LAKE CHELAN
Geographic Response Plan

(LKCH GRP)
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LAKE CHELAN

Geographic Response Plan

(LKCH GRP)
## SPILL RESPONSE CONTACT SHEET

### Required Notifications for Oil Spills and Hazardous Substance Releases

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

### - Other Contact Numbers -

<table>
<thead>
<tr>
<th>U.S. Environmental Protection Agency</th>
<th>Tribal Contacts</th>
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<tr>
<td>Region 10 - Spill Response</td>
<td>Confederated Tribes of the Colville Reservation <em>(509) 634-2200</em></td>
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<tr>
<td>- Washington Ops Office</td>
<td>- Cultural Resources <em>(509) 634-2694</em></td>
</tr>
<tr>
<td>- RCRA/CERCLA Hotline</td>
<td><em>(509) 634-2690</em></td>
</tr>
<tr>
<td>- Public Affairs (206) 553-1203</td>
<td></td>
</tr>
<tr>
<td>National Oceanic Atmospheric Administration</td>
<td></td>
</tr>
<tr>
<td>Scientific Support Coordinator</td>
<td>Confederated Tribes and Bands of the Yakama Nation <em>(509) 865-5121</em></td>
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<td>- Weather</td>
<td>- Cultural Resources Ext. 4714</td>
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### Department of the Interior

- **Regional Environmental Officer** *(503) 326-2489*  
- **National Park Service**  
  - Lake Chelan NRA Comm Center *(360) 854-7249*  
  - Stehekin District Ranger Office *(509) 699-2080 Ex. 12*  
  - Emergency 24/7 Ex. 29* |
- **U.S. Fish and Wildlife Service** *(509) 893-8004*  
  - Other Federal Agencies

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<td>- Chelan Ranger District <em>(509) 682-4900</em></td>
<td><strong>U.S. Army Corps Engineers</strong> <em>(Seattle) (206) 764-3401</em></td>
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<td>- Okanogan-Wenatchee Ranger Dist <em>(509) 664-9200</em></td>
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### Washington State

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<tr>
<td>Dept Arch and Hist. Preservation <em>(360) 586-3065</em></td>
<td>Clean Harbors Environmental <em>(800) 645-8265</em></td>
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<tr>
<td>Dept of Ecology</td>
<td>NRC Environmental Services <em>(800) 337-7455</em></td>
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<tr>
<td>- Headquarters - Spills (Lacey) <em>(360) 407-7455</em></td>
<td>Mountain Barge Services <em>(509) 682-2493</em></td>
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<tr>
<td>- Central Region - Spills (Yakima) <em>(509) 575-2490</em></td>
<td>Jim’s Pumping Service <em>(509) 682-1100</em></td>
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<td>- District 2 Wenatchee <em>(509) 662-0452</em></td>
<td>Rio Tinto (Holden Mine) <em>(509) 570-3430</em></td>
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<tr>
<td>- Oil Spill Team (pager) <em>(360) 534-8233</em></td>
<td>Chelan Public Utilities <em>(509) 667-6415</em></td>
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<td>- Emergency HPA Assistance (pager) <em>(360) 534-8233</em></td>
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<td>Dept of Health (Drinking Water) <em>(800) 521-0323</em></td>
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<td>- After normal business hours <em>(877) 481-4901</em></td>
<td>Lake Chelan Comm Hospital <em>(509) 682-3300</em></td>
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<td>Dept of Transportation <em>(360) 705-7000</em></td>
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<tr>
<td>Lake Chelan State Park <em>(509) 687-3710</em></td>
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<td>Washington State Patrol</td>
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<tr>
<td>- District 6 HQ (Wenatchee) <em>(509) 682-8090</em></td>
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* Contact Numbers staffed 24-hours/day
Before you print this document

Chapter 4 with appendices (Adobe pages 25-116) of this document are provided in “landscape” page orientation; all other chapters and appendices are oriented in “portrait.” The appendices in Chapter 4 (Adobe pages 63-116) have been designed for duplex printing (front and back side of paper), “open to top” configuration.
Purpose and Use of this Plan

This Geographic Response Plan (GRP) constitutes the federal and state on-scene coordinators’ orders during the initial phase of an oil spill: from the time a spill occurs until a Unified Command is established. Its main focus is sensitive resource protection. The plan prioritizes tactical response strategies based on locations where spills might occur and the proximity of those locations to natural, cultural, and economic resources at risk of injury. By using this document it’s hoped that immediate and proper action can be taken to reduce spilled oil’s impact on sensitive resources within the planning area.

After a spill occurs, control and containment at or near the spill source are top priorities. Beyond those efforts, the tactical response strategies provided in this plan should be implemented using the priority tables in Chapter 4, unless overflight observations, spill trajectory models, or unique circumstances dictate otherwise.
## RECORD OF CHANGES

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<td>Original Release</td>
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<tr>
<td>October 2015</td>
<td>LKCH 001</td>
<td>Update of Purpose and Use, Chapter 1, and Chapter 4. Removal of Protection Techniques and GRP Contributors from Appendices. Moved Appendix C to 1A.</td>
<td>Wendy Buffett</td>
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CHAPTER 1

Introduction

This plan focuses on sensitive resource protection after an oil spill occurs. It serves as the federal and state on-scene-coordinators’ orders during the initial phase of an oil spill response in the Lake Chelan area. It has been approved by Regional Response Team 10 and the Chairs and Co-Chairs of the Northwest Area Committee. Changes to this document are expected as more testing is conducted through drills, site visits, and actual use in spill situations. We value your input and hope that you’ll let us know how the plan might be improved. Please submit comments online at http://www.rrt10nwac.com/Comment. Comments may also be emailed to GRPs@ecy.wa.gov or submitted by mail using the forms and information provided in Appendix 1A of this document.

This is a condensed GRP developed for Lake Chelan partially in response to the Holden Mine Superfund remediation project. This GRP is located in Central Washington, north of Wenatchee in the rain shadow of the Cascade Range. The area included in this plan is Lake Chelan from the city of Chelan to Lucerne Landing.

The bulk of this plan is contained in Chapter 4. It provides information on tactical response strategies and the order they should be implemented, based on potential spill origin points and their proximity to sensitive resources. Area and sector maps and information on staging areas and boat launch locations are also provided in that chapter.

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

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

The movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting strategy implementation priorities. The strategies...
discussed in this plan have been designed for use with persistent oils that float on water and may not be suitable for other petroleum products or hazardous substances. For hazardous substance spills, refer to the Northwest Area Contingency Plan (NWACP), Chapter 7000.

1.1 GRP CHAPTERS AND APPENDICES

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1.2 GEOGRAPHIC RESPONSE PLAN DEVELOPMENT PROCESS

GRPs are considered part of the NWACP, although revised and distributed separately. They've been developed for the marine and inland waters of Washington, Oregon, and Idaho. The plans are prepared through the efforts of, and in cooperation with, Washington Department of Ecology, Oregon Department of Environmental Quality, Idaho State Emergency Response Commission, U.S. Coast Guard, U.S. Environmental Protection Agency, as well as other state and federal agencies, tribal and local governments, response organizations, emergency responders, and communities. GRPs are developed through workshops and meetings with representatives of these organizations as well as local oil spill emergency response experts, industry, environmental and conservation organizations, ports, and pilots, among others. Participants identify resources that may be at risk of injury from spills and attempt to develop oil spill response or notification strategies to reduce the chance of injury to those resources.

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

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

1.4 TERMINOLOGY AND DEFINITIONS

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

Comments, Corrections, or Suggestions

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

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

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

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

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

Today’s Date: ____________________________
Your Name: ______________________________
Title: ____________________________________
Company/Agency: _________________________
Address: __________________________________
City: ______________________________________
State/Province: ______________  Zip: __________
Email: _________________________________  Ph: ___________
GRP Page Number: ______________________ Section or Paragraph: ______________
Comment(s): ________________________________

Mail Completed Form to:

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

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

Site Description

2.1 INTRODUCTION

This chapter provides a description of the area’s geography, hydrology, and climate, and includes an overview of oil spill risks in the Lake Chelan area. The condensed plan covers Lake Chelan between Lucerne Landing and the City of Chelan, plus a notification strategy in Stehekin.

2.2 PHYSICAL FEATURES

Lake Chelan is both the deepest and largest natural lake in the state, and the third deepest lake in the country. Over fifty miles long but averaging just one mile wide, it cuts northwest to southeast at a roughly forty-five degree angle. At the northwestern top of the lake is the Stehekin River, which provides almost 70 percent of the annual water to the lake. The rest of the inflow is provided by creeks and streams draining the surrounding Cascade Range and Chelan Mountains.

The majority of the land surrounding the lake is federally-owned natural area. The Lake Chelan National Recreation Area covers the northern watershed and the northern five miles of the lake, down to the border of the Okanogan-Wenatchee National Forest. Within the Forest include the sub-areas of the Lake Chelan Sawtooth Wilderness on the east and the Glacier Peak Wilderness to the west. The Chelan Ranger District controls the central portion of the lake. The southern seven miles of the lake contain the vast majority of the residents and developed areas.

The largest population center is the city of Chelan, population 4000, which wraps around the southeastern point of the lake. There, the lake drains to the Chelan River, passing through town to the Lake Chelan Dam before emptying into the Columbia River. The only other developed areas along the lake are an unincorporated suburb of Chelan called Manson, population 1500, and the community of Stehekin at the northeastern tip of the lake. Stehekin is only accessible by ferry (*The Lady of the Lake*), boat, seaplane, or by foot over Cascade Pass. While Stehekin Airport is open July, August and September, it is considered a difficult landing spot, and is sometimes commandeered for wildland fire response. Due to the transport limitations to the central and northern portions of the lake, it is unlikely that the year-round population there will significantly increase in the future. Nevertheless, Stehekin is a popular spot for tourists and private boaters during the summer. The Lake Chelan National Recreation Area sees between 35,000 and 45,000 annual visitors.

Lucerne Landing is a ferry stop located about seven miles south of Stehekin, on the west shore of the lake. Eleven miles west of the landing is Holden Village, a Lutheran retreat center that hosts 5,000 visitors annually and houses 60 to 100 year-round residents. Next to Holden Village is the decommissioned Holden Mine, which produced copper, zinc, gold and silver between 1930 and 1957 before closing abruptly. It is currently undergoing remediation as a Superfund site. Visitors
and supplies can only arrive via boat or seaplane to the dock at Lucerne Landing, and are then driven on a gravel forest road that parallels Railroad Creek up to Holden Village and the mine.

Table 2-1: Lake Specific Information

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<td>81.3 km</td>
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<td>Surface area</td>
<td>52.1 mi² / 21,600 acres</td>
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<td>Average depth</td>
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<td>Max. depth</td>
<td>1486 ft</td>
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<td>Water volume</td>
<td>15,800,000 acre ft</td>
<td>3.0 km³</td>
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<td>Surface elevation</td>
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2.3 HYDROLOGY

Officially known as the Chelan Hydroelectric Project, the Chelan Dam was built in 1928 and is located less than a mile from the river’s mouth. It is a steel-reinforced concrete gravity dam, 40 feet high and 490 feet long. Chelan County Public Utility District Number 1 controls the dam outflows and maintains the water level in the lake.

