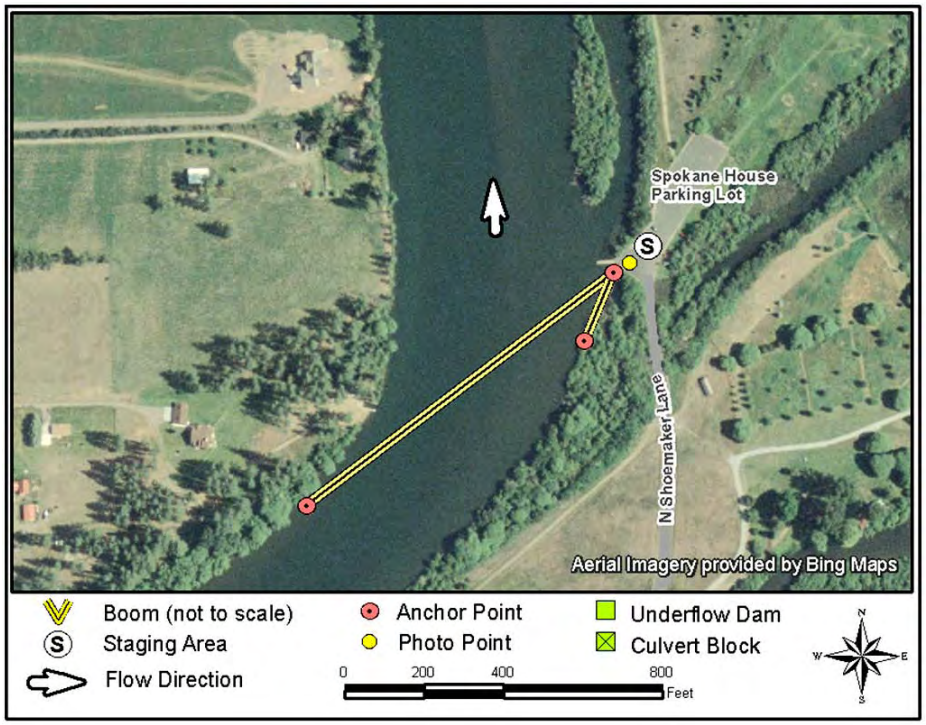
14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Spokane River SPR 56.75

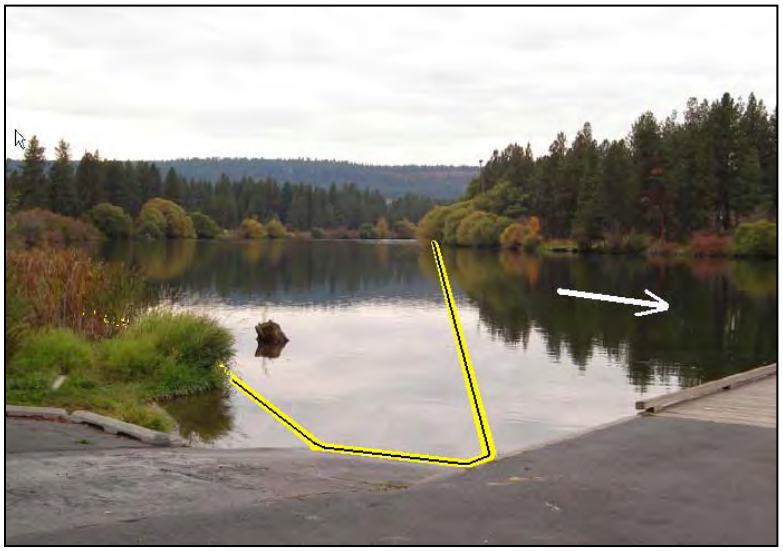
| | |
|---|---|
| ***Site Lat/Long:*** | N 47.788255, W 117.53338 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | On river right at Spokane House boat launch, secure end of 1000ft length of boom to upstream side of dock. Using workboat, tow remaining boom end upstream to river left. Angle boom in river as needed for stream flow/conditions - cascade boom configuration may be required. Form extended collection pocket on river right; boom should run along river right from dock to a point about 200ft upstream. Use line and anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; parking lot/pedestrian hazards; water hazard. |
| ***Staging Area:*** | Spokane House Parking Area (near 14400 N Shoemaker Lane, Nine Mile Falls, WA) |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)** & Washington State Parks – Riverside Park Manager **(509-465-5064 or 509-290-3239)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 550ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 2000ft | 1/2 " dbl braided propylene line w safety clasps |
| 1200ft | B3 – River Boom, or other appropriate type (24 x 50ft) |
| 1 each | Workboat |
| 9 each | Shoreside anchoring post |
| 2 each | Post driver |
| 14 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 4 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005



**SPR 56.75 Photo:** On river right at Spokane House Boat Ramp (downstream anchor point), looking upstream towards river left. Suggested boom configuration added to photograph.

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

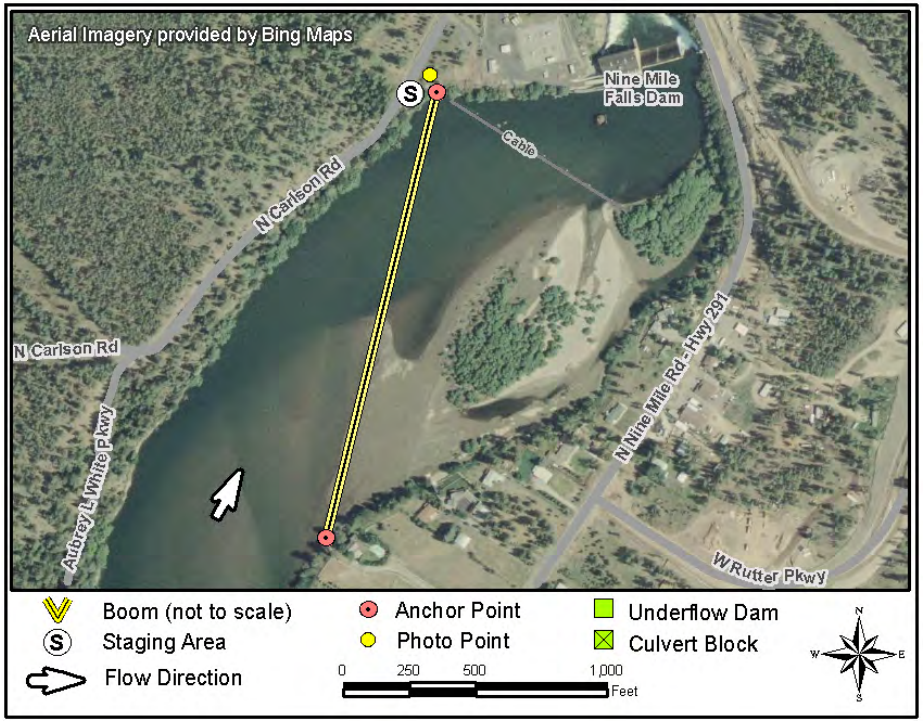
14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Spokane River SPR 58.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.77465, W 117.54728 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river left near NW anchor point for Nine Mile Falls Dam cable barrier. Using hand-launch workboat, tow boom upstream to river right. Angle boom in river as needed for stream flow/conditions. Form collection pocket on river left as needed. Use line and anchoring systems as needed to keep boom secure in river (depending on conditions, cascade boom configuration may be required). Use anchor posts, existing structures, or trees to secure boom to river banks. Strategy Implementation may not be feasible during fast water conditions (February – June). |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; roadway hazards; water hazard; dam hazard |
| ***Staging Area:*** | Pull off area riverside of N Carlson Road, adjacent to Avista fence line – Nine Mile Falls, WA |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)**, Avista Control Center **(509-495-8114)**, & Washington State Parks **(509-465-5064 or 509-290-3239)**. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River above a dam - Spokane River - Width 1500ft (variable) - Depth 20ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 2000ft | 1/2 " dbl braided propylene line w safety clasps |
| 1800ft | B3 – River Boom, or other appropriate type |
| 1 each | Hand-Launch Workboat |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 23 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 4 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 09/2009

# Spokane River SPR 58.0

**SPR 58.0 Photo:** On river left at downstream anchor point, looking upstream towards river right.

**Site Contact Information**

Avista - General Control Center (GCC)
509/495-8114

**Closest Address**

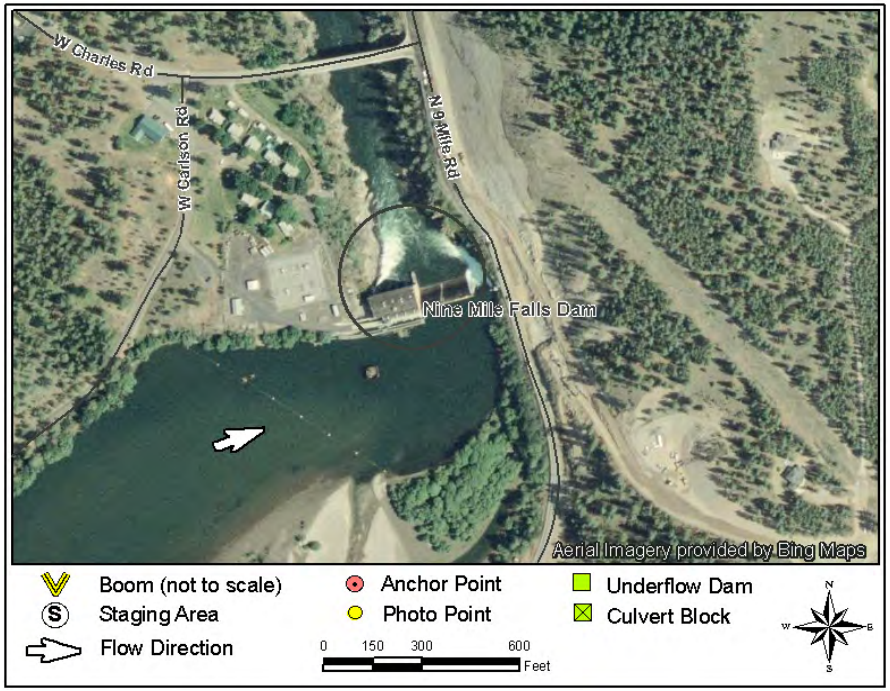
12710 N Carlson Road
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.1 Miles turn left onto W Charles Road (Route 1)
- After 0.1 Miles turn left onto W Carlson Road
- After 0.1 Miles pull off to left side of roadway, near river
- Stage at pull-off area (area adjacent to Avista fence line) - Ensure Avista is notified.

# Spokane River - Nine Mile Falls Dam SPR 58.0-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.774976, W 117.543765 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-495-8114** - Immediately call Avista's General Control Center (GCC) and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the GCC operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes – Long Lake Dam |
| ***Watercourse Description:*** | River; Spokane River; Waters upstream of River Mile (RM) 58.0 |




**Communication Process & Action:**

Pipeline owner or other responsible party and the Incident Command agency must immediately contact Avista's Generation Control Center (GCC) at **509-495-8114** (24 hour). The GCC inside operator should immediately contact the Spokane River Manager and the Nine Mile operator or GCC outside operator. Under the protection of RCWs 70.136.050, 70.136.060, and 70.136.070, and per input from the Washington State Department of Ecology (WDOE), U.S. Environmental Protection Agency (EPA), Spokane County Emergency Management, Spokane County Fire District #9, Stevens County Fire District #1, and the upstream pipeline companies (Chevron and Yellowstone/Conoco-Phillips), Avista will, if possible, implement the following preferred courses of action, unless modified or altered at the specific direction of Unified Command:

(a) Shut down the generating units at Nine Mile and evacuate plant.

(b) Maintain current outflows. Unless product is boomed upstream of the plant, it will pass downstream over the Nine Mile spillway.

**Note:** Avista GCC personnel will not implement the above procedures without verification of the emergency. This will entail a return "call back" to the responsible party or to Unified Command. In the event of a Chevron Pipeline rupture/spill, Avista will verify the incident via a return call to the Chevron Pipeline Safety emergency number (24 hour) at **800-762-3404**. In the event of a Yellowstone Pipeline (ConocoPhillips) rupture/spill, Avista will verify the emergency via a return call to the ConocoPhillips Transportation number (24 hour) at **877-267-2290**.

# Spokane River - Nine Mile Falls Dam SPR 58.0-N

**Site Contact Information**

Avista - General Control Center (GCC)

**509/495-8114**

(24 hour)

**Closest Address**

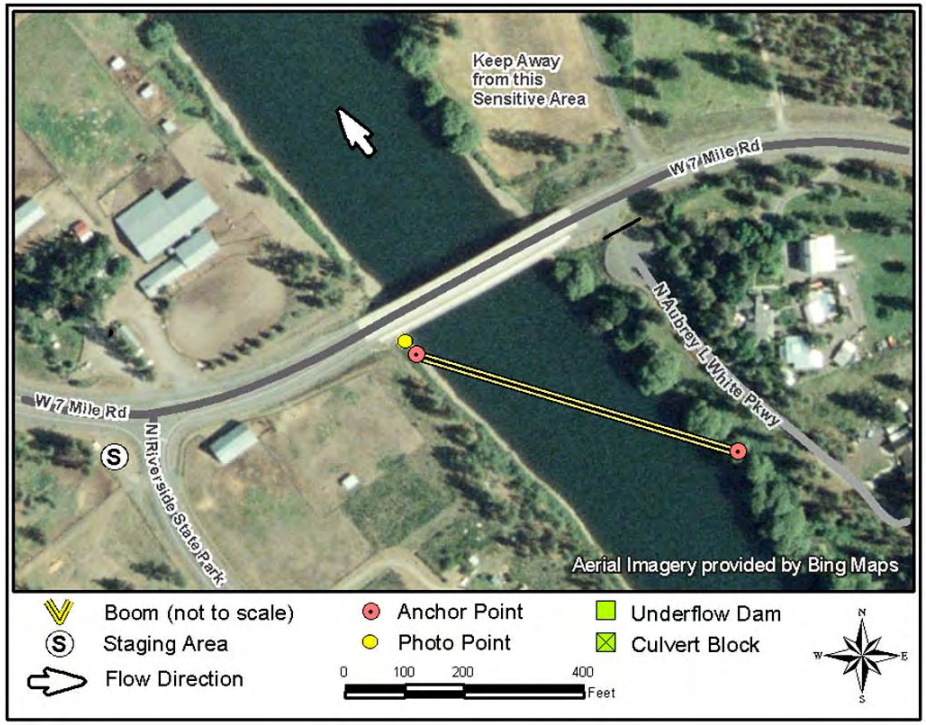
N Nine Mile Rd
Nine Mile Falls, WA
99026

**Driving Directions**

- From Spokane, Depart I-90 West/US-2 South/US-395 West
- At exit 280, take ramp right for Maple Street toward Lincoln Street
- Keep straight onto 5th Avenue
- Turn left onto S Walnut Street
- Keep left on W Northwest Blvd
- Turn right onto N Cochran Street
- Road name changes to N Driscoll Blvd
- Bear right onto N Assembly Street, then immediately turn left onto SR-291/W Francis Avenue, drive 6.1 miles

# Spokane River SPR 61.85

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.7276, W 117.51156 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river left, immediately upstream of 7 Mile Bridge. Using hand-launch workboat, tow boom upstream and across to river right. Angle boom as needed for stream flow conditions and then secure boom end to bank on river right. Form collection pocket on river left as needed. Use line and anchoring systems to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river banks. Depending on conditions, cascade boom configuration may be required. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard |
| ***Staging Area:*** | SW Corner of W 7 Mile Road & N Riverside State Park Drive (or shoulder of W 7 Mile Road near bridge if safe to do so) |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)** and Washington State Parks – Riverside Park Manager **(509-465-5064 or 509-290-3239).** Keep away from sensitive area on river right downstream of bridge. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife; general fish & wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River – Width 300ft - Depth 20ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Hand-Launch Workboat |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 7 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 09/2009

# Spokane River SPR 61.85

**SPR 61.85 Photo:** On river left at downstream anchor point, looking upstream towards river right.

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

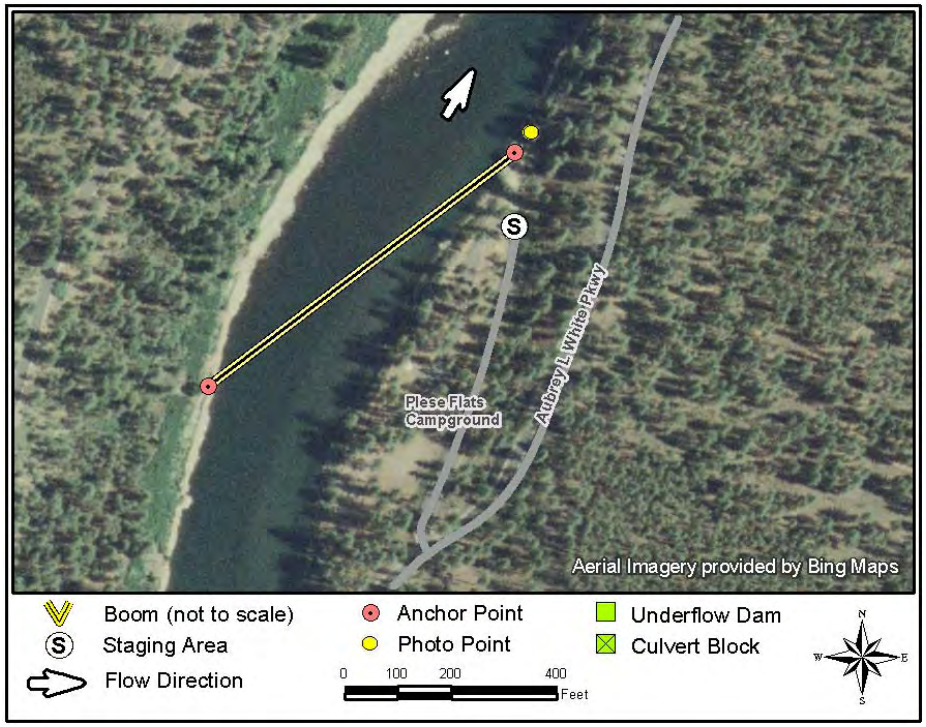
7802 W 7 Mile Road
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue
- After 3.1 Miles stay right onto W 9 Mile Road
- After 2.1 Miles turn left onto W Lowell Avenue (becomes N 7 Mile Road)
- After 0.6 Miles cross over the Spokane River (7 Mile Road Bridge) and continue to the intersection of N 7 Mile Road & N Riverside State Park Drive
- Stage on SW Corner of Intersection, or closer to bridge on shoulder of road if safe to do so.

# Spokane River SPR 63.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.7276, W 117.51156 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right at boat ramp on North side of Plese Flats Campground. Connect towing bridle to remaining boom end. Using workboat, tow boom upstream to river left. Angle boom in river as needed for stream flow/conditions. Form collection pocket on river right as needed. Use line and anchoring systems as needed to keep boom secure in river (depending on conditions, cascade boom configuration may be required). Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard |
| ***Staging Area:*** | Plese Flats Campground - North end of parking area; N Aubrey L White Pkwy, Nine Mile Falls, WA |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)** and Washington State Parks – Riverside Park Manager **(509-465-5064) or (509-290-3239)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife; general fish & wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River – Width 350ft - Depth 20ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 800ft | B3 – River Boom, or other appropriate type (20 x 50ft) |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 9 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 09/2009

# Spokane River SPR 63.0

**SPR 63.0 Photo:** On river right at downstream anchor point, looking upstream towards river left.

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

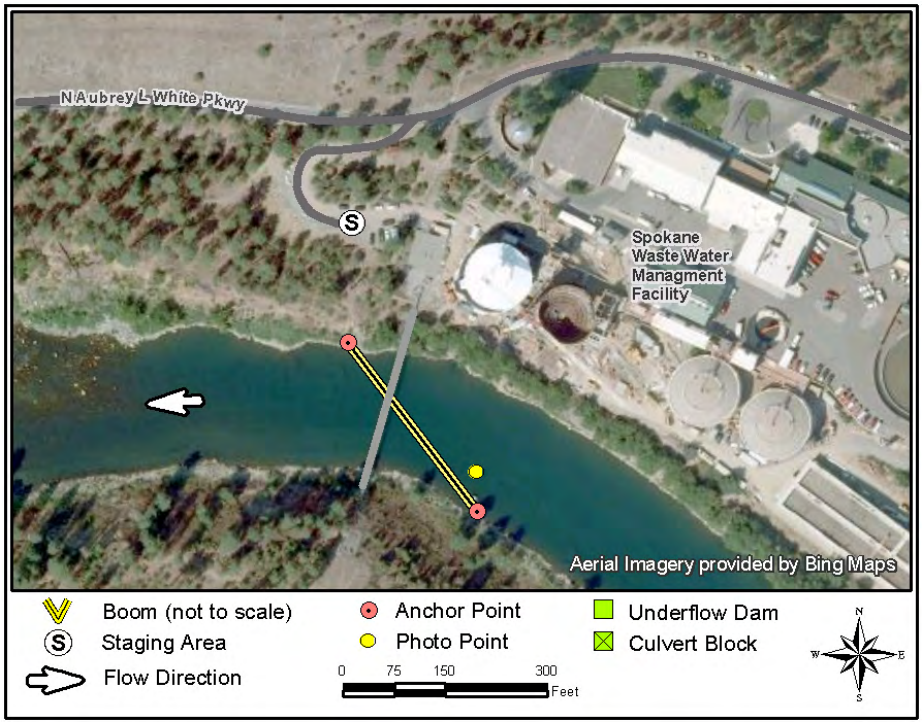
7908 N Aubrey L White Pkwy
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue
- After 3.1 Miles stay right onto W 9 Mile Road
- After 1.9 Miles turn left onto W Parkway Road
- After 0.1 Miles turn left onto N Aubrey L White Parkway
- After 0.6 Miles turn right into Plese Flats Campground
- Stage towards North side of campground parking area

# Spokane River SPR 67.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.69741, W 117.47911 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right immediately downstream of suspension bridge. Connect towing bridle & line to remaining boom end. Using hand-launch workboat tow boom upstream to river left. Angle boom in river as needed for stream flow/conditions. Form collection pocket on river right as needed. Use line and anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard |
| ***Staging Area:*** | Immediately West of Spokane Waste Water Facility towards river - 4401 N Aubrey L White Pkwy, Spokane, WA |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch before implementation **(509-535-6710)** and inform City of Spokane Public Works/ Waste Water Management **(509-625-4600)** and Chevron **(800-762-3404)** |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife; general fish & wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River – Width 200ft - Depth 20ft (variable) |

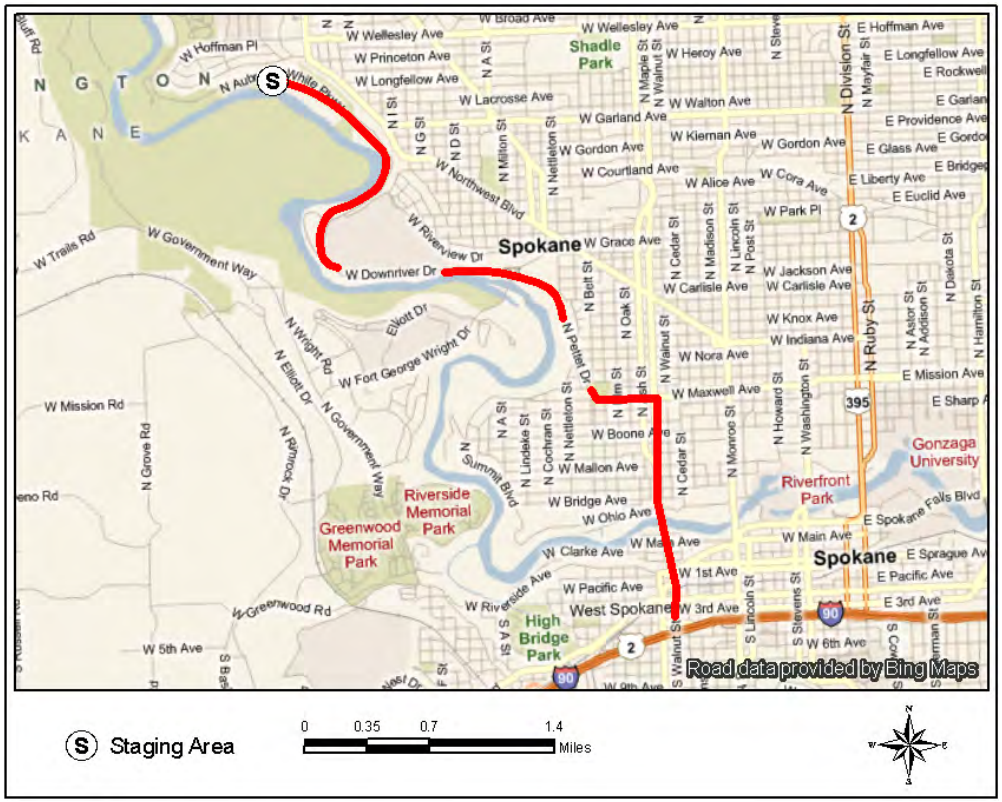



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1000ft | 1/2 " dbl braided propylene line w safety clasps |
| 350ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 5 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 5 | Laborers |
| 1 | Boat Operator |

Status: Visited and Tested 09/2009

**SPR 67.25 Photo:** Upstream of suspension bridge, looking downstream towards shoreside anchor point on river right.




**Site Contact Information**

Spokane County Fire Department
Dispatch: 509-535-6710

**Closest Address**

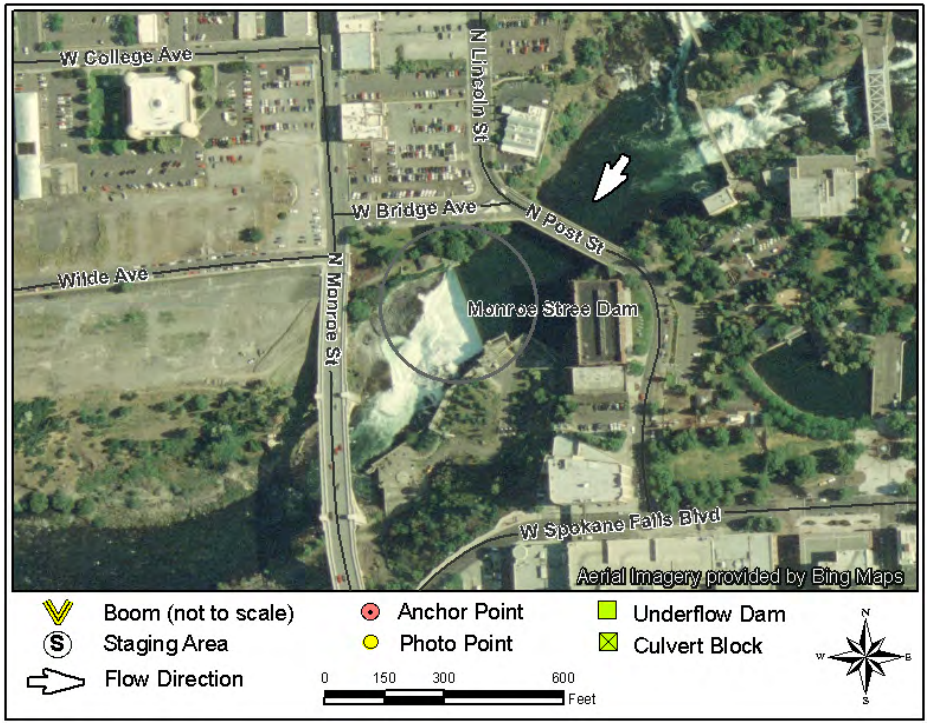
4401 N Aubrey L White Pkwy
Spokane, WA

**Driving Directions**

- Take Exit 280 on Interstate 90 in Spokane to S Walnut Street
- Travel North on S Walnut Street (becoming N Maple Street) - **(Note 13'8" Height Restriction)**
- After approximately 1.3 Miles turn left onto W Maxwell Avenue (becomes N Pettet Drive)
- After 1.2 Miles continue strait on N Pettet Drive under overpass (road becomes W Downriver Drive)
- After 1.3 Miles bear left onto N Aubrey L White Pkwy
- After 1.3 Miles, immediately after entrance to Spokane Waste Water Management facility, pull out to left side of road and follow gravel road through gate and down towards river.
- Stage at end of road. Dirt trail leads down to river bank/river right.

# Spokane River - Monroe Street Dam SPR 74.0-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.661709, W -117.425319 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-495-8114** - Immediately call Avista's General Control Center (GCC) and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the GCC operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes – Nine Mile Falls Dam |
| ***Watercourse Description:*** | River; Spokane River; Waters upstream of River Mile (RM) 74.0 |




**Communication Process & Action:**
Pipeline owner or other responsible party and the Incident Command agency will immediately contact Avista's Generation Control Center (GCC) at **509-495-8114** (24 hour). The GCC inside operator should immediately contact the Spokane River Manager and the Post Street operator or GCC outside operator. Per previous discussions, the Washington State Department of Ecology (WDOE), U.S. Environmental Protection Agency (EPA), Spokane Fire Department, Spokane County Emergency Management, and the upstream pipeline company (Yellowstone/Conoco-Phillips) have approved the following preferred courses of action by Avista. Under the protection of RCWs 70.136.050, 70.136.060, and 70.136.070, these actions will be implemented unless modified or altered at the specific direction of Unified Command.

a) Shut down the generating units at Upper Falls & Monroe Street and evacuate both plants.

b) Maintain current outflows, unless no spill gates at the Control Works (Upper Falls) are currently open wide. If no spill gates are currently open wide, fully open one lift gate. The discharged product will then pass through north and middle channels and over the Monroe Street spillway. Under low flow conditions, this emergency operation of the lift gate may reduce the Upper Falls forebay elevation below the ordinary operating level.

**Note:** Avista GCC personnel will not implement the above procedures without verification of the emergency. This will entail a return "call back" to the responsible party or to Unified Command. In the event of a Yellowstone Pipeline (ConocoPhillips) rupture/spill, Avista will verify the emergency via a return call to the ConocoPhillips Transportation number (24 hour) at **877-267-2290**.

# Spokane River - Monroe Street Dam SPR 74.0-N

**Site Contact Information**

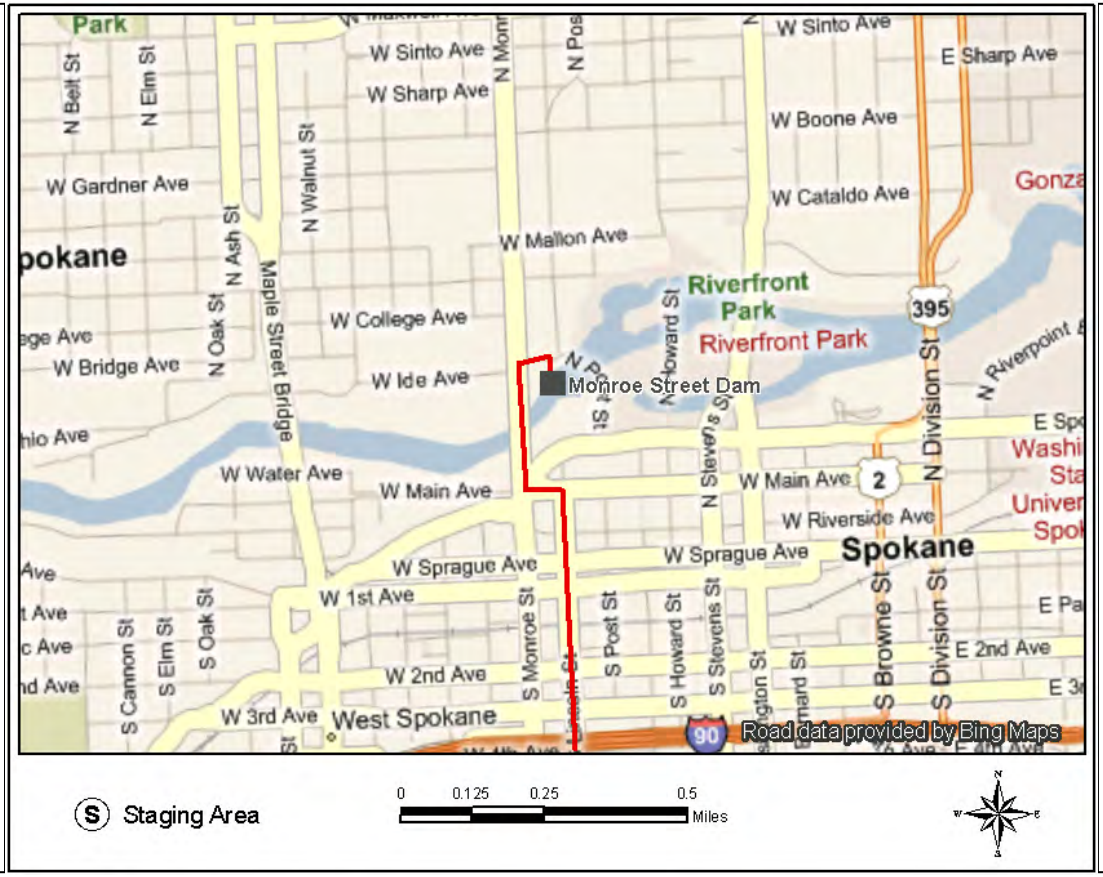
Avista - General Control Center (GCC)

**509/495-8114**

(24 hour)

**Closest Address**

W Bridge Avenue
Spokane, WA 99256

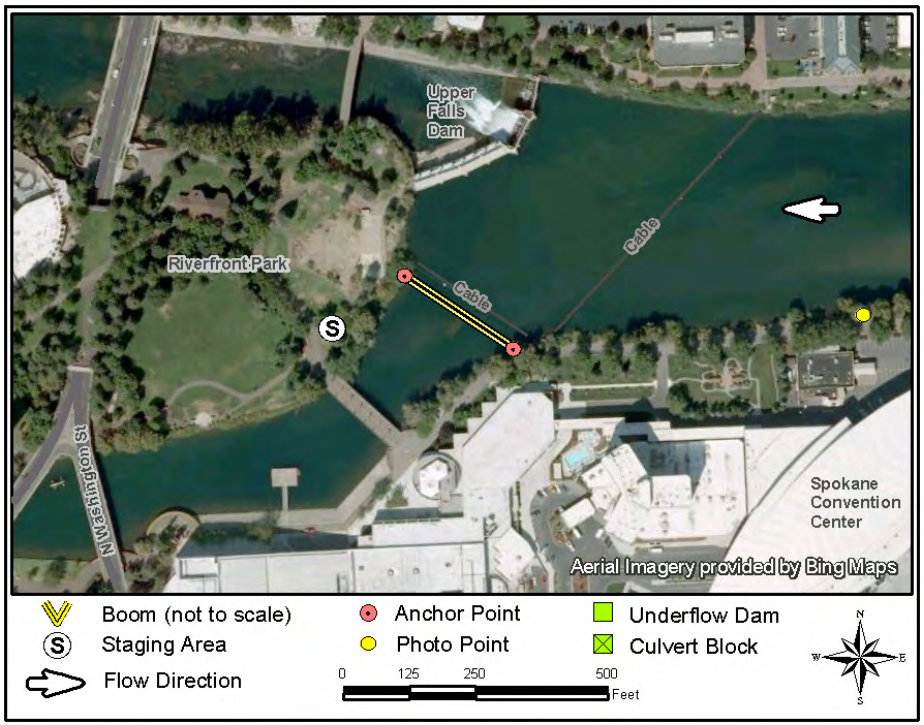



**Driving Directions**

- From I-90, take exit 280B, take ramp right and follow signs for Lincoln Street
- Keep straight onto S Lincoln Street
- Road name changes to N Lincoln Street
- Turn left onto W Main Avenue
- Bear right, and then bear right onto N Monroe Street
- Turn right onto W Bridge Avenue

# Spokane River SPR 74.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.662333, W 117.415813 |
| ***Strategy Objective:*** | Exclusion – Prevent oil moving downstream on the Spokane River from entering canal on river left |
| ***Implementation:*** | Secure boom on river left at Riverfront Park, immediately downstream of diversion canal entrance. Using hand-launch workboat, deploy boom upstream across canal entrance, parallel with existing cable barrier for Upper Falls Dam. Use line and anchoring systems as needed to keep boom secure in river/canal. Use anchor posts, existing structures, or trees to secure boom to river/canal banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard; pedestrian traffic; dam hazard |
| ***Staging Area:*** | Riverfront Park, Spokane, WA (eastern end of park) |
| ***Field Notes:*** | Contact Riverfront Park Security for access **(509-625-6609 or 509-994-1424)**; vehicle access permit required. Notify Spokane County Fire Department Dispatch before implementation **(509-535-6710).** |
| ***Resources Targeted:*** | Public Health & Safety |
| ***Watercourse Description:*** | River above a dam - Spokane River – Canal Width 260ft - Depth (no information) |



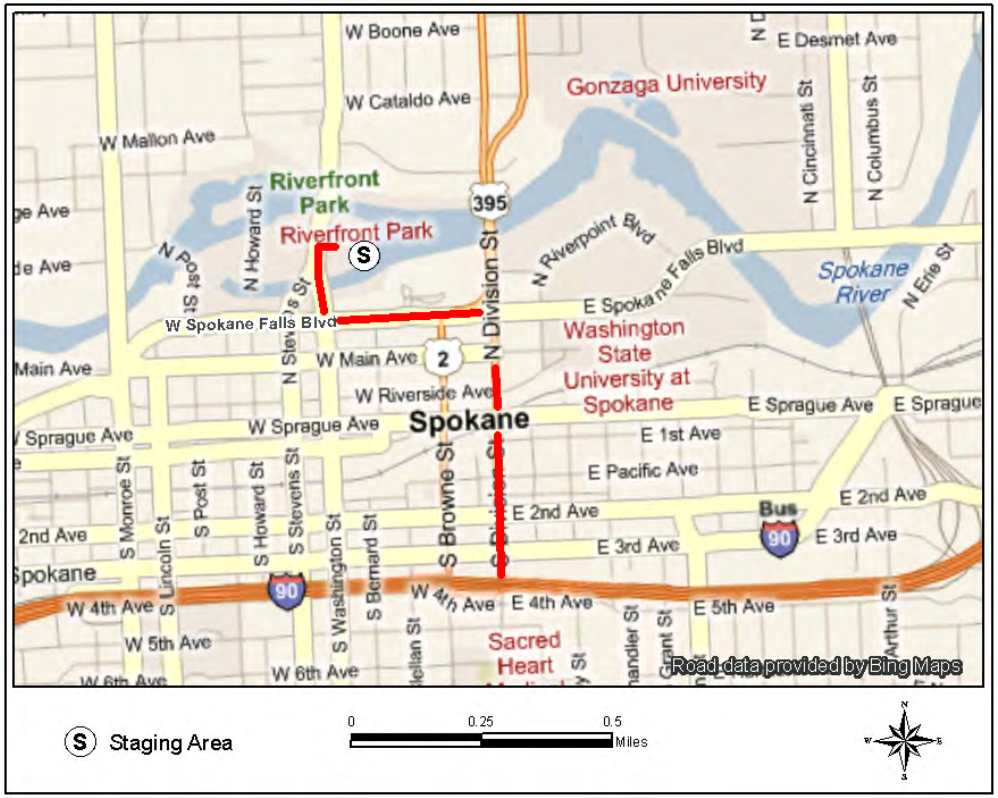

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1000ft | 1/2 " dbl braided propylene line w safety clasps |
| 300ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 4 each | Shoreside anchoring post |
| 2 each | Post driver |
| 3 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 2 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2005

# Spokane River SPR 74.5

**SPR 27.5 Photo:** Spokane River, river left, upstream of diversion canal entrance looking across towards Upper Falls Dam and river right.




**Site Contact Information**

Riverfront Park Security
Ph: 509-625-6609
Cell: 509-994-1424

**Closest Address**

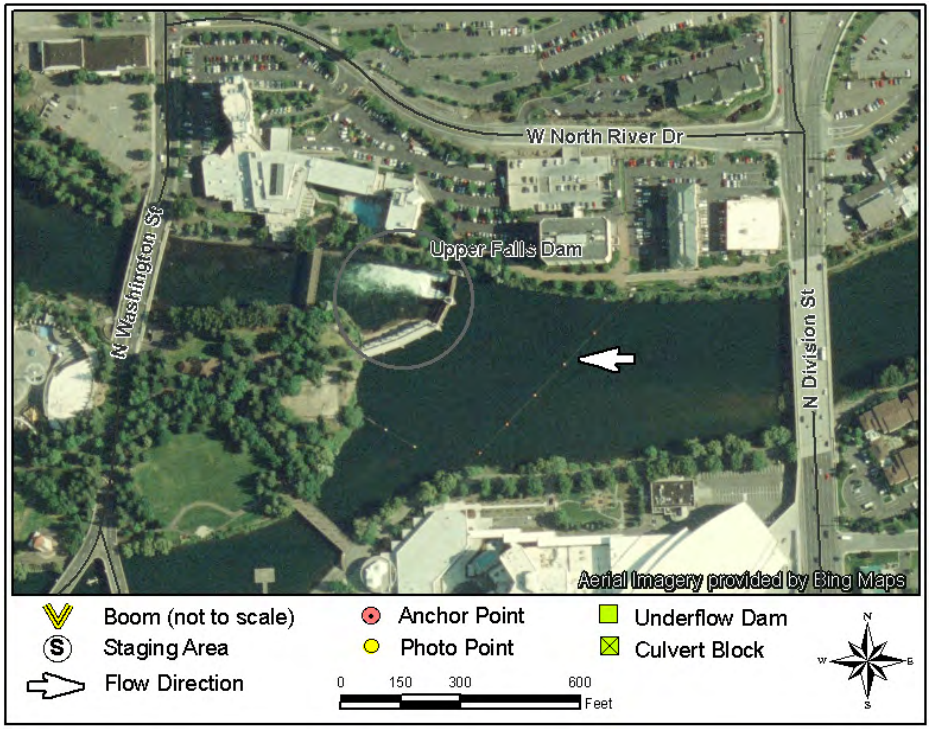
419 N Post Street
Spokane, WA 99201

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 0.5 Miles, turn left onto W Spokane Falls Blvd
- After 0.3 Miles turn right onto N Washington Street
- After 0.2 Miles (immediately after exiting tunnel) turn right into the parking area for Riverfront Park
- Check in with Park Security who will issue vehicle access permit and guide/escort response personnel & equipment to staging area on park's eastern end.

# Spokane River - Upper Falls Dam SPR 74.5-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.663046, W 117.414644 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-495-8114** - Immediately call Avista's General Control Center (GCC) and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the GCC operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes - Upper Falls Dam |
| ***Watercourse Description:*** | River; Spokane River; Waters upstream of River Mile (RM) 74.5 |




**Communication Process & Action:**
Pipeline owner or other responsible party and the Incident Command agency will immediately contact Avista's Generation Control Center (GCC) at **509-495-8114** (24 hour). The GCC inside operator should immediately contact the Spokane River Manager and the Post Street operator or GCC outside operator. Per previous discussions, the Washington State Department of Ecology (WDOE), U.S. Environmental Protection Agency (EPA), Spokane Fire Department, Spokane County Emergency Management, and the upstream pipeline company (Yellowstone/Conoco-Phillips) have approved the following preferred courses of action by Avista. Under the protection of RCWs 70.136.050, 70.136.060, and 70.136.070, these actions will be implemented unless modified or altered at the specific direction of Unified Command.

a) Shut down the generating units at Upper Falls & Monroe Street and evacuate both plants.

b) Maintain current outflows, unless no spill gates at the Control Works (Upper Falls) are currently open wide. If no spill gates are currently open wide, fully open one lift gate. The discharged product will then pass through north and middle channels and over the Monroe Street spillway. Under low flow conditions, this emergency operation of the lift gate may reduce the Upper Falls forebay elevation below the ordinary operating level.

**Note:** Avista GCC personnel will not implement the above procedures without verification of the emergency. This will entail a return "call back" to the responsible party or to Unified Command. In the event of a Yellowstone Pipeline (ConocoPhillips) rupture/spill, Avista will verify the emergency via a return call to the ConocoPhillips Transportation number (24 hour) at **877-267-2290**.

# Spokane River - Upper Falls Dam SPR 74.5-N

**Site Contact Information**

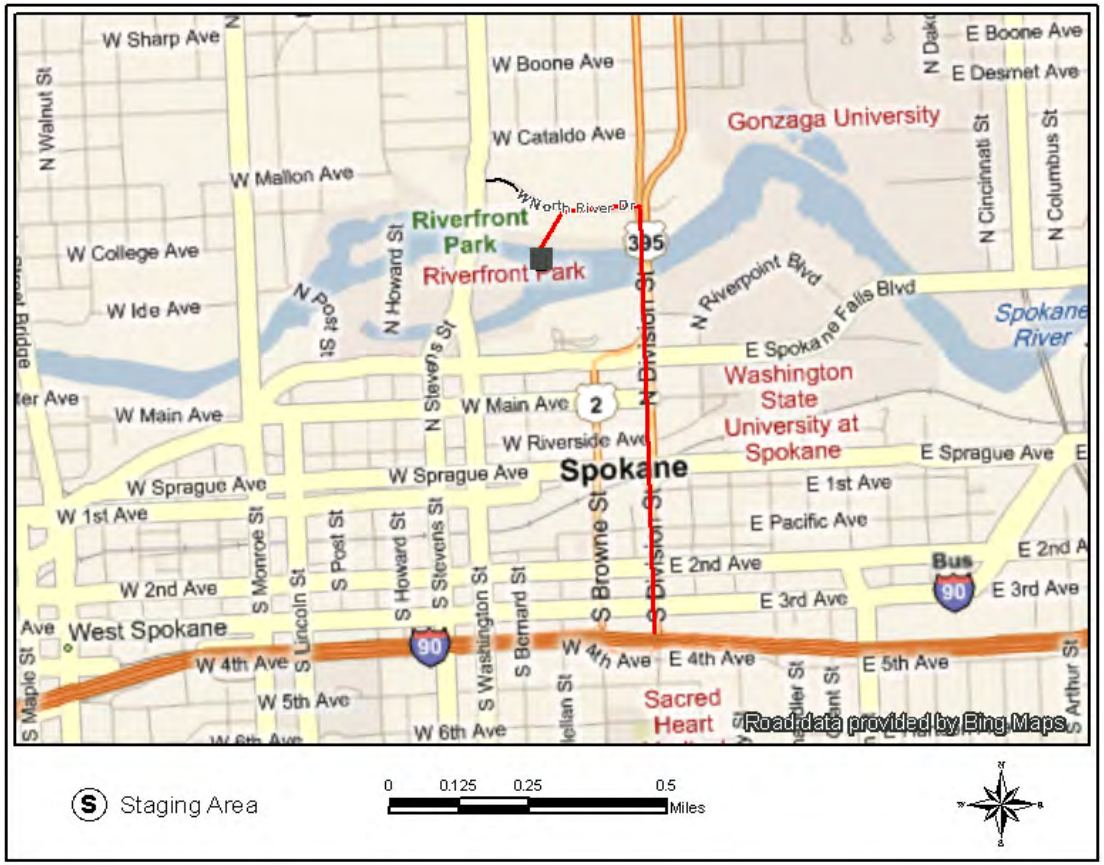
Avista - General Control Center (GCC)

**509-495-8114**

(24 hour)

**Closest Address**

201 W North River Drive
Spokane, WA 99201

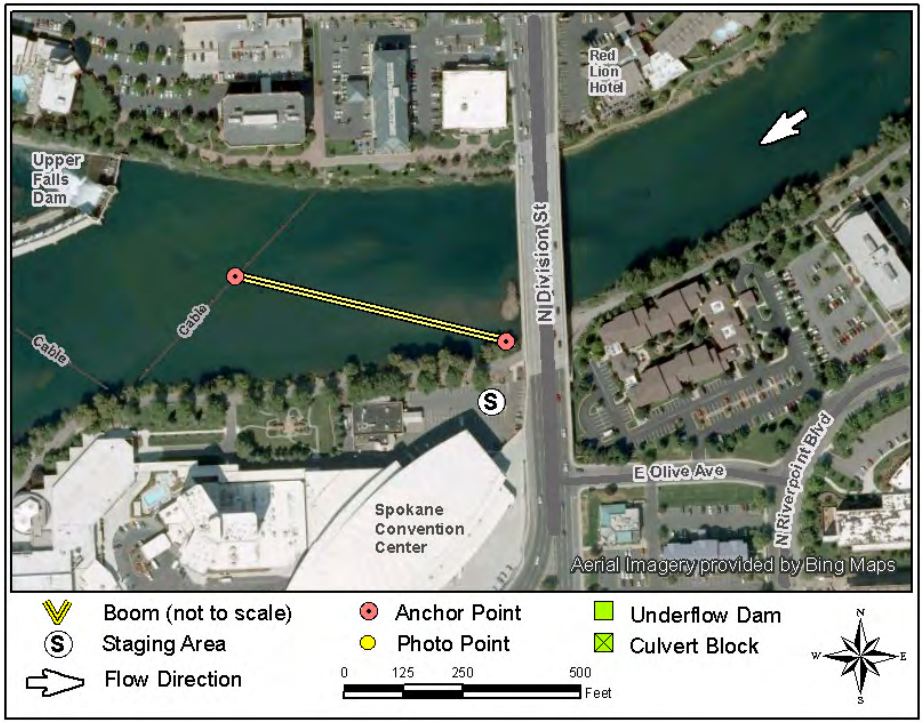



**Driving Directions**

- From I-90, at exit 281, take ramp right for US-395 North/US-2 North toward Newport/Colville
- Bear right onto US-2 East/US-395 North/S Division Street
- Turn left onto W North River Drive
- Upper Falls dam will be on the left, behind the Red Lion Hotel

# Spokane River SPR 74.6

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.661832, W 117.41194 |
| ***Strategy Objective:*** | Diversion – Divert oil moving downstream on the Spokane River towards the gate for the Upper Falls Dam |
| ***Implementation:*** | Secure boom on river left immediately upstream of the N Division Street Bridge behind the Spokane Convention Center. Using hand-launch workboat, deploy boom downstream towards the cable barrier for the Upper Falls Dam. Secure boom end to cable barrier near midstream or anchor in place. Use line and anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to bank on river left. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard; pedestrian traffic; dam hazard |
| ***Staging Area:*** | Parking Area behind Spokane Convention Center below N Division Street Bridge - C. I. Shenanigans Restaurant |
| ***Field Notes:*** | Notify Spokane County Fire Department Dispatch **(509-535-6710)** and manager of C. I. Shenanigans Restaurant **(509-455-6690)** before implementation |
| ***Resources Targeted:*** | Public Health & Safety |
| ***Watercourse Description:*** | River below a dam - Spokane River – Width 370ft - Depth (no information) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 3 each | Shoreside anchoring post |
| 1 each | Post driver |
| 10 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Not Visited and Not Tested

No Photograph Available

**Site Contact Information**

C. I. Shenanigans Restaurant
Manager: (509) 455-6690

**Closest Address**

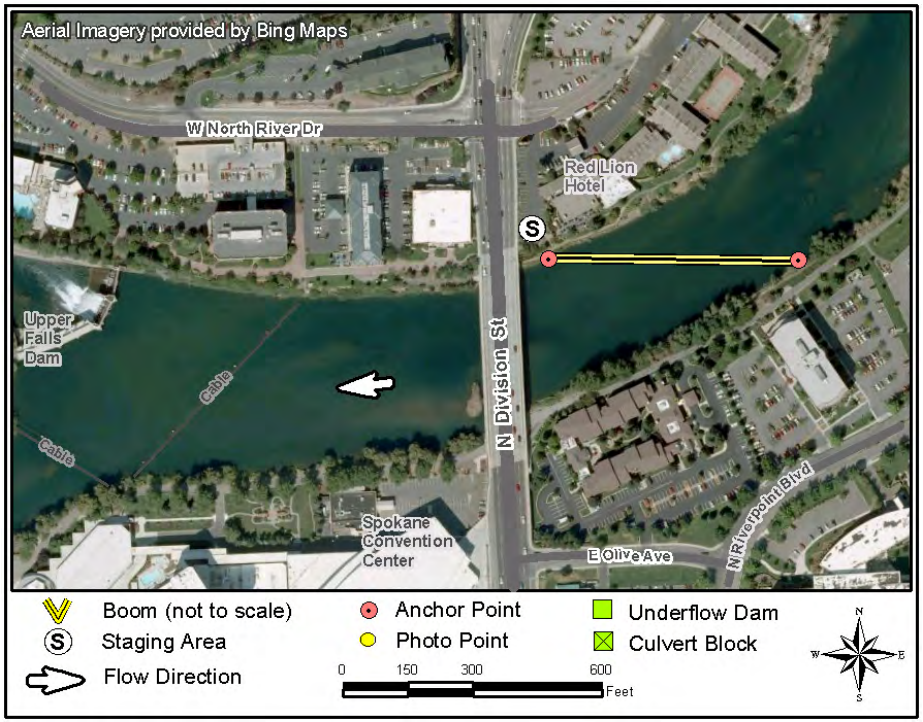
332 North Spokane Falls Court
Spokane, WA 99201

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 0.5 Miles, turn left onto W Spokane Falls Blvd
- After 0.2 Miles , turn right into Spokane Falls Court (Doubletree Hotel)
- After 200ft, turn right and follow road to left (do not enter parking garage)
- After 1000ft, you have reached the parking lot for C. I. Shenanigans Restaurant
- Stage on east side of parking lot near the roadway wall and river

# Spokane River SPR 74.7

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.663389, W 117.410808 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right immediately upstream of the N Division Street Bridge, riverside of the parking lot on the west side of the Red Lion Hotel. Connect towing bridle & line to remaining boom end. Using hand-launch workboat, transport line to river left. From river left, pull tension on line, bringing boom across river; use winch if assist needed. Angle boom in river as needed for stream flow/conditions. Form collection pocket on river right as needed. Use line and anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard; pedestrian traffic. |
| ***Staging Area:*** | Red Lion Hotel Parking Lot (West side of Hotel), 303 North River Drive, Spokane, WA 99201 |
| ***Field Notes:*** | Notify Spokane County Fire Dispatch **(509-535-6710)** and Red Lion Hotel **(509-326-5577)** before implementation |
| ***Resources Targeted:*** | Public Health & Safety |
| ***Watercourse Description:*** | River below a dam - Spokane River – Width 260ft - Depth (no information) |

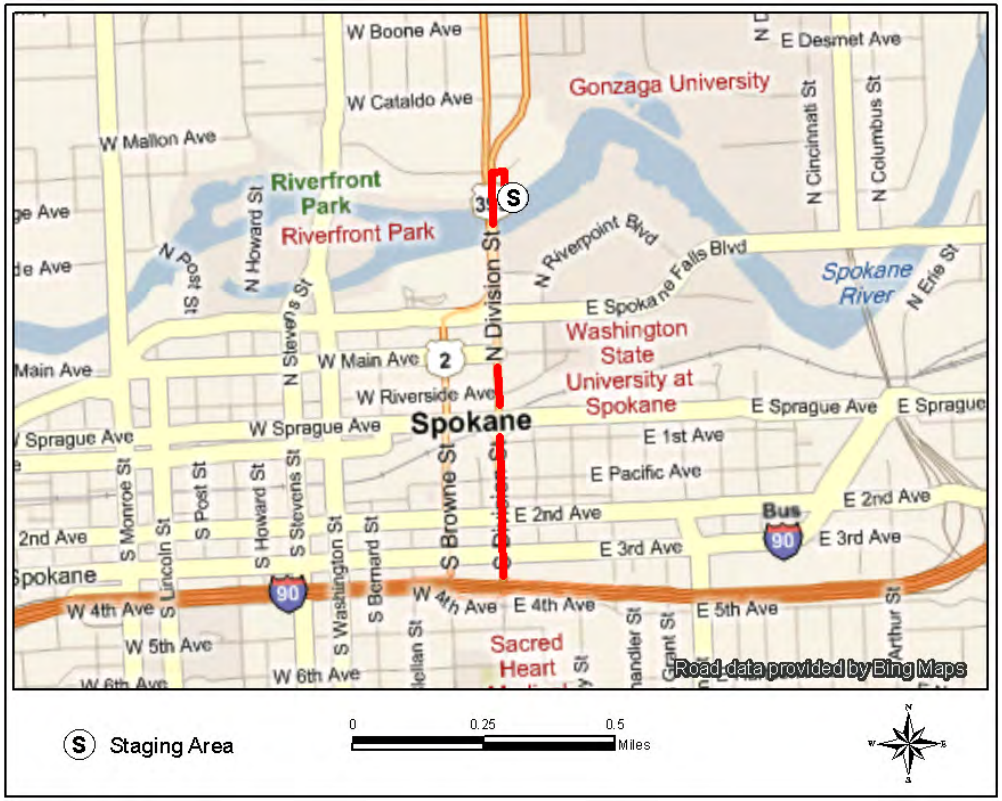



| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 10 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Not Visited and Not Tested

No Photograph Available




**Site Contact Information**

Red Lion – River Inn Hotel

Hotel Manager: (509) 326-5577

**Closest Address**

303 North River Drive

Spokane, WA 99201

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After 0.8 Miles, turn right onto W North River Drive
- Take immediate right into the Parking Lot of the Red Lion Hotel.
- Follow Parking Lot to the right and drive to furthest extent.
- Stage in Parking Lot near river on West side of Hotel.

# Spokane River SPR 75.0

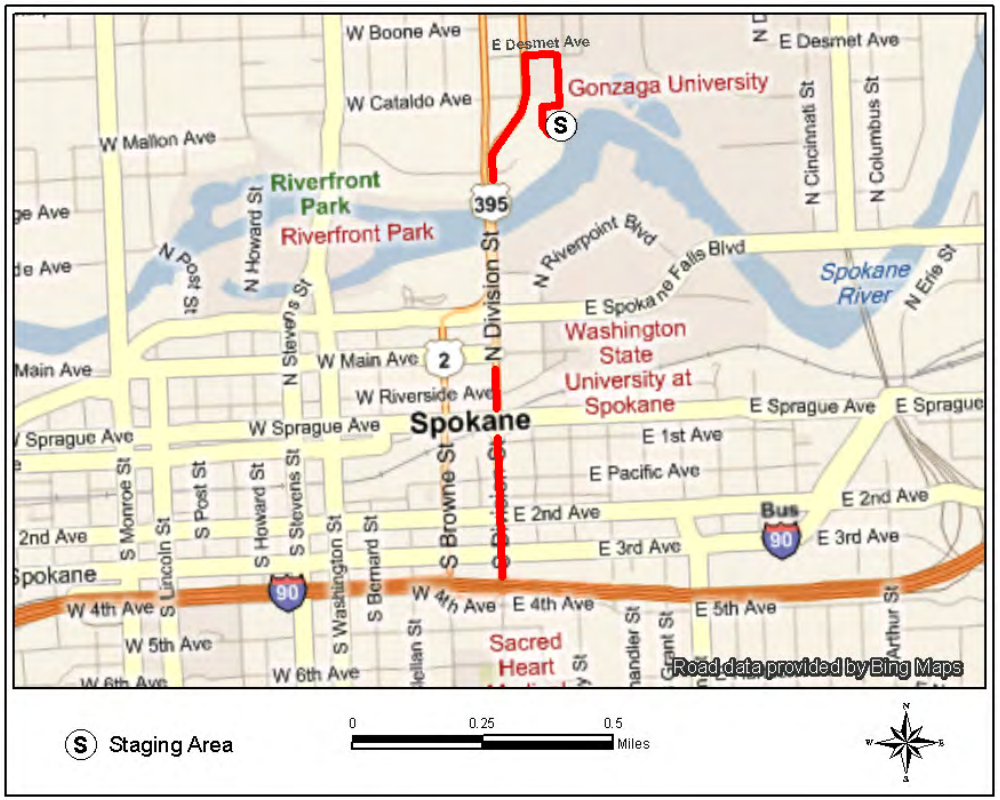
| | |
|---|---|
| ***Site Lat/Long:*** | N 47.665824, W 117.406334 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right off of River Walk Loop Trail, approximately 200ft upstream from staging area. Connect towing bridle & line to remaining boom end. Using hand-launch workboat, transport line to river left. From river left, pull tension on line, bringing boom across river; use winch if assist needed. Angle boom in river as needed for stream flow/conditions. Form collection pocket on river right as needed. Use line and anchoring systems as needed to keep boom secure in river. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard; pedestrian traffic. |
| ***Staging Area:*** | Gonzaga University, Parking Lot of Schoenberg Center (Enter from E Desmet Avenue, Spokane) |
| ***Field Notes:*** | Notify Spokane Fire Dispatch **(509-535-6710)** & Gonzaga University's On-Call Security Administrator **(509-313-2222)** |
| ***Resources Targeted:*** | Public Health & Safety |
| ***Watercourse Description:*** | River below a dam - Spokane River – Width 260ft - Depth (no information) |

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 500ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 7 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Not Visited and Not Tested

No Photograph Available




**Site Contact Information**

Gonzaga University
On-Call Security Administrator
Dispatch: (509) 313-2222

**Closest Address**

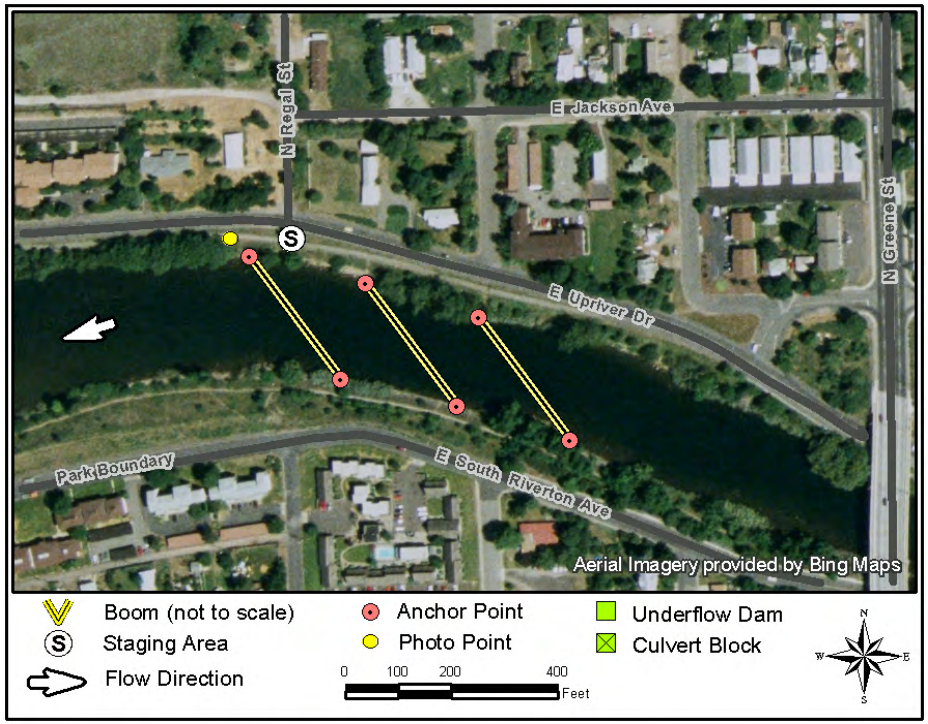
140 E Desmet Avenue
Spokane, WA 99258

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395 becoming N Ruby Street) **(Note 13'3" Height Restriction)**
- After 1.0 Miles turn right onto E Desmet Avenue
- After ½ block turn right into elongated parking area (East side of apartment building)
- Travel 350ft, turn right, and then left into the Parking Lot entrance for the Schoenberg Center
- Stage at Northeastern corner of Parking Lot near river & River Walk Loop Trail; notify Gonzaga University Security and inform Schoenberg Center (if open).