The flow into the lake from the Stehekin River, Railroad Creek and other tributaries is largely determined by snowmelt, rather than direct runoff from rainfall. The water level in the lake is lowest in early spring, before the snow has melted. Snowmelt in April and May leads to peak water levels from June through September, remaining steady around 1098 feet. The Chelan County Public Utility District’s license encourages the lake level to stay between 1100 feet and 1079 feet elevation, but maintaining ideal flow to the Chelan River takes precedence. The output through the Chelan Dam is generally steady throughout the year.

2.4 CLIMATE AND WINDS

Lake Chelan’s climate is similar to the rest of eastern Washington, with near-desert levels of precipitation. The annual average precipitation at Lake Chelan is 11.4 inches. Rainfall is fairly evenly distributed throughout the year, but in mid-summer it is not unusual for a month or six weeks to pass without any measurable rainfall. The wettest month is November, with an average rainfall of 1.77 inches. Summer high temperatures tend to be in the 80’s and winter lows tend to be in the 30’s.

Winds on Lake Chelan are strong from April through July, particularly in the upper part of the lake between Stehekin and Lucerne. Sustained winds over 20 miles per hour (mph) are common, with gusts near 40 mph. Stronger winds are unusual but gusts of over 80 mph have occurred.
Wind direction is usually “down lake” (from NW to SE) in late spring to early summer, but direction and speed can vary significantly throughout the day. The rest of the year winds are calmer and more varied in direction. Winds are lower in the lower section of the lake, near Manson and Chelan, but follow the same seasonal pattern.

2.5 TIDES AND CURRENTS

Lake Chelan has no discernible tides or currents. The flow from the tributaries to the Chelan River is generally north-to-south, but the rate at which the lake empties is so low that it should have no major impact on the movement of oil. Wind direction and speed will be the most significant factor in the direction of travel.

2.6 RISK ASSESSMENT

This condensed plan is written to address the oil spill risk presented by a barge transporting fuel to the Holden Mine Superfund Site, along with above-ground diesel storage tanks at the site. At a future date this plan will be expanded to include other areas of Lake Chelan. Rio Tinto mining is responsible for the cleanup project and their Spill Prevention, Control, and Countermeasure plan has been approved by several state and federal agencies.

A 120 foot unmanned barge and 25 foot tug depart the Chelan Staging Area and dock at Lucerne Landing, where a fuel truck carrying up to 4,600 gallons of diesel drives off the barge and follows the gravel-topped Forest Service Road 8031 for 11 miles along Railroad Creek. The largest fuel storage tank at the cleanup site holds 10,000 gallons of diesel, with another two 5,000-gallon tanks nearby. Vehicles and construction equipment hold under 100 gallons of diesel each. Mountain Barge Services, who operate the tug, are also spill responders who maintain equipment at their headquarters in Chelan. There is a trailer of spill response equipment that can be transported on the barge, or stationed in Chelan or Lucerne.

Barges also deliver gasoline and diesel to the residents of Stehekin. This is the most significant spill risk in the northern part of the lake past Lucerne Landing, and will continue to be a risk after the Holden Mine project is completed. Recreational boating is also popular in this area during the summer, and smaller spills from these watercraft are possible.

Other areas at risk from significant spills are in the city of Chelan and its suburbs. The bridges at West Woodin Avenue and Webster Avenue/Highway 97 span the Chelan River, where road based spills would flow south towards the dam. Highway 97, Highway 150 and Highway 971/Lakeshore Road all parallel the southeastern five to ten miles of lakeshore and pose a potential threat from tanker truck accidents.

Shoreside businesses, personal boats, ferries and seaplanes are the other oil spill risks in the area. There are no pipelines, railroads or oil terminals in the watershed.
2.7 REFERENCES


CHAPTER 3
(Reserved)
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CHAPTER 4

Response Strategies and Priorities
4.1 CHAPTER INTRODUCTION

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

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

4.1.1 On-site Considerations

Before Deploying a GRP Strategy (Questions to Ask)

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

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

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

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

  o Chelan County Emergency Dispatch (RiverCom) (509) 663-9911
  o Chelan County Sheriff (509) 667-6851
  o City of Chelan Public Works Street Division (509) 682-8030
  o Lake Chelan State Park Rangers (509) 687-3710
  o Washington State Patrol (District 6) (509) 682-8090
  o U.S. Forest Service Chelan Ranger District (509) 682-4900
  o U.S. Forest Service Okanogan-Wenatchee Ranger District (509) 664-9200

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

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

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

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

• The GRP response strategies provided in this chapter were designed for use with persistent heavy oils that float on water and may not be suitable for other petroleum products or hazardous substances.
After Strategy Implementation (Things to Understand)

- Oil containment boom should be maintained and periodically monitored to ensure its effectiveness. Changes in river or current speed will likely require modifications to boom deflection angles (see Table 4-9). 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.

Water Speed and Boom Deflection Angle

Measure the speed that water is moving by anchoring a line with two floating markers/buoys attached that are spaced 100 feet apart. Time the movement of floating debris between the two buoys, and then use Table 4.1 to estimate the water speed based on the travel time of the debris between the two buoys. You can also measure 100 feet along a straight portion of river bank or shoreline, and time the movement of debris between those points, but this method is generally less accurate than using the buoys. The maximum boom deflection angle is also provided in the table, based on the water speed measurements.
### Table 4-1: Water Speed Drift Measurement Table

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

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 determine the mean monthly stream discharge for rivers in the Lake Chelan area. Stream discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph) or nautical miles per hour (knots) are not available. Table 4.1 provides information that can be used to calculate river velocities based on the time it takes a floating object to drift 100 feet downstream from any given point in a river or creek. Additional information on calculating river velocities can be found in the [Northwest Area Contingency Plan](#), Section 9302. Information on USGS river gage readings can be found online at [http://maps.waterdata.usgs.gov/mapper/index.html](http://maps.waterdata.usgs.gov/mapper/index.html).

**Table 4-2: Historic streamflow for significant rivers near Lake Chelan**

<table>
<thead>
<tr>
<th></th>
<th>Monthly average flow in Cubic Feet per Second (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chelan River</strong></td>
<td><strong>USGS 12452500</strong> (data from 1903 to 2013)</td>
</tr>
<tr>
<td>January</td>
<td>1660</td>
</tr>
<tr>
<td>February</td>
<td>1580</td>
</tr>
<tr>
<td>March</td>
<td>1460</td>
</tr>
<tr>
<td>April</td>
<td>1430</td>
</tr>
<tr>
<td>May</td>
<td>2380</td>
</tr>
<tr>
<td>June</td>
<td>4110</td>
</tr>
<tr>
<td>July</td>
<td>3530</td>
</tr>
<tr>
<td><strong>Stehekin River</strong></td>
<td><strong>USGS 12451000</strong> (data from 1910 to 2013)</td>
</tr>
<tr>
<td>August</td>
<td>1780</td>
</tr>
<tr>
<td>September</td>
<td>1520</td>
</tr>
<tr>
<td>October</td>
<td>1740</td>
</tr>
<tr>
<td>November</td>
<td>1720</td>
</tr>
<tr>
<td>December</td>
<td>1720</td>
</tr>
</tbody>
</table>
Figure 4-1: Historic streamflow for significant rivers near Lake Chelan
4.2 AREA MAPS
Area – Spill Origin Points

Potential Oil Spill Locations

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

4.3.1 General Response Priorities

The following list provides the order of response priorities after an oil spill into Lake Chelan.

1. **Safety is always the number one priority.** Do not implement GRP strategies or take actions that will unduly jeopardize public, worker, or personal safety.

2. Notify local public health and safety personnel.

3. Control and contain the source of the spill; mobilize resources to the spill location. Source control and containment are always a higher priority than the implementation of GRP strategies.

4. Determine the priority or order GRP strategies should be implemented based on the location of the spill or affected area. Priorities based on Potential Oil Spill Origin Points are included in this chapter and should be used unless the situation or circumstances dictate otherwise (see Section 4.3.2).

5. As response resources become available, implement the GRP Strategies in order of priority.

6. In Washington State, if strategy implementation reduces, interrupts, or diverts the flow of water in streams, including the installation of a culvert block or underflow dam, an Emergency HPA must be obtained from WDFW (24-hour pager: (360) 534-8233).

4.3.2 Strategy Priorities based on Potential Oil Spill Origin Points

POSOPs are geographic locations that have a defined list of response strategy implementation priorities listed in a matching table of Section 4.3. The placement of each POSOP is often based on spill risks in the area, including oil pipelines, railways, highways/roadways, tributaries, and vessel movements. Intersections of two or more of these risk locations typically represent a higher spill risk than any one individually, increasing the probability of an oil spill. Occasionally POSOPs are generalized to ensure implementation priorities are developed throughout an entire planning area.

These points are displayed on area overview and sector maps as red boxes. In establishing response priorities during a response, or selecting an appropriate POSOP, the downstream and tidal movement of spilled oil and the time it takes to mobilize and deploy response resources must be considered. Generally, GRP strategies should first be implemented downstream, well beyond the furthest extent of the
spill, with deployments continuing upstream towards the spill source and in some cases slightly beyond. POSOPs are alphabetically
designated.

The following tables provide the strategy implementation order for POSOPs in Lake Chelan: LKCH-A, LKCH-B, LKCH-C and LKCH-D. These
priority tables were determined using a combination of variables, including: notification time, travel time for responders and equipment,
average and seasonal flow rates, average winds, tides or currents, deployment time, proximity to the spill source, and other considerations.