# Spokane River SPR 77.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.679981, W 117.368212 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right. Using workboat, deploy boom upstream; angle as needed for stream flow/conditions and secure to river left. Use lines and anchoring systems as needed to keep boom secure in river. Form collection pocket on river right. Use anchor posts, existing structures, or trees to secure boom to river banks. Repeat process as needed to deploy secondary and tertiary layers of boom. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces - steep banks; roadway hazards; water hazard. |
| ***Staging Area:*** | E Upriver Drive at N Regal Street, Spokane, WA (on shoulder of roadway and grassy area near sidewalk) |
| ***Field Notes:*** | Notify Spokane County Fire Department Dispatch before implementation **(509-535-6710).** River speed and conditions may warrant use of shorter sections of boom (e.g. 50ft). |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 210ft - Depth 6ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 1000ft | B3 – River Boom, or other appropriate type (3 x 300ft+) |
| 1 each | Workboat |
| 12 each | Shoreside anchoring post |
| 2 each | Post driver |
| 9 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 10/2009

# Spokane River SPR 77.5

**SPR 77.5 Photo:** On river right of Spokane River off of E Upriver Drive, looking upstream towards river left.

**Site Contact Information**

Spokane County Fire Department
Dispatch: 509-535-6710

**Closest Address**

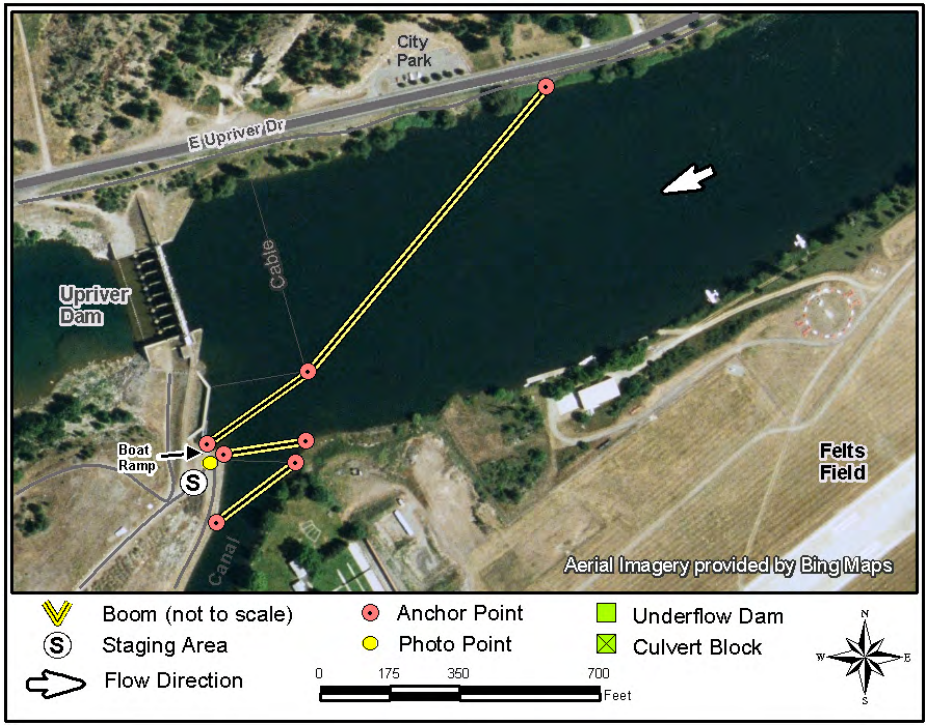
2929 E Upriver Drive
Spokane, WA 99207

**Driving Directions**

- Take Exit 283B on Interstate 90 in Spokane
- Travel North on Freya Street for 1.9 miles (road becomes N Greene Street)
- Turn left onto E Jackson Avenue and head East for 0.2 Miles
- Turn left onto N Regal Street
- Travel South for one block to E Upriver Drive.
- Staging area is directly across street on shoulder/grassy area near sidewalk.

# Spokane River SPR 80.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.684567, W 117.328277 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure end of 1250ft section of boom at Upriver Dam Boat Ramp & deploy upstream around cable barrier and on to river right (near city park). Secure 250ft section of boom at boat ramp and deploy to river left upstream of canal entrance; form primary collection pocket at boat ramp. Secure end of another 250ft section of boom to canal right 200ft downstream from boat ramp, and deploy upstream to cable anchoring point on canal left; form secondary collection pocket on canal right. Use anchor posts, existing structures, or trees to secure boom to river/canal banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; roadway hazards; water hazard; dam hazard |
| ***Staging Area:*** | Dirt road before boat ramp at Upriver Dam (2810 N Waterworks Street, Spokane, WA) |
| ***Field Notes:*** | Call Spokane Water Department (Upriver Dam Operations) for access **(509-742-8141).** River speed and conditions may warrant use of shorter sections of boom (e.g. 50ft) and cascade configuration. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River above a dam - Spokane River - Width 1200ft (variable) - Depth 35ft to 90ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1000ft | 1/2 " dbl braided propylene line w safety clasps |
| 1800ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 10 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving Line |
| 20 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 2 each | Nylon rope sheave/block (heavy duty & adequate size) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 4 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 11/2009

# Spokane River SPR 80.0

**SPR 80.0 Photo:** On Spokane River near Upriver Dam Boat Ramp, looking upstream towards cable barrier and river right.

**Site Contact Information**

City of Spokane Water Department
Upriver Dam Operations
Ph: 509-742-8141

**Closest Address**

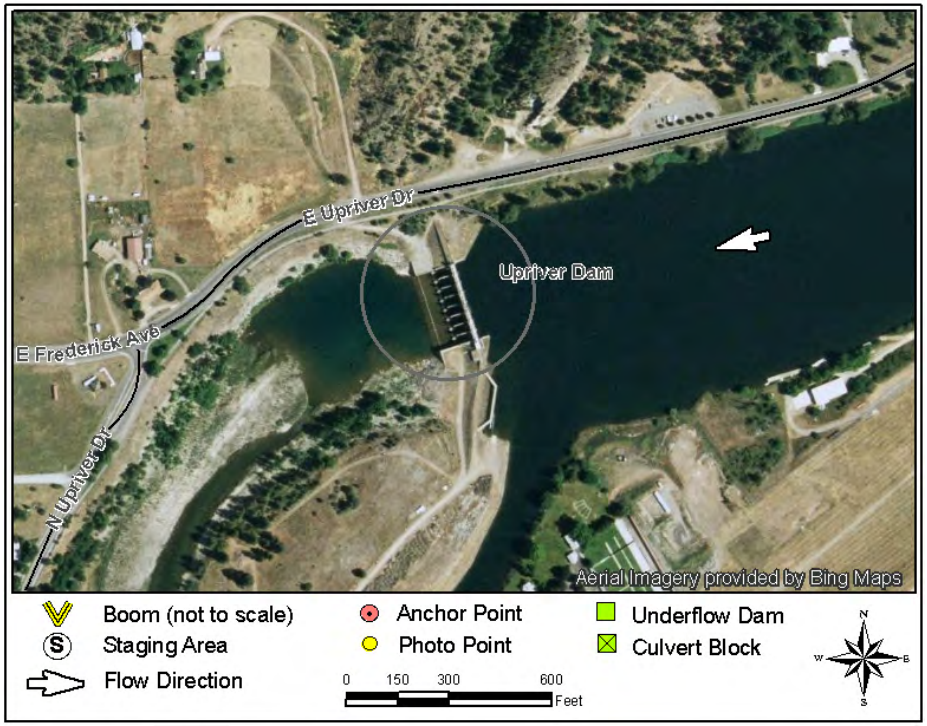
2810 N Waterworks Street
Spokane, WA 99212

**Driving Directions**

- Take Exit 286 on Interstate 90 in Spokane, WA
- Travel West on E Broadway Avenue for approximately 0.6 Miles
- Turn right onto N Fancher Road and travel North for 0.8 Miles
- Turn left onto E Trent Avenue, and travel West for 0.7 Miles
- Turn (sharp) right onto N Waterworks Street and travel Northwest for 0.7 Miles
- Turn Left onto Felts Field – stay to the right – and pass over waterway at power generation station
- Follow road to boat ramp, 1000ft after power generation station
- Stage on dirt road near boat ramp.

# Spokane River - Upriver Dam SPR 80.0-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.685824, W 117.328556 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-742-8141** - Immediately call the Upriver Control Room Operator and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes – Upper Falls Dam |
| ***Watercourse Description:*** | River; Spokane River; Waters upstream of River Mile (RM) 80.0 |




**Communication Process & Action:**

Pipeline owner, responsible party, responder, or Incident Commander must immediately inform the Upriver Control Room Operator of the situation by calling **509-742-8141**.

The Upriver Control Room Operator will notify 911, National Response Center, and WA Emergency Management Division. Unless modified or altered at the specific direction of Unified Command, the Upriver Control Room Operator will:

- Maintain the current status of dam operations.
- Evacuate premises, if necessary.
- Wait for instruction from Unified Command (UC).
- At the direction of UC and/or the direction of the U.S. Environmental Protection Agency or Washington State Department of Ecology, the Upriver Dam may be able to mitigate the effects of a large hazardous liquid spill by operational changes at the Upriver Dam.

**Note:** In the event of a Yellowstone Pipeline (ConocoPhillips) rupture/spill, the Upriver Dam Operator will verify the emergency by calling ConocoPhillips Transportation at 877-267-2290.

# Spokane River - Upriver Dam SPR 80.0-N

**Site Contact Information**

City of Spokane – Upriver Control Room Operator

**509/742-8141**

(24 hour)

**Closest Address**

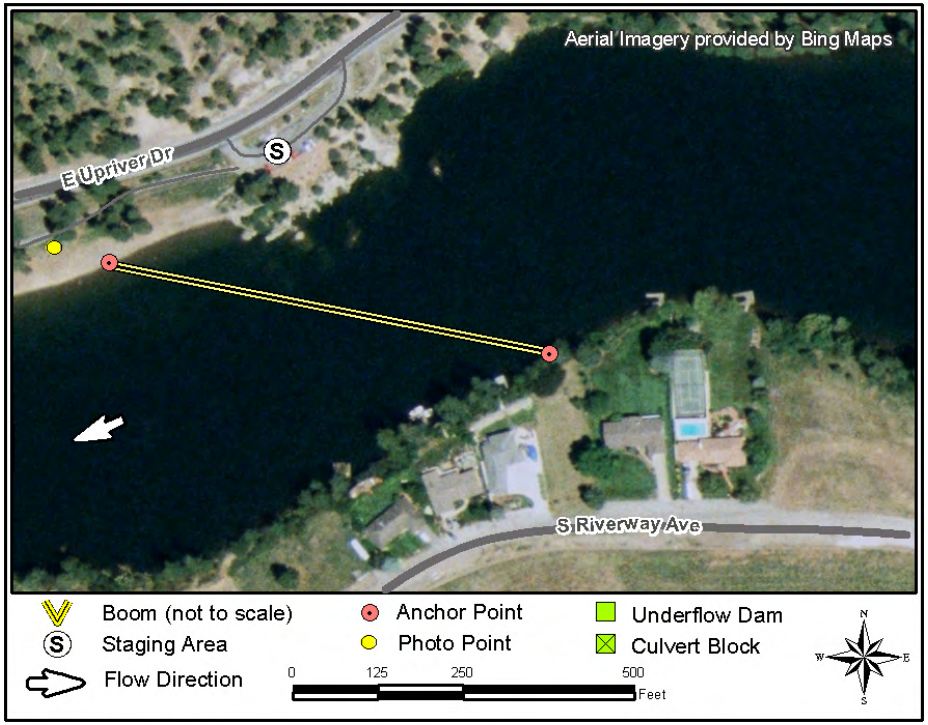
E Upriver Dr.

**Driving Directions**

- From I-90 East, at exit 283B, take ramp right for S Freya Street
- Road name changes to N Freya Street
- Bear left onto N Frey Way
- Bear right onto N Greene Street
- Turn right onto E Carlisle Avenue, and then immediately turn right onto N Ralph Street
- Turn left onto E Upriver Drive
- Upriver Dam will be on the right-hand side of the road.

# Spokane River SPR 81.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.694834, W 117.307854 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right. Using hand-launch workboat, deploy boom upstream to river left; angle boom as needed for stream flow/conditions. Use lines and anchoring systems as needed to keep boom secure in river. Form collection pocket on river right. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard. |
| ***Staging Area:*** | Boulder Beach – Parking Area (7100 E Upriver Drive, Spokane, WA) |
| ***Field Notes:*** | Call Spokane County Fire Department Dispatch for access **(509-535-6710).** River speed and conditions may warrant use of shorter sections of boom (e.g. 50ft) and cascade configuration. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 510ft (variable) - Depth 20ft (variable) |



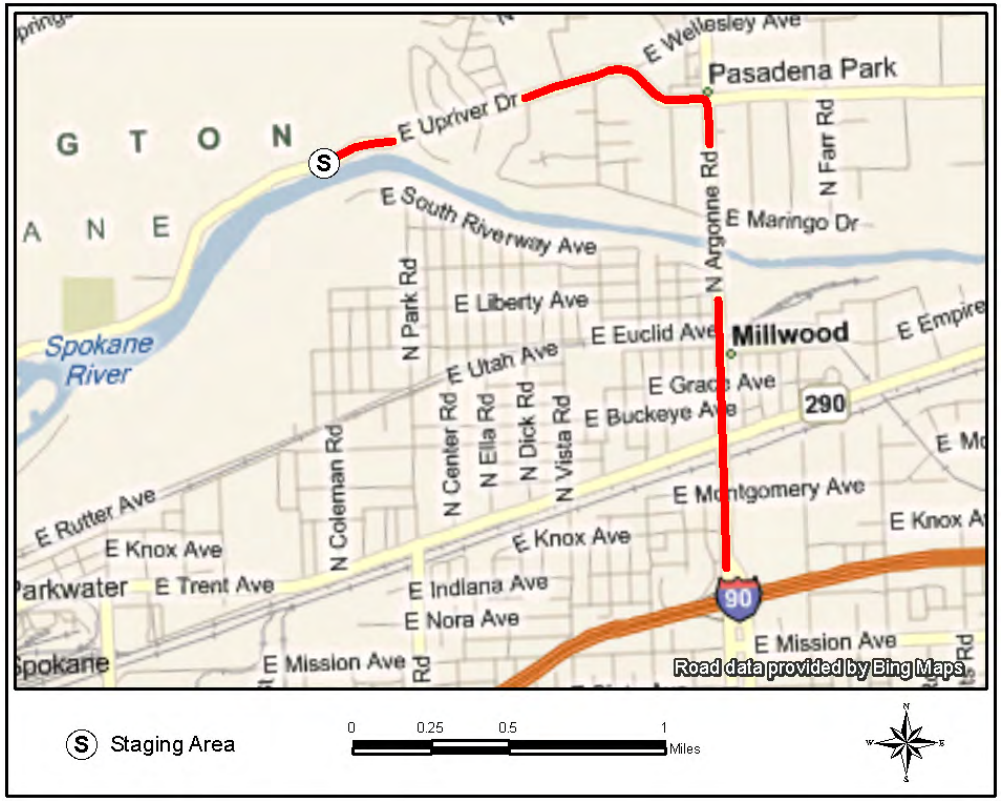

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 2000ft | 1/2 " dbl braided propylene line w safety clasps |
| 700ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 4 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving Line |
| 8 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 2 each | Nylon rope sheave/block (heavy duty & adequate size) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 9/2009

# Spokane River SPR 81.5

**SPR 81.5 Photo:** On Spokane River at Boulder Beach (Upriver Park), looking upstream towards anchor point and river left.




**Site Contact Information**

Spokane County Fire Department
Dispatch: 509-535-6710

**Closest Address**

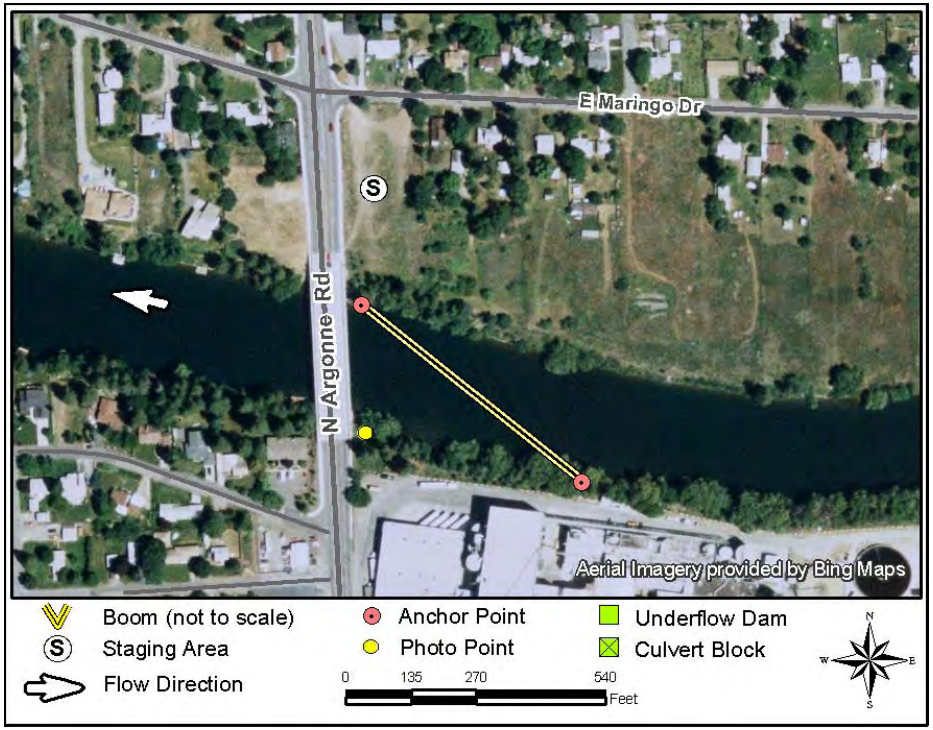
7100 E Upriver Drive
Spokane, WA 99212

**Driving Directions**

- Take Exit 287 on Interstate 90 in Spokane Valley, WA
- Travel North on North Argonne Road for 1.6 Miles
- Turn left onto E Upriver Driver
- After 1.2 Miles, staging area will be on left (Boulder Park)
- Stage in Parking Area

# Spokane River SPR 82.7

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.690103, W 117.282459 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right. Using hand-launch workboat, deploy boom upstream to river left; angle boom as needed for stream flow/conditions. Use lines and anchoring systems as needed to keep boom secure in river. Form collection pocket on river right. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; roadway hazards; water hazard. |
| ***Staging Area:*** | Empty lot on SE corner of N Argonne Road and E Maringo Drive; 9100 E Maringo Drive, Spokane, WA |
| ***Field Notes:*** | Call Inland Empire Paper Company before staging – approval required (contact Shift Supervisor at **509-924-1911)**. River speed and conditions may warrant use of shorter sections of boom (e.g. 50ft) and cascade configuration. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 300ft (variable) - Depth 25ft (variable) |



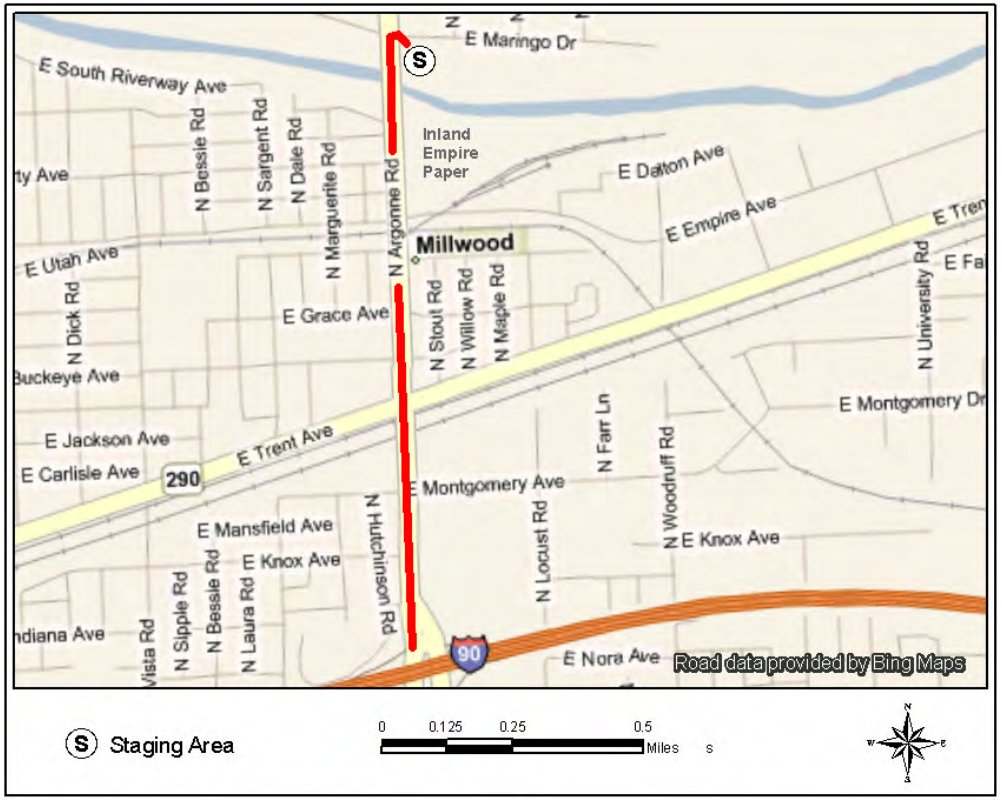

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 2000ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat (hand-launch) |
| 4 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Heaving Line |
| 7 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 2 each | Nylon rope sheave/block (heavy duty & adequate size) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 4/2010

# Spokane River SPR 82.7

**SPR 82.7 Photo:** On river left, immediately upstream of N Argonne Road Bridge, looking across to river right anchor point. Portion of proposed booming strategy depicted on photograph.




**Site Contact Information**

Inland Empire Paper Company
Ph: 509-924-1911 (Shift Supervisor)
Fax: 509-927-8461
Email: iep@iepco.com

**Closest Address**

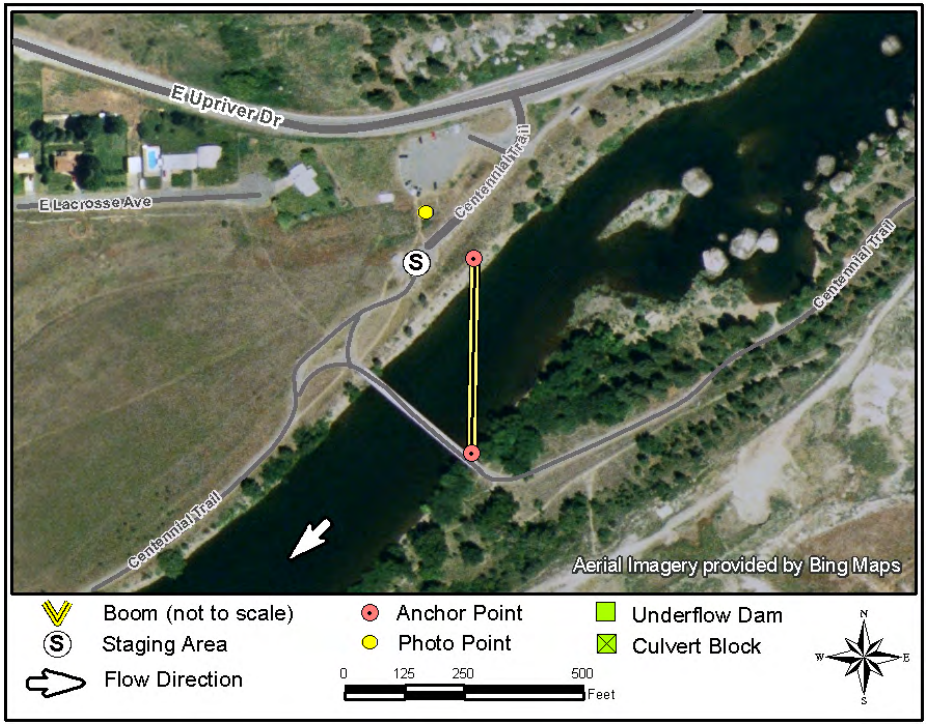
9100 E Maringo Drive
Spokane, WA 99206

**Driving Directions**

- Take Exit 287 on Interstate 90 in Spokane Valley, WA
- Travel North on North Argonne Road for 1.1 Miles
- Turn into empty lot on SE corner of N Argonne Road and E Maringo Drive
- Stage equipment in empty lot. Notify Inland Empire Paper Company; the property owner

# Spokane River SPR 84.1

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.693884, W 117.250407 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right, upstream from Denny Ashlock Pedestrian Bridge. Connect towing bridle & line to remaining boom end. Walk line downstream & across pedestrian bridge to river left. At base of bridge on river left, upstream side, pull tension on line, bringing boom across river; use winch if assist needed. Angle boom in river as needed for stream flow/conditions. Form collection pocket on river left as needed. Use anchor posts, existing structures, or trees to secure boom to river banks. Additional line anchoring systems may be required to keep boom secure in river. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; roadway hazards; water hazard. |
| ***Staging Area:*** | Centennial Trail (Parking Area), 11552 East Upriver Drive, Spokane, WA 99206 |
| ***Field Notes:*** | Call Spokane County Fire Department Dispatch for access **(509-535-6710).** Notify cultural offices of Spokane Tribe (509-258-4060/509-258-4569) & Coeur d'Alene Tribe (208-686-1572/208-686-0675) "Coyote Rock" area |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 300ft (variable) - Depth 25ft (variable) |



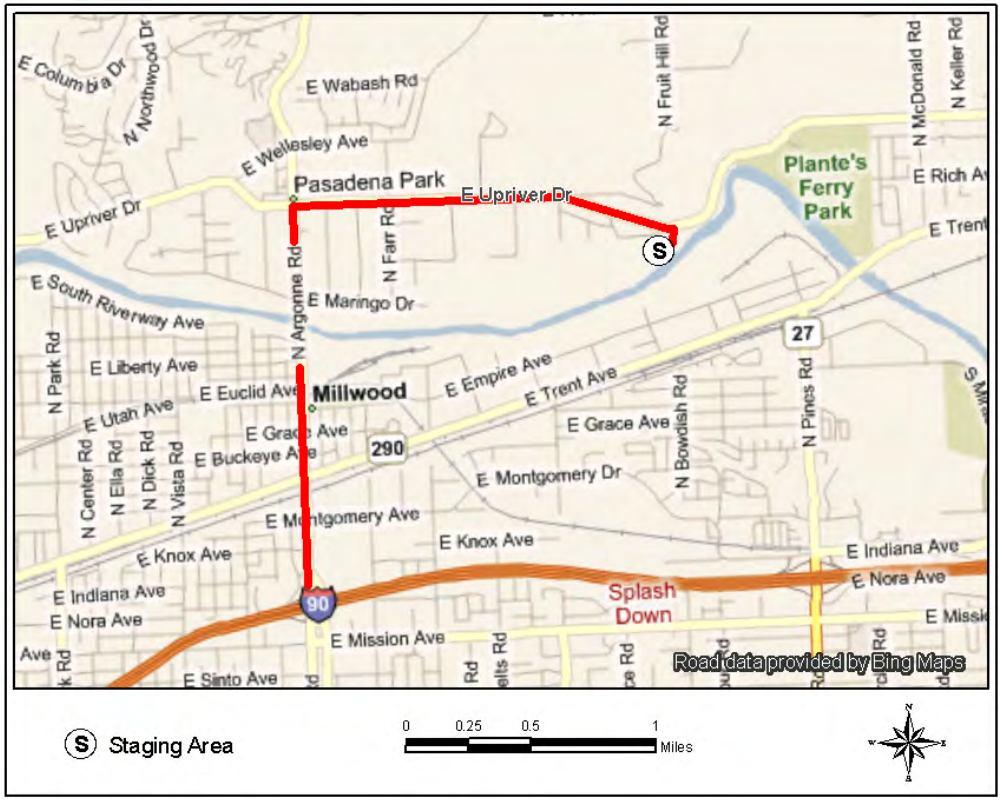

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 500ft | B3 – River Boom, or other appropriate type |
| 10 each | Shoreside anchoring post |
| 2 each | Post driver |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 4 | Laborers |

Status: Visited and Tested 04/2010

# Spokane River SPR 84.1

**SPR 84.1 Photo:** On river right of Spokane River off of Centennial Trail near E Upriver Drive, looking downstream towards Denny Ashlock Pedestrian Bridge and across to river left.




**Site Contact Information**

Spokane County Fire Department
Dispatch: 509-535-6710

**Closest Address**

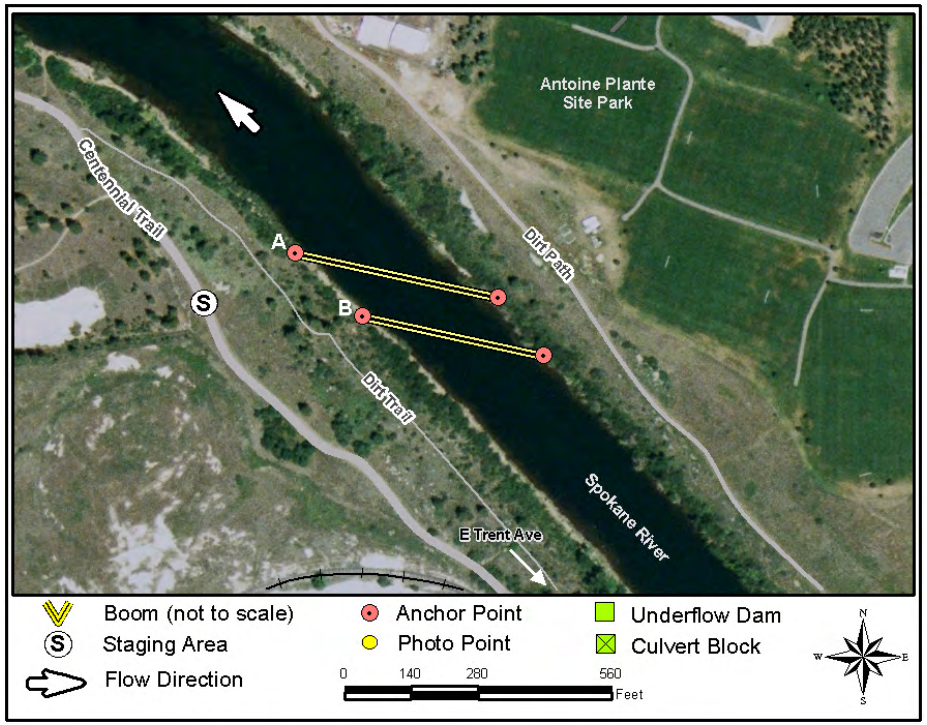
11552 East Upriver Drive
Spokane, WA 99206

**Driving Directions**

- Take Exit 287 on Interstate 90 in Spokane Valley, WA
- Travel North on North Argonne Road for 1.5 Miles
- Turn right onto East Upriver Drive
- Travel on East Upriver Drive for 1.6 Miles
- Turn right into Centennial Trail access area.
- Stage in parking lot on paved area at end of roadway before trailhead.

# Spokane River SPR 84.75

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.695619, W 117.240345 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure 500ft boom segment on river left near N 47.695774, W 117.241121 (Point "A"). Using hand launch workboat, transport line 300ft upstream and across to river right. From river right, pull boom across river using line; use winch if assist needed. Angle boom in river as needed for stream flow/conditions & secure to river right. Form collection pocket on river left as needed. Add lines & anchoring systems to keep boom secure in river. Repeat steps for second 500ft boom segment, securing it to river left near N 47.695405, W 117.240597 (Point "B") about 200ft upstream of "A" |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard. |
| ***Staging Area:*** | Spokane River Centennial Trail about 2000ft downstream from E Trent Avenue Bridge/Hwy 290, Spokane Valley, WA |
| ***Field Notes:*** | Call Spokane County Fire Department Dispatch for access to Centennial Trail **(509-535-6710)**. Enter trail from E Trent Ave. Contact Spokane County Parks for access to Antoine Plante Site Park **(509-477-4730)**. Notify cultural offices of Spokane Tribe (509-258-4060/509-258-4569) & Coeur d'Alene Tribe (208-686-1572/208-686-0675) "Coyote Rock" area |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 210ft (variable) - Depth ~10ft (variable) |



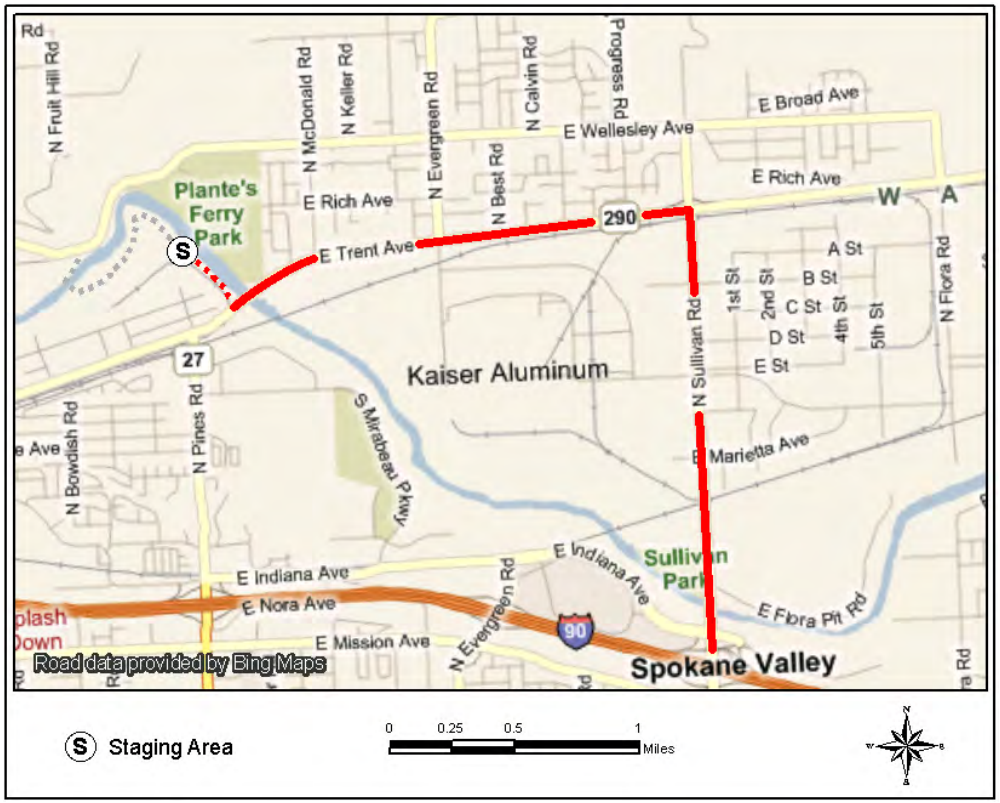

| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 1500ft | 1/2 " dbl braided propylene line w safety clasps |
| 1000ft | B3 – River Boom or other appropriate type (2 x 500ft) |
| 1 each | Hand launch workboat |
| 12 each | Shoreside anchoring post |
| 2 each | Post driver |
| 10 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |
| 1 each | Hand winch (or power winch) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 4 | Laborers |
| 1 | Boat Operator |

Status: Not Visited or Tested

# Spokane River SPR 84.75

No Photograph Available




**Site Contact Information**

Spokane County Fire Department
Dispatch: 509-535-6710

Spokane County Parks & Recreation
Ph: 509-477-4730
Ph: 509-477-6395 (ranger)

**Closest Address**

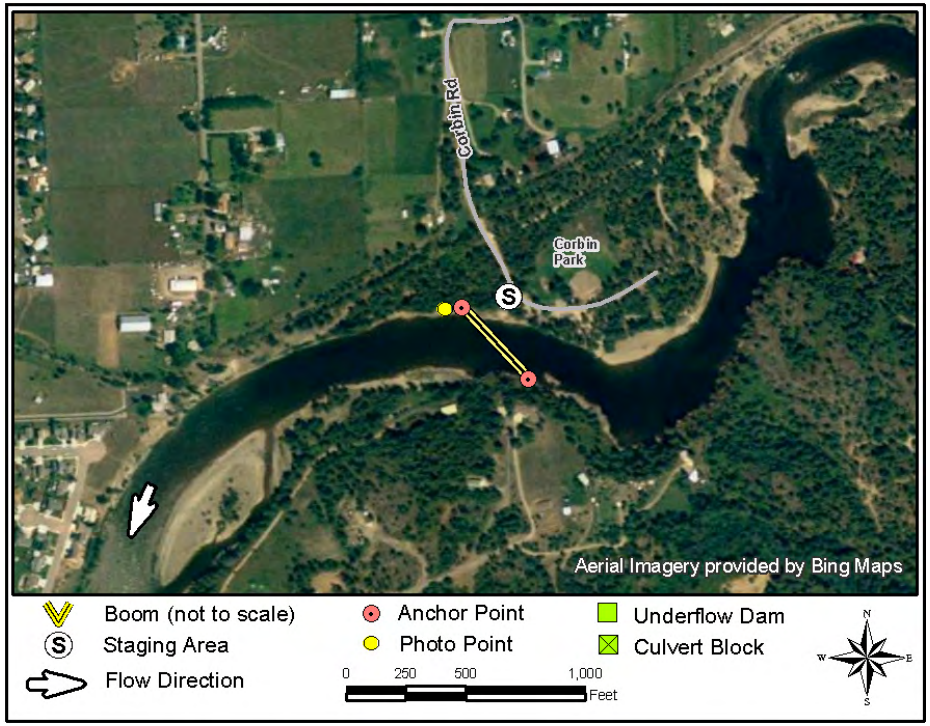
12425 E Trent Avenue
Spokane Valley, WA 99206

**Driving Directions**

- Take Exit 291B on Interstate 90 in Spokane Valley, WA
- Travel North on N Sullivan Road for about 1.8 Miles
- Turn left onto E Trent Avenue/Highway 290 (westbound ramp after you pass over roadway)
- Travel on E Trent Avenue/Highway 290 for about 1.8 Miles, pulling onto the road shoulder immediately after the highway (bridge) crosses over the Spokane River.
- Access Spokane River Centennial Trail with assistance from Spokane Fire Department
- Stage on Centennial Trail about 2000ft downstream from E Trent Avenue Bridge over river.

# Spokane River SPR 99.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.703065, W 116.992046 |
| ***Strategy Objective:*** | Collection – Collect oil moving downstream on the Spokane River from upstream source |
| ***Implementation:*** | Secure boom on river right. Using workboat, deploy boom upstream to river left and secure to shore. Angle boom as needed for stream flow/conditions. Use anchoring systems as needed to keep boom secure in river. Form collection pocket on river right as needed. Use anchor posts, existing structures, or trees to secure boom to river banks. |
| ***Site Safety Note:*** | Slippery banks when wet or icy; trip & fall hazards; uneven surfaces; water hazard. |
| ***Staging Area:*** | Corbin Park (896 S Corbin Road, Post Falls, Idaho) |
| ***Field Notes:*** | Notify City of Post Falls Parks Department before implementation (**208-773-0539**). Access road to Corbin Park boat ramp may be closed certain times of the winter due to icy conditions; City may open road for Emergency Responders. River speed and conditions may warrant use of shorter sections of boom rather than longer lengths. |
| ***Resources Targeted:*** | Downstream habitat; freshwater wildlife |
| ***Watercourse Description:*** | River below a dam - Spokane River - Width 81ft (variable) - Depth 10ft (variable) |




| ***Suggested Equipment*** | |
|---|---|
| Quantity | Description |
| 500ft | 1/2 " dbl braided propylene line w safety clasps |
| 600ft | B3 – River Boom, or other appropriate type |
| 1 each | Workboat |
| 6 each | Shoreside anchoring post |
| 2 each | Post driver |
| 10 each | Anchor systems (anchor, lines, floats) |
| 1 each | Towing bridal (appropriately sized for boom) |

| ***Suggested Personnel*** | |
|---|---|
| 1 | Supervisor |
| 3 | Laborers |
| 1 | Boat Operator |

Status: Visited and Not Tested 09/2009

**SPR 99.5 Photo:** On Spokane River at Corbin Park, looking at anchor point area on river right and upstream across to river left .

**Site Contact Information**

City of Post Falls

Parks & Recreation: 208-773-0539

Police: 208- 773-3517

**Closest Address**

896 S Corbin Road

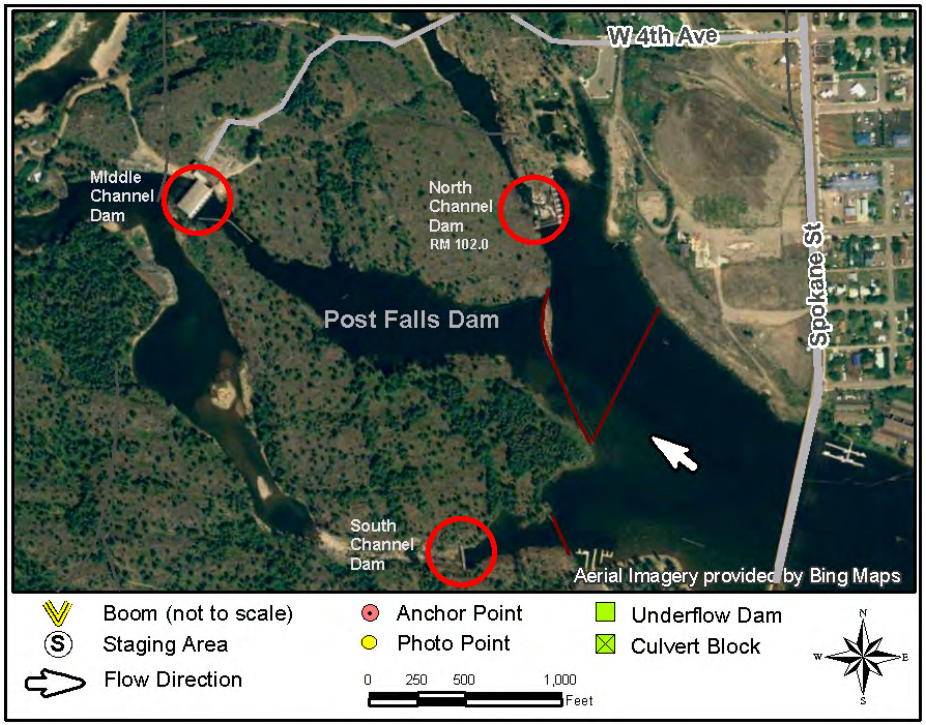
Post Falls, ID 83854

**Driving Directions**

- Take Exit 2 on Interstate 90 in Post Falls Idaho
- Travel South on Pleasant View Road for approximately 300ft.
- Turn left onto W Railroad Avenue
- After 0.5 Miles turn right onto N Corbin Road
- After 0.2 Miles the road will curve to the right, and then back to the left, becoming S Corbin Road
- The road splits into three after the curves, stay on the center road. Corbin Park is 0.2 Miles ahead.
- Staging Area at pull out on the right of roadway after entering the park, or in parking area.

# Spokane River – Post Falls Dam SPR 102.0-N

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.708578, W 116.95369 |
| ***Strategy Objective:*** | Notification – Inform the dam's operating company of any oil pipeline rupture or large release of oil upstream of dam |
| ***Implementation:*** | **CALL: 509-495-8114** - Immediately call Avista's General Control Center (GCC) and inform them of the situation |
| ***Site Safety Note:*** | N/A |
| ***Staging Area:*** | N/A |
| ***Field Notes:*** | Once notified, the GCC operator will make additional notifications and follow appropriate procedures (see below) |
| ***Resources Targeted:*** | Energy/Power Generation Water Intakes – Post Falls Dam |
| ***Watercourse Description:*** | River; Spokane River; Waters upstream of River Mile (RM) 102.0 |




**Communication Process & Action:**
Responsible party and the Incident Command agency must immediately contact Avista's **Generation Control Center** (GCC) at **509-495-8114** (24 hour). The GCC inside operator should immediately contact the Spokane River Manager and the Post Falls operator or GCC outside operator. Under the protection of Idaho Code 39-7102, 39-7103, and 39-7113, and per input from the U.S. Environmental Protection Agency (EPA), Kootenai County Emergency Management, Kootenai County Fire & Rescue, and the Idaho Department of Water Resources, Avista will, if possible, implement the following preferred courses of action, unless modified or altered at the specific direction of Unified Command:

(a) Maintain current plant outflows.
(b) Evacuate personnel in plant and operator village to Falls Park.

**Note:** Avista GCC personnel will not implement the above procedures without verification of the emergency. This will entail a return "call back" to the responsible party or to Unified Command.

# Spokane River – Post Falls Dam SPR 102.0-N

**Site Contact Information**

Avista - General Control Center (GCC)

**509-495-8114**

(24 hour)

**Closest Address**

1091 W 4th Ave, Post Falls, ID 83854

**Driving Directions**

Take Exit 5 on Interstate 90 (I-90) in Post Falls, ID

Travel south on N Spokane Street for approximately 500ft

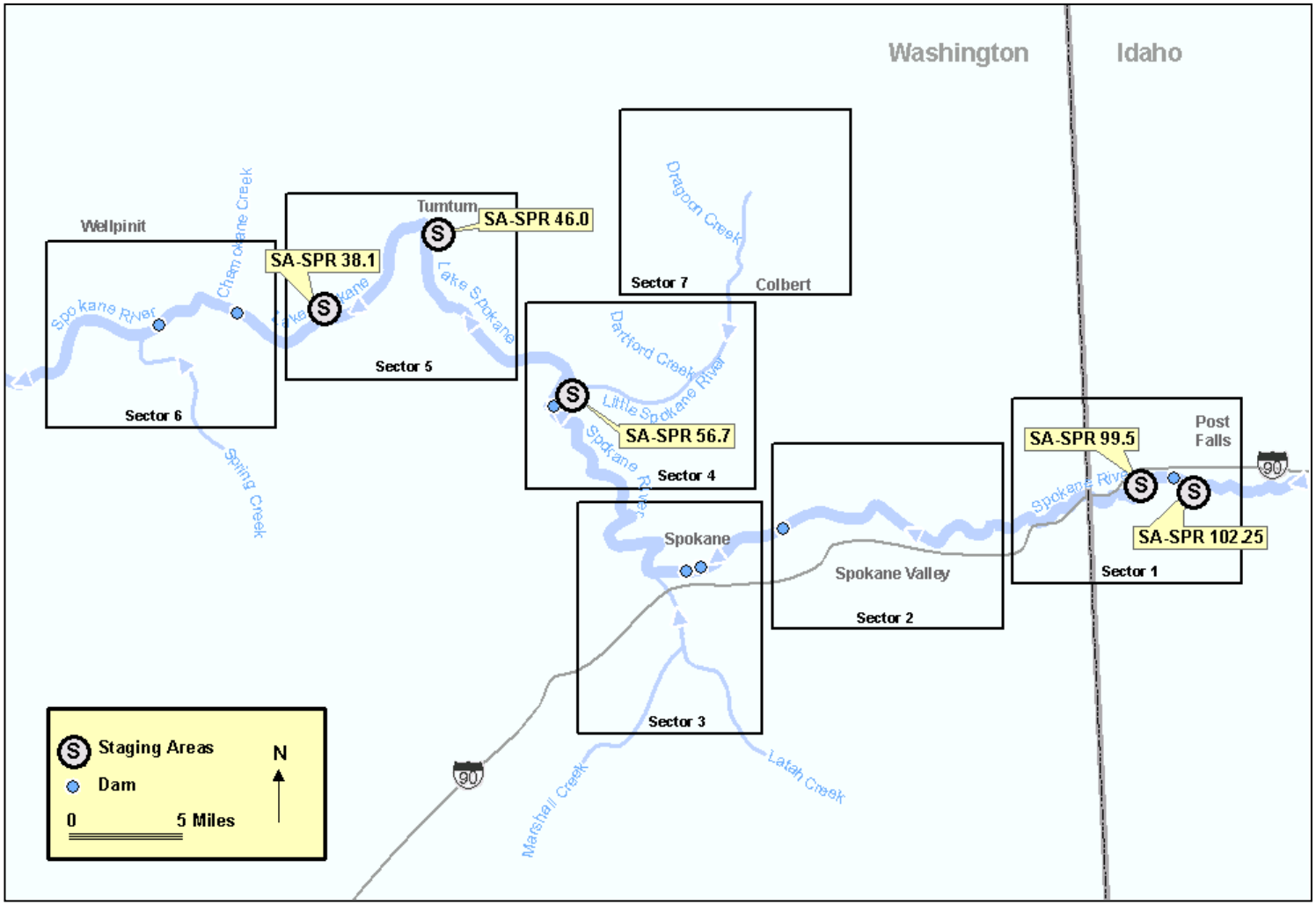
At the first intersection (south of the Interstate) turn right onto W 4th Ave

After 0.5 Miles turn left at unnamed road and follow it for 850ft to the Post Falls Dam - Middle Channel Power Station.

## Appendix 4B – Staging Areas Information

The following information provides details on staging areas of significance – those locations that support multiple GRP response strategies or support strategies that have little or no staging available. Information for GRP strategies that have staging "on site" can be found in the response strategy information sheets (2-pagers) of Appendix 4A.

**Figure 4.4 – Significant Staging Area Locations for the Spokane River GRP**



| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **SA-SPR 102.25** | Q'emlin Park<br><br>(City Park) | N 47.703004<br>W 116.953068<br><br>Nearest Address:<br>12201 W Parkway Drive<br>Post Falls, ID 83854<br><br>Contact:<br>City of Post Falls<br>Parks & Recreation<br>(208) 773-0539 | Map 1<br>Page 4-19 | Page 4-161 | Boat Ramp - Yes (2)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes (3)<br>Restrooms - Yes<br>Power - Yes<br>Water – Yes<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - No<br>Telephones - No<br>Cell Phone Coverage - Yes<br>Estimated Lot Size - 217,800 Sq Ft<br>Lot Cover (Primary) - Asphalt<br>Covered Spaces - Unknown<br>Covered Space Total Area - Unknown<br>User Fee – Unknown | Waters Above Post Falls Dam |
| **SA-SPR 99.5** | Corbin Park<br><br>(City Park) | N 47.703152<br>W 116.990777<br><br>Nearest Address:<br>896 S Corbin Road<br>Post Falls, ID 83854<br><br>Contact:<br>City of Post Falls<br>Parks & Recreation<br>(208) 773-0539 | Map 1<br>Page 4-19 | Page 4-163 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Concrete<br>Boat Dock - No<br>Restrooms - Yes<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) - Yes<br>Parking (Trailer) - Unknown<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Estimated Lot Size - 25,000 Sq Ft<br>Lot Cover (Primary) - Gravel<br>Covered Spaces - Unknown<br>Covered Space Total Area - Unknown<br>User Fee – No | SPR 99.5 |

| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **SA-SPR 56.7** | Spokane House Parking Area<br><br>(Riverside State Park) | N 47.789111<br>W 117.531553<br><br>Nearest Address:<br>14400 N Shoemaker Ln<br>Nine Mile Falls, WA 99026<br><br>Contact:<br>Riverside Park Manager<br>(509) 465-5064<br>(509) 290-3239 | Map 4-A<br>Page 4-24 | Page 4-165 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Yes<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Estimated Lot Size - 40,000 Sq Ft<br>Lot Cover (Primary) - Asphalt<br>Covered Spaces - None<br>Covered Space Total Area - N/A<br>User Fee – Unknown | SPR 56.75<br>SPR 56.7<br>SPR 56.5<br>SPR 56.0<br>SPR 55.5<br>LSR 0.0<br>LSR 0.5<br>LSR 0.75 |
| **SA-SPR 46.0** | Willow Bay Resort<br><br>(Private Facility) | N 47.880438<br>W 117.657373<br><br>Nearest Address:<br>6607 Corkscrew Highway (Hwy 291)<br>Loon Lake, WA, 99026<br><br>Contact:<br>Resort Manager<br>(509) 276-2350 | Map 5<br>Page 4-25 | Page 4-167 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Yes<br>Power - Yes<br>Water - Yes<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Estimated Lot Size - 18,000 Sq Ft<br>Lot Cover (Primary) - Gravel<br>Covered Spaces - Unknown<br>Covered Space Total Area - Unknown<br>User Fee - Yes | SPR 46.0<br>SPR 45.5<br>SPR 44.5 |

| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **SA-SPR 38.1** | Lake Spokane Campground<br><br>(WA-DNR) | N 47.834491,<br>W 117.759426<br><br>Nearest Address:<br>7530 Hwy 291<br>Tumtum, WA 99034<br><br>Contact:<br>Washington Dept. of Natural Resources Northeast Region | Map 5<br>Page 4-25 | Page 4-169 | Boat Ramp - Yes (2)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Unknown<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Estimated Lot Size - 50,000 Sq Ft<br>Lot Cover (Primary) - Asphalt<br>Covered Spaces - Unknown<br>Covered Space Total Area - N/A<br>User Fee – Yes (Discover Pass) | SPR 34.0 |

# Staging Area – Q'emlin Park SA-SPR 102.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.703004, W 116.953068 |
| ***Comments:*** | Notify City of Post Falls Parks Department for access (**208-773-0539**) |

| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 2 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 3 |
| Restrooms | Yes | Unknown |
| Power | Yes | Unknown |
| Water | Yes | Unknown |
| Parking (Car) | Yes | 40+ |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | No | N/A |
| Telephones | No | N/A |
| Cell Phone Coverage | Yes | Unknown |
| Estimated Lot Size | Sq Ft | 217,800 |
| Lot Cover (Primary) | Asphalt | 50% |
| Covered Spaces | Yes | Unknown |
| Covered Space Total Area | Sq Ft | Unknown |
| User Fee | Unknown | N/A |

| ***Response Strategies Served:*** |
|---|
| |

Last Visited: 05/2011

# Staging Area – Q'emlin Park SA-SPR 102.25

No Photograph Available

**Site Contact Information**

City of Post Falls
Parks & Recreation: 208-773-0539
Police: 208- 773-3517

**Closest Address**

12201 W Parkway Drive
Post Falls, ID 83854

**Driving Directions**

- Take Exit 5 on Interstate 90 in Post Falls, ID
- Travel South on N Spokane Street for 0.8 Miles (becomes S Spokane Street after bridge)
- Turn right onto W Parkway Drive and travel West for 0.2 Miles
- Park entrance will be on right. Follow road through parking area; stage equipment in parking lot near boat launch

# Staging Area – Corbin Park SA-SPR 99.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.703152, W 116.990777 |
| ***Comments:*** | Notify City of Post Falls Parks Department for access **(208-773-0539)** |

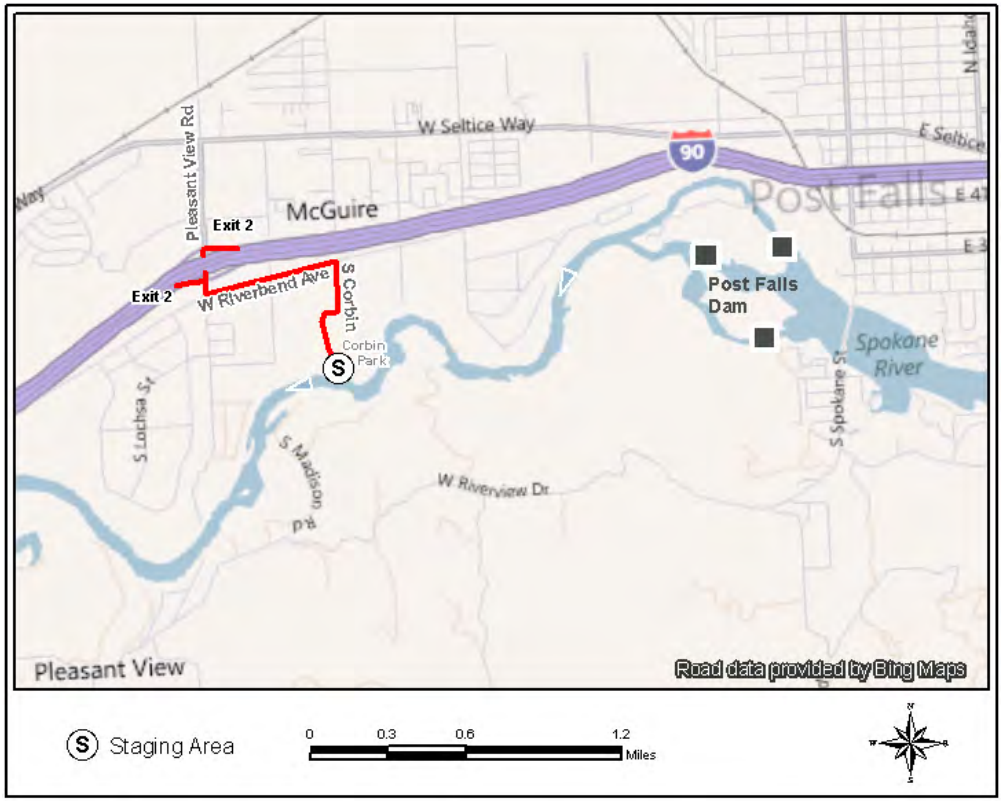
| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Concrete | 1 |
| Boat Dock? | No | N/A |
| Restrooms | Yes | Unknown |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Unknown | N/A |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 25,000 |
| Lot Cover (Primary) | Gravel | 50% |
| Covered Spaces | Yes | Unknown |
| Covered Space Total Area | Sq Ft | Unknown |
| User Fee | No | N/A |

| ***Response Strategies Served:*** |
|---|
| SPR 99.5 |

Last Visited: 09/2009

# Staging Area – Corbin Park SA-SPR 99.5

No Photograph Available




**Site Contact Information**

City of Post Falls
Parks & Recreation: 208-773-0539
Police: 208- 773-3517

**Closest Address**

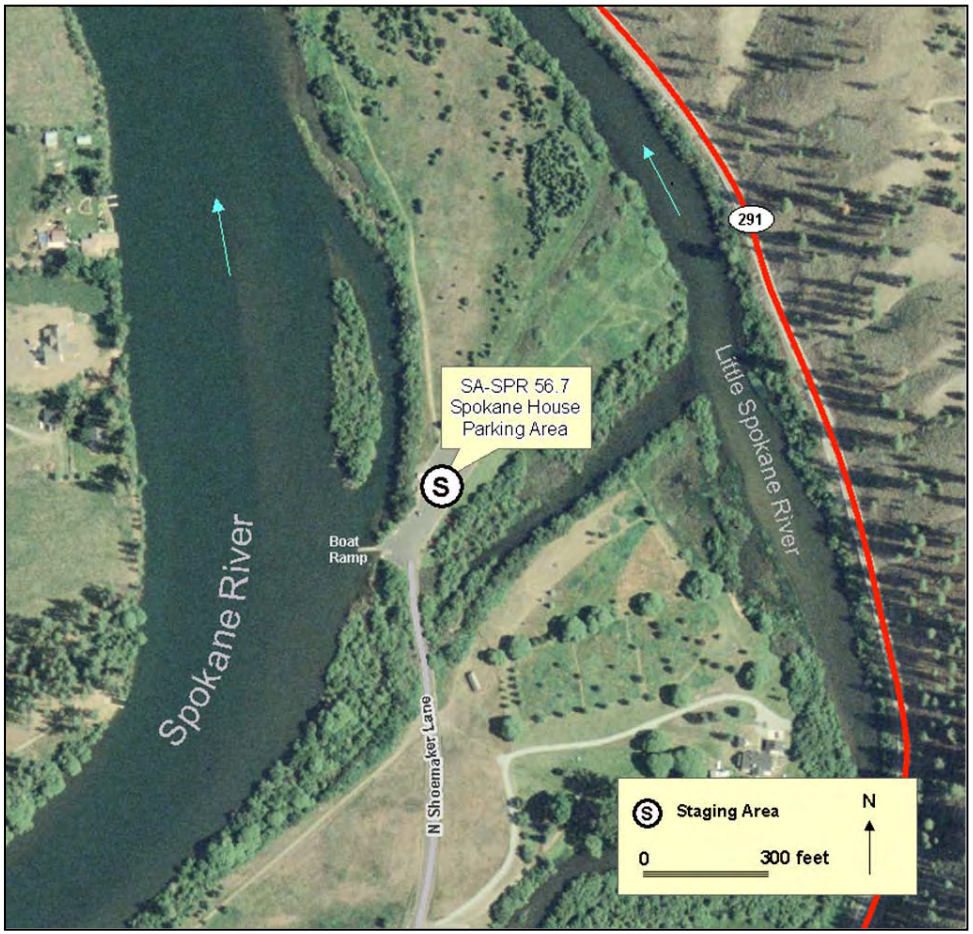
896 S Corbin Road
Post Falls, ID 83854

**Driving Directions**

- Take Exit 2 on Interstate 90 in Post Falls Idaho
- Travel South on Pleasant View Road for approximately 300ft.
- Turn left onto W Railroad Avenue
- After 0.5 Miles turn right onto N Corbin Road
- After 0.2 Miles the road will curve to the right, and then back to the left, becoming S Corbin Road
- The road splits into three after the curves, stay on the center road. Corbin Park is 0.2 Miles ahead.
- Staging Area at pull out on the right of roadway after entering the park, or in parking area.

# Staging Area – Spokane House Parking Area SA-SPR 56.7

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.789111, W 117.531553 |
| ***Comments:*** | Contact Washington State Parks – Riverside Park Manager before staging equipment at the Spokane House Parking Area (**509-465-5064 or 509-290-3239)** |




| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 1 |
| Restrooms | Yes | 1 |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 40,000 |
| Lot Cover (Primary) | Asphalt | 100% |
| Covered Spaces | None | N/A |
| Covered Space Total Area | Sq Ft | N/A |
| User Fee | Unknown | N/A |

***Response Strategies Served:***

| | | |
|---|---|---|
| SPR 56.75 | SPR 56.0 | LSR 0.5 |
| SPR56.7 | SPR 55.5 | LSR 0.75 |
| SPR 56.5 | LSR 0.0 | |

Last Visited: 10/2005

# Staging Area – Spokane House Parking Area SA-SPR 56.7

No Photograph Available

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch
- Stage in Parking Area – Ensure River Side Park Manager has been notified

# Staging Area – Willow Bay Resort SA-SPR 46.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.880438, W 117.657373 |
| ***Comments:*** | Contact Manager of Willow Bay Resort before staging equipment (509-276-2350). This is a private facility - user fees may be required. |

| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 1 |
| Restrooms | Yes | 1 |
| Power | Yes | Unknown |
| Water | Yes | Unknown |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 18,000 |
| Lot Cover (Primary) | Gravel | 90% |
| Covered Spaces | Unknown | N/A |
| Covered Space Total Area | Sq Ft | Unknown |
| User Fee | Yes | Unknown |

| ***Response Strategies Served:*** | | |
|---|---|---|
| SPR 46.0 | SPR 45.5 | SPR 44.5 |

Last Visited: 10/2005

# Staging Area – Willow Bay Resort SA-SPR 46.0

No Photograph Available

**Site Contact Information**

Willow Bay Resort (Private Facility)
Manager: 509-276-2350

**Closest Address**

6607 Corkscrew Highway (Hwy 291)
Loon Lake, WA, 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway
- After 16.8 Miles turn left into Willow Bay Resort
- Stage at Resort, near boat launch if possible, after access granted by facility manager

# Staging Area – Lake Spokane Campground SA-SPR 38.1

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.834491, W 117.759426 |
| ***Comments:*** | Notify Washington Department of Natural Resources for access **(800-562-6010)** |

| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 2 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 1 |
| Restrooms | Unknown | N/A |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | 50+ |
| Parking (Trailer) | Yes | 7 |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 50,000 |
| Lot Cover (Primary) | Asphalt | 100% |
| Covered Spaces | Unknown | N/A |
| Covered Space Total Area | Sq Ft | N/A |
| User Fee | Yes | $30/Year (Pass) |

| ***Response Strategies Served:*** |
|---|
| SPR 34.0 |

Last Visited: Not Visited

# Staging Area – Lake Spokane Campground SA-SPR 38.1

No Photograph Available

**Site Contact Information**

Washington Dept. of Natural Resources
Northeast Region
Ph: 800-562-6010 (24-hour)

**Closest Address**

7530 Hwy 291
Tumtum, WA 99034

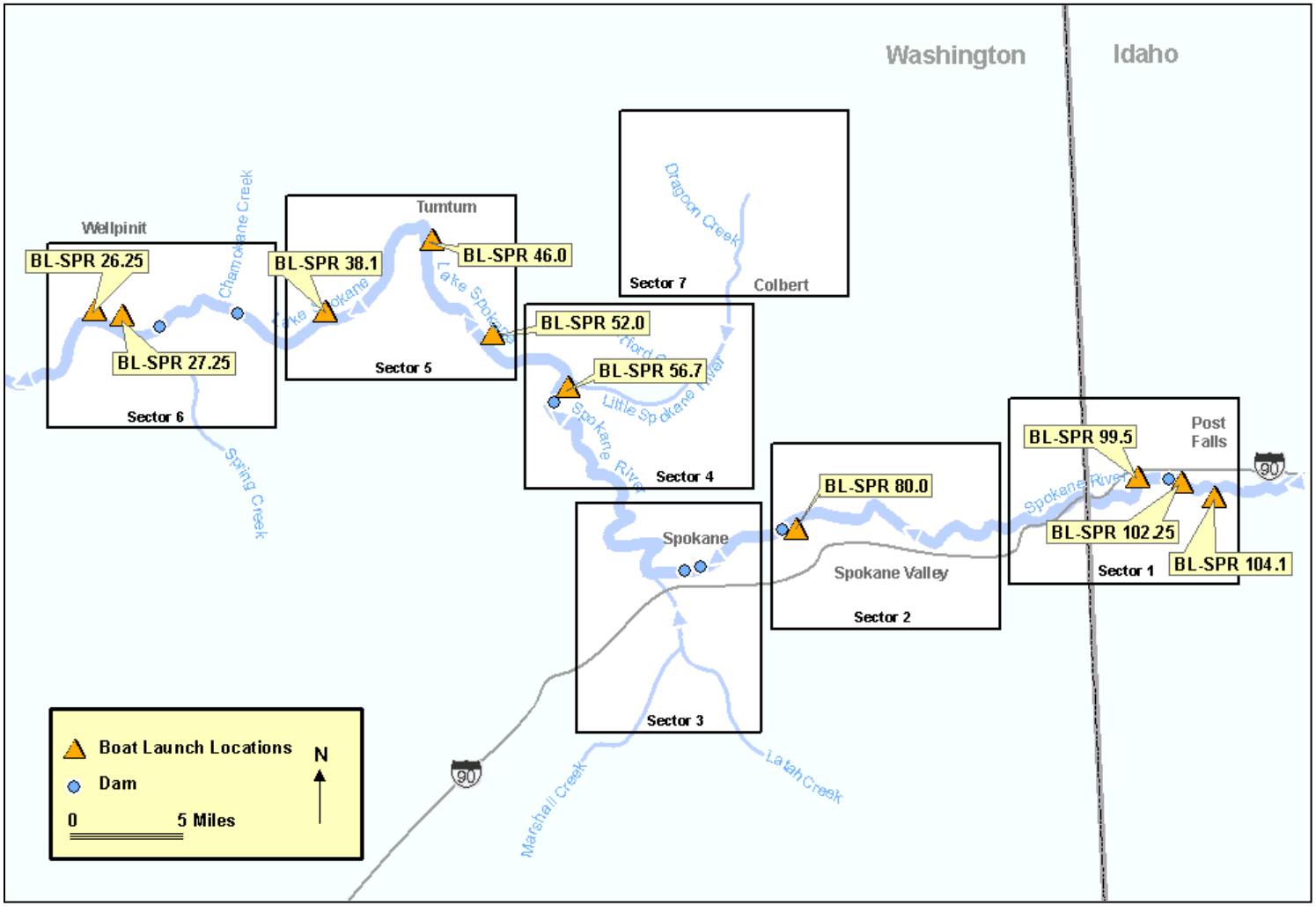
**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway (Hwy 291)
- After 19.1 Miles keep left, staying on Hwy 291
- After 6.2 miles Lake Spokane (Long Lake) Campground will be on your left-hand side. Enter the campground and follow road down towards the boat launch. Stage in parking area.