Source control and containment are a higher priority than GRP strategy implementation
**Table 4-3: Priority Table LKCH-A (Barge Loading Dock in Chelan)**

<table>
<thead>
<tr>
<th>Implementation Priority</th>
<th>Strategy Number</th>
<th>Sector Map (Page #)</th>
<th>Strategy Matrix (Page #)</th>
<th>Strategy Details (Page #)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LKCH-60.6</td>
<td>43</td>
<td>55</td>
<td>73</td>
<td>N/A</td>
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<tr>
<td>2</td>
<td>LKCH-58.9</td>
<td>43</td>
<td>55</td>
<td>71</td>
<td><strong>Low Lake Level Only</strong></td>
</tr>
<tr>
<td>3</td>
<td>LKCH-60.8</td>
<td>43</td>
<td>55</td>
<td>75</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>LKCH-60.9</td>
<td>43</td>
<td>56</td>
<td>77</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>LKCH-61.0</td>
<td>43</td>
<td>56</td>
<td>79</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>LKCH-61.2</td>
<td>43</td>
<td>56</td>
<td>81</td>
<td>N/A</td>
</tr>
<tr>
<td>7</td>
<td>LKCH-48.0</td>
<td>44</td>
<td>54</td>
<td>69</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>LKCH-37.5</td>
<td>46</td>
<td>54</td>
<td>67</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>LKCH-37.0</td>
<td>46</td>
<td>54</td>
<td>65</td>
<td>N/A</td>
</tr>
<tr>
<td>10</td>
<td>LKCH-104.4</td>
<td>50</td>
<td>57</td>
<td>83</td>
<td><strong>High Lake Level Only</strong></td>
</tr>
</tbody>
</table>
Table 4-4: Priority Table LKCH-B (Manson)

<table>
<thead>
<tr>
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<th>Strategy Number</th>
<th>Sector Map (Page #)</th>
<th>Strategy Matrix (Page #)</th>
<th>Strategy Details (Page #)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LKCH-48.0</td>
<td>44</td>
<td>54</td>
<td>69</td>
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<td>2</td>
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<td>43</td>
<td>55</td>
<td>71</td>
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</tr>
<tr>
<td>3</td>
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<td>43</td>
<td>55</td>
<td>73</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>LKCH-37.5</td>
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<td>54</td>
<td>67</td>
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<tr>
<td>5</td>
<td>LKCH-37.0</td>
<td>46</td>
<td>54</td>
<td>65</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>LKCH-104.4</td>
<td>50</td>
<td>57</td>
<td>83</td>
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</table>
### Table 4-5: Priority Table LKCH-C (Dutch Harbor)

<table>
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<tr>
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<th>Strategy Number</th>
<th>Sector Map (Page #)</th>
<th>Strategy Matrix (Page #)</th>
<th>Strategy Details (Page #)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LKCH-37.0</td>
<td>46</td>
<td>54</td>
<td>65</td>
<td>N/A</td>
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<tr>
<td>2</td>
<td>LKCH-37.5</td>
<td>46</td>
<td>54</td>
<td>67</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>LKCH-48.0</td>
<td>44</td>
<td>54</td>
<td>69</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>LKCH-58.9</td>
<td>43</td>
<td>55</td>
<td>71</td>
<td><strong>Low Lake Level Only</strong></td>
</tr>
<tr>
<td>5</td>
<td>LKCH-60.6</td>
<td>43</td>
<td>55</td>
<td>73</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>LKCH-104.4</td>
<td>50</td>
<td>57</td>
<td>83</td>
<td><strong>High Lake Level Only</strong></td>
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</table>
Table 4-6: Priority Table LKCH-D (Lucerne Landing)

<table>
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<th>Sector Map (Page #)</th>
<th>Strategy Matrix (Page #)</th>
<th>Strategy Details (Page #)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
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<td>87</td>
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<td>58</td>
<td>89</td>
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<td>50</td>
<td>57</td>
<td>83</td>
<td>High Lake Level Only</td>
</tr>
<tr>
<td>5</td>
<td>LKCH-37.0</td>
<td>46</td>
<td>54</td>
<td>65</td>
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<tr>
<td>6</td>
<td>LKCH-37.5</td>
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<td>54</td>
<td>67</td>
<td>N/A</td>
</tr>
<tr>
<td>7</td>
<td>LKCH-48.0</td>
<td>44</td>
<td>54</td>
<td>69</td>
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</tr>
<tr>
<td>8</td>
<td>LKCH-58.9</td>
<td>43</td>
<td>55</td>
<td>71</td>
<td>Low Lake Level Only</td>
</tr>
<tr>
<td>9</td>
<td>LKCH-60.6</td>
<td>43</td>
<td>55</td>
<td>73</td>
<td>N/A</td>
</tr>
</tbody>
</table>
4.4 SECTOR MAPS (STRATEGY LOCATIONS)

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCan, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri Staging Area and Boat Launch symbols are offset to prevent overlapping.
CHAPTER 4
CHAPTER 4

Lake Chelan GRP

October 2015

Section LKCH-3

Responses Strategy Locations

Boat Launch Locations

Notification Strategy Locations

Potential Oil Spill Points

Staging Area Locations

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

Staging Area and Boat Launch symbols are offset to prevent overlapping.
CHAPTER 4

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

4.5.1  Strategy Names

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

Associated waterbody short name designations used within this plan include:

- **LKCH** = Lake Chelan
- **N** = Notification Strategy
- **SA** = Staging Area
- **BL** = Boat Launch
### 4.5.2 Response Strategy Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Location</th>
<th>Strategy Type</th>
<th>Boom Length</th>
<th>Boat Req?</th>
<th>Staging Area</th>
<th>Resources At Risk</th>
<th>Comments</th>
<th>Sector Map (Page #)</th>
<th>Strategy Details (Page #)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LKCH-37.0</strong></td>
<td>Lake Chelan (Dutch Harbor) 48.01229 -120.25733</td>
<td>Exclusion</td>
<td>Boom 650ft</td>
<td>Yes</td>
<td>Remote Coordinate with incident/unified command (or call Ecology) before staging in Chelan at SA-LKCH-61.5 Mountain Barge.</td>
<td>Sensitive Resources</td>
<td>Coordinate transit to strategy location with incident/unified command or call Ecology (509)-575-2490. Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 – South across the lake. In low water use BL-LKCH-71.4 (~10 mi S).</td>
<td>46</td>
<td>65</td>
</tr>
<tr>
<td><strong>LKCH-37.5</strong></td>
<td>Lake Chelan (Dutch Harbor) 48.00900 -120.25005</td>
<td>Exclusion</td>
<td>Boom 800ft</td>
<td>Yes</td>
<td>Remote Coordinate with incident/unified command (or call Ecology) before staging in Chelan at SA-LKCH-61.5 Mountain Barge.</td>
<td>Sensitive Resources</td>
<td>Coordinate transit to strategy location with incident/unified command or call Ecology (509)-575-2490. Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 – South across the lake. In low water use BL-LKCH-71.4 (~10 mi S).</td>
<td>46</td>
<td>67</td>
</tr>
<tr>
<td><strong>LKCH-48.0</strong></td>
<td>Lake Chelan (Willow Point Park - Manson) 47.89295 -120.19034</td>
<td>Exclusion</td>
<td>Boom 1050ft</td>
<td>Yes</td>
<td>Remote Old Mill Park, Hwy 150 and E. Wapato Lake Rd (200 Mill Rd, Manson, WA) – about 4 miles away from site</td>
<td>Sensitive Resources</td>
<td>Coordinate with Chelan County Fire District No. 5 (Manson); call (509)-663-9911 (Rivercom911 Dispatch). Boat Launch available at Old Mill Park (and low water access at Manson Bay Park via Fire Dept); call Manson Parks (509)-687-9635.</td>
<td>44</td>
<td>69</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
<td>Sector Map (Page #)</td>
<td>Strategy Details (Page #)</td>
</tr>
<tr>
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<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>LKCH-58.9 Low Lake Levels Only</td>
<td>Lake Chelan (Chelan/Spaders Bay) 47.84538-120.03182</td>
<td>Exclusion</td>
<td>Boom 1150ft</td>
<td>Yes</td>
<td>Remote Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816</td>
<td>Sensitive Resources</td>
<td>Coordinate with Chelan Fire &amp; Rescue via Rivercom911 Dispatch at (509) 663-9911 before implementation. Notify City of Chelan Parks and Recreation at 509-682-8023 before staging equipment at Lakeshore Park.</td>
<td>43</td>
<td>71</td>
</tr>
<tr>
<td>LKCH-60.6</td>
<td>Lake Chelan (Chelan) 47.83802-120.01837</td>
<td>Collection, Exclusion</td>
<td>Boom 700ft</td>
<td>Yes</td>
<td>Remote Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816</td>
<td>Power Generation</td>
<td>Coordinate with Chelan Fire and Rescue via Rivercom911 Dispatch at (509)-663-9911 before implementation. Notify City of Chelan Parks and Recreation at (509)-682-8023 before staging equipment at Lakeshore Park.</td>
<td>43</td>
<td>73</td>
</tr>
<tr>
<td>LKCH-60.8</td>
<td>Lake Chelan (Chelan) 47.83973-120.02357</td>
<td>Collection</td>
<td>Boom 300ft</td>
<td>Yes</td>
<td>Remote Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816</td>
<td>Power Generation</td>
<td>Coordinate with Chelan Fire and Rescue via Rivercom911 Dispatch at (509)-663-9911 before implementation. Notify City of Chelan Parks and Recreation at (509)-682-8023 before staging equipment at Lakeshore Park.</td>
<td>43</td>
<td>75</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
<td>Sector Map (Page #)</td>
<td>Strategy Details (Page#)</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------</td>
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<td>--------------------------------------------------</td>
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<td>---------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>LKCH-60.9</td>
<td>Lake Chelan (Chelan)</td>
<td>Collection</td>
<td>Boom 300ft</td>
<td>Yes</td>
<td>Remote Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816</td>
<td>Power Generation</td>
<td>Coordinate with Chelan Fire and Rescue via Rivercom911 Dispatch at (509)-663-9911 before implementation. Notify City of Chelan Parks and Recreation at (509)-682-8023 before staging equipment at Lakeshore Park.</td>
<td>43</td>
<td>77</td>
</tr>
<tr>
<td>LKCH-61.0</td>
<td>Lake Chelan (Chelan)</td>
<td>Collection</td>
<td>Boom 500ft</td>
<td>Yes</td>
<td>Remote Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816</td>
<td>Power Generation</td>
<td>Coordinate with Chelan Fire and Rescue via Rivercom911 Dispatch at (509)-663-9911 before implementation. Notify City of Chelan Parks and Recreation at (509)-682-8023 before staging equipment at Lakeshore Park.</td>
<td>43</td>
<td>79</td>
</tr>
<tr>
<td>LKCH-61.2</td>
<td>Lake Chelan (Chelan)</td>
<td>Collection</td>
<td>Boom 300ft</td>
<td>Yes</td>
<td>Remote Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816</td>
<td>Power Generation</td>
<td>Coordinate with Chelan Fire and Rescue via Rivercom911 Dispatch at (509)-663-9911 before implementation. Notify City of Chelan Parks and Recreation at (509)-682-8023 before staging equipment at Lakeshore Park.</td>
<td>43</td>
<td>81</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
<td>Sector Map (Page #)</td>
<td>Strategy Details (Page#)</td>
</tr>
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<td>---------------------------------------------------------------------------</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>LKCH-104.4</td>
<td>Lake Chelan</td>
<td>Exclusion</td>
<td>Boom 250ft</td>
<td>Yes</td>
<td>Remote Coordinate with incident command (or call Ecology) before staging in Chelan at <strong>SA-LKCH-61.5 Mountain Barge</strong>.</td>
<td>Sensitive Resources</td>
<td>Coordinate transit to strategy location with incident/unified command or call Ecology (509)-575-2490. Nearest boat ramp (lake above 1093’ only) is <strong>BL-LKCH-82.6 (~20 mi S)</strong>. In low water use <strong>BL-LKCH-71.4 (~30 mi S)</strong>.</td>
<td>50</td>
<td>83</td>
</tr>
<tr>
<td><strong>Low Lake Levels Only</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LKCH-108.3</td>
<td>Lake Chelan (Lucerne Landing)</td>
<td>Diversion</td>
<td>Boom 100ft</td>
<td>Yes</td>
<td>Onsite Shoreside of dock at Lucerne Landing.</td>
<td>Sensitive Resources</td>
<td>Coordinate transit to Lucerne Landing with incident/unified command or call Ecology (509)-575-2490. Nearest boat ramp (lake above 1093’ only) is <strong>BL-LKCH-82.6 (~23 mi S)</strong>. In low water use <strong>BL-LKCH-71.4 (~33 mi S)</strong>.</td>
<td>50</td>
<td>85</td>
</tr>
<tr>
<td>LKCH-108.4</td>
<td>Lake Chelan (Lucerne Landing)</td>
<td>Containment</td>
<td>Boom 500ft</td>
<td>Yes</td>
<td>Onsite Shoreside of dock at Lucerne Landing.</td>
<td>Sensitive Resources</td>
<td>Coordinate transit to Lucerne Landing with incident/unified command or call Ecology (509)-575-2490. Nearest boat ramp (lake above 1093’ only) is <strong>BL-LKCH-82.6 (~23 mi S)</strong>. In low water use <strong>BL-LKCH-71.4 (~33 mi S)</strong>.</td>
<td>50</td>
<td>87</td>
</tr>
<tr>
<td>Strategy Name</td>
<td>Location</td>
<td>Strategy Type</td>
<td>Boom Length</td>
<td>Boat Req?</td>
<td>Staging Area</td>
<td>Resources At Risk</td>
<td>Comments</td>
<td>Sector Map (Page #)</td>
<td>Strategy Details (Page #)</td>
</tr>
<tr>
<td>---------------</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>LKCH-108.5</td>
<td>Lake Chelan (Lucerne Landing) 48.20191 -120.59892</td>
<td>Containment</td>
<td>Boom 800ft</td>
<td>Yes</td>
<td>Onsite Shoreside of dock at Lucerne Landing.</td>
<td>Sensitive Resources</td>
<td>Coordinate transit to Lucerne Landing with incident/unified command or call Ecology (509)-575-2490. Nearest boat ramp (lake above 1093' only) is BL-LKCH-82.6 (~23 mi S). In low water use BL-LKCH-71.4 (~33 mi S).</td>
<td>50</td>
<td>89</td>
</tr>
</tbody>
</table>
### 4.5.3 Notification Strategy Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Location</th>
<th>Strategy Type</th>
<th>Resources at Risk</th>
<th>Implementation</th>
<th>Comments</th>
<th>Sector Map (Page #)</th>
<th>Strategy Details (Page#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LKCH-2.8-N</td>
<td>National Park Service Stehekin Ranger Station</td>
<td>Notification</td>
<td>Federal Lands, Marina, Public Recreation Site/Area, Wetlands</td>
<td>Call the NPS Stehekin Ranger's Station at (509) 699-2080 x 29 (24-hr number). Notify park staff of oil spill so they can deploy response equipment.</td>
<td></td>
<td>52</td>
<td>93</td>
</tr>
<tr>
<td>LKCH-47.5-N</td>
<td>Lake Chelan Reclamation District Water Intake</td>
<td>Notification</td>
<td>Public Health and Safety, Water Intakes</td>
<td>Call Lake Chelan Notification District emergency line at (509) 687-3548. Inform them that a spill has occurred and to consider shutting down their intakes.</td>
<td>Shut down drinking water and irrigation intakes.</td>
<td>44</td>
<td>95</td>
</tr>
<tr>
<td>LKCH-60.1-N</td>
<td>City of Chelan Drinking Water Intake</td>
<td>Notification</td>
<td>Public Health and Safety, Water Intakes</td>
<td>Call City of Chelan Public Works and inform them a spill has occurred. Advise they consider shutting down their intakes.</td>
<td>Shut down drinking water intake and park irrigation intakes.</td>
<td>43</td>
<td>97</td>
</tr>
<tr>
<td>LKCH-60.2-N</td>
<td>Lake Chelan Hydroelectric Project</td>
<td>Notification</td>
<td>Power Generation, Salmon Bearing Stream</td>
<td>Call System Operations at (509) 661-4000 (staffed 24/7). They will deploy response equipment and/or adjust water intakes.</td>
<td>Keep oil out of dam</td>
<td>43</td>
<td>99</td>
</tr>
</tbody>
</table>
### 4.5.4 Staging Area Matrices