## Appendix 4C – Boat Launch Locations

The following information provides details on boat launch locations in the Spokane River GRP area. These locations do not include strategy sites where only the use of a hand-launch boat is required. Not all locations are public facilities, therefore early contact with property owners and managers may be needed to minimize access delays and resolve use fee issues.

**Figure 4.5 – Boat Launch Locations for the Spokane River GRP**



| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **BL-SPR 104.1** | Greensferry Boat Launch<br><br>(County) | N 47.692335<br>W 116.918977<br><br>Nearest Address:<br>11179 W Riverview Dr<br>Post Falls, ID 83854<br><br>Contact:<br>Kootenai County Parks, Recreation, and Waterways<br>(208) 446-1000 | Map 1<br>Page 4-19 | Page 4-177 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Gravel<br>Boat Dock - No<br>Restrooms - No<br>Power - No<br>Water - No<br>Parking (Car) – Yes<br>Parking (Trailer) – Yes (limited)<br>Waste Disposal - No<br>Telephones - No<br>Cell Phone Coverage - No<br>Lot Cover (Primary) - Dirt /Gravel<br>User Fee – No | Waters Above Post Falls Dam |
| **BL-SPR 102.25** | Q'emlin Park Boat Launch<br><br>(City Park) | N 47.703535<br>W 116.953062<br><br>Nearest Address:<br>12201 W Parkway Dr<br>Post Falls, ID 83854<br><br>Contact:<br>City of Post Falls Parks & Recreation<br>(208) 773-0539 | Map 1<br>Page 4-19 | Page 4-179 | Boat Ramp - Yes (2)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes (3)<br>Restrooms - Yes<br>Power - Yes<br>Water – Yes<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - No<br>Telephones - No<br>Cell Phone Coverage - Yes<br>Lot Cover (Primary) - Asphalt<br>User Fee – Unknown | Waters Above Post Falls Dam |

## Appendix 4C – Boat Launch Locations

| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **BL-SPR 99.5** | Corbin Park<br>Boat Launch<br><br>(City Park) | N 47.702592<br>W 116.989685<br><br>Nearest Address:<br>896 S Corbin Road<br>Post Falls, ID 83854<br><br>Contact:<br>City of Post Falls<br>Parks & Recreation<br>(208) 773-0539 | Map 1<br>Page 4-19 | Page<br>4-181 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Concrete<br>Boat Dock - No<br>Restrooms - Yes<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) - Yes<br>Parking (Trailer) - Unknown<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) - Gravel<br>User Fee – No | SPR 99.5 |
| **BL-SPR 80.0** | Upriver Dam<br>Boat Launch<br><br>(City) | N 47.684567<br>W 117.328277<br><br>Nearest Address:<br>2810 N Waterworks St<br>Spokane, WA 99212<br><br>Contact:<br>City of Spokane<br>Water Department<br>Upriver Dam<br>Operations<br>(509) 742-8141 | Map 2<br>Page 4-20 | Page<br>4-183 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Gravel<br>Boat Dock - No<br>Restrooms - No<br>Power - No<br>Water - No<br>Parking (Car) – Yes (on dirt road/lot)<br>Parking (Trailer) – Yes (on dirt road)<br>Waste Disposal - No<br>Telephones - No<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) - Dirt<br>User Fee – No | SPR 80.0<br>SPR 81.5 |

## Appendix 4C – Boat Launch Locations

| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **BL-SPR 56.7** | Spokane House Boat Launch<br><br>(State Park) | N 47.789111<br>W 117.531553<br><br>Nearest Address:<br>14400 N Shoemaker Ln<br>Nine Mile Falls, WA 99026<br><br>Contact:<br>Riverside State Park Manager<br>(509) 465-5064<br>(509) 290-3239 | Map 4-A<br>Page 4-24 | Page 4-185 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Yes<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) - Asphalt<br>User Fee – Unknown | SPR 56.75<br>SPR 56.7<br>SPR 56.5<br>SPR 56.0<br>SPR 55.5<br>LSR 0.0 |
| **BL-SPR 52.0** | Suncrest Park Boat Launch<br><br>(Private Facility) | N 47.813657<br>W 117.607508<br><br>Nearest Address:<br>13534 W Shore Road<br>Nine Mile Falls, WA 99026<br><br>Contact:<br>Suncrest Park Directors<br>(509) 466-6839 | Map 5<br>Page 4-25 | Page 4-187 | Boat Ramp - Yes (2)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Unknown<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) – Yes<br>Parking (Trailer) – Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) – Asphalt<br>User Fee – Unknown | SPR 52.0 |

## Appendix 4C – Boat Launch Locations

| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **BL-SPR 46.0** | Willow Bay Resort<br><br>(Private Facility) | N 47.880438<br>W 117.657373<br><br>Nearest Address:<br>6607 Corkscrew Hwy (Hwy 291)<br>Loon Lake, WA, 99026<br><br>Contact:<br>Resort Manager<br>(509) 276-2350 | Map 5<br>Page 4-25 | Page 4-189 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Yes<br>Power - Yes<br>Water - Yes<br>Parking (Car) - Yes<br>Parking (Trailer) - Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) - Gravel<br>User Fee - Yes | SPR 46.0<br>SPR 45.5<br>SPR 44.5 |
| **BL-SPR 38.1** | Lake Spokane Campground Boat Launch<br><br>(WA-DNR) | N 47.834131<br>W 117.760767<br><br>Nearest Address:<br>7530 Hwy 291<br>Tumtum, WA 99034<br><br>Contact:<br>Washington Dept. of Natural Resources Northeast Region | Map 5<br>Page 4-25 | Page 4-191 | Boat Ramp - Yes (2)<br>Boat Ramp Type - Concrete<br>Boat Dock - Yes<br>Restrooms - Unknown<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) – Yes<br>Parking (Trailer) – Yes<br>Waste Disposal - Unknown<br>Telephones - Unknown<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) – Asphalt<br>User Fee – Yes (Discover Pass) | SPR 34.0 |

| Site Number | Site Name | Location Information | Sector Map | Site Details | Facility Information | Strategies Served |
|---|---|---|---|---|---|---|
| **BL-SPR 27.25** | Spokane Tribe Boat Launch<br><br>(Tribal Lands) | N 47.830087<br>W 117.960956<br><br>Nearest Address:<br>Wynecoop-Cayuse Rd<br>Spokane Reservation<br>WA 99122<br><br>Contact:<br>Spokane Tribal Police<br>(509) 258-4569<br>(509) 258-4400 | Map 6<br>Page 4-26 | Page<br>4-193 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Dirt<br>Boat Dock - No<br>Restrooms - No<br>Power - No<br>Water - No<br>Parking (Car) – Yes (on dirt lot)<br>Parking (Trailer) – Yes (on dirt lot)<br>Waste Disposal - No<br>Telephones - No<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) - Dirt<br>User Fee - No | SPR 27.25<br>SPR 26.25<br>SPR 25.5<br>SPR 25.0 |
| **BL-SPR 26.25** | Spokane Tribal Campground Boat Launch<br><br>(Tribal Lands) | N 47.835381<br>W 117.982433<br><br>Nearest Address:<br>Wynecoop-Cayuse Road<br>Spokane Reservation<br>WA 99122<br><br>Contact:<br>Spokane Tribal Police<br>(509) 258-4569<br>(509) 258-4400 | Map 6<br>Page 4-26 | Page<br>4-195 | Boat Ramp - Yes (1)<br>Boat Ramp Type - Dirt<br>Boat Dock – Yes<br>Restrooms - Unknown<br>Power - Unknown<br>Water - Unknown<br>Parking (Car) – Yes (on dirt lot)<br>Parking (Trailer) – Yes (on dirt lot)<br>Waste Disposal - No<br>Telephones - No<br>Cell Phone Coverage - Unknown<br>Lot Cover (Primary) - Dirt<br>User Fee – No | SPR 27.25<br>SPR 26.25<br>SPR 25.5<br>SPR 25.0 |

# Boat Launch Location – Greensferry Public Boat Launch BL-SPR 104.1

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.692335, W 116.918977 |
| ***Comments:*** | Contact Kootenai County Parks, Recreation, and Waterways for access **(208-446-1000)**<br>Waterway at this location is **VERY SHALLOW** – May be useful only during periods of high water. |

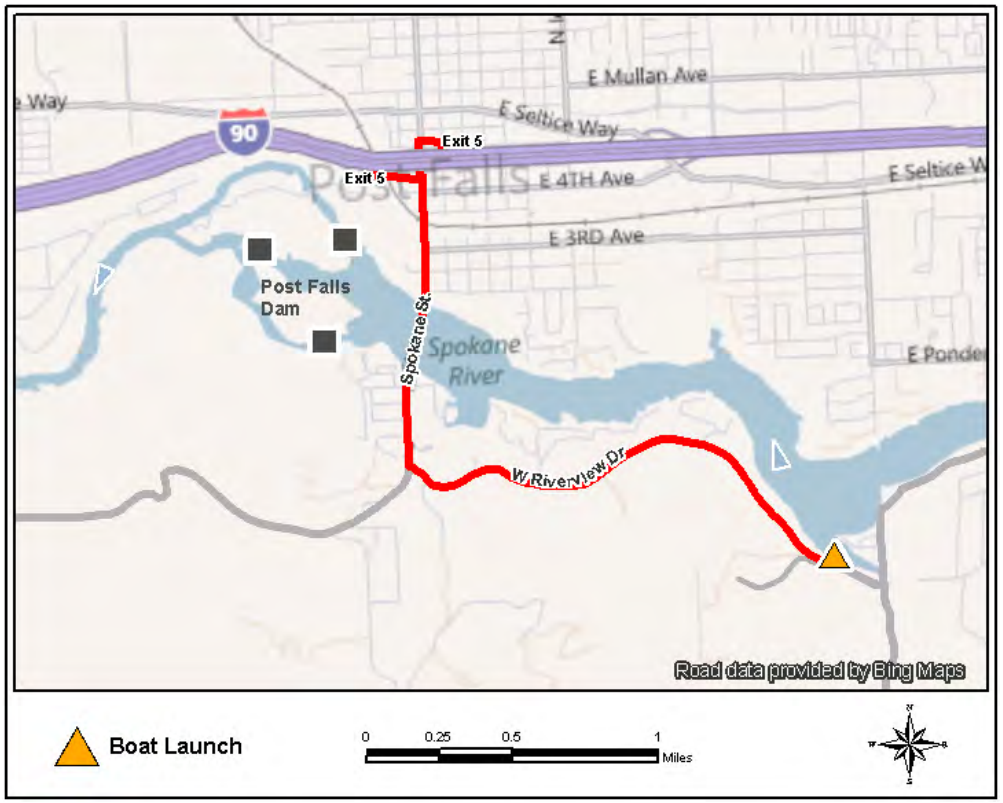
| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Gravel | N/A |
| Boat Dock? | No | N/A |
| Restrooms | No | N/A |
| Power | No | N/A |
| Water | No | N/A |
| Parking (Car) | Yes | 4 |
| Parking (Trailer) | Yes | 2 (limited) |
| Waste Disposal | No | N/A |
| Telephones | No | N/A |
| Cell Phone Coverage | No | N/A |
| Estimated Lot Size | Sq Ft | 21,780 |
| Lot Cover (Primary) | Dirt/Gravel | 100% |
| User Fee | No | N/A |

| ***Response Strategies Served:*** |
|---|
| |

Last Visited: 05/2011

# Boat Launch Location – Greensferry Public Boat Launch BL-SPR 104.1

**BL-SPR 104.1 Photo:** At Greensferry Public Boat Launch, looking Northeast towards boat ramp at end of gravel lot.




**Site Contact Information**

Kootenai County Parks, Recreation, and Waterways
Ph: 208-446-1000

**Closest Address**

11179 W Riverview Drive
Post Falls, ID 83854

**Driving Directions**

- Take Exit 5 on Interstate 90 in Post Falls, ID
- Travel South on N Spokane Street for 1.0 Mile (becomes S Spokane Street after bridge)
- Turn left onto W Riverview Drive and travel East for 1.7 Miles
- Turn left into Greens Ferry Public Launch area, located across street from intersection of W Riverview Drive and W Bel Air Road

# Boat Launch Location – Q'emlin Park BL-SPR 102.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.703535, W 116.953062 |
| ***Comments:*** | Notify City of Post Falls Parks Department for access (**208-773-0539**) |

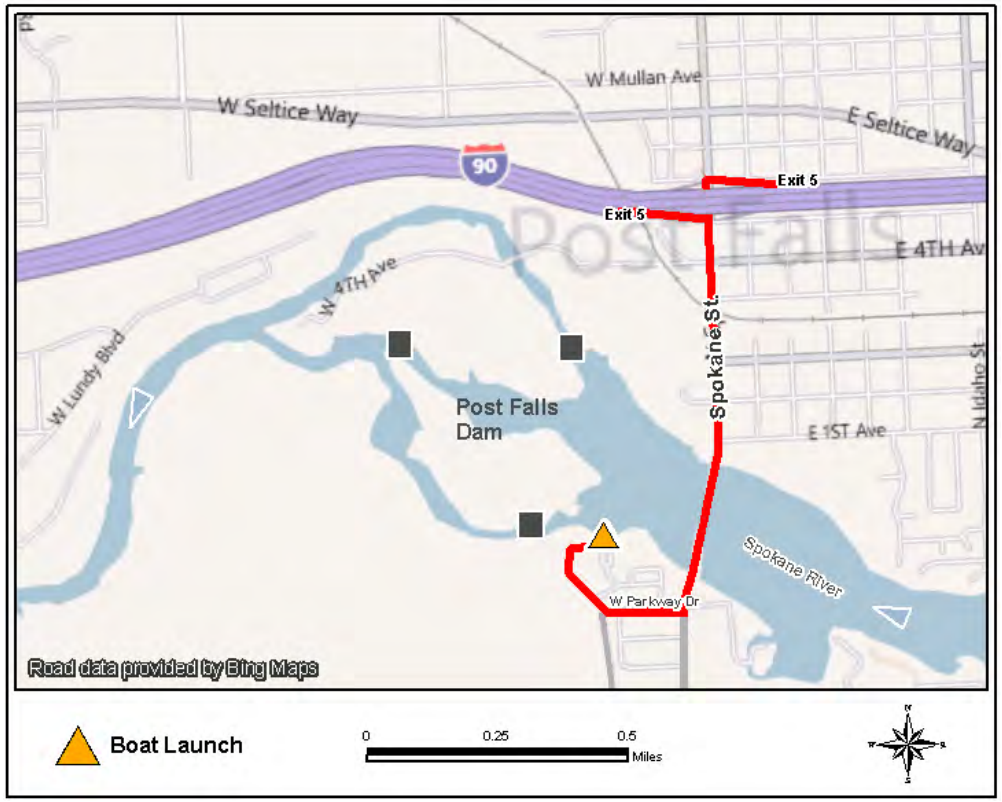
| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 2 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 3 |
| Restrooms | Yes | Unknown |
| Power | Yes | Unknown |
| Water | Yes | Unknown |
| Parking (Car) | Yes | 40 |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | No | N/A |
| Telephones | No | N/A |
| Cell Phone Coverage | Yes | Unknown |
| Estimated Lot Size | Sq Ft | 217,800 |
| Lot Cover (Primary) | Asphalt | 50% |
| User Fee | Unknown | N/A |

| ***Response Strategies Served:*** |
|---|
| |

Last Visited: 05/2011

# Boat Launch Location – Q'emlin Park BL-SPR 102.25

**BL-SPR 102.25 Photo:** At Q'emlin Park boat launch, looking North towards boat ramps, docks, and the Spokane River.




**Site Contact Information**

City of Post Falls
Parks & Recreation: 208-773-0539
Police: 208- 773-3517

**Closest Address**

12201 W Parkway Drive
Post Falls, ID 83854

**Driving Directions**

- Take Exit 5 on Interstate 90 in Post Falls, ID
- Travel South on N Spokane Street for 0.8 Miles (becomes S Spokane Street after bridge)
- Turn right onto W Parkway Drive and travel West for 0.2 Miles
- Park entrance will be on right. Follow road through parking area; boat launch will be on left after curve to the right at end of parking lot.

# Boat Launch Location – Corbin Park BL-SPR 99.5

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.702592, W 116.989685 |
| ***Comments:*** | Notify City of Post Falls Parks Department for access (**208-773-0539**); road in Corbin Park to boat ramp may be closed certain times of the winter due to icy conditions. |

| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Concrete | 1 |
| Boat Dock? | No | N/A |
| Restrooms | Yes | Unknown |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Unknown | N/A |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 25,000 |
| Lot Cover (Primary) | Gravel | 50% |
| User Fee | No | N/A |

| ***Response Strategies Served:*** |
|---|
| SPR 99.5 |

Last Visited: 09/2009

# Boat Launch Location – Corbin Park BL-SPR 99.5

No Photograph Available

**Site Contact Information**

City of Post Falls

Parks & Recreation: 208-773-0539

Police: 208- 773-3517

**Closest Address**

896 S Corbin Road

Post Falls, ID 83854

**Driving Directions**

- Take Exit 2 on Interstate 90 in Post Falls Idaho
- Travel South on Pleasant View Road for approximately 300ft.
- Turn left onto W Railroad Avenue
- After 0.5 Miles turn right onto N Corbin Road
- After 0.2 Miles the road will curve to the right, and then back to the left, becoming S Corbin Road
- The road splits into three after the curves, stay on the center road. Corbin Park is 0.2 Miles ahead.
- Staging Area at pull out on the right of roadway after entering the park, or in parking area.

# Boat Launch Location – Upriver Dam BL-SPR 80.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.684567, W 117.328277 |
| ***Comments:*** | Contact City of Spokane Water Department Upriver Dam Operations for access **(509-742-8141)** |

| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Gravel | N/A |
| Boat Dock? | No | N/A |
| Restrooms | No | N/A |
| Power | No | N/A |
| Water | No | N/A |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | No | N/A |
| Telephones | No | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 9,500 |
| Lot Cover (Primary) | Dirt/Gravel | 100% |
| User Fee | No | N/A |

| ***Response Strategies Served:*** | |
|---|---|
| SPR 80.0 | SPR 81.5 |

Last Visited: 11/2009

# Boat Launch Location – Upriver Dam BL-SPR 80.0

No Photograph Available

**Site Contact Information**

City of Spokane Water Department
Upriver Dam Operations
Ph: 509-742-8141

**Closest Address**

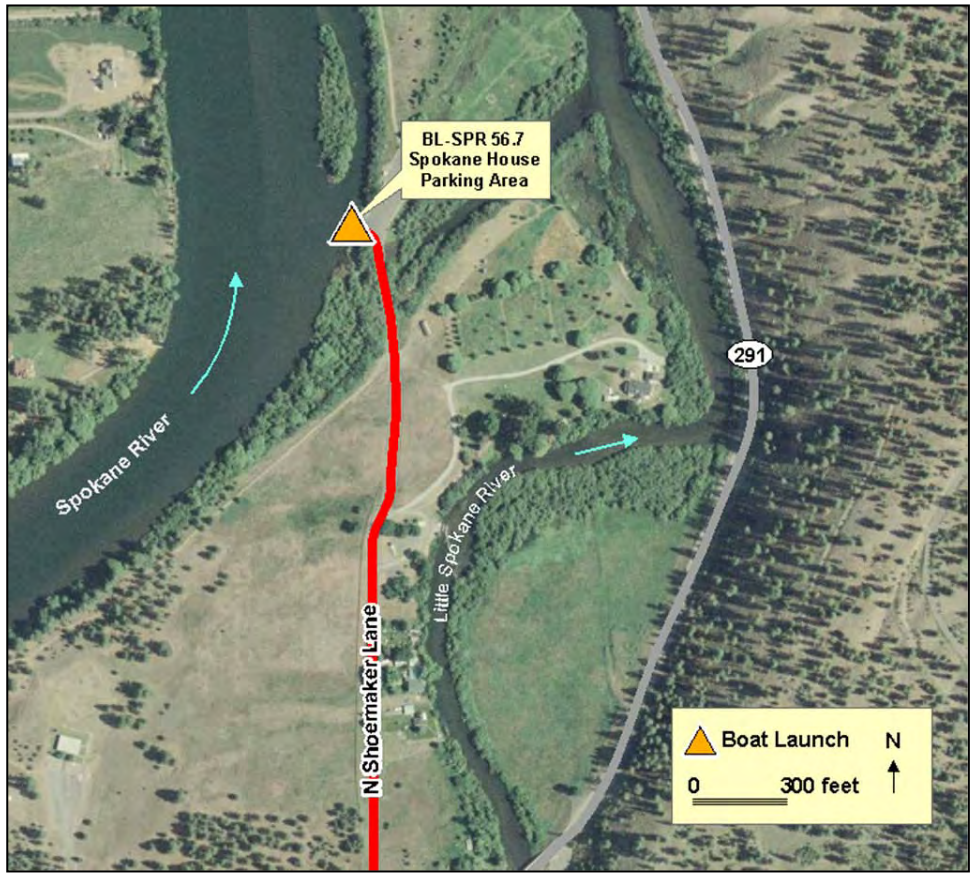
2810 N Waterworks Street
Spokane, WA 99212

**Driving Directions**

- Take Exit 286 on Interstate 90 in Spokane, WA
- Travel West on E Broadway Avenue for approximately 0.6 Miles
- Turn right onto N Fancher Road and travel North for 0.8 Miles
- Turn left onto E Trent Avenue, and travel West for 0.7 Miles
- Turn (sharp) right onto N Waterworks Street and travel Northwest for 0.7 Miles
- Turn left onto Felts Field – stay to the right – and pass over waterway at power generation station
- Follow road to boat ramp, 1000ft after power generation station

# Boat Launch Location – Spokane House BL-SPR 56.7

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.789111, W 117.531553 |
| ***Comments:*** | Contact Washington State Parks – Riverside Park Manager for access **(509-465-5064 or 509-290-3239)** |




| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 1 |
| Restrooms | Yes | 1 |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 40,000 |
| Lot Cover (Primary) | Asphalt | 100% |
| User Fee | No | N/A |

| ***Response Strategies Served:*** | | |
|---|---|---|
| SPR 56.75 | SPR 56.7 | SPR 56.5 |
| SPR 56.0 | SPR 55.5 | LSR 0.0 |

Last Visited: 10/2005

# Boat Launch Location – Spokane House BL-SPR 56.7

No Photograph Available

**Site Contact Information**

Washington State Parks
Riverside Park: (509) 465-5064
Park Manager: (509) 290-3239

**Closest Address**

14400 N Shoemaker Lane
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 6.8 Miles turn left onto N Shoemaker Lane
- After 0.4 Miles you have reached the Spokane House Boat Launch

# Boat Launch Location – Suncrest Park BL-SPR 52.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.813657, W 117.607508 |
| ***Comments:*** | Private Facility - Must notify and make arrangements with Suncrest Park Directors before use **(509-466-6839)** |

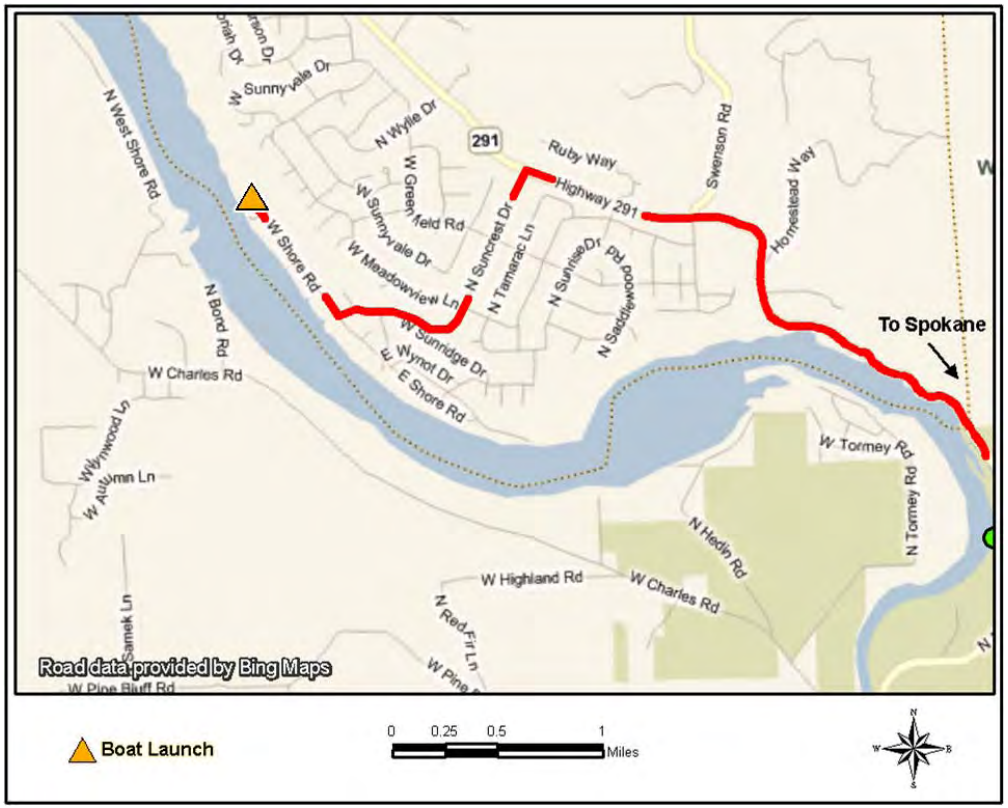
| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 2 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 2 |
| Restrooms | Unknown | N/A |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 60,000 |
| Lot Cover (Primary) | Asphalt | 100% |
| User Fee | Unknown | Private Facility |

| ***Response Strategies Served:*** |
|---|
| SPR 52.0 |

Last Visited: 10/2005

# Boat Launch Location – Suncrest Park BL-SPR 52.0

No Photograph Available




**Site Contact Information**

Suncrest Park (Private Park)
Park Directors: 509-466-6839
ContactUs@SuncrestPark.com

**Closest Address**

13534 W Shore Road
Nine Mile Falls, WA 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291)
- After 10.7 Miles turn left onto N Suncrest Drive
- After 1.4 Miles turn right onto N Shore Road
- After 0.6 Miles at the end of the road, you have reached Suncrest Park (Private Park)

# Boat Launch Location – Willow Bay Resort BL-SPR 46.0

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.880438, W 117.657373 |
| ***Comments:*** | Private Facility - Must notify & make arrangements with Willow Bay Resort Mgr before use **(509-276-2350)**<br>Use Charge/Fee required. Fuel may be available |

| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 2 |
| Restrooms | Yes | 1 |
| Power | Yes | Unknown |
| Water | Yes | Unknown |
| Parking (Car) | Yes | Unknown |
| Parking (Trailer) | Yes | Unknown |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 11,000 |
| Lot Cover (Primary) | Dirt/Gravel | 100% |
| User Fee | Yes | Unknown |

| ***Response Strategies Served:*** | | |
|---|---|---|
| SPR 46.0 | SPR 45.5 | SPR 44.5 |

Last Visited: 10/2005

# Boat Launch Location – Willow Bay Resort BL-SPR 46.0

No Photograph Available

**Site Contact Information**

Willow Bay Resort (Private Facility)
Manager: 509-276-2350

**Closest Address**

6607 Corkscrew Highway (Hwy 291)
Loon Lake, WA, 99026

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway
- After 16.8 Miles turn left into Willow Bay Resort

# Boat Launch Location – Lake Spokane Campground BL-SPR 38.1

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.834131, W 117.760767 |
| ***Comments:*** | Notify Washington Department of Natural Resources for access **(800-562-6010)** |

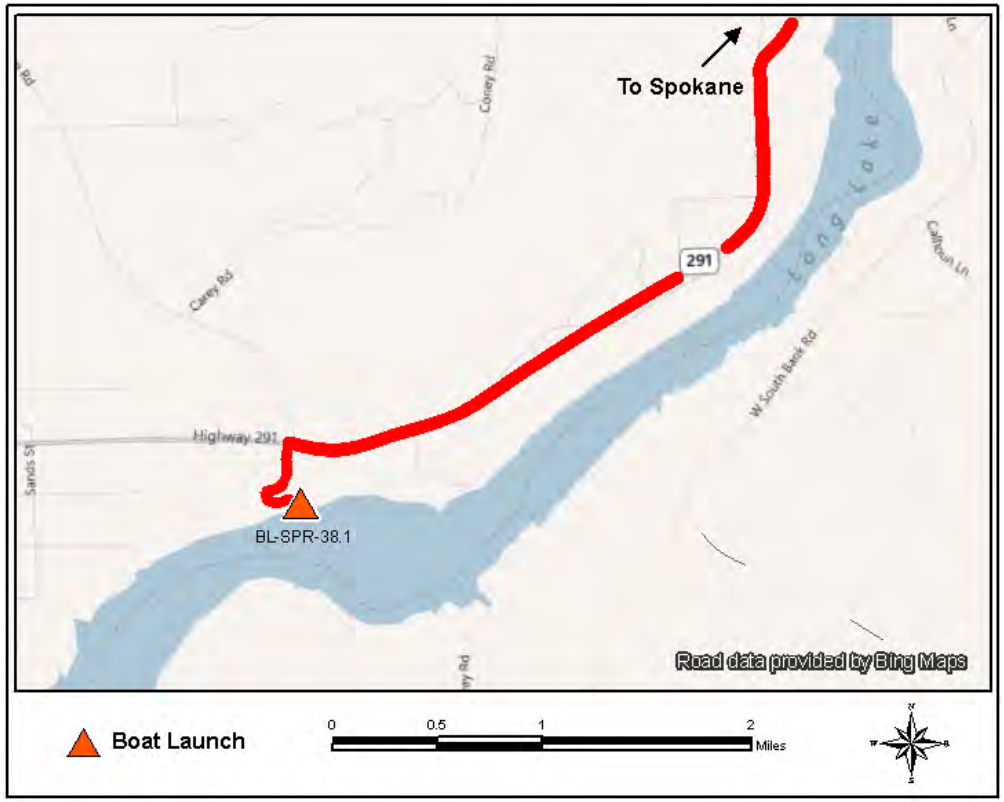
| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 2 |
| Boat Ramp Type | Concrete | N/A |
| Boat Dock? | Yes | 1 |
| Restrooms | Unknown | N/A |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | 50+ |
| Parking (Trailer) | Yes | 7 |
| Waste Disposal | Unknown | N/A |
| Telephones | Unknown | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 50,000 |
| Lot Cover (Primary) | Asphalt | 100% |
| User Fee | Yes | $30/Year (Pass) |

| ***Response Strategies Served:*** |
|---|
| SPR 34.0 |

Last Visited: Not Visited

# Boat Launch Location – Lake Spokane Campground BL-SPR 38.1

No Photograph Available




**Site Contact Information**

Washington Dept. of Natural Resources
Northeast Region
Ph: 800-562-6010 (24-hour)