<table>
<thead>
<tr>
<th>Strategy Name</th>
<th>Name</th>
<th>Position</th>
<th>Nearest Address</th>
<th>Contact</th>
<th>Strategies Served</th>
<th>Comments</th>
<th>Sector Map (Page #)</th>
<th>Strategy Details (Page#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-LKCH-59.3</td>
<td>Lakeshore Park Marina</td>
<td>47.84179-120.02438</td>
<td>310 W Manson Road Chelan, WA 98816</td>
<td>City of Chelan Parks and Recreation Owner Chelan, WA 98816 509-682-8023</td>
<td>LKCH-58.9</td>
<td>Pump-out station, launch and ample pay parking. Adjacent to RV Park with utilities and wi-fi.</td>
<td>43</td>
<td>103</td>
</tr>
<tr>
<td>SA-LKCH-61.5</td>
<td>Mountain Barge Services</td>
<td>47.83607-120.03427</td>
<td>1228 W Woodin Ave Chelan, WA 98816</td>
<td>Mountain Barge Services Chelan, WA 98816 509-682-2493</td>
<td>LKCH-37.0</td>
<td>(Previously Tom Courtney Tug and Barge). Barge to Lucerne Landing loading and departure site. Response will be coordinated from here.</td>
<td>43</td>
<td>105</td>
</tr>
<tr>
<td>SA-LKCH-71.4</td>
<td>Lake Chelan State Park</td>
<td>47.87544-120.19691</td>
<td>7544 S. Lakeshore Road Chelan, WA 98816</td>
<td>Washington State Parks and Recreation Commission Lake Chelan State Park Chelan, WA 98816 509-687-3710</td>
<td>LKCH-48.0</td>
<td>The park provides one kitchen shelter without electricity plus a small parking area.</td>
<td>44</td>
<td>107</td>
</tr>
</tbody>
</table>
### 4.5.5 Boat Launch Location Matrices

<table>
<thead>
<tr>
<th><strong>Strategy Name</strong></th>
<th><strong>Name</strong></th>
<th><strong>Position</strong></th>
<th><strong>Nearest Address</strong></th>
<th><strong>Contact</strong></th>
<th><strong>Strategies Served</strong></th>
<th><strong>Comments</strong></th>
<th><strong>Sector Map (Page #)</strong></th>
<th><strong>Strategy Details (Page #)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BL-LKCH-59.3</td>
<td>Lakeshore Park Marina</td>
<td>47.84179-120.02438</td>
<td>310 W Manson Road Chelan, WA 98816</td>
<td>City of Chelan Parks and Recreation Owner Chelan, WA 98816 509-682-8023</td>
<td>LKCH-58.9 LKCH-60.6 LKCH-60.8 LKCH-60.9 LKCH-61.0 LKCH-61.2</td>
<td>Pump-out station, launch and ample pay parking. Adjacent to RV Park with utilities and wi-fi.</td>
<td>44</td>
<td>111</td>
</tr>
<tr>
<td>BL-LKCH-71.4</td>
<td>Lake Chelan State Park</td>
<td>47.87544-120.19691</td>
<td>7544 S. Lakeshore Road Chelan, WA 98816</td>
<td>Washington State Parks and Recreation Commission Lake Chelan State Park Chelan, WA 98816 509-687-3710</td>
<td>LKCH-48.0</td>
<td>Accessible in low water. The park has a double lane boat launch with nearby parking for approximately 32 vehicles with trailers. The launch offers a 1080 feet of docking space along the four piers near the launch.</td>
<td>44</td>
<td>113</td>
</tr>
<tr>
<td>BL-LKCH-82.6</td>
<td>25-Mile Creek Boat Launch</td>
<td>47.99316-120.26120</td>
<td>20530 S Lakeshore Rd Chelan, WA 98816</td>
<td>Washington State Parks Chelan Owner Chelan, WA 98816 360-902-8844</td>
<td>LKCH-37.0 LKCH-37.5 LKCH-104.4 LKCH-108.3 LKCH-108.4 LKCH-108.5</td>
<td>Twenty-Five Mile Creek State Park offers two boat ramps. The launch is generally usable from mid-June to the end of December, as long as the lake is at an elevation of 1093. For up-to-date information, call the Information Center at 360-902-8844. There is a modern marina with moorage for 20 boats up to 23 feet long.</td>
<td>46</td>
<td>115</td>
</tr>
</tbody>
</table>
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APPENDIX 4A

Response Strategy 2-Pagers
RESPONSE STRATEGIES – LIST

LKCH-37.0  LKCH-37.5  LKCH-48.0  LKCH-58.9  LKCH-60.6
LKCH-60.8  LKCH-60.9  LKCH-61.0  LKCH-61.2  LKCH-104.4
LKCH-108.3 LKCH-108.4 LKCH-108.5
Lake Chelan (Dutch Harbor)

**Position - Location:** 48°.737', -120° 15.440'  
48° 0' 44.2'', -120° 15' 26.4''  
48.01229, -120.25733  
Chelan

**Strategy Objective:** Exclusion: Keep oil away from shore at this location

**Implementation:** Using workboat, secure end of boom to shore near “A” (48.012568, -120.258706). Pull boom out away from shore to the Southeast (650ft); secure remaining boom end to shore near “B” (48.011948, -120.256291). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures, trees, or anchor posts to secure boom to shore. Water depth at this location is very deep immediately offshore.

**Staging Area:** Remote: Coordinate with incident/unified command (or call Ecology) before staging in Chelan at SA-LKCH-61.5 Mountain Barge.

**Site Safety:** Steep banks; rocky hillside; water hazard; slip, trip, fall hazards; limited or no site access

**Field Notes:** Coordinate transit to strategy location with incident/unified command or call Ecology (509-575-2490). Nearest boat ramp (lake above 1093' only) is BL-LKCH-82.6 – South across the lake. In low water use BL-LKCH-71.4 (~10 mi S).

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Sensitive Resources

**Recommended Equipment**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Each</td>
<td>Anchoring Post Driver(s)</td>
</tr>
<tr>
<td>6 Each</td>
<td>Anchoring Post(s) - (shoreside)</td>
</tr>
<tr>
<td>3 Each</td>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
</tr>
<tr>
<td>650 Feet</td>
<td>Boom - B3 (River Boom) or equivalent</td>
</tr>
<tr>
<td>1 Each</td>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
</tr>
<tr>
<td>1 Each</td>
<td>Heaving Line(s)</td>
</tr>
<tr>
<td>500 Feet</td>
<td>Line - 3/8'' poly line</td>
</tr>
<tr>
<td>1 Each</td>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
</tr>
</tbody>
</table>

**Recommended Personnel**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boat Operator</td>
</tr>
<tr>
<td>3</td>
<td>Laborer</td>
</tr>
<tr>
<td>1</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>
Lake Chelan (Dutch Harbor)

LKCH-37.0 Photo: Aerial photo looking NNE at strategy location

Site Contact

Mountain Barge Services
Primary Contact:
509-682-2493

U.S. Forest Service Okanogan-Wenatchee National Forest
Land/Property Owner:
509-664-9254

Nearest Address

1228 W Woodin Ave
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left
**Strategy Objective:** Exclusion: Keep oil away from shore at this location

**Implementation:** Using workboat, secure end of boom to shore near “A” (48.009623, -120.250955). Pull boom out away from shore to the SE (750ft to 800ft); secure remaining boom end to shore near “C” (48.008417, -120.248527). Pull boom into desired shape anchoring near “B” (48.009077, -120.250505 – 60ft off shore, about ~225ft SSE of “A”). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures, trees, or anchor posts to secure boom to shore. Water depth is very deep immediately offshore.