**Closest Address**

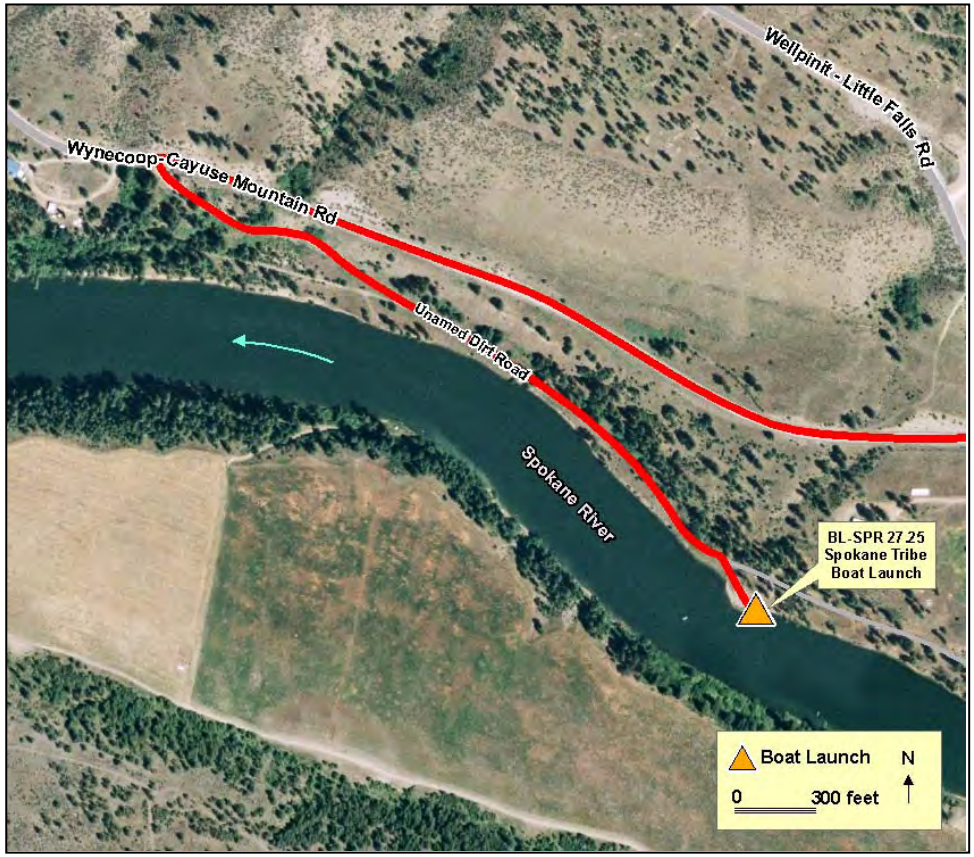
7530 Hwy 291
Tumtum, WA 99034

**Driving Directions**

- Take Exit 281 on Interstate 90 in Spokane
- Travel North on Division Street (Hwy 2/Hwy 395) - **(Note 13'3" Height Restriction)**
- After approximately 4.4 Miles turn left onto W Francis Avenue (Hwy 291)
- After 3.1 Miles stay right onto W 9 Mile Road (Hwy 291) - becomes Corkscrew Highway (Hwy 291)
- After 19.1 Miles keep left, staying on Hwy 291
- After 6.2 miles Lake Spokane (Long Lake) Campground will be on your left-hand side. Enter the campground and follow road down to the boat ramp

# Boat Launch Location – Spokane Tribe BL-SPR 27.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.830087, W 117.960956 |
| ***Comments:*** | Notify the Spokane Tribe before accessing boat launch **(Spokane Tribal Police: 509-258-4569).** |




| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Dirt | N/A |
| Boat Dock? | No | N/A |
| Restrooms | No | N/A |
| Power | No | N/A |
| Water | No | N/A |
| Parking (Car) | Yes | Dirt Lot |
| Parking (Trailer) | Yes | Dirt Lot |
| Waste Disposal | No | N/A |
| Telephones | No | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 4,000 |
| Lot Cover (Primary) | Dirt | 100% |
| User Fee | No | N/A |

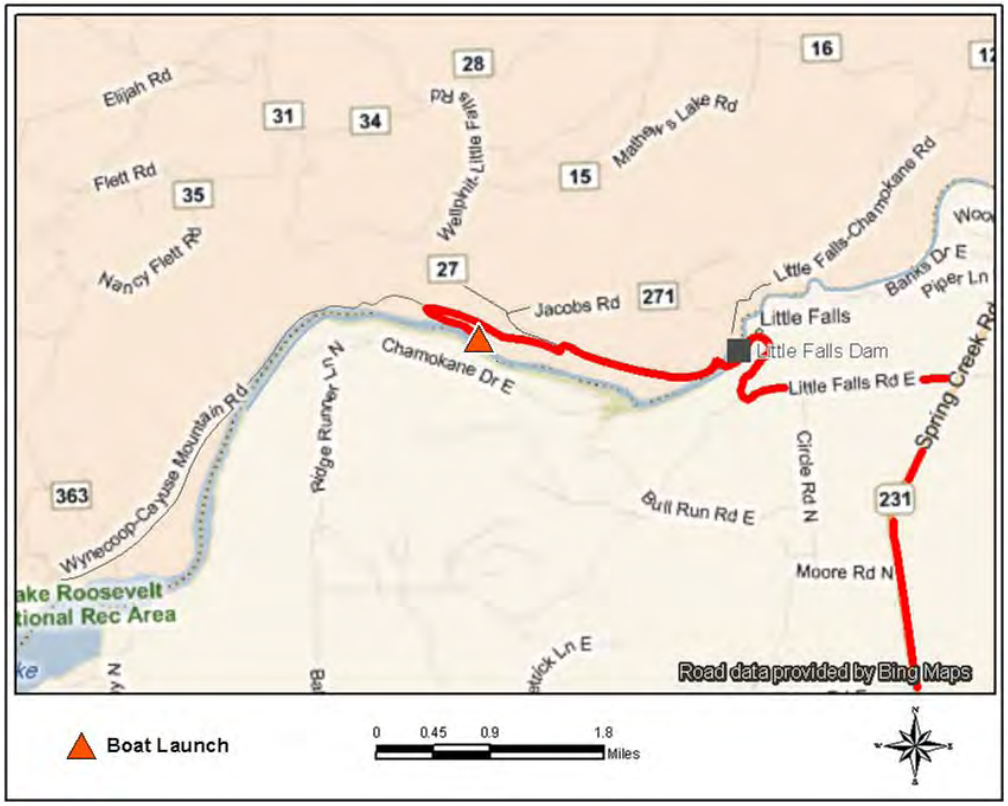
***Response Strategies Served:***

SPR 27.25 SPR 26.25 SPR 25.5
SPR 25.0

Last Visited: 10/2005

# Boat Launch Location – Spokane Tribe BL-SPR 27.25

**SPR 27.25 Photo:** On Spokane River looking at strategy location on river right and dirt boat ramp.




**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

**Closest Address**

Wynecoop-Cayuse Road

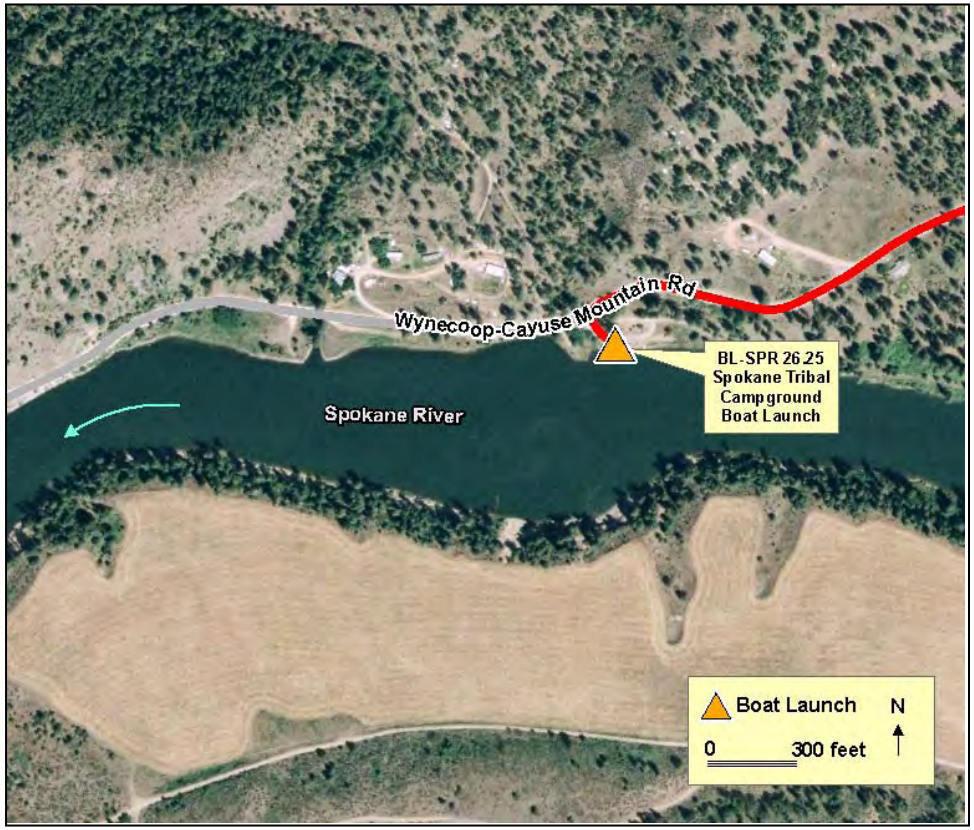
Spokane Reservation, WA 99122

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 11.6 Miles
- Turn left onto Little Falls Road
- After 2.7 Miles road ends (Little Falls Dam). Turn left onto Wellpinit-Little Falls Road (BIA Hwy 27)
- After 1.3 Miles, turn left onto Wynecoop-Cayuse Road (BIA Hwy 36)
- After 1.1 Miles, turn left (very sharp turn) onto dirt road heading upstream along Spokane River
- Boat launch is about ½ Mile ahead

# Boat Launch Location – Spokane Tribal Campground BL-SPR 26.25

| | |
|---|---|
| ***Site Lat/Long:*** | N 47.835381, W 117.982433 |
| ***Comments:*** | Notify the Spokane Tribe before accessing boat launch **(Spokane Tribal Police: 509-258-4569).** |




| ***Location Information*** | | |
|---|---|---|
| Asset | Type /Status | Amount |
| Boat Ramp | Yes | 1 |
| Boat Ramp Type | Dirt | N/A |
| Boat Dock? | Yes | 1 |
| Restrooms | Unknown | N/A |
| Power | Unknown | N/A |
| Water | Unknown | N/A |
| Parking (Car) | Yes | Dirt Lot |
| Parking (Trailer) | Yes | Dirt Lot |
| Waste Disposal | No | N/A |
| Telephones | No | N/A |
| Cell Phone Coverage | Unknown | N/A |
| Estimated Lot Size | Sq Ft | 4,000 |
| Lot Cover (Primary) | Dirt | 100% |
| User Fee | No | N/A |

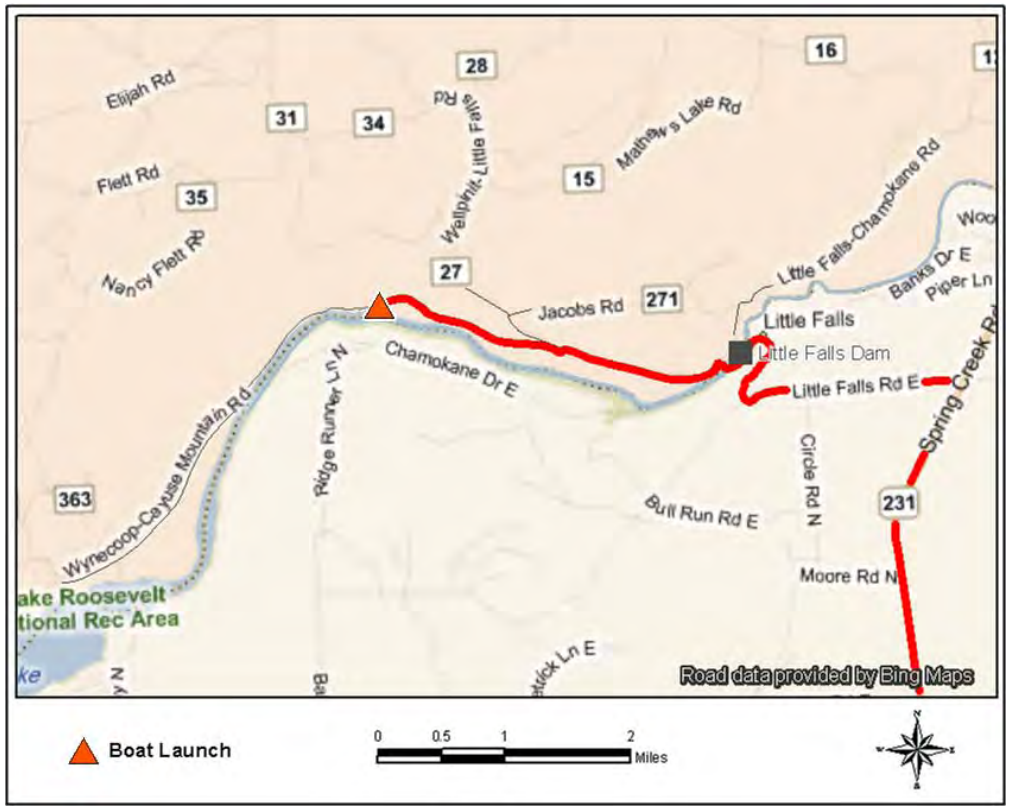
***Response Strategies Served:***

SPR 27.25 SPR 26.25 SPR 25.5
SPR 25.0

Last Visited: 11/2009

# Boat Launch Location – Spokane Tribal Campground BL-SPR 26.25

No Photograph Available




**Site Contact Information**

Spokane Tribe of Indians

**Police: 509-258-4569** or 258-4400

Natural Resources: 509-626-4400

Historic Preservation: 509-258-4060

**Closest Address**

Wynecoop-Cayuse Road

Spokane Reservation, WA 99122

**Driving Directions**

- Take Highway 2 to Reardon, WA
- Head North on Highway 231 for 11.6 Miles
- Turn left onto Little Falls Road
- After 2.7 Miles road ends (Little Falls Dam). Turn left onto Wellpinit-Little Falls Road (BIA Hwy 27)
- After 1.3 Miles, turn left onto Wynecoop-Cayuse Road (BIA Hwy 36)
- After 1.7 Miles, turn left into pull out leading to Spokane Tribe Campground
- Follow dirt road/path from pull out to dirt boat ramp

# Spokane River
# Geographic Response Plan

## Chapter 5 – Shoreline Countermeasures

### 5.1 - Chapter Overview

This Chapter is intended to serve as a tool for countermeasure contingency planning and implementation for shorelines within the Spokane River GRP area. Shoreline countermeasure processes evolve to reflect increasingly efficient treatment techniques. Accordingly, the following information may change as new information is developed. At this time, complete shoreline-type mapping has not been performed for the Spokane River system. Until this effort is undertaken, photographs representing example shoreline types in the geographic area are provided on the following pages. These shoreline types can be matched with the shoreline countermeasures matrices in section 5.3.1 to help determine what response cleanup action is appropriate for the type of oil spilled.

### 5.2 - Shoreline Type Photos

Photographs of typical shorelines found in the Spokane River GRP area are contained in Section 5.3 of this Chapter. A full list of shoreline types can be found within the tables in Section 5.3.1. Additional information on shoreline type classifications can be found in the Shoreline Assessment Job Aid available as a publication on National Oceanographic and Atmospheric Administration's web site at http://response.restoration.noaa.gov.

### 5.3 - Oil Countermeasure Matrix

Shoreline countermeasures after an incident are a critical element in determining the environmental impact, injury, and damages from spilled oil. Local response organizations and agencies have developed mechanisms for identifying shorelines requiring treatment, establishing treatment priorities, monitoring the effectiveness and impacts of treatment, and for resolving problems as the treatment progresses. Ultimately, the Northwest Area Committee will develop a manual and a series of matrices as tools for shoreline countermeasures in the Pacific Northwest. The Northwest Area Shoreline Countermeasures Manual and Matrices will be included as a technical appendix to the Northwest Area Contingency Plan (Section 9640).

The Northwest Area Contingency Plan can be obtained electronically from the RRT/NWAC web site at http://www.rrt10nwac.com.

Each section of the shoreline countermeasures manual will be adapted to the specific environments, priorities, and treatment methods appropriate to the planning area. These elements will provide the information needed to select cleanup methods for specific combinations of shoreline and oil types.

**Shoreline Type 1:** Exposed rock shores and vertical, hard man-made structures

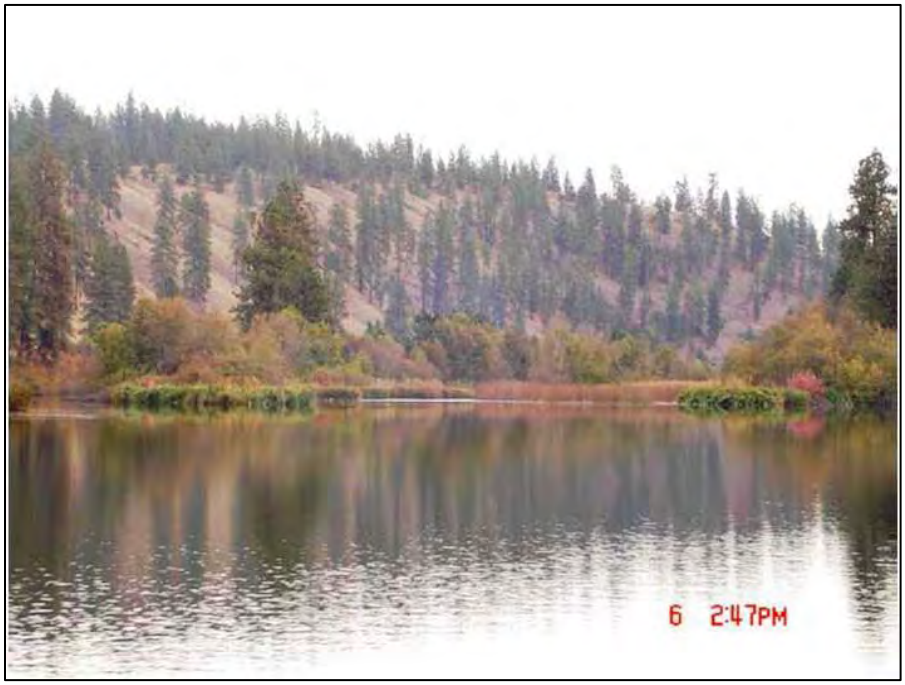
**Shoreline Type 3:** Fine to medium grained sand beaches and steep unvegetated river banks

**Shoreline Type 6B:** Gravel beaches – cobble beaches.

**Shoreline Type 8A:** Sheltered vertical rock shores and vertical, hard man-made structures (i.e. docks, bulkheads)

**Shoreline Type 9B:** Sheltered vegetated low bank

**Shoreline Type 10:** Marshes



### 5.3.1 - Shoreline Countermeasures Matrices: Table 5-1

# Very Light Oils

**Jet fuels, Gasoline**

- Highly volatile (should all evaporate within 1-2 days)
- High concentration of toxic (soluble) compounds
- Localized, severe impacts to water column and shoreline resources
- Duration of impact is a function of the resource recovery rate
- No dispersion necessary

**This countermeasure advisability matrix is only a general guide for removal of oil from shoreline substrates. It must be used in conjunction with the entire Shoreline Countermeasures Manual in the NW Area Contingency Plan plus field observations and scientific advice. The counter- measures listed are not necessarily the best under all circumstances, and any listed technique may need to be used in conjunction with other techniques (including ones not listed herein). The Federal On-Scene Coordinator (FOSC), or the state OSC operating with the FOSC's authorization, has the responsibility for and the authority to determine which counter- measure(s) are appropriate for various situations encountered. Selection of countermeasures is based on the degree of oil contamination, shoreline type, and the presence of sensitive resources.**

**Shoreline Type Codes**

**1** - Exposed rock shores and vertical, hard man-made structures
**2** - Exposed wave-cut platforms
**3** - Fine to medium grained sand beaches and steep unvegetated banks
**4** - Course grained sand beaches
**5** - Mixed sand and gravel beaches, including artificial fill containing a range of grain size and material
**6A** - Gravel beaches - pebbles to cobble
**6B** - Gravel beaches - cobbles to boulders
**6C** - Exposed rip rap
**7** - Exposed tidal flat
**8A** - Sheltered vertical rock shores and vertical, river hard man-made structures (docks, bulkheads)
**8B** - Sheltered rubble slope
**9A** - Sheltered sand and mud flats
**9B** - Sheltered vegetated low bank
**10** – Marshes

**(See Matrix on Next Page)**

| Countermeasures for Very Light Oils | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Shoreline Type** → | **1** | **2** | **3** | **4** | **5** | **6A** | **6B** | **6C** | **7** | **8A** | **8B** | **9A** | **9B** | **10** |
| **CONVENTIONAL METHODS** | | | | | | | | | | | | | | |
| No action | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| Manual removal of oil | | | | | | | | | | | | | | |
| Passive collection of oil | | | C | C | C | C | C | C | | | | | | |
| Oiled debris removal | C | C | C | C | C | C | C | C | C | C | C | C | C | C |
| Trenching/recovery wells | | | C | C | C | | | | | | | | | |
| Oiled sediment removal | | | | | | | | | | | | | | |
| Ambient water flooding (deluge) | | | | | | | | | | | | | | C |
| Ambient water flush <50 psi | | | | | | | | | | | | | | |
| Ambient water flush <100 psi | | | | | | | | | | | | | | |
| Warm water flush <90°F | | | | | | | | | | | | | | |
| Hot water flush >90°F | | | | | | | | | | | | | | |
| Vacuum removal of oil | | | | | | | | | | | | | | |
| Sediment reworking | | | C | C | C | C | | | | | | | | |
| Sediment Removal - cleaning - replacement | | | | | | | | | | | | | | |
| Cutting oiled vegetation | | | | | | | | | | | | | | |
| **ALTERNATIVE METHODS*** | | | | | | | | | | | | | | |
| In-situ burning on shore | | | | | | | | | | | | | | |
| Chemical stabilization, protection, or cleaning | | | | | | | | | | | | | | |
| Nutrient enhancement | | | | | | | | | | | | | | |
| Microbial addition | | | | | | | | | | | | | | |

**R =** Recommend (May be Preferred Alternative)
**C =** Conditional (Refer to NW Shoreline Countermeasures Manual)
Items not marked "R" or "C" are not applicable or not generally recommended
Labels marked * require you to follow approved process defined in National Contingency Plan (NCP) and NW Area Contingency Plan
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**5.3.1 - Shoreline Countermeasures Matrices: Table 5-2**

# Light Oils

**Diesel, No. 2 Fuel Oils, Light Crude Oils**

- Moderately volatile; will leave residue (up to 1/3 of spilled amount)
- Moderate concentrations of toxic (soluble) compounds
- Long-term contamination of intertidal resources possible
- Potential for subtidal impacts (dissolution, mixing, sorption onto suspended sediments)
- No dispersion necessary
- Cleanup can be very effective

**This countermeasure advisability matrix is only a general guide for removal of oil from shoreline substrates. It must be used in conjunction with the entire Shoreline Countermeasures Manual in the NW Area Contingency Plan plus field observations and scientific advice. The counter- measures listed are not necessarily the best under all circumstances, and any listed technique may need to be used in conjunction with other techniques (including ones not listed herein). The Federal On-Scene Coordinator (FOSC), or the state OSC operating with the FOSC's authorization, has the responsibility for and the authority to determine which counter- measure(s) are appropriate for various situations encountered. Selection of countermeasures is based on the degree of oil contamination, shoreline type, and the presence of sensitive resources.**

**Shoreline Type Codes**

**1** - Exposed rock shores and vertical, hard man-made structures
**2** - Exposed wave-cut platforms
**3** - Fine to medium grained sand beaches and steep unvegetated banks
**4** - Course grained sand beaches
**5** - Mixed sand and gravel beaches, including artificial fill containing a range of grain size and material
**6A** - Gravel beaches - pebbles to cobble
**6B** - Gravel beaches - cobbles to boulders
**6C** - Exposed rip rap
**7** - Exposed tidal flat
**8A** - Sheltered vertical rock shores and vertical, river hard man-made structures (docks, bulkheads)
**8B** - Sheltered rubble slope
**9A** - Sheltered sand and mud flats
**9B** - Sheltered vegetated low bank
**10** – Marshes

**(See Matrix on Next Page)**

| Countermeasures for Light Oils | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Shoreline Type** → | **1** | **2** | **3** | **4** | **5** | **6A** | **6B** | **6C** | **7** | **8A** | **8B** | **9A** | **9B** | **10** |
| **CONVENTIONAL METHODS** | | | | | | | | | | | | | | |
| No action | R | R | C | C | C | C | C | C | R | C | C | R | C | R |
| Manual removal of oil | | | C | C | C | C | C | C | | R | R | | C | |
| Passive collection of oil | C | R | R | R | R | R | R | R | C | R | R | C | R | R |
| Oiled debris removal | C | C | R | R | R | R | R | R | C | R | R | C | C | C |
| Trenching/recovery wells | | | C | C | C | | | | | | | | | |
| Oiled sediment removal | | | C | C | C | C | | | | | | | | |
| Ambient water flooding (deluge) | | | C | C | C | R | R | R | | | C | | | C |
| Ambient water flush <50 psi | | C | | | C | C | C | C | | R | C | | | C |
| Ambient water flush <100 psi | | | | | | | | | | | | | | |
| Warm water flush <90°F | | | | | | | | | | | | | | |
| Hot water flush >90°F | | | | | | | | | | | | | | |
| Vacuum removal of oil | | | | | | | C | C | | | | | | C |
| Sediment reworking | | | C | C | C | C | | | | | | | | |
| Sediment Removal - cleaning - replacement | | | C | C | C | | | | | | | | | |
| Cutting oiled vegetation | | | | | | | C | C | | C | C | | C | C |
| **ALTERNATIVE METHODS*** | | | | | | | | | | | | | | |
| In-situ burning on shore | | | | | | | | | | | | | | |
| Chemical stabilization, protection, or cleaning | | | | | | | | | | | | | | |
| Nutrient enhancement | | | C | C | C | C | C | C | | | | | | C |
| Microbial addition | | | | | | | | | | | | | | |

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**5.3.1 - Shoreline Countermeasures Matrices: Table 5-3**

# Medium Oils

**Most Crude Oils & Some Heavily Weathered Light Crude Oils**

- About 1/3 will evaporate within 24 hours
- Maximum water-soluble fraction is 10-100 parts per million (ppm)
- Oil contamination of intertidal areas can be severe and long-term
- Impact to waterfowl and fur-bearing mammals can be severe
- Chemical dispersion is an option within 1-2 days
- Cleanup most effective if conducted quickly

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**Shoreline Type Codes**

**1** - Exposed rock shores and vertical, hard man-made structures
**2** - Exposed wave-cut platforms
**3** - Fine to medium grained sand beaches and steep unvegetated banks
**4** - Course grained sand beaches
**5** - Mixed sand and gravel beaches, including artificial fill containing a range of grain size and material
**6A** - Gravel beaches - pebbles to cobble
**6B** - Gravel beaches - cobbles to boulders
**6C** - Exposed rip rap
**7** - Exposed tidal flat
**8A** - Sheltered vertical rock shores and vertical, river hard man-made structures (docks, bulkheads)
**8B** - Sheltered rubble slope
**9A** - Sheltered sand and mud flats
**9B** - Sheltered vegetated low bank
**10** – Marshes

**(See Matrix on Next Page)**

## Countermeasures for Medium Oils

| Shoreline Type → | 1 | 2 | 3 | 4 | 5 | 6A | 6B | 6C | 7 | 8A | 8B | 9A | 9B | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CONVENTIONAL METHODS** | | | | | | | | | | | | | | |
| No action | C | C | C | C | C | C | C | C | R | C | C | R | C | R |
| Manual removal of oil | C | R | R | R | R | C | C | C | | R | R | | C | C |
| Passive collection of oil | R | R | R | R | R | R | R | R | C | R | R | R | R | R |
| Oiled debris removal | C | R | R | R | R | R | R | R | C | R | R | C | R | C |
| Trenching/recovery wells | | | C | C | C | | | | | | | | | |
| Oiled sediment removal | | | C | C | C | C | | | | | | | C | |
| Ambient water flooding (deluge) | | | C | C | C | R | R | R | | R | R | | C | C |
| Ambient water flush <50 psi | C | C | | | C | R | C | R | | R | R | | C | C |
| Ambient water flush <100 psi | C | C | | | | | C | C | | C | | | | |
| Warm water flush <90°F | C | | | | | | C | C | | C | | | | |
| Hot water flush >90°F | C | | | | | | | | | C | | | | |
| Vacuum removal of oil | C | C | R | R | | C | R | R | | C | C | | C | C |
| Sediment reworking | | | C | C | C | C | | | | | | | | |
| Sediment Removal - cleaning - replacement | | | C | C | C | C | | C | | | C | | | |
| Cutting oiled vegetation | | | | | | | C | C | | C | C | | C | C |
| **ALTERNATIVE METHODS*** | | | | | | | | | | | | | | |
| In-situ burning on shore | | | | | | | | | | | | | | |
| Chemical stabilization, protection, or cleaning | | | | | | | | | | | | | | |
| Nutrient enhancement | | | C | C | C | C | C | C | | | C | | | C |
| Microbial addition | | | | | | | | | | | | | | |

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**5.3.1 - Shoreline Countermeasures Matrices: Table 5-4**

# Heavy Oils

**Crude Oils, Intermediate Fuel Oils, Bunker C, Heavily Weathered Medium Crude Oils**

- Heavy oils with little or no evaporation or dissolution
- Water-soluble fraction likely to be <10 ppm
- Heavy contamination of intertidal areas likely
- Severe impacts to waterfowl and fur-bearing mammals (coating and ingestion)
- Long-term contamination to sediments possible
- Weathers very slowly
- Dispersion seldom effective
- Shoreline cleanup difficult under all conditions

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**Shoreline Type Codes**

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**6C** - Exposed rip rap
**7** - Exposed tidal flat
**8A** - Sheltered vertical rock shores and vertical, river hard man-made structures (docks, bulkheads)
**8B** - Sheltered rubble slope
**9A** - Sheltered sand and mud flats
**9B** - Sheltered vegetated low bank
**10** – Marshes

**(See Matrix on Next Page)**

## Countermeasures for Heavy Oils

| Shoreline Type → | 1 | 2 | 3 | 4 | 5 | 6A | 6B | 6C | 7 | 8A | 8B | 9A | 9B | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CONVENTIONAL METHODS** | | | | | | | | | | | | | | |
| No action | C | C | C | C | C | C | C | C | R | C | C | R | C | R |
| Manual removal of oil | C | R | R | R | R | C | C | C | | R | R | | C | C |
| Passive collection of oil | R | R | R | R | R | R | R | R | C | R | R | C | R | R |
| Oiled debris removal | C | R | R | R | R | R | R | R | C | R | R | C | R | C |
| Trenching/recovery wells | | | C | C | C | | | | | | | | | |
| Oiled sediment removal | | | C | C | C | C | | C | | | | | C | |
| Ambient water flooding (deluge) | | | C | C | C | R | R | R | | R | R | | C | C |
| Ambient water flush <50 psi | C | C | | | C | R | C | R | | C | C | | C | C |
| Ambient water flush <100 psi | C | C | | | | | C | C | | C | C | | | |
| Warm water flush <90°F | C | | | | | | C | C | | C | | | | |
| Hot water flush >90°F | C | | | | | | | | | C | | | | |
| Vacuum removal of oil | C | C | C | C | C | C | C | C | | C | C | | C | C |
| Sediment reworking | | | C | C | C | C | | | | | | | | |
| Sediment Removal - cleaning - replacement | | | C | C | C | C | | C | | | | | | |
| Cutting oiled vegetation | | | | | | | C | C | | C | C | | C | C |
| **ALTERNATIVE METHODS*** | | | | | | | | | | | | | | |
| In-situ burning on shore | | | | | | | | | | | | | | |
| Chemical stabilization, protection, or cleaning | | | | | | | | | | | | | | |
| Nutrient enhancement | | | C | C | C | C | C | C | | | | | | C |
| Microbial addition | | | | | | | | | | | | | | |

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# Spokane River
# Geographic Response Plan

## Chapter 6 – Resources at Risk

### 6.0 - Purpose of Chapter

The information presented in this chapter provides a summary of natural, cultural, and economic resources at risk, and gives general information on other related topics of importance for the Spokane River Geographic Response Plan (GRP) area. The information is not comprehensive, but meant to give response managers and first responders enough detail to cover the initial phase of an oil spill; discovery to the establishment of an Environmental Unit (EU) in the Planning Section of a Unified Command. During an incident, detailed information regarding natural, cultural, and economic resources at risk will be provided by the EU. Specific resource concerns related to areas that already have designated protection strategies may be found in the "Resources Protected" column of the matrix describing the individual strategies. (See GRP Chapter 4)

The information provided in this chapter is intended for use in:

- Providing resource-at-risk "context" to responders and clean-up personnel in the initial stages of a response.
- Briefing ICS personnel that may be unfamiliar with the general natural resource concerns related to the GRP area.
- Providing background information for personnel involved in media presentations and public outreach associated with a spill incident.