**Staging Area:** Remote: Coordinate with incident/unified command (or call Ecology) before staging in Chelan at SA-LKCH-61.5 Mountain Barge.

**Site Safety:** Steep banks; rocky hillside; water hazard; slip, trip, fall hazards; limited or no site access

**Field Notes:** Coordinate transit to strategy location with incident/unified command or call Ecology (509-575-2490). Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 – South across the lake. In low water use BL-LKCH-71.4 (~10 mi S).

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Sensitive Resources

**Recommended Equipment**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Each</td>
<td>Anchoring Post Driver(s)</td>
</tr>
<tr>
<td>6 Each</td>
<td>Anchoring Post(s) - (shoreside)</td>
</tr>
<tr>
<td>5 Each</td>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
</tr>
<tr>
<td>800 Feet</td>
<td>Boom - B3 (River Boom) or equivalent</td>
</tr>
<tr>
<td>1 Each</td>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
</tr>
<tr>
<td>1 Each</td>
<td>Heaving Line(s)</td>
</tr>
<tr>
<td>500 Feet</td>
<td>Line - 3/8” poly line</td>
</tr>
<tr>
<td>1 Each</td>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
</tr>
</tbody>
</table>

**Recommended Personnel**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boat Operator</td>
</tr>
<tr>
<td>3</td>
<td>Laborer</td>
</tr>
<tr>
<td>1</td>
<td>Supervisor</td>
</tr>
</tbody>
</table>
Site Contact

Mountain Barge Services
Primary Contact:
509-682-2493

U.S. Forest Service Okanogan-Wenatchee National Forest
Land/Property Owner:
509-664-9254

Nearest Address

1228 W Woodin Ave
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left
**Lake Chelan (Willow Point Park - Manson)**

**Position - Location:**
- LKCH-48.0
- LKCH-48.0
- LKCH-48.0

<table>
<thead>
<tr>
<th>Strategy Objective:</th>
<th>Exclusion : Keep oil away from shore at this location.</th>
</tr>
</thead>
</table>

**Implementation:**
Using workboat, secure end of boom to shore at “A” (47.894172, -120.190630, North side of private dock). Pull boom out away from shore W-SW about ~150ft, anchoring near “B” (47.894005, -120.191270) continuing S-SE ~450ft anchoring boom near “C” (47.892978, -120.190388). From “C” continue E-SE ~350ft anchoring boom near Point “D” (47.892885, -120.188986, about ~25ft from end of small private dock) and then to shore near “E” (47.893078, -120.188854). **Sensitive underwater resources in the area could be damaged if anchors are set out of recommended position**

**Staging Area:**
Remote: Old Mill Park, Hwy 150 and E. Wapato Lake Rd (200 Mill Rd, Manson, WA) – about 4 miles away from site

**Site Safety:**
Water hazard; slip, trip, fall hazards; recreational area/swimming near shore/watercraft

**Field Notes:**
Coordinate with Chelan County Fire District No. 5 (Manson); call 509-663-9911 (Rivercom911 Dispatch). Boat Launch available at Old Mill Park (& low water access at Manson Bay Park via Fire Dept); call Manson Parks 509-687-9635.

**Watercourse:**
Lake - High water June through September

**Resources at Risk:**
Sensitive Resources

**Recommended Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring Post Driver(s)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Anchoring Post(s) - (shoreside)</td>
<td>6 Each</td>
<td></td>
</tr>
<tr>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
<td>6 Each</td>
<td></td>
</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>1050 Feet</td>
<td></td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Heaving Line(s)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Line - 3/8&quot; poly line</td>
<td>500 Feet</td>
<td></td>
</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
<td></td>
</tr>
</tbody>
</table>

**Recommended Personnel**

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Boat Operator</td>
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</tr>
<tr>
<td>Laborer</td>
<td>4</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Lake Chelan (Willow Point Park - Manson)

LKCH-48.0 Photo: Aerial photo looking NE at strategy location

Site Contact

Chelan Fire and Rescue
Fire Department: 509-663-9911

Manson Parks and Recreation District
Land/Property Owner: Owner 509-687-9635

Nearest Address

200 Mill Rd
Manson, WA 98831

Driving Directions

1. Start at Location 1
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Bear left on W Woodin Ave
8. Turn left on N Columbia St
9. Turn left on WA-150 (Manson Rd)
10. Turn left on Mill Rd, then take the first left to the boat launch.
Lake Chelan (Chelan/Spaders Bay)

**Position - Location:**
- 47° 50.723', -120° 1.909'
- 47° 50' 43.4", -120° 1' 54.5" (47.84538, -120.03182)
- 47° 50' 43.4", -120° 1' 54.5" (47.84538, -120.03182)

**Strategy Objective:**
Exclusion: Prevent oil from entering this part of Spaders Bay during periods of Low Lake Level Only

**Implementation:**
Using workboat, secure end of boom to shore using existing structures near “A” (47.846758, -120.031990, end of dirt road West of Spader Bay Condominiums). Pull boom away from shore and SE to corner of boat dock at Spader Bay Condominiums. Secure boom to SW corner of dock at "D" (47.844743, -120.029993). Pull boom into desired shape anchoring it at “B” (47.848666, -120.032324, ~400ft from shore at “A”) and ”C” (47.844736, -120.030761, ~190ft West of dock at "D"). **Sensitive underwater resources in the area could be damaged if anchors are set out of recommended position**

**Staging Area:**
Remote: Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816

**Site Safety:**
Water hazard; slip, trip, fall hazards; recreational area/swimming near shore/watercraft

**Field Notes:**
Coordinate with Chelan Fire & Rescue via Rivercom 911 Dispatch at 509-663-9911 before implementation. Notify City of Chelan Parks & Recreation at 509-682-8023 before staging equipment at Lakeshore Park.

**Watercourse:**
Lake - High water June through September

**Resources at Risk:**
Sensitive Resources

---

**Recommended Equipment**

- 1 Each Anchoring Post Driver(s)
- 3 Each Anchoring Post(s) - (shoreside)
- 7 Each Anchoring System(s) - (anchor, lines, floats)
- 1150 Feet Boom - B3 (River Boom) or equivalent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Heaving Line(s)
- 300 Feet Line - 3/8" poly line
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- 1 Boat Operator
- 5 Laborer
- 1 Supervisor
**Lake Chelan (Chelan/Spaders Bay)**

**Site Contact**

City of Chelan Parks and Recreation  
Other: Owner  
Chelan, WA 98816  
509-682-8023

**Nearest Address**

310 W Manson Rd  
Chelan, WA 98816

**Driving Directions**

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)  
3. Turn left on WA-28 (F St SW)  
4. Turn left on US-2 (US-97)  
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan  
6. Turn right on US-97-ALT (State Highway97a)  
7. Bear left on W Woodin Ave  
8. Turn left on N Columbia St  
9. Turn left on WA-150 (Manson Rd)  
10. Turn left into Lakeshore Park and Marina

**LKCH-58.9 Photo:** Aerial photo looking NNW at strategy location; anchor point is dock closest to photo center.
**Strategy Objective:** Collection, Exclusion: Prevent oil from reaching Lake Chelan Dam

**Implementation:** Using workboat, secure end of boom to shore along Chelan Riverwalk Loop Trail at "A" (47.838166, -120.019750, end of dirt road near corner off W. Okanogan Avenue near corner of S 1st Street). Pull boom out away from shore, SE across to Riverwalk Park (opposite shore). Secure remaining end of boom near "B" (47.837736, -120.017185, South of parking area on Emerson Street). Form collection pocket along Riverwalk Park to the NNW. Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures or anchor post to secure boom to shore.

**Staging Area:** Remote: Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816

**Site Safety:** Water hazard; slip, trip, fall hazards; recreational area/watercraft

**Field Notes:** Coordinate with Chelan Fire & Rescue via Rivercom911 Dispatch at 509-663-9911 before implementation. Notify City of Chelan Parks & Recreation at 509-682-8023 before staging equipment at Lakeshore Park.

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Power Generation

**Recommended Equipment**

- **Anchoring Post Driver(s)**
- **Anchoring Post(s) - (shoreside)**
- **Anchoring System(s) - (anchor, lines, floats)**
- **Boom - B3 (River Boom) or equivalent**
- **Bridle(s) - Towing (appropriately sized for boom)**
- **Line - 3/8” poly line**
- **Workboat(s) - of adequate size for type and amount of boom**

**Recommended Personnel**

- **Boat Operator**
- **Laborer**
- **Supervisor**
Lake Chelan (Chelan)

LKCH-60.6 Photo: From Chelan Riverwalk Park, looking across Lake Chelan towards Anchor "A" and Chelan Riverwalk Loop Trail

Site Contact

Chelan Fire and Rescue
Fire Department:
Chelan, WA 98816
509-663-9911

Nearest Address

310 W Manson Road
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan
6. Turn right on US97-ALT (State Highway 97a)
7. Bear left on W Woodin Ave
8. Turn left on N Columbia St
9. Turn left on WA-150 (Manson Rd)
10. Turn left into Lakeshore Park and Marina
Lake Chelan (Chelan)

**Position - Location:** 47° 50.384', -120° 1.414' | 47° 50' 23.0", -120° 1' 24.9" | 47.83973, -120.02357

**Strategy Objective:** Collection: Remove oil from the water before it reaches the W Woodin Avenue Bridge

**Implementation:** Using workboat, secure end of boom to shore near "A" (47.839563, -120.023020, North corner of “Grandview on the Lake” property at 322 W Woodin Ave). Pull boom out away from shore to the West (~250ft); anchor remaining end of boom near "C" (47.839632, -120.023984). Pull boom into desired shape anchoring near "B" (47.839742, -120.023542, ~150ft W-NW from shore). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures to secure boom to shore near Grandview on the Lake property.

**Staging Area:** Remote: Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816

**Site Safety:** Water hazard; slip, trip, fall hazards; recreational area/swimming near shore/watercraft

**Field Notes:** Coordinate with Chelan Fire & Rescue via Rivercom911 Dispatch at 509-663-9911 before implementation. Notify City of Chelan Parks & Recreation at 509-682-8023 before staging equipment at Lakeshore Park.

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Power Generation

**Recommended Equipment**

- 1 Each Anchoring Post Driver(s)
- 1 Each Anchoring Post(s) - (shoreside)
- 3 Each Anchoring System(s) - (anchor, lines, floats)
- 300 Feet Boom - B3 (River Boom) or equivalent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 300 Feet Line - 3/8” poly line
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- 3 Laborer
- 1 Supervisor
Lake Chelan (Chelan)

LKCH-60.8 Photo: From shore SW of strategy location, looking NE toward shoreside anchor point.

**Site Contact**

**Chelan Fire and Rescue**  
Fire Department:  
Chelan, WA 98816  
509-663-9911

**Nearest Address**

310 W Manson Rd  
Chelan, WA 98816

**Driving Directions**

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee  
2. Go north on WA-281 (State Route 281 N)  
3. Turn left on WA-28 (F St SW)  
4. Turn left on US-2 (US-97)  
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan  
6. Turn right on US-97-ALT (State Highway97a)  
7. Bear left on W Woodin Ave  
8. Turn left on N Columbia St  
9. Turn left on WA-150 (Manson Rd)  
10. Turn left into Lakeshore Park and Marina
**Lake Chelan (Chelan)**

**Position - Location:** 47° 50.313', -120° 1.446'  47° 50' 18.8", -120° 1' 26.8"  47.83856, -120.02410

**Strategy Objective:** Collection: Remove oil from the water before it reaches the W Woodin Avenue Bridge

**Implementation:** Using workboat, secure end of boom to shore at NW corner of USDA Forest Service parking lot (428 W Woodin Ave) near "A" (47.838545, -120.023561). Pull boom out away from shore to the West (~300ft); anchor remaining end of boom near “B” (47.838550, 120.024821). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures or anchoring posts to secure boom to shore at US Forestry Department parking lot. Contact Forest Service in Chelan for property access (509-682-4900).

**Staging Area:** Remote: Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816

**Site Safety:** Water hazard; slip, trip, fall hazards; recreational area/swimming near shore/watercraft

**Field Notes:** Coordinate with Chelan Fire & Rescue via Rivercom911 Dispatch at 509-663-9911 before implementation. Notify City of Chelan Parks & Recreation at 509-682-8023 before staging equipment at Lakeshore Park.

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Power Generation

**Recommended Equipment**

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<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
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<tr>
<td>Anchoring Post Driver(s)</td>
<td>1 Each</td>
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<tr>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
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<td></td>
</tr>
<tr>
<td>Anchoring System(s) - Shoreside</td>
<td>3 Each</td>
<td></td>
</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>300 Feet</td>
<td></td>
</tr>
<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Line - 3/8” poly line</td>
<td>300 Feet</td>
<td></td>
</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
<td></td>
</tr>
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**Recommended Personnel**

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<tr>
<th>Role</th>
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<tr>
<td>Boat Operator</td>
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<tr>
<td>Laborer</td>
<td>2</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
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</table>
Lake Chelan (Chelan)

Site Contact

USDA Forest Service Chelan
Land/Property Owner:

Chelan, WA 98816
509-682-4900

Nearest Address

310 W Manson Road
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Bear left on W Woodin Ave
8. Turn left on N Columbia St
9. Turn left on WA-150 (Manson Rd)
10. Turn left into Lakeshore Park and Marina

LKCH-60.9 Photo: Aerial photo of strategy location

Driving Directions:

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Bear left on W Woodin Ave
8. Turn left on N Columbia St
9. Turn left on WA-150 (Manson Rd)
10. Turn left into Lakeshore Park and Marina
**Lake Chelan (Chelan)**

**Position - Location:**
- 47° 50.270', -120° 1.499'  
- 47° 50' 16.2", -120° 1' 29.9"  
- 47.83783, -120.02498

**Strategy Objective:** Collection: Remove oil from the water before it reaches the W Woodin Avenue Bridge

**Implementation:**
Using workboat, secure end of boom to shore at NW corner of public viewing area near “A” (47.837529, -120.023844); just south of USDA Forest Service offices at 428 W Woodin Avenue. Pull boom out away from shore NW (~450ft); anchor remaining end of boom near “C” (47.838049, -120.025610). Pull boom into desired shape anchoring it near “B” (47.837836, -120.025339, ~100ft SE from end of boom at “C” and ~360ft WNW of “A”). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures or anchoring posts to secure boom to shore.

**Staging Area:**
Remote: Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816

**Site Safety:**
Water hazard; slip, trip, fall hazards; recreational area/watercraft

**Field Notes:**
Coordinate with Chelan Fire & Rescue via Rivercom911 Dispatch at 509-663-9911 before implementation. Notify City of Chelan Parks & Recreation at 509-682-8023 before staging equipment at Lakeshore Park.

**Watercourse:**
Lake - High water June through September

**Resources at Risk:**
Power Generation

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**Recommended Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
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<tbody>
<tr>
<td>Ananchoring Post Driver(s)</td>
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</tr>
<tr>
<td>Ananchoring Post(s) - (shoreside)</td>
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<tr>
<td>Anchoring System(s) - (anchor, lines, floats)</td>
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</tr>
<tr>
<td>Boom - B3 (River Boom) or equivalent</td>
<td>500 Feet</td>
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<tr>
<td>Bridle(s) - Towing (appropriately sized for boom)</td>
<td>1 Each</td>
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<tr>
<td>Line - 3/8&quot; poly line</td>
<td>300 Feet</td>
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</tr>
<tr>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
<td>1 Each</td>
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**Recommended Personnel**

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<tr>
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<tr>
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<tr>
<td>Laborer</td>
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<tr>
<td>Supervisor</td>
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</tbody>
</table>
Lake Chelan (Chelan)

**LKCH-61.0**

**Site Contact**

Chelan Fire and Rescue  
Fire Department:  
Chelan, WA 98816  
509-663-9911

**Nearest Address**

310 W Manson Rd  
Chelan, WA 98816

**Driving Directions**

1. From I-90, take exit 149 for State Route 281 S toward Quincy/Wenatchee  
2. Go north on WA-281 (State Route 281 N)  
3. Turn left on WA-28 (F St SW)  
4. Turn left on US-2 (US-97)  
5. Take ramp on the right to US-97-ALT N toward Entiat/Chelan  
6. Turn right on US-97-ALT (State Highway 97a)  
7. Bear left on W Woodin Ave  
8. Turn left on N Columbia St  
9. Turn left on WA-150 (Manson Rd)  
10. Turn left into Lakeshore Park and Marina

**LKCH-61.0** Photo: Aerial photo looking south; strategy location is towards left side of photo
Lake Chelan (Chelan)  

**Position - Location:** 47° 50.241', -120° 1.728'  
47° 50' 14.4", -120° 1' 43.7"  
47.83735, -120.02880  

**Strategy Objective:** Collection: Remove oil from the water before it reaches the W Woodin Avenue Bridge  

**Implementation:** Using workboat, secure end of boom to shore at NW corner of the Peterson's Waterfront Resort property on the west side of the west-end dock near “A” (47.837350, -120.028760). Pull boom out away from shore NW (~265ft); anchor remaining end of boom near “C” (47.837945, -120.029356). Pull boom into desired shape anchoring it near “B” (47.837781, 120.028973, about 120ft out from west-end dock, ~110ft SE of “C” and ~170ft NNW of “A”). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures or posts to secure boom at “A”.  

**Staging Area:** Remote: Stage at Lakeshore Park Boat Launch, ~310 W Manson Road, Chelan 98816  

**Site Safety:** Water hazard; slip, trip, fall hazards; recreational area/watercraft  

**Field Notes:** Coordinate with Chelan Fire & Rescue via Rivercom911 Dispatch at 509-663-9911 before implementation. Notify City of Chelan Parks & Recreation at 509-682-8023 before staging equipment at Lakeshore Park.  

**Watercourse:** Lake - High water June through September  

**Resources at Risk:** Power Generation  

**Recommended Equipment**  

<table>
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<tr>
<th>1 Each</th>
<th>Anchoring Post Driver(s)</th>
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<tbody>
<tr>
<td>3 Each</td>
<td>Anchoring Post(s) - (shoreside)</td>
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<td>300 Feet</td>
<td>Line - 3/8” poly line</td>
</tr>
<tr>
<td>1 Each</td>
<td>Workboat(s) - of adequate size for type and amount of boom</td>
</tr>
</tbody>
</table>

**Recommended Personnel**  

| 1 Boat Operator |
| 2 Laborer |
| 1 Supervisor |
Lake Chelan (Chelan)

LKCH-61.2 Photo: Aerial photo looking south at strategy location; anchor point is dock on far left of photo.

Site Contact

Chelan Fire and Rescue
Emergency Contact:
Chelan, WA 98816
509-663-9911

Nearest Address

310 W Manson Rd
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Bear left on W Woodin Ave
8. Turn left on N Columbia St
9. Turn left on WA-150 (Manson Rd)
10. Turn left into Lakeshore Park and Marina
Lake Chelan

**Position - Location:** 48° 10.274', -120° 32.690'  
**48° 10' 16.4", -120° 32' 41.4"**  
48.17123, -120.54483

**Strategy Objective:** Exclusion: Keep oil away from shore at this location during periods of High Lake Level Only

**Implementation:** Using workboat, secure end of boom to shore near “A” (48.171002, -120.545235). Pull boom out away from shore and then North (250ft); secure remaining boom end to shore near “C” (48.171454, -120.544855). Pull boom into desired shape anchoring it near “B” (48.170992, -120.545039, about ~50ft east of “A”). Boom standoff distance from shore should be 15ft to 20ft. It is very rocky and steep at this location. Shoreside anchoring posts may not be effective and safe shoreside access is not available. Water depth is very deep immediately offshore.

**Staging Area:** Remote: Coordinate with incident command (or call Ecology) before staging in Chelan at SA-LKCH-61.5 Mountain Barge.

**Site Safety:** Steep banks; rocky hillside; water hazard; slip, trip, fall hazards; limited or no site access

**Field Notes:** Coordinate transit to strategy location with incident/unified command or call Ecology (509-575-2490). Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 (~20 mi S). In low water use BL-LKCH-71.4 (~30 mi S).

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Sensitive Resources

**Recommended Equipment**

1 Each Anchoring Post Driver(s)
6 Each Anchoring Post(s) - (shoreside)
4 Each Anchoring System(s) - (anchor, lines, floats)
250 Feet Boom - B3 (River Boom) or equivalent
1 Each Bridle(s) - Towing (appropriately sized for boom)
1 Each Heaving Line(s)
500 Feet Line - 3/8" poly line
1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

1 Boat Operator
2 Laborer
1 Supervisor
Lake Chelan

LKCH-104.4 Photo: On Lake Chelan near strategy location looking west towards shore.

Site Contact

Mountain Barge Services
Primary Contact:
509-682-2493

U.S. Forest Service Okanogan-Wenatchee National Forest
Land/Property Owner:
509-664-9254

Nearest Address

Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left
**Lake Chelan (Lucerne Landing)**

**Position - Location:**
- 48° 12.132', -120° 35.792'
- 48° 12.79', -120° 35.75'
- 48.20220, -120.59654
- Chelan

**Strategy Objective:**
Using workboat, secure end of boom to shore near “A” (48.202085, -120.596089, ~170ft North of mouth of Railroad Creek). Pull boom out away from shore Northwest (100ft) anchoring boom end near “B” (48.202151, -120.596492). Use existing structures or trees to secure boom to shore (use anchor posts only if nothing else available).

**Staging Area:**
- Onsite: Shoreside of dock at Lucerne Landing.
- Using workboat, secure end of boom to shore near “A” (~170ft North of mouth of Railroad Creek).