### 6.1 - Natural Resources at Risk – Summary

The Spokane 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; passerine birds, raptors, upland birds, and waterfowl; reptiles; and amphibians. Some species are resident throughout the year; others are migratory either within the subbasin or, in many cases, seasonally migrate outside the subbasin. Populations of certain species are tenuous and their future presence in the subbasin will require improved information and decisive management actions. Many wildlife species found in the subbasin are classified as

threatened, endangered, sensitive, or of special concern under the federal Endangered Species Act or under Washington State guidelines.

### 6.1.1 - General Resource Concerns

#### 6.1.1a - Habitats: (reserved)

#### 6.1.1b – Fish

There are no anadromous fish species in the Spokane River subbasin due to the operation of hydroelectric facilities blocking fish passage. Currently, no dam on the Spokane River has a fish passage facility and all dams create fish barriers for upstream migration. Over 35 species of fish, including 20 native species, are found in the Spokane River subbasin. Of these, six species (mountain whitefish, westslope cutthroat trout, rainbow trout, kokanee, bull trout, and large-mouth bass) are focal species for this GRP (See Table 6-1). In the upper Spokane River above Spokane Falls, four salmonid species (brown trout, Chinook salmon, cutthroat trout, rainbow trout) have been identified, along with northern pikeminow and large scale sucker. In the middle Spokane River above Nine Mile Reservoir, four salmonid species (brown trout, cutthroat trout, rainbow trout, and mountain whitefish) have been identified, along with four cyprinidae (minnows), two catostomidae (suckers), and sculpin. The current fish assemblage in the Little Spokane River drainage consists of 33 species (Connor et al. 2003a, 2003b), both native and nonnative. Of these species, kokanee, redband/rainbow trout, mountain whitefish, and largemouth bass are focal species. There were seven fish species observed in the 2002 survey of Latah Creek, including rainbow trout, cutthroat trout, rainbow/cutthroat hybrid, speckled dace, redside shiner, longnose sucker, and sculpin. Most of the lakes within the subbasin contain warmwater fish species. The most common of which are largemouth bass, smallmouth bass, and bluegill sunfish.

- ***Mountain Whitefish*** (Prosopium williamsoni) are native to many of the waters of Washington. Spawning mountain whitefish do not build nests, rather they deposit eggs on river gravel or gravel along lake shores at night. Eggs hatch in early to mid-March. Newly hatched mountain whitefish are clear to view, rearing in shallow edge water at depths of less than two inches. Mountain whitefish feed primarily on bottom-dwelling aquatic insects and zooplankton. They also feed at the surface on terrestrial aquatic insects.

- ***Westslope Cutthroat Trout*** (Onchorhynchus clarki) is a federal and state species of special concern. Cutthroat trout are adfluvial, residing in lake environments after maturity, but migrating to tributary streams to spawn. The young remain in streams for two to five years and then return to the lake. Spawning takes place in the spring from April to May in small tributary streams. Redds are developed in gravel and spawning occurs during the day or night. Fry emerge from the gravel in June and July. Juvenile cutthroat trout rear in their native stream and migrate to another stream or to a lake. Juvenile westslope cutthroat trout

mature between four and seven years. Compared to the extremely low numbers of westslope cutthroat trout in the Spokane River below Post Falls Dam, westslope cutthroat trout are relatively abundant upstream of the dam in Idaho. Poor habitat quality, due to unfavorable thermal conditions and flow regimes coupled with species competition, has most likely limited the persistence of westslope cutthroat trout in the mainstem Spokane River.

- ***Rainbow trout*** (Oncorhynchus mykiss) are native to Washington and are common in many of the state's streams and lakes. Rainbow trout spawn in streams from mid-April to late June using gravel or cobble, depending on the size of the fish. The eggs hatch in early to midsummer. Young fish may live in the stream a few months, several years, or their entire life. When they mature and are ready to spawn, they migrate back to where they were born. Most rainbow trout require three to five years to mature. Rainbow trout eat insects and zoo-plankton in the water or on the surface and also feed on small fish and fish eggs.

- ***Kokanee*** (Onchorhynchus nerka), the landlocked variant of sockeye salmon, are found in large, deep lakes and reservoirs in Washington. Kokanee spawn in tributary streams or along the lakeshore. Migration to streams takes place from September through December, where kokanee dig redds similar to other salmonids and die after spawning. Kokanee that remain in the lake spawn on the rocky bottom. In early spring, fry emerge from the gravel; those emerging in tributary streams move downstream to lake environments at night. Juvenile kokanee prefer habitat in the middle of the lake rather than near shoreline. Kokanee feed primarily on zooplankton and occasionally eat aquatic insects. During the summer, they prefer deepwater habitat in the lake until dusk.

- ***Bull trout*** (Salvelinus confluentus) are currently listed as a federal and state threatened species under the Endangered Species Act. Native to Washington, bull trout occur in most of the mountain creeks, rivers, and lakes of the upper Spokane River subbasin. Although they are widely distributed, they are not abundant. Adult upstream migration of bull trout takes place in the fall. Bull trout typically spawn between September through late December, with peak spawning in October in streams with cool water and good gravel. After spawning, adults move into lakes or deeper pools to rest. The eggs hatch in the winter and the small fish live in the gravel until early spring. The juveniles may remain in the stream or migrate back to lake environments. Once in the lake, the fish sexually mature within four to six years. Juvenile bull trout feed on aquatic insects. Adults are predatory, eating primarily fish eggs of other fish. Adult bull trout may spawn several times during their lives, but may not spawn each year.

- **Large-mouth Bass** (Micropterus salmoides, M. dolomieui) occur in lakes throughout Washington and Idaho. Bass spawn from May to July in shallow-gravel nests along the shoreline of lakes in the subbasin. Large-mouth bass

mature in four years. Bass are carnivorous, feeding on frogs, crayfish, and other fish.

**6.1.1c – Wildlife**

The Spokane River subbasin provides a wide range of wildlife-habitat types, including grasslands, shrub-steppe, ponderosa pine woodlands, wetlands, and interior mixed coniferous forests. There are approximately 353 terrestrial vertebrate wildlife species using these habitats, many of which are important for ecological, cultural, and/or economic reasons. Due to the large number of wildlife species in the subbasin, the following discussion focuses on wildlife species that are important indicators of habitat quality, those representing other wildlife species, and those with special management status.

- **Bald Eagle -** The Spokane River subbasin currently supports 11 bald eagle nesting territories and one communal winter roost. Six nesting territories and the communal roost are located along the Spokane River between Long Lake Dam and Nine Mile Dam. The other five territories occur at Diamond Lake, Eloika Lake, Liberty Lake, Newman Lake, and Philleo Lake.

- **Peregrine Falcon -** Within the Spokane River subbasin in Washington, one eyrie is present in the Hangman Creek drainage and another unoccupied hack site is a few miles away on the Spokane River.

- **Waterfowl -** There are large concentrations of resident and migratory waterfowl throughout the GRP area. Riparian habitat along the Spokane River and its tributaries provide stopover habitat for birds migrating to and from summer habitats in Canada and Alaska. There are also significant resident populations of waterfowl in these areas. In addition, the GRP applies to areas in close proximity to the Turnbull National Wildlife Refuge (TNWR) and other lake and wetland complexes that provide excellent habitat for resident and migratory waterfowl. Birds that use the TNWR are likely to also utilize similar habitats in the vicinity, including open water and riparian habitats in the GRP boundaries. Over 200 species of birds have been identified at the TNWR, including 29 species of ducks and five species of grebes. Waterfowl species that are likely to occur in the Spokane GRP include: mallards, common merganser, buffle-head, common and Barrow's goldeneye, ring-necked duck, lesser scaup, redhead, American wigeon, gadwall, wood ducks, western grebes, red-necked grebes, horned grebes, pie-billed grebes, common loons, Canada geese, greenwing teal, widgeon, pintails, canvasback, sandhill cranes, great blue heron, common snipe, trumpeter swans, and a variety of plovers, yellowlegs, sandpipers and gulls. In addition, there are a number of neotropical migrant birds, raptors, and woodpeckers, that use these habitats.

## 6.2 - Cultural Resources at Risk - Summary

The Spokane River sub-basin has been inhabited by people for thousands of years. Cultural and historic sites in the area are plentiful and must be considered when planning for and conducting spill response, shoreline cleanup or remediation. The Marmes Rockshelter site along the Snake River south of Spokane provided radiocarbon dates greater than 13,000 years old. White settlement in what is now Washington State began with the building of a small trading post named "The Spokane House" in 1810 at the convergence of the Spokane and Little Spokane Rivers. Settlers began building in what is now Spokane in the 1870's and the city incorporated in 1881. Within the sub-basin, one shore side archaeological site is listed on the National and State Register of Historic Places and another site is listed on the State Register. Many more culturally sensitive sites in the area are either eligible or potentially eligible to be listed.

Due to vulnerability of information related to cultural resources, specific details regarding the location and type of each site are not included in this document. However, in order to ensure that tactical response strategies do not inadvertently harm historical and culturally sensitive sites, the State of Washington Department of Archeology and Historic Preservation (WDAHP) or the Idaho State Historical Society (ISHS) should be consulted before disturbing any soil or sediment during a response action. WDAHP or ISHS may assign a person to monitor cleanup operations, or provide a list of professional archeologists that can be contracted to monitor response activities.

In Washington State, information on the location of culturally sensitive sites is maintained by WDAHP and made available to Washington Department of Ecology for oil spill preparedness and response planning. ISHS should be able to provide similar information for locations in Idaho. The Bureau of Reclamation (Grand Coulee) and the Spokane Tribe, Kalispel Tribe, and Colville Confederated Tribes may also be able to provide information on cultural resources at risk in this GRP area and should be consulted as necessary. After the unified command is established, information related to specific archeological concerns will be coordinated through the Environmental Unit.

**6.2.1 - 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.

- All work must be stopped immediately and the Incident Commander and Cultural Resource Specialist notified if any person monitoring work activities or involved in spill response believes that human skeletal remains have been discovered.

- The Incident Commander is responsible for taking appropriate steps to protect the discovery. The immediate area of discovery should be flagged. Vehicles and equipment must not be permitted to traverse the discovery site. In no case should further disturbance be performed prior to consultation with WDAHP or ISHS. Exposed human remains should not be left unattended.

- The Incident Commander (or representative) must immediately report the discovery to WDAHP or ISHS, local law enforcement (with jurisdiction), and the local coroner (with jurisdiction). The coroner (or medical examiner) will determine whether the discovery site is a crime scene or human burial.

- If the remains are determined to be non-Native American, or connected with criminal activity, local law enforcement will take charge of the discovery site and remains.

- If the remains are determined to be Native American, not related to a crime scene, the Spokane Tribal Archaeologist, state archaeologist, and Incident Commander will confer on a treatment plan for the remains.

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

<u>Prehistoric Cultural Resources</u>:
*(May include but 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 and traps
- Culturally modified trees
- Physical locations or features (traditional cultural properties)

<u>Historic cultural material</u>:
*(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

If the WDAHP or ISHS believes that the discovery is a cultural resource, the Incident Commander will take appropriate steps to protect the discovery site:

- The immediate area of the discovery site should be flagged. Vehicles or equipment must not be permitted to enter the discovery site. Work in the immediate area can not resume until treatment of the discovery has been completed.

- The Incident Commander (or representative) must contact WDAHP or ISHS and arrange for the discovery to be evaluated by a professional archaeologist. The archaeologist will determine whether the discovery is potentially eligible for listing on the National Register of Historic Places. (36 CFR 60.4)

- The professional archaeologist will consult with WDAHP or ISHS on the eligibility of the discovery for entry into the National Register. If WDAHP or ISHS determines that the discovery is eligible, they will consult with the Incident Commander to determine an appropriate treatment for the discovery.

- If adverse impacts to an eligible site cannot be avoided, a treatment plan will be developed and implemented.

The Secretary of the Interior's *Standards for Archaeological Documentation* must be followed; including provisions for research design, reporting, and curation of recovered material and samples. The particular data recovery measures applied to any given historic property will depend on the development of research questions, and the design of excavation strategies to acquire the data needed to answer those questions. Field notes, maps, plans, profiles, and photographs will document the process. The final report will follow style guidelines of the professional archaeological journal *American Antiquity*; it will synthesize the data collected and address the research questions posed.

## 6.3 - Economic Resources at Risk – Summary

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

## 6.4 - General information

**6.4.1 - Flight restriction zones:** Flight restriction zones may be recommended by the Environmental Unit 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 or marine mammal pupping areas. Implementation of Flight Restriction Zones will take place within the Air Operations Branch (Operations Section). Environmental Unit (Planning Section) staff will work with the Air Ops Branch Director to resolve any potential conflicts with those flight activities that are essential to the spill response effort.

**6.4.2 - Hazing:** The Wildlife Hazing Group within the Wildlife Branch of Operations (Operations Section) is responsible for implementing any wildlife hazing operations. These are actions intended to minimize injuries to wildlife by attempting to keep animals away from the oil and cleanup operations. Hazing may include the use of acoustic or visual deterrent devices, boats, aircraft or other situation-appropriate tools. The Wildlife Branch will work in cooperation with appropriate state and federal agencies, as well as with the Environmental Unit in the Planning Section, in the process of evaluating hazing options.

**6.4.3 - Oiled wildlife:** Attempting to capture oiled wildlife may be hazardous to both personnel and the affected animals. Incident personnel should therefore <u>not</u> attempt to approach oiled wildlife but rather should report any observations to the Wildlife Branch (Operations Section).

**6.4.4 - Pre-cleaning of Shorelines:** "Pre-cleaning" refers to the practice of removing debris (typically organic) from a shoreline prior to it becoming impacted by an oil spill. *Prior* to initiation of any beach pre-cleaning, the Environmental Unit (Planning Section) must be provided with a list of proposed beaches (with location descriptions) being considered for this activity. The EU will consult with the Wildlife Branch and the NRDA group to determine whether the proposed pre-cleaning activities would conflict with other resource protection or NRDA objectives or activities. The EU will report back the results of these discussions to the requesting party.

# Spokane River Geographic Response Plan
# Socio-Economic Resources at Risk

## A. Critical Infrastructure

| A1 - Drinking Water Intakes | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| Individual Waterfront Properties | Post Falls Dam to Idaho/Washington state line | 47.709126,-116.954226 to 47.697487,-117.041774 | No Information | No Information |
| | | | | |
| | | | | |

| A2 - Energy/Power Generation Water Intakes (Lock & Dams Included) | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| Post Falls Dam | Spokane River (RM102.0), Post Falls, ID | 47.709047, -116.961082 | Avista Utilities | (509) 495-4624 |
| Upriver Dam | Spokane River (RM80.2), Spokane, WA | 47.685701, -117.328609 | City of Spokane | (509) 625-7800 |
| Upper Falls Dam | Spokane River (RM76), Spokane, WA | 47.662829, -117.415041 | Avista Utilities | (509) 495-4624 |
| Monroe Street Dam | Spokane River (RM74), Spokane, WA | 47.661605, -117.425088 | Avista Utilities | (509) 495-4624 |
| Nine Mile Falls Dam | Spokane River, (RM58), Deer Park, WA | 47.774868, -117.543776 | Avista Utilities | (509) 495-4624 |
| Long Lake Dam | Spokane River (RM34), Tumtum, WA | 47.837185, -117.839162 | Avista Utilities | (509) 495-4624 |
| Little Falls Dam | Spokane River (RM29), Spokane Reservation, WA | 47.829766, -117.918481 | Avista Utilities | (509) 495-4624 |
| | | | | |

| A3 - Federal or State Water Projects or Irrigation Channels for Agriculture | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

**Appendix - 6A**
List of Economic Resources at Risk
July 2011

## B. Water Dependent Commercial Areas

| B1 - Industrial Intakes | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

| B2 - Agricultural Irrigation Intakes | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

| B3 - Aquaculture | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

| B4 - Marinas | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

**Appendix - 6A**
List of Economic Resources at Risk
July 2011

| **B5 - Commercial Fishing and Shellfish Harvest Areas** | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

| **B6 - Fish Hatcheries** (Federal, State, and Private) | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| Spokane Hatchery | Little Spokane River<br>W 2927 Waikiki Road, Spokane, WA 99208 | 47.766207, -117.460188 | WDFW | (509) 625-5169 |
| Ford Hatchery | Chamokane Creek<br>P.O. Box 70, Ford, WA 99013 | 47.91151, -117.828884 | WDFW | (509) 258-4269 |
| Spokane Tribe Hatchery | Chamokane Creek<br>off Martha Boardman Road, Ford, WA 99013 | 47.906073, -117.855792 | Spokane Tribe | (509) 258-7297 |
| Spokane Tribe Fish Trap | Spokane River, below Little Falls Dam | 47.824588, -117.929016 | Spokane Tribe | (509) 258-7297 |

| **B7 - Specially Designated Residential, Commercial, & Industrial Areas** (Includes Floating Homes & Live Aboard Marinas) | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

**Appendix - 6A**
List of Economic Resources at Risk
July 2011

## C. Water Dependent Recreational Areas

| C1 - Boating Areas | | |
|---|---|---|
| **Name or General Location** | **Lat/Long** (Approximate Center Point) | **Remarks** |
| Floating the Spokane River | 47.70333, -116.989978 to<br>47.69721, -117.042418 | Summer months especially.<br>Corbin Park (Post Falls, Idaho) downstream to Idaho/Washington state line |
| Long Lake (aka Lake Spokane) | 47.788738,-117.533391 to<br>47.831826,-117.76022 | Reservoir between Nine Mile Falls and Long Lake Dams |

| C2 – Public Recreation Areas | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Lat/Long** | **Contact** | **Phone** |
| | | | | |
| | | | | |
| | | | | |

| C3 – Sport Fishing Areas | |
|---|---|
| **Name or General Location** | **General Location/Remarks** |
| Spokane River | Mouth (SR 25 Bridge) to upstream boundary of Plese Flats, Day Use Area (Riverside State Park), except Long Lake, formed by Long Lake Dam |
| Spokane River | Upstream boundary of the Plese Flats Day Use Area (Riverside State Park) to Monroe Street Dam |
| Spokane River | Monroe Street Dam to Upriver Dam |
| Spokane River | Upriver Dam to Idaho State boundary |
| Little Spokane River | Mouth to SR 291 Bridge |
| Little Spokane River | SR 291 Bridge to West Branch |
| Little Spokane River | Upstream of West Branch |
| Latah/Hangman Creek | Entire Creek |

| C4 – Parks & Beaches (National, State, & Local) | | | | |
|---|---|---|---|---|
| **Name or General Location** | **Location/Address** | **Waterbody** | **Contact** | **Phone** |
| Centennial Trail | Nine Mile Dam to State Line along Spokane River | Spokane River | Multiple | --- |
| Corbin Park | 896 S Corbin Road, Post Falls, ID | Spokane River | City of Post Falls | (208) 773-0539 |

**Appendix - 6A**
List of Economic Resources at Risk
July 2011

| **C4 – Parks & Beaches** (continued) | | | | |
|---|---|---|---|---|
| **Name** | **Location/Address** | **Waterbody** | **Contact** | **Phone** |
| Gateway Regional Park & CA | 26715 E Spokane Bridge Road, Otis Orchards, WA | Spokane River | Spokane County | (509) 477-4730 |
| Plante's Ferry Sports Stadium | 12308 E Upriver Drive, Spokane, WA | Spokane River | Spokane County | (509) 477-4730 |
| Camp Sekani Park | 6707 E. Upriver Drive, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Upriver Park | Upriver Drive and Boulder Beach, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Shields Park (Minnehaha Rocks) | 5625 E. Upriver Drive, Spokane, WA | Spokane River | Spokane County | (509) 477-4730 |
| Upriver Drive (Parkway) | Mission Avenue, east to the city limits, Spokane | Spokane River | City of Spokane | (509) 625-6200 |
| Mission Park | 1300 E. Mission Avenue, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Riverfront Park | Downtown Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Glover Field Park | 216 N. Cedar Street, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Peaceful Valley Park | 1602 W. Water Avenue, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Peaceful Valley CA | Clark Avenue to Spokane River, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Herbert M. Hamblen CA | Maple Street Bridge to Ohio Avenue, Spokane | Spokane River | City of Spokane | (509) 625-6200 |
| Peoples Park | 202 S Coeur D Alene Street, Spokane, WA | Spokane River/Latah | Unknown | --- |
| Summit Boulevard Parkway | W Summit Blvd, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Downriver Park CA | N Riverside State Park Drive, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Northwest Blvd Parkway | W Rockwell Ave to W Gordon Ave, Spokane, WA | Spokane River | City of Spokane | (509) 625-6200 |
| Bowl and Pitcher Park | 4427 N Audrey L White Parkway, Spokane, WA | Spokane River | Wa State Parks | (509) 465-5064 |
| Riverside State Park | 9711 W. Charles Road, Nine Mile Falls, WA | Spokane River | Wa State Parks | (509) 465-5064 |
| Sontag Park | 9808 W. Charles Road, Nine Mile Falls, WA | Spokane River | Spokane County | (509) 477-4730 |
| McLellan Conservation Area | Unnamed road at end of N South Bank Road | Spokane River | Spokane County | (509) 477-4730 |
| Lower Little Spokane (CA) | Area - No specific address, , Spokane, WA | Little Spokane River | Unknown | --- |
| Pine River Park | 525 E. Greenleaf Drive, Spokane, WA | Little Spokane River | Spokane County | (509) 477-4730 |
| Haynes Estate CA | E Greenleaf Lane, Spokane, WA | Little Spokane River | Spokane County | (509) 477-4730 |
| Haggin Natural Area | N Little Spokane Drive, Spokane, WA | Little Spokane River | Unknown | --- |
| Dog Park/High Bridge Gardens | 212 S "A" Street, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| High Bridge Park | 163 S. A Street, Spokane, WA, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| Wentel Grant Park | 1708 S. Inland Empire Way, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| Latah Creek CA | W 15th Avenue, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| High Drive (Conservation Land) | 3911 S Inland Empire Way, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| Qualchan Hills Park | W Qualchan Drive, Spokane, WA | Latah/Marshall Creek | City of Spokane | (509) 625-6200 |
| Creek at Qualchan Golf Course | 301 E Meadowlane Road, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| Hangman Park CA | S. of 44th and W. of Hatch, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |

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List of Economic Resources at Risk
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| **C4 – Parks & Beaches** (continued) | | | | |
|---|---|---|---|---|
| **Name** | **Location/Address** | **Waterbody** | **Contact** | **Phone** |
| Campion Park | S Inland Empire Way/Hwy 195, Spokane, WA | Latah/Hangman Creek | City of Spokane | (509) 625-6200 |
| Hangman Valley Golf Course | 2210 E. Hangman Valley, Spokane, WA | Latah/Hangman Creek | Spokane County | (509) 477-4730 |

| **C5 – National Seashore Recreation Areas** | | |
|---|---|---|
| **Name or General Location** | **Lat/Long** (Approximate Center Point) | **Remarks** |
| | | |
| | | |
| | | |

| **C6 – National River Reach** (Designated as Recreational) | | |
|---|---|---|
| **Name or General Location** | **Lat/Long** (Approximate Center Point) | **Remarks** |
| Lake Roosevelt | 47.823183, -117.935658 | Spokane Arm of Lake Roosevelt (below Little Falls Dam), National Recreation Area |
| | | |
| | | |

# Spokane River
# Geographic Response Plan

## Chapter 7 – Logistics

### 7.1 Chapter Introduction:

The logistical information contained in this chapter is meant to aid the response community during the initial phase of an oil spill. It may be particularly useful as the initial response transitions into a unified command. The information provided is not and should not be considered the "universe" of everything available to support a response. Additional and more current information may be found in area telephone directories, online resources, newspaper advertisements, and other media sources. The lack of information under certain categories in this chapter does not mean no logistical resources exist; only that information regarding those resources was not found or verified before creating this chapter. Chapter 5000 of the Northwest Area Contingency Plan (NWACP) also contains valuable logistical information. The NWACP is available online at http://www.rrt10nwac.com.

Information on Staging Areas and Boat Launch Locations can be found in Chapter 4 of this plan (see attachments 4B & 4C). Contact information for federal, state, tribal, and local agencies can be found on the "Spill Response Contact Sheet" located near the beginning of this plan. Detailed response resource information can be found on the Western Response Resource List (WRRL); an on-line oil spill response equipment database maintained by regional equipment owners including Washington State approved Primary Response Contractors. The WRRL is available online at http://www.wrrl.us.

We value your comments. To report outdated information, or recommend additional logistical resources, please submit comments using the information provided in Appendix "C" of this plan or online at http://www.rrt10nwac.com/Comment.

### 7.2 List of Logistical Resources:

This chapter contains information on the following logistical resources:

- Aircraft Support - Helicopters & Fixed Wing
- Airports & Air Fields
- Ambulance Services (Air & Ground)

- Boat Cleaning Facilities
- Command Posts (Fixed & Mobile)
- Communications
- Cultural Resource Support
- Environmental & Conservation Organizations
- Fire Departments
- Food Services/Catering
- Hospitals & Medical Centers
- Hotels/Motels, Berthing Accommodations
- Marinas, Ports, Docks
- Military Bases/Installations
- Office Equipment Supply & Rental
- Oil Spill Response Contractors
- Outdoor Recreation Groups, Companies, & Organizations
- Park Facilities
- Rental Equipment - Industrial/Commercial
- Response Equipment Cache Locations
- River Guides
- Security Services
- Support Personnel - Local/Emergency
- Tribal Resources
- Transportation
- Wildlife Equipment Owners
- Wildlife Response Contractors

## 7.3 Logistical Resource Details:

| **Aircraft Support - Helicopters & Fixed Wing** | | | |
|---|---|---|---|
| City/Location | Name/Information | Address | Contact & Other Information |
| Coeur d'Alene, ID | Brooks Seaplane Base<br>Seaplanes (2) | City Dock at<br>Independence Point<br>Coeur d'Alene, ID 83816<br>(map) | 208-664-2842<br>http://www.airnav.com/airport/S76 |
| Hayden, ID | Panhandle Helicopters, Inc.<br>*-Helicopters (5), Lift Capability*<br>*-Fixed Wing Aircraft (1)* | 2678 W Cessna Avenue<br>Hayden, ID 83835<br>(map) | (208) 772-3562 |
| Post Falls, ID<br>(called 7/20) | River City Helicopters<br>*-Helicopters (2), Lift Capability* | 21905 West Riverview Drive<br>Post Falls, ID 83854<br>(map) | (208) 773-1111<br>(509) 994-0412 (Cell)<br>Email: info@rivercityhelicopters.com<br>http://rivercityhelicopters.com |
| Spokane, WA | Charlie Thomas Charter Service<br>*-Fixed Wing Aircraft (1)* | 8412 N Stevens Drive<br>Spokane, WA 99208 | (509) 466-7986 |

| **Aircraft Support** (continued) | | | |
|---|---|---|---|
| City/Location | Name/Information | Address | Contact & Other Information |
| Spokane, WA | Eagle Helicopters, Inc.<br>*-Helicopter (1), Lift Capability* | 5311 East Rutter Avenue<br>Spokane, WA 99212<br>(map) | (509) 534-1285<br>Email: info@eaglehelicopters.com<br>http://www.eaglehelicopters.com |
| Spokane, WA | Felts Field Aviation, Inc.<br>*-Fixed Wing Aircraft (3)* | 5829 E Rutter Avenue<br>Spokane, WA 99212<br>(map) | (509) 535-9011<br>Email: felts@feltsfield.com<br>http://www.feltsfield.com/charter.html |
| Spokane, WA | Inland Helicopters<br>*-Helicopters (4), Lift Capability* | 5505 E Rutter Avenue<br>Spokane, WA 99212<br>(map) | (509) 534-9114<br>Email: flight@inlandhelicopters.com<br>http://www.inlandhelicopters.com |
| Spokane, WA | Spokane Airways, Inc.<br>*-Fixed Wing Aircraft (3)* | 3910 S Davison Blvd<br>Spokane, WA 99224<br>(map) | (509) 838-3658<br>(509) 747.3658<br>http://www.spokaneairways.com |

| **Airports & Air Fields** | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Clayton, WA | Cross Winds Airport<br>(Turf/Grass Runway only) | Highway 395 at<br>N Spotted Road<br>Clayton, WA 99110<br>(map) | (509) 276-2552<br>http://www.airnav.com/airport/C72 |
| Coeur d'Alene, ID | Brooks Seaplane Base | City Dock at<br>Independence Point<br>Coeur d'Alene, ID 83816<br>(map) | (208) 664-2842<br>http://www.airnav.com/airport/S76 |
| Davenport, WA | Davenport Airport | State Route 2 E at<br>Gunning Road<br>Davenport, WA 99122<br>(map) | (509) 725-4352<br>http://www.airnav.com/airport/68S |
| Deer Park, WA | Deer Park Airport | 712 W Cedar Road<br>Deer Park, WA 99006<br>(map) | (509) 276-3379<br>http://www.airnav.com/airport/KDEW<br>http://www.cityofdeerparkwa.com |
| Hayden, ID | Coeur D'alene Air Terminal<br>(Pappy Boyington Field) | 10375 N Sensor Avenue<br>Hayden, ID 83835<br>(map) | (208) 446-1860<br>http://www.airnav.com/airport/KCOE<br>http://www.cdaairport.com |
| Mead, WA | Mead Flying Service Airport | E 3507 Deer Road<br>Mead, WA 99021<br>(map) | (509) 466-3007<br>http://www.airnav.com/airport/70S |

| **Airports & Air Fields** (continued) | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Rosalia, WA | Rosalia Municipal Airport | Intersection of Maiden Road & Squaw Road<br>Rosalia, WA 99170<br>(map) | (509) 523-5991<br>Email: clerk@townofrosalia.org<br>http://www.airnav.com/airport/72S |
| Spokane, WA | Felts Field | 6105 East Rutter Avenue<br>Spokane, WA 99212<br>(map) | (509) 455-6455<br>www.spokaneairports.net/felts_main.htm |
| Spokane, WA | Spokane International Airport | 9000 West Airport Drive<br>Spokane, WA 99224<br>(map) | (509) 455-6455<br>Email: info@spokaneairports.net<br>http://www.spokaneairports.net<br>http://www.airnav.com/airport/KGEG |

| **Ambulance Services (Air & Ground)** | | | |
|---|---|---|---|
| City/Location | Company Name | Address | Contact & Other Information |
| Coeur d'Alene, ID | Arrow Ambulance Service | 2411 N Government Way<br>Coeur d'Alene, ID 83814<br>(map) | (888) 991-7555 |
| Deer Park, WA | Deer Park Ambulance | 19 Arnim Avenue<br>Deer Park, WA 99006<br>(map) | (509) 276-2789<br>Email: deerparkambulance@yahoo.com<br>http://deerparkambinc.com |
| Fairfield, WA | Fairfield Ambulance | 218 East Main Street<br>Fairfield, WA 99012<br>(map) | (509) 283-2414 |
| Spokane, WA | Northwest MedStar<br>(Air Ambulance) | 6315 East Rutter Avenue<br>Spokane, WA 99212<br>(map) | (509) 536-5462<br>(800) 572-3210<br>http://www.nwmedstar.org |
| Spokane, WA | Spokane Ambulance Service<br>(American Medical Response) | 915 West Sharp Street<br>Spokane, WA 99201<br>(map) | (509) 323-8825<br>amr.spokane@amr.net<br>http://www.amr.net |
| Spokane Valley, WA | Inland Empire<br>Emergency Service | 1105 N Wilbur Road<br>Spokane Valley, WA 99206<br>(map) | (509) 924-2222 |
| Wellpinit, WA | Spokane Tribe of Indians<br>Ambulance Department | 6203 Ford-Wellpinit Road<br>PO Box 128<br>Wellpinit, WA 99040<br>(map) | (509) 258-7766 |

| Boat Cleaning Facilities | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| | | | |
| | | | |

| Command Posts (Fixed & Mobile) | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| | | | |
| | | | |

| Communications | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| | | | |
| | | | |