**Site Safety:**
- Slip, trip, fall hazards; moving equipment near dock & roadway; water hazard; lake debris, limited site access

**Field Notes:**
Coordinate transit to Lucerne Landing with incident/unified command or call Ecology (509-575-2490). Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 (~23 mi S). In low water use BL-LKCH-71.4 (~33 mi S).

**Watercourse:**
- Lake - High water June through September

**Resources at Risk:**
- Sensitive Resources

**Recommended Equipment**
- 1 Each Anchoring Post Driver(s)
- 3 Each Anchoring Post(s) - (shoreside)
- 1 Each Anchoring System(s) - (anchor, lines, floats)
- 100 Feet Boom - B3 (River Boom) or equivalent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Heaving Line(s)
- 200 Feet Line - 3/8” poly line
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**
- 1 Boat Operator
- 2 Laborer
- 1 Supervisor
Lake Chelan (Lucerne Landing)

LKCH-108.3 Photo: On Lake Chelan near Lucerne Landing looking SE towards mouth of Railroad Creek.

**Site Contact**

**Mountain Barge Services**
Primary Contact:
509-682-2493

**U.S. Forest Service Okanogan-Wenatchee National Forest**
Land/Property Owner:
509-664-9254

**Nearest Address**

Chelan, WA 98816

**Driving Directions**

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left
**Lake Chelan (Lucerne Landing)**  
**Position - Location:** 48° 12.099', -120° 35.901'  
**48° 12' 6.0", -120° 35' 54.1"**  
48.20166, -120.59835  
Chelan  
**Strategy Objective:** Containment: Prevent oil from escaping the dock area at Lucerne Landing  
**Implementation:** Using workboat, secure end of boom to “A” (far end of the dock at Lucerne Landing). Pull boom out away from the dock to the Southeast (~450ft); secure remaining boom end to shore near “B” (48.201430, -120.597200, ~450ft SE of dock’s far end, ~250ft NE from base of dock’s SE corner). Use additional anchoring systems to maintain the shape of the boom and to keep it secure. Use existing structures or trees to secure boom to shore (use anchor posts only if nothing else available).  
**Staging Area:** Onsite: Shoreside of dock at Lucerne Landing.  
**Site Safety:** Slippery banks when wet or icy; trip & fall hazards; moving equipment on dock & roadway; water hazard; lake debris  
**Field Notes:** Coordinate transit to Lucerne Landing with incident/unified command or call Ecology (509-575-2490). Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 (~23 mi S). In low water use BL-LKCH-71.4 (~33 mi S).  
**Watercourse:** Lake - High water June through September  
**Resources at Risk:** Sensitive Resources  
**Recommended Equipment**  
- 1 Each Anchoring Post Driver(s)  
- 3 Each Anchoring Post(s) - (shoreside)  
- 1 Each Anchoring System(s) - (anchor, lines, floats)  
- 500 Feet Boom - B3 (River Boom) or equivalent  
- 1 Each Bridle(s) - Towing (appropriately sized for boom)  
- 1 Each Heaving Line(s)  
- 300 Feet Line - 3/8" poly line  
- 1 Each Workboat(s) - of adequate size for type and amount of boom  
**Recommended Personnel**  
- 1 Boat Operator  
- 3 Laborer  
- 1 Supervisor
**Lake Chelan (Lucerne Landing)**

**Drive Directions**

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left

**Site Contact**

**Mountain Barge Services**  
Land/Property Owner:  
509-682-2493

**Nearest Address**  
Chelan, WA  98816
**Strategy Objective:** Containment: Prevent oil from escaping the dock area at Lucerne Landing

**Implementation:** Using workboat, secure end of boom to shore near "A" (48.201230, -120.598841, ~215ft South of far end of the dock). Pull boom out and away from shore, around the end of the dock and eastward to "D" (48.201763, -120.596856, ~500ft West of far end of dock). Secure boom to shore near "D" and at "B" (far end of the dock). Pull boom into shape anchoring it near "C" (48.201872, -120.597684, ~300ft out from the dock). Use additional anchoring systems to secure and maintain the shape of the boom. Use existing structures or trees to secure boom to shore (use anchor posts as last resort).

**Staging Area:** Onsite: Shoreside of dock at Lucerne Landing.

**Site Safety:** Slippery banks when wet or icy; trip & fall hazards; moving equipment on dock & roadway; water hazard; lake debris

**Field Notes:** Coordinate transit to Lucerne Landing with incident/unified command or call Ecology (509-575-2490). Nearest boat ramp (lake above 1093’ only) is BL-LKCH-82.6 (~23 mi S). In low water use BL-LKCH-71.4 (~33 mi S).

**Watercourse:** Lake - High water June through September

**Resources at Risk:** Sensitive Resources

**Recommended Equipment**

- 1 Each Anchoring Post Driver(s)
- 6 Each Anchoring Post(s) - (shoreside)
- 4 Each Anchoring System(s) - (anchor, lines, floats)
- 800 Feet Boom - B3 (River Boom) or equivalent
- 1 Each Bridle(s) - Towing (appropriately sized for boom)
- 1 Each Heaving Line(s)
- 500 Feet Line - 3/8" poly line
- 1 Each Workboat(s) - of adequate size for type and amount of boom

**Recommended Personnel**

- 1 Boat Operator
- 4 Laborer
- 1 Supervisor
Lake Chelan (Lucerne Landing)

LKCH-108.5 Photo: Shoreside of SW corner of dock at Lucerne Landing, looking NW out towards Lake Chelan.

Site Contact

Mountain Barge Services
Primary Contact:
509-682-2493

U.S. Forest Service Okanogan-Wenatchee National Forest
Land/Property Owner:
509-664-9254

Nearest Address

Chelan, WA  98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left
APPENDIX 4B

Notification Strategy 2-Pagers
NOTIFICATION STRATEGIES – LIST

LKCH-2.8-N     LKCH-47.5-N     LKCH-60.1-N     LKCH-60.2-N
### National Park Service Stehekin Ranger Station  
**Position - Location:** 48° 18.503', -120° 39.386'  
**Resources at Risk:** Federal Lands, Marina, Public Recreation Site/Area, Wetlands

<table>
<thead>
<tr>
<th><strong>Strategy Objective:</strong></th>
<th>Notification</th>
<th>Notify park staff of oil spill so they can deploy response equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implementation:</strong></td>
<td>Call the NPS Stehekin Ranger's Station at (509) 699-2080 x 29 (24-hr number).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Field Notes:</strong></th>
<th>Park Service has 26' boat, boom and access to gravel launch at Stehekin.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Watercourse:</strong></td>
<td>Lake - Lake Chelan</td>
</tr>
</tbody>
</table>

**Communication Process and Action:**

Call the National Park Service and explain the situation regarding the spill. Advise they consider deploying spill response equipment where appropriate.

Call the following numbers, in order, until someone at NPS is reached:

- **Stehekin District Ranger Office:**
  - (509) 699-2080 x 12 (8 am - 5 pm)
  - (509) 699-2080 x 29 (24/7)

- **National Recreation Area Communication Center:**
  - (360) 854-7249
National Park Service Stehekin Ranger Station

Site Contact
National Park Service
Emergency Contact: Stehekin District Ranger Office
Stehekin, WA
509-699-2080 ext. 29 or 12

Nearest Address
1222 W Woodin Ave
Chelan, WA 98816

Driving Directions
Stehekin is accessible only by plane, boat or ferry. Directions to Mountain Barge Services dock:
1. From I-90 in George, Washington take exit 149 towards Quincy/Wenatchee (0.27 miles)
2. Turn left on WA-281 (Royal Anne Ave) (10.56 miles)
3. Turn left on WA-28 (F St SW) (33.79 miles)
4. Turn left on US-2 (US-97) (1.02 miles)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan (0.24 miles)
6. Turn right on US-97-ALT (State Highway 97a) (32.7 miles)
7. Turn left into Mountain Barge Services, 1222 W Woodin Ave 98816

At Stehekin Landing, the Golden West Visitor's Center is across the street, or southeast at the end of Stehekin Valley Road.
Lake Chelan Reclamation District Water Intake  LKCH-47.5-N

<table>
<thead>
<tr>
<th>Position - Location:</th>
<th>47° 53.986', -120° 11.544'</th>
<th>47° 53' 59.2&quot;, -120° 11' 32.7&quot;</th>
<th>47.89977, -120.19240</th>
<th>Manson</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Strategy Objective:</th>
<th>Notification: Shut down drinking water and irrigation intakes.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Implementation:</th>
<th>Call Lake Chelan Notification District emergency line at 509-687-3548. Inform them that a spill has occurred and to consider shutting down their intakes.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Field Notes:</th>
<th>Two drinking water intakes at 47.5 and 49.5 (Manson Bay). Irrigation intake located at Old Mill Park.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Watercourse:</th>
<th>Lake - Lake Chelan</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Resources at Risk:</th>
<th>Public Health and Safety, Water Intakes</th>
</tr>
</thead>
</table>

**Communication Process and Action:**

Call the Lake Chelan Reclamation District and explain the situation regarding the spill. Recommend they consider shutting down their water intakes.

Call the following numbers in order until someone at LCRD is reached:
- 509-687-3548 (24/7 Emergency Line)
- 509-470-1960 (Water Treatment Plant Operator in Charge)
- 509-679-0639 (Manager)
Lake Chelan Reclamation District Water Intake

**Site Contact**

Lake Chelan Reclamation District  
Emergency Contact: Utility  
80 Wapato Way  
Manson, WA 98831  
509-687-3548

**Nearest Address**

80 Wapato Way  
Manson, WA 98831

**Driving Directions**

1. From I-90 in George, Washington take exit 149 towards Quincy/Wenatchee (0.27 miles)  
2. Turn left on WA-281 (Royal Anne Ave) (10.56 miles)  
3. Turn left on WA-28 (F St SW) (33.79 miles)  
4. Turn left on US-2 (US-97) (1.02 miles)  
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan (0.24 miles)  
6. Turn right on US-97-ALT (State Highway 97a) (33.74 miles)  
7. Bear left on W Woodin Ave (0.39 miles)  
8. Turn left on N Columbia St (0.07 miles)  
9. Turn left on WA-150 (Manson Rd) (7.6 miles)  
10. Continue on Wapato Way (0.16 miles)  
11. Finish at 80 Wapato Way, 98831

**LKCH-47.5-N Photo:** Approximate location of northernmost drinking water intake of Lake Chelan Reclamation District.
**City of Chelan Drinking Water Intake**

<table>
<thead>
<tr>
<th>Position - Location:</th>
<th>47° 50.181', -120° 0.945'</th>
<th>47° 50' 10.8&quot;, -120° 0' 56.7&quot;</th>
<th>47.8364, -120.01575</th>
<th>Chelan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy Objective:</td>
<td>Notification: Shut down drinking water intake and park irrigation intakes.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Implementation:**
Call City of Chelan Public Works and inform them a spill has occurred. Advise they consider shutting down their intakes.

**Field Notes:**
Drinking water intake at Webster Ave/US-97 Bridge. Park irrigation intakes at Lakeshore Park (59.3) and Lakeside Park (63.3).

**Watercourse:**
Lake - Lake Chelan

**Resources at Risk:**
Public Health and Safety, Water Intakes

**Communication Process and Action:**
Call the City of Chelan Public Works Department and explain the situation regarding the spill. Recommend they consider shutting down their water intakes.

Call the following numbers in order until someone at Public Works is reached:
- Water Treatment Plant Operator
  - 509 679 1307
  - 509 264 8300
- Assistant Water Treatment Plant Operator
  - 509 630 0921
  - 509 630 6193
- Treatment Plant
  - 509 670 1439
  - 509 630 1883
- Assistant Public Works Director
  - 509 670 1639

![Map of City of Chelan Drinking Water Intake](image-url)
**City of Chelan Drinking Water Intake**

**Site Contact**

Chelan Public Works - Water Division  
Municipality (County/City): City Utility  
50 Chelan Falls Hwy  
Chelan, WA 98816  
509-682-8030

**Nearest Address**

509 S Washington St  
Chelan, WA 98816

**Driving Directions**

1. From I-90 in George, Washington take exit 149.  
2. At exit 149 take ramp on the right to WA-281 N toward Quincy/Wenatchee (0.27 miles)  
3. Turn left on WA-281 (Royal Anne Ave) (10.56 miles)  
4. Turn left on WA-28 (F St SW) (33.79 miles)  
5. Continue on US-2 (Sunset Hwy) (11.93 miles)  
6. At fork keep left on US-97 (State Highway 97) (22.08 miles)  
7. Turn left on WA-150 (Highway 150) (2.98 miles)  
8. Turn left at US-97-ALT to stay on WA-150 (E Woodin Ave) (0.33 miles)  
9. Turn left on S Clifford St (0.07 miles)  
10. Turn left on S Wapato Ave (0.07 miles)  
11. Turn right on S Washington St (0.06 miles)  
12. Finish at 509 S Washington St, 98816
### Lake Chelan Hydroelectric Project

**Position - Location:** 47° 50.068', -120° .748'  
47° 50' 4.1", -120° 0' 44.9"  
47.83447, -120.01246  
Chelan

**Strategy Objective:** Notification : Keep oil out of dam

**Implementation:** Call System Operations at 509/661-4000 (staffed 24/7). They will deploy response equipment and/or adjust water intakes.

**Field Notes:**

**Watercourse:** River - Above a Dam - Chelan River - high flow June-Sept

**Resources at Risk:** Power Generation, Salmon Bearing Stream

### Communication Process and Action:

Call System Operations at 509/661-4000 (staffed 24/7). Chelan County PUD has a trailer of spill response equipment staged within 50 miles of the Lake Chelan Dam. When notified they will deploy response equipment to protect the dam infrastructure. Water intakes are subsurface but their flow could be reduced or shut off in an emergency.
Lake Chelan Hydroelectric Project

Site Contact
City of Chelan Parks and Recreation
Primary Contact: Owner
Chelan, WA 98816
509-682-8023

Nearest Address
Chiari Falls Road
Chelan, WA 98816

Driving Directions
1. From I-90 in George, WA take exit 149 for State Route 281 toward Quincy/Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Turn right on E Farnham Ave
8. Bear right on S Saunders St
9. Turn left on E Iowa St
10. Continue on E Iowa Ave
11. Turn left on Chiari Falls Rd
12. Finish at Chiari Falls Road, 98816, on the left
APPENDIX 4C

Staging Area 2-Pagers
STAGING AREAS – LIST

SA-LKCH-59.3  SA-LKCH-61.5  SA-LKCH-71.4
Lakeshore Park Marina

Staging Area

Position - Location: 47° 50.507', -120° 1.463' 47° 50' 30.4", -120° 1' 27.8" 47.84179, -120.02438 Chelan

Comments: Pump-out station, launch and ample pay parking. Adjacent to RV Park with utilities and wi-fi.

Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>100 Slips</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>1</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>Yes</td>
<td>2 Picnic shelters in park</td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>45000 Square Feet</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>100 %</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>102 $5 Fee</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>24 $5 Fee</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - with Showers</td>
<td></td>
</tr>
<tr>
<td>User Fee</td>
<td>Yes</td>
<td>8 $ Launch Fee (Moorage varies)</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Pumpout</td>
<td>2</td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

GRP Response Strategies Served:

LKCH-60.9, LKCH-58.9, LKCH-61.0, LKCH-61.2, LKCH-60.6, LKCH-60.8
SA-LKCH-59.3 Photo: Aerial photo looking NE at Lakeshore Park Boat Launch

**Site Contact**

City of Chelan Parks and Recreation  
Municipality (County/City) : Owner

Chelan, WA  98816  
509-682-8023

**Nearest Address**

310 W Manson Road  
Chelan, WA  98816

**Driving Directions**

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee  
2. Go north on WA-281 (State Route 281 N)  
3. Turn left on WA-28 (F St SW)  
4. Turn left on US-2 (US-97)  
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan  
6. Turn right on US-97-ALT (State Highway97a)  
7. Bear left on W Woodin Ave  
8. Turn left on N Columbia St  
9. Turn left on WA-150 (Manson Rd)  
10. Turn left into Lakeshore Park and Marina
Mountain Barge Services  
SA-LKCH-61.5

Staging Area

Position - Location: 47° 50.164', -120° 2.056'  
47° 50' 9.8", -120° 2' 3.4"  
47.83607, -120.03427

Comments: (Previously Tom Courtney Tug & Barge). Barge to Lucerne Landing loading and departure site. Response will be coordinated from here.

Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>At Marina</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Plank</td>
<td>1</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>Yes</td>
<td>2 Picnic shelters at marina</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>100 %</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>6 Onsite - more in marina</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>None</td>
<td>Some in area</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - with Showers</td>
<td>At Marina</td>
</tr>
<tr>
<td>User Fee</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Pumpout</td>
<td>At Marina</td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

GRP Response Strategies Served:

LKCH-37.0, LKCH-37.5
Mountain Barge Services

SA-LKCH-61.5 Photo: Aerial photo looking S at tug and barge dock in low water (mid-April). Marina with facilities to the right.

Site Contact

Mountain Barge Services
Land/Property Owner:
Chelan, WA 98816
509-682-2493

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway97a)
7. Finish at 1222 W Woodin Avenue, 98816, on the left

Nearest Address

1228 W Woodin Ave
Chelan, WA 98816
Lake Chelan State Park

Staging Area

Position - Location: 47° 52.527', -120° 11.814'  
47° 52' 31.6", -120° 11' 48.9"  
47.87544, -120.19691

Comments: The park provides one kitchen shelter without electricity plus a small parking area.

Location Information

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1080 feet along 4 piers</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 (double lane)</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>Yes</td>
<td>1 Kitchen shelter + concession stand</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>28000 Square Feet</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td></td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>32</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td>At campsites</td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - with Showers</td>
<td>5 At campsites</td>
</tr>
<tr>
<td>User Fee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Dump Station</td>
<td>1</td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td>At campsites</td>
</tr>
</tbody>
</table>

GRP Response Strategies Served:

LKCH-48.0
Lake Chelan State Park

SA-LKCH-71.4 Photo: Aerial photo of Lake Chelan State Park boat launch. Taken 4/17/07 low water.

Site Contact

Washington State Parks and Recreation Commission
Land/Property Contact: Lake Chelan State Park

Chelan, WA 98816
509-687-3710

Nearest Address

7544 S. Lakeshore Road
Chelan, WA 98816

Driving Directions

1. From I-90 in George, Washington take exit 149 towards Quincy/Wenatchee (0.27 miles)
2. Turn left on WA-281 (Royal Anne Ave) (10.56 miles)
3. Turn left on WA-28 (F St SW) (33.79 miles)
4. Turn left on US-2 (US-97) (1.02 miles)
5. Take ramp on the right to US-97-Alt N toward Entiat/Chelan (0.24 miles)
6. Turn right on US-97-ALT (State Highway 97a) (23.11 miles)
7. Make sharp left on WA-971 (Navarre Coulee Rd) (9.05 miles)
8. Turn right at S Lakeshore Rd to stay on WA-971 (S Lakeshore Rd) (0.14 miles)
9. Take the next left onto State Park Rd, then make the first left to reach the boat launch.
APPENDIX 4D

Boat Launch 2-Pagers
## BOAT LAUNCHES – LIST

| BL-LKCH-59.3 | BL-LKCH-71.4 | BL-LKCH-82.6 |
### Lakeshore Park Marina

**Position - Location:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>47° 50.507', -120° 1.463'</td>
<td>47° 50' 30.4&quot;, -120° 1' 27.8&quot;</td>
<td>47.84179, -120.02438</td>
</tr>
</tbody>
</table>

**Comments:**

Pump-out station, launch and ample pay parking. Adjacent to RV Park with utilities and wi-fi.

---

**Location Information**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>100 Slips</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>1</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>Yes</td>
<td>2 Picnic shelters in park</td>
</tr>
<tr>
<td>Estimated Lot Size</td>
<td></td>
<td>45000 Square Feet</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>100 %</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td>102 $5 Fee</td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>24 $5 Fee</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - with Showers</td>
<td></td>
</tr>
<tr>
<td>User Fee</td>
<td>Yes</td>
<td>8 $ Launch Fee (Moorage varies)</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Pumpout</td>
<td>2</td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

---

**GRP Response Strategies Served:**

LKCH-60.9, LKCH-58.9, LKCH-61.0, LKCH-61.2, LKCH-60.6, LKCH-60.8
Lakeshore Park Marina

SA-LKCH-59.3 Photo: Aerial photo looking NE at Lakeshore Park Boat Launch

Site Contact

City of Chelan Parks and Recreation
Municipality (County/City) : Owner
Chelan, WA 98816
509-682-8023

Nearest Address

310 W Manson Road
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/ Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Bear left on W Woodin Ave
8. Turn left on N Columbia St
9. Turn left on WA-150 (Manson Rd)
10. Turn left into Lakeshore Park and Marina
**Lake Chelan State Park**

**Boat Launch Location**

<table>
<thead>
<tr>
<th>Position - Location:</th>
<th>47° 52.27', -120° 11.814'</th>
<th>47° 52.316', -120° 11.489'</th>
<th>47.87544, -120.19691</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments:</td>
<td>Accessible in low water. The park has a double lane boat launch with nearby parking for approximately 32 vehicles with trailers. The launch offers a 1080 feet of docking space along the four piers near the launch.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Location Information**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Type/Status</th>
<th>Amount/Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Dock(s)</td>
<td>Yes</td>
<td>1080 feet along 4 piers</td>
</tr>
<tr>
<td>Boat Ramp(s)</td>
<td>Concrete, Solid</td>
<td>2 (double lane)</td>
</tr>
<tr>
<td>Cell Phone Coverage</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Covered Spaces</td>
<td>Yes</td>
<td>1 Kitchen shelter + concession stand</td>
</tr>
<tr>
<td>Lot Cover (Primary)</td>
<td>Asphalt</td>
<td>28000 Square Feet</td>
</tr>
<tr>
<td>Parking - Car</td>
<td>Marked</td>
<td></td>
</tr>
<tr>
<td>Parking - Trailer</td>
<td>Marked