| Cultural Resource Support | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Olympia, WA | Washington Department of Archaeology & Historic Preservation | 1063 S. Capitol Way<br>Suite 106<br>Olympia, WA 98501 | (360) 586-3065 |
| Wellpinit, WA | Spokane Tribe of Indians Culture Department | 6187 Agency Loop<br>PO Box 100<br>Wellpinit, WA 99040 | (509) 258-4060<br>(509) 258-9844 - Fax |

| Environmental & Conservation Groups | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Coeur d'Alene, ID | Kootenai Environmental Alliance | 408 Sherman Avenue<br>Suite 301<br>Coeur d'Alene, ID 83814 | (208) 667-9093 |
| Spokane, WA | Friends of the Falls | P.O. Box 21143<br>Spokane WA 99201 | (509) 981-6296 |
| Spokane, WA | Friends of the<br>Little Spokane River Valley | P. O. Box 18191<br>Spokane, WA 99228 | (509) 466-2823 |
| Spokane, WA | Spokane Riverkeeper | 35 West Main Street<br>Suite 300<br>Spokane, WA 99201 | (509) 835-5211<br>(509) 835-3867 - Fax |
| Spokane, WA | Spokane Audubon Society | P.O. Box 9820<br>Spokane, WA 99209-9820 | (509) 838-5828 |

| Fire Departments | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Post Falls, ID | Kootenai County Fire & Rescue | 5271 East Seltice Way<br>Post Falls , ID | (208) 676-8739 |
| Spokane, WA | Spokane County Fire Department | Spokane, WA | (509) 535-6710 - Dispatch |

| Food Services/Catering | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| | | | |
| | | | |
| | | | |

| Hospitals & Medical Centers | | | |
|---|---|---|---|
| City/Location | Facility Name | Address | Contact & Other Information |
| Coeur d'Alene, ID | Kootenai Medical Center<br>*- 246 bed facility* | 2003 Lincoln Way<br>Coeur d'Alene, ID 83814<br>(map) | (208) 666-2000<br>http://www.kmc.org |
| Davenport, WA | Lincoln Hospital<br>*- Level IV Trauma Center*<br>*- 60 bed facility* | 10 Nicholls Street<br>Davenport, WA 99122<br>(map) | (509) 725-7101<br>http://www.lincolnhospital.org |
| Spokane, WA | Deaconess Medical Center<br>*- 388 bed facility* | 800 West Fifth Avenue<br>Spokane, WA 99204<br>(map) | (509) 458-5800<br>www.deaconessmc.org |
| Spokane, WA | Providence Holy Family Hospital<br>*- Level III Trauma Center*<br>*- 272 bed facility* | 5633 N. Lidgerwood Street<br>Spokane, WA 99208<br>(map) | (509) 482-0111<br>http://www.holy-family.org |
| Spokane, WA | Sacred Heart Medical Center<br>*- Level II Trauma Center*<br>*- 644 bed facility* | 101 West Eighth Avenue<br>Spokane, WA 99204<br>(map) | (509) 474-3040<br>www.shmc.org |
| Spokane Valley, WA | Valley Hospital and Medical Center<br>*- Level III Trauma Center*<br>*- 123 bed facility* | 12606 East Mission Avenue<br>Spokane Valley, WA 99216<br>(map) | (509) 924-6650<br>www.valleyhospital.org |

| Hotels/Motels, Berthing Accommodations | | | |
|---|---|---|---|
| City/Location | Facility Name | Address | Contact & Other Information |
| Spokane | Doubletree Hotel | 322 North Spokane Falls Ct<br>Spokane, WA 99201 | (509) 455-9600<br>(509) 455-6285 |
| Spokane | Red Lion Hotel (at the Park) | W. 303 North River Drive<br>Spokane, WA 99201 | (509) 326-8000<br>(509) 325-7329 – Fax |

| Hotels/Motels, Berthing (continued) | | | |
|---|---|---|---|
| City/Location | Facility Name | Address | Contact & Other Information |
| Spokane | Red Lion Hotel (River Inn) | 700 North Division Street, Spokane, WA | (509) 326-5577 |

| Marinas, Ports, Docks | | | |
|---|---|---|---|
| City/Location | Facility Name | Address | Contact & Other Information |
| | | | |
| | | | |
| | | | |

| Military Bases/Installations | | | |
|---|---|---|---|
| City/Location | Installation Name | Nearest Address | Contact & Other Information |
| Fairchild AFB, WA (West of Spokane) | Fairchild Air Force Base (AFB) | Fairchild AFB, WA 99011 (map) | (509) 247-1212 http://www.fairchild.af.mil |

| Office Equipment Supply & Rental | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| | | | |
| | | | |
| | | | |

| Oil Spill Response Contractors | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Spokane, WA | Able Clean-up Technologies | 4117 E Nebraska Ave Spokane, WA 99217-6644 | (509) 466-5255 |
| Spokane, WA | Big Sky Industrial | 9711 W Euclid Road Spokane, WA 99224 | (509) 624-4949 |

| Outdoor Recreation Groups, Companies, & Organizations | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Spokane, WA | ROW Adventure | 17 West Main Spokane, WA 99201 | (800) 451-6034 |

| Park Facilities | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Area<br>*Spokane River* | Centennial Trail | Throughout Area along Spokane River<br>Nine Mile Dam to WA/ID State Line<br>(map) | (509) 465-5064<br>Washington State Parks<br>Email: infocent@parks.wa.gov<br>http://www.parks.wa.gov |
| Nine Mile Falls, WA<br>*Spokane River* | Riverside State Park | 9711 W. Charles Road<br>Nine Mile Falls, WA<br>(map) | (509) 465-5064<br>Washington State Parks<br>Email: infocent@parks.wa.gov<br>http://www.parks.wa.gov |
| Nine Mile Falls, WA<br>*Spokane River* | Sontag Park | 9808 W. Charles Road<br>Nine Mile Falls, WA<br>(map) | (509) 477-4730<br>Spokane County<br>http://www.spokanecounty.org/parks |
| Otis Orchards, WA<br>*Spokane River* | Gateway Regional Park | 26715 E Spokane Bridge Road<br>Otis Orchards, WA<br>(map) | (509) 477-4730<br>Spokane County<br>http://www.spokanecounty.org/parks |
| Post Falls, ID<br>*Spokane River* | Corbin Park | 896 South Corbin Road<br>Post Falls, ID<br>(map) | (208) 773-0539<br>City of Post Falls<br>http://www.postfallsidaho.org |
| Post Falls, ID<br>*Spokane River* | Falls Park | 305 W 4th Avenue<br>Post Falls, ID<br>(map) | (208) 773-0539<br>City of Post Falls<br>http://www.postfallsidaho.org |
| Post Falls, ID<br>*Spokane River* | Q'emlin Park | 12201 W Parkway Drive<br>Post Falls, ID<br>(map) | (208) 773-0539<br>City of Post Falls<br>http://www.postfallsidaho.org |
| Spokane, WA<br>*Spokane River* | Plante's Ferry<br>Sports Stadium | 12308 E Upriver Drive<br>Spokane, WA<br>(map) | (509) 477-4730<br>Spokane County<br>http://www.spokanecounty.org/parks |
| Spokane, WA<br>*Spokane River* | Camp Sekani Park | 6707 E. Upriver Drive<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Spokane River* | Upriver Park | Upriver Drive at Boulder Beach<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Spokane River* | Shields Park<br>(Minnehaha Rocks) | 5625 E. Upriver Drive<br>Spokane, WA<br>(map) | (509) 477-4730<br>Spokane County<br>http://www.spokanecounty.org/parks |
| Spokane, WA<br>*Spokane River* | Mission Park | 1300 E. Mission Avenue<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org |

| **Park Facilities** (continued) | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Spokane, WA<br>*Spokane River* | Riverfront Park | Downtown Spokane<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Spokane River* | Glover Field Park | 216 N. Cedar Street<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Spokane River* | Peaceful Valley Park | 1602 W. Water Avenue<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Spokane River*<br>*Latah Creek* | Peoples Park | 202 S Coeur d'Alene Street<br>Spokane, WA<br>(map) | No information<br>Available |
| Spokane, WA<br>*Spokane River* | Bowl and Pitcher Park | 4427 N Audrey L White Parkway<br>Spokane, WA<br>(map) | (509) 465-5064<br>Washington State Parks<br>Email: infocent@parks.wa.gov<br>http://www.parks.wa.gov |
| Spokane, WA<br>*Little Spokane River* | Pine River Park | 525 E. Greenleaf Drive<br>Spokane, WA<br>(map) | (509) 477-4730<br>Spokane County<br>http://www.spokanecounty.org/parks |
| Spokane, WA<br>*Latah/Hangman Creek* | The Dog Park at High Bridge Gardens | 212 South A Street<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Latah/Hangman Creek* | High Bridge Park | 163 South A Street<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Latah/Hangman Creek* | Wentel Grant Park | 1708 S. Inland Empire Way<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |
| Spokane, WA<br>*Latah/Marshall Creek* | Qualchan Hills Park | W Qualchan Drive<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |

| **Park Facilities** (continued) | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Spokane, WA<br>*Latah/Hangman Creek* | Campion Park | S Inland Empire Way/Hwy 195<br>Spokane, WA<br>(map) | (509) 625-6200<br>City of Spokane<br>Email: parks@spokanecity.org<br>http://spokaneparks.org |

| **Rental Equipment - Industrial/Commercial** | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Post Falls, ID | A to Z Rentals | 3430 East Seltice Way<br>Post Falls, Idaho 83854 | (208) 773-8700 |
| Post Falls | Sun Rental | 2605 N. Hwy 41<br>Post Falls, ID 83854 | (208) 777-9911 |
| Spokane, WA | A to Z Rental | 1429 West 2nd Ave<br>Spokane, WA 99201 | 509-838-5000 (Spokane)<br>509-924-2000 (Spokane Valley) |
| Spokane, WA | Coast Crane Company | 3920 E. Boone Ave<br>Spokane, WA 99202 | (509) 535-4266<br>(509) 534-7104 - Fax |
| Spokane Valley | Sun Rental | E. 16701 Sprague<br>Spokane Valley, WA 99037 | 509-928-5155 |

| **Response Equipment Cache Locations** | | | |
|---|---|---|---|
| City/Location | Equipment | Address | Contact & Other Information |
| Coeur d'Alene, ID | Trailer (28ft)<br>Boom (6" skirt – 1000ft)<br>Boom (5" skirt – 1000ft)<br>Sorbent Pads & Powder<br>---<br>Boat (19ft rigid hull inflatable)<br>Boat (12ft jon boat)<br>Boom (6" skirt – 1000ft)<br>Boom (5" skirt – 1000ft)<br>Boom (3" skirt – 100ft) | 1712 Golf Course Road<br>Coeur d'Alene, ID 83814 | Kootenai Fire & Rescue - Station 4<br>(208) 765-2114 |
| Coeur d'Alene, ID | Pump (3" volume, quantity =23)<br>Portable Shelter (multiple)<br>Generators (multiple)<br>Hand Tools (assortment) | 3328 W Industrial Loop<br>Coeur d'Alene, ID 83815 | Idaho Department of Lands<br>(208) 666-8694<br>(208) 772-3283 (after hours number) |
| Davenport, WA | Trailer (18ft)<br>Boom (B3- 500ft) | 44150 District Office Lane N<br>Davenport, WA 99122<br>(map) | Lincoln County Fire Department<br>(509) 725-3501 - Sheriff's Office |

| **Response Equipment** (continued) | | | |
|---|---|---|---|
| City/Location | Equipment | Address | Contact & Other Information |
| Newport, WA | Trailer (18ft)<br>Boom (B3- 800ft) | 11 Dalkena Street<br>Newport, WA 99156<br>(map) | Pend Oreille Fire Department – District #4<br>(509) 447-5305<br>(509) 447-2476<br>Email: info@pofd4.org<br>http://www.pofd4.org |
| Spokane, WA | Trailer (18ft)<br>Boom (B3- 800ft) | 1608 N. Rebecca Street<br>Spokane, WA 99217<br>(map) | Spokane Fire Department – Fire Station #8<br>(509) 625-7003<br>http://www.spokanefire.org |

*Detailed response resource information can be found on the Western Region Resource List (WRRL) at http://www.wrrl.us

| **River Guides** | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Post Falls, ID | Willy E. Waters<br>Whitewater Rafting | 3024 S. Steinpreis Road<br>Post Falls, ID 83854 | (208) 457-1092<br>Guided river trips on portions of Spokane River fm Liberty Lake to Riverside State Park |

| **Security Services** | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Spokane, WA | Kodiak Security Services | 104 N Lee<br>Spokane, WA 99202 | (509) 244-3929 |
| Spokane, WA | Phoenix Protective Corporation | 1314 S. Grand Blvd<br>Ste 2 #183<br>Spokane, WA 99202 | (509) 448-4277<br>(509) 536-6033 |

| **Support Personnel - Local/Emergency** | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| | | | |
| | | | |

| **Tribal Resources** | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Willpinit, WA | Spokane Tribe of Indians | 6105 Ford-Wellpinit Road<br>PO Box 100<br>Wellpinit, WA 99040 | 509-458-6500 |

| Transportation | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Spokane, WA | Northtown Cab<br>(Taxi Service) | 173 South Ray Street,<br>Spokane, WA 99202 | (509) 535-3237 |
| Spokane, WA | Part Transport<br>(Bus Charter) | 1519 E Central<br>Spokane, WA 99208 | (509) 701-3392 |
| Spokane, WA | Silver Eagle Charters<br>(Bus Charter) | 5402 N. Julia<br>P.O. Box 6498<br>Spokane, WA 99217-0908 | (509) 487-6903<br>(509) 487-0611 - Fax |
| Spokane, WA | Yellow Cab<br>(Taxi Service) | 1412 East Pacific Avenue,<br>Spokane, WA 99202-3241 | (509) 535-6151 |
| Spokane, WA | Spokane Cab<br>(Taxi Service) | 704 E Pacific Ave,<br>Spokane, WA 99202 | (509) 568-8000 |

| Wildlife Equipment Owners | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Portland, OR | Clean Rivers Cooperative | Mobile<br>Oiled Wildlife Mobile<br>Rehabilitation Unit | (503) 220-2040<br>www.cleanriverscooperative.com |
| Seattle, WA<br>(South Park) | National Response Corporation<br>Environmental Services (NRCES) | Mobile<br>Oiled Wildlife Mobile<br>Rehabilitation Unit | (800) 337-7455<br>http://www.nrces.com |
| Everett, WA | Marine Spill Response<br>Corporation (MSRC) | Mobile<br>Oiled Wildlife Mobile<br>Rehabilitation Unit | (425) 252-1300<br>http://www.msrc.org |

| Wildlife Response Contractors | | | |
|---|---|---|---|
| City/Location | Name | Address | Contact & Other Information |
| Anacortes, WA | Focus Wildlife | P.O. Box 944<br>Anacortes, WA 98221 | (800) 578-3048<br>www.focuswildlife.net |
| Friday Harbor, WA | Islands' Oil Spill Association | P.O. Box 2316<br>Friday Harbor, WA 98250 | (360) 378-5322<br>http://iosaonline.org |
| Astoria, OR | International Bird Rescue | 1526 Franklin Avenue<br>Astoria, OR 97103 | (888) 447-1743<br>http://www.bird-rescue.org |

# Appendix A

## Protection Techniques

### Table A-1: Summary of Protection Techniques for Rivers & Canals (Non-Tidal)

Where water depth is greater than typical boom skirt depth and there may be tidal influence, but current always flows in the same direction.

| Description | Tactics |
|---|---|
| Current speed dependent<br>Vessel traffic dependant | Single diversion boom<br>Current < 2 knots: Use boom skirt of 12 inches<br>Current > 2 knots: Use boom skirt of 6 inches or less |
| Currents over 2 knots | Cascading diversion boom<br>Use short skirts, short boom lengths and sufficient overlap |
| Collection areas available on both sides | Chevron booms<br>Open for vessel traffic<br>Closed if no traffic |
| Currents less than 2 knots and river is wide | Single diversion boom<br>Exclusion boom for sensitive areas<br>Encircle and divert to collection area |
| Sufficient room to maneuver | Skimmers for collection |
| No vessels available | Boom vane, Flow diverters |
| Special conditions | Air and water jets |
| Isolated areas | Sorbents and pom-poms |

Source: "Oil Spill Response in Fast Currents: A Field Guide." US Coast Guard, October 2001.

### Table A-2: Summary of Protection Techniques for small Streams, Creeks, & Culverts

Where water depth is less than boom skirt depth.

| Description | Tactics |
|---|---|
| Dependent upon flow rate | Single diversion for volume greater than about 10 cfs |
| Block for low volume flow | Sealing (Fill, Dams, Weirs) |
| Design for volume | Overflow / underflow dams |
| Low flow | Sorbents and pom-poms |

Source: "Oil Spill Response in Fast Currents: A Field Guide." US Coast Guard, October 2001.

**Table A-3: Summary of Protection Techniques for Harbors & Bays**
Where water depth is usually greater than typical boom skirt depth

| Description | Tactics |
|---|---|
| Use river techniques in specific areas.<br>Current speed dependent.<br>Vessel traffic dependent. | Single diversion boom<br>Current < 2 knots use boom skirt of 12 inches if no waves.<br>Current > 2 knots use boom skirt of 6 inches or less if no waves |
| Currents over 2 knots | Cascade boom<br>• Use short skirts, short boom lengths and sufficient overlap |
| Currents less than 2 knots and area is large | Encircling |
| Sufficient room to maneuver | Skimmers |
| Special conditions | Air and water jets |
| Isolated areas | Sorbents and pom-poms |

Source: "Oil Spill Response in Fast Currents: A Field Guide." US Coast Guard, October 2001

**Table A-4: Fast Water Booming Techniques**
**Current Chip Log and Maximum Boom Deflection Angle**

The table uses the time for floating debris to drift 100 feet. This is accurately determined by anchoring a line with two floating buoy markers attached at a spacing 100 feet apart. Floating debris is then thrown into the water approximately 20 feet upstream of the first buoy marker. Determine the time it takes the debris to transit the distance between the two marker buoys in seconds. This assumes that the minimum escape velocity under a boom perpendicular to the current (90 degrees) is 1.2 feet per second. The table provides an estimate of the length of boom required for deflecting oil at a specified angle for a 110-foot profile (perpendicular length) to the current. It also provides an estimate of the number of anchors or shoreline tiebacks required for that length of boom assuming anchor points are required every 50 feet.

| Time to Drift 100 Feet (seconds) | Velocity (ft/sec) | Max. Boom Deflection Angle (degrees) | Boom for 100 Foot Profile to Current (feet) | Anchors if Placed Every 50 Feet (number) |
|---|---|---|---|---|
| 6 | 16.7 | 4.0 | 1,429 | 30 |
| 8 | 12.5 | 5.4 | 1,071 | 22 |
| 10 | 10.0 | 6.7 | 857 | 18 |
| 12 | 8.3 | 8.0 | 714 | 15 |
| 14 | 7.1 | 9.4 | 612 | 13 |
| 17 | 5.9 | 11.4 | 504 | 11 |
| 20 | 5.0 | 13.5 | 429 | 10 |
| 24 | 4.2 | 16.3 | 357 | 8 |
| 30 | 3.3 | 20.5 | 286 | 7 |
| 40 | 2.5 | 27.8 | 214 | 5 |
| 60 | 1.7 | 44.4 | 143 | 4 |
| >86 | <1.2 | 90.0 | 100 | 3 |

(1 Knot = 1.16 mile/hr, 6,080 ft/hr, or 1.7 ft/sec)

**Table A-5: Current Drag Force on One-Foot Boom Profile to Current**

The major force exerted on a boom is caused by the water drag on the skirt. Wave forces can increase the drag factor by two to three times depending upon the wave height, period, and loading dynamics. Wind force is less than current and waves, but is also a factor. In high current situations, drag is sometimes increased by water piling up on the boom, causing some submergence and increased drag forces, often resulting in mooring failure. In this situation, the 100-foot section of 4 X 6 diversion boom (4-inch floatation and 6-inch draft) should take the hydrodynamic load. A replacement section 50 feet long can withstand the reduced forces with submerging. The effects of current velocity and boom draft on boom drag force can be seen in the table. Drag increases with draft in a linear fashion, while current increased drag more dramatically (to the square of the velocity).

| Velocity (ft/sec) | Boom Drag Force (pounds) | | | |
|---|---|---|---|---|
| | Draft 0.5 Feet | Draft 1.0 Feet | Draft 1.5 Feet | Draft 2.0 Feet |
| 0.8 | 0.7 | 1.3 | 2.0 | 2.7 |
| 1.7 | 2.7 | 5.3 | 8.0 | 10.7 |
| 2.5 | 6.0 | 12.0 | 18.0 | 24.0 |
| 3.4 | 10.7 | 21.3 | 32.0 | 42.6 |
| 4.2 | 16.7 | 33.3 | 50.0 | 66.6 |
| 5.1 | 24.0 | 48.0 | 72.0 | 95.9 |
| 5.9 | 32.6 | 65.3 | 97.9 | 130.6 |
| 6.8 | 42.6 | 85.3 | 127.9 | 170.6 |
| 7.6 | 54.0 | 107.9 | 161.9 | 215.9 |
| 8.4 | 66.6 | 133.3 | 199.9 | 266.5 |
| 9.3 | 80.6 | 161.2 | 241.8 | 322.5 |
| 10.1 | 95.9 | 191.9 | 287.8 | 383.8 |
| 11.0 | 112.6 | 225.2 | 337.8 | 450.4 |
| 11.8 | 130.6 | 261.2 | 391.8 | 522.3 |
| 12.7 | 149.9 | 299.8 | 449.7 | 599.6 |
| 13.5 | 170.6 | 341.1 | 511.7 | 682.2 |

**Table A-6: Approximate Safe Working Loads/Tensile Strength of New Rope**

| Rope Diameter (inches) | Manila No. 1 (3 strand) (pounds) | Nylon (3-strand) (pounds) | Polyester (3-strand) (pounds) |
|---|---|---|---|
| 5/16 | 200 / 1,000 | 500 / 2,500 | 500 / 2,500 |
| 3/8 | 270 / 1,350 | 700 / 3,500 | 700 / 3,500 |
| 7/16 | | 1,140 / 5,700 | |
| 1/2 | 530 / 2,650 | 1,250 / 6,250 | 1,200 / 6,000 |
| 5/8 | 880 / 4,400 | 2,100 / 10,500 | 1,950 / 9,750 |
| 3/4 | 1,080 / 5,400 | 2,750 / 5,400 | 2,300 / 11,500 |

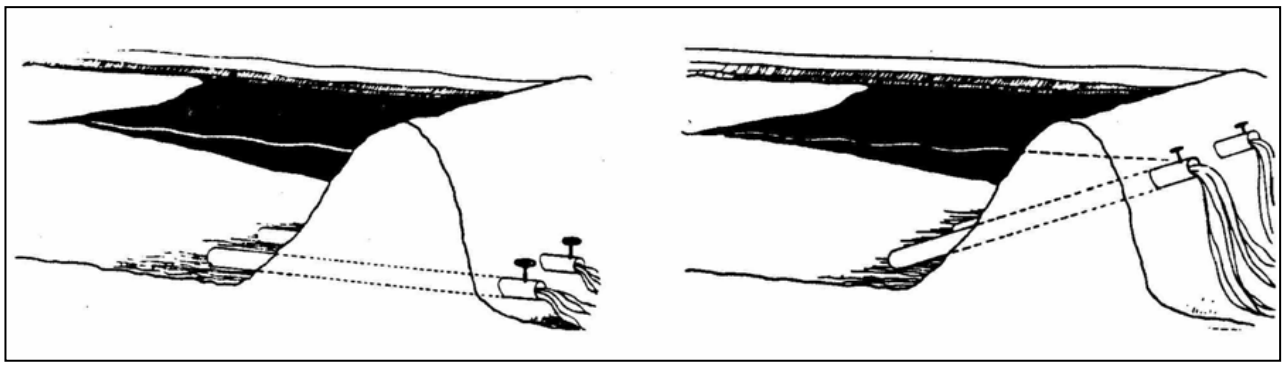
Towing load can be significant when a boom is anchored on one end and pulled against the current. Boats must have sufficient horsepower and be properly rigged to tow. Lines must be capable of withstanding the forces and the boom must have a tension member capable of high loads. If the boom is extended behind the tow boat and pulled free in the current, there is only the frictional drag along the boom. Because this drag is a function of the boat speed, proper motor size becomes a function of boom size and length, boat size, and water velocity. Although free towing drag is low, when one end of the boom is anchored to the shore, a small boat may be incapable of positioning the boom because of the high current drag exerted on the boom. The boom must be able to withstand the forces. The tension member must not become detached from the boom due to differential expansion.

Attempting to moor a boom in a straight line across a current (90 degrees) is not recommended. The result is a sag in the boom that will trap free floating oil at a point inaccessible to the shore. In swift currents, the resulting forces on moorings can cause large lines of break and present possible safety hazards. The current can be so swift that the boom may dip and become completely or partially submerged. If this happens, the boom's position should be adjusted. The total force on the mooring points will be a combination of the forces caused by current, wind, and waves.

Boom positioning is an important point. The first step is to decide where the boom should be located. It is likely that the boom will be placed on an angle to the current; therefore, the prime concern becomes the location of the upstream end. If the selected upstream location is inaccessible, a spot further upstream can be used for access and the boat and boom allowed to drift to the selected mooring site. The boom can be secured to trees, stakes, anchors, or other solid objects. Do not attach boom to vehicles of any type or size.

**Figure A-1: Underflow Dams**

Dams can be built in shallow rivers, culverts, and inlets using hand tools or heavy machinery, as available. Pipes are used to form an underflow dam to allow water passage out while oil stays behind, as seen in first figure below. The inlet of the pipe is cut at an angle to permit a larger entrance area for the water in order to reduce the inlet velocities and the possibility of oil drawdown due to formation of vortices. Caution should be taken to prevent whirlpools from forming and pulling the oil down. Face the cut pipe opening down (or insert a 90 degree angle) to help eliminate this. This technique is effective for water bodies less than two feet deep where flow volume can be accommodated by pipe flow. This method can also be used in deep, narrow culverts.



**Earth underflow dam (DOWCAR 1997).**

**Sandbag underflow dam**

**Figure A-2: Culvert block**

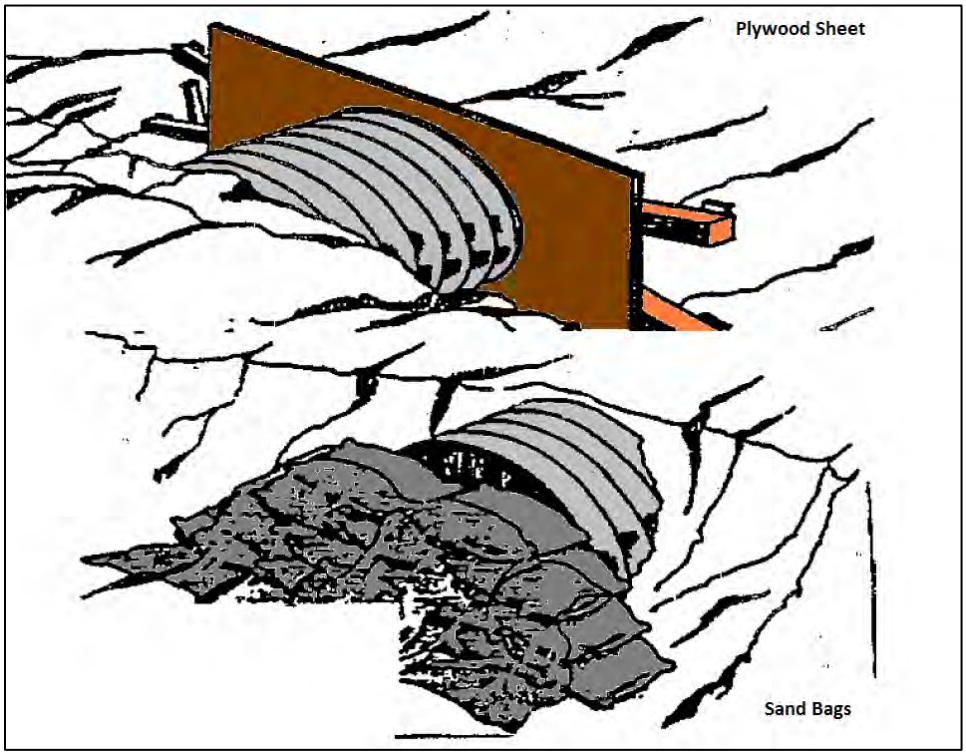
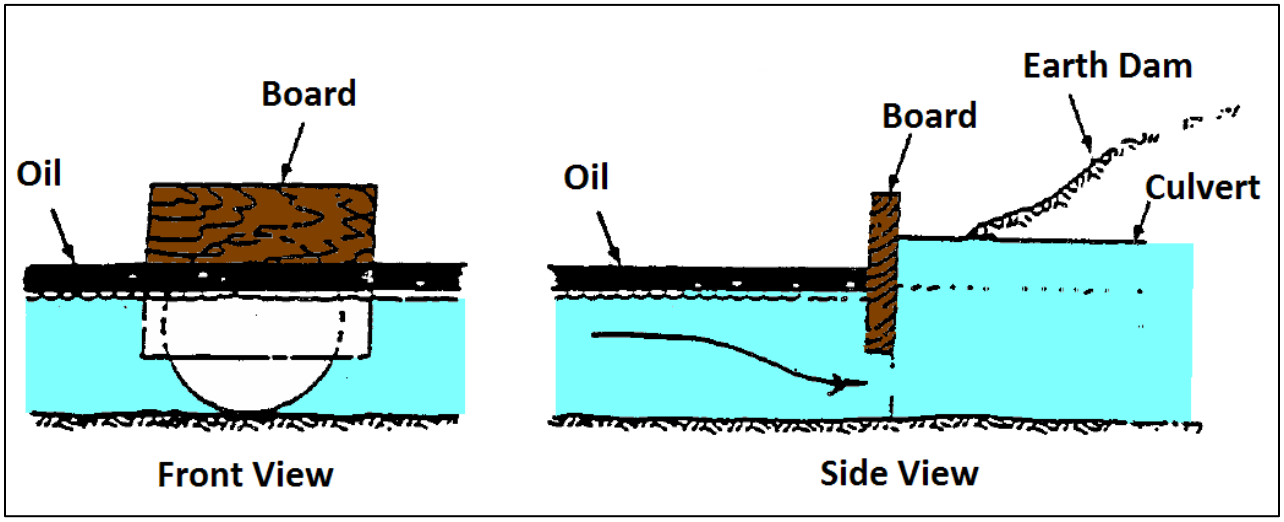



**Figure A-3: Culvert weir**



# Appendix B

## Spokane River Geographic Response Plan – Original Contributors

### Local Representatives:

Spokane County
Mr. Bill Hansen
Mr. Rob Lindsay
Ms. Bea Lackoff
Mr. John Bottelli

Lincoln County
Mr. Jason Guthrie

Stevens County
Mr. Bruce Garcia

City of Spokane
Mr. Scott Mullennix
Mr. Lloyd Brewer

Spokane County Conservation District
Mr. Daniel Ross

Spokane Aquifer Joint Board
Ms. Julia McHugh

### Tribal Representatives:

Spokane Tribe of Indians
Mr. Lam Chan
Mr. Bill Matt

### Federal Representatives:

U. S. Environmental Protection Agency
Mr. Calvin Terada
Ms. Beth Sheldrake

### State Representatives:

Washington State Department of Ecology
Ms. Rebecca Post
Mr. Keith Holliday
Mr. Mark Stephens

Washington State Department of Fish and Wildlife
Mr. Andy Carlson

### Industry and Response Contractors:

Herrera Environmental Consultants, Inc.
Ecology & Environment, Inc.
Yellowstone Pipeline Company
NRC Environmental Services
Marine Spill Response Corporation
Chevron Corporation
Northwest Archaeological Associates, Inc.
Clean Sound Cooperative

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# Appendix C

## Spokane River - Geographic Response Plan

## Comments/Corrections/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 or mail comments to the following agencies:

Environmental Protection Agency Region 10
Emergency Response Branch
1200 Sixth Avenue
Seattle, WA 98101

Washington State Department of Ecology
Spill Prevention, Preparedness, and Response (GRP Lead)
P.O. Box 47600
Olympia, WA 98504-7600
(360) 407-7202

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.

For field visits or the testing of GRP Strategies, please use the GRP Field Report Form to submit comments by mail. It is on the RRT10/NWAC website at http://www.rrt10nwac.com/Files/WorkGroup/090601053705.doc.

# GRP Comment Form

**Mail Completed Forms to:**

Environmental Protection Agency Region 10
Emergency Response Branch
1200 Sixth Avenue
Seattle, WA 98101

Washington State Department of Ecology
Spills Program (GRP Lead)
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): _____

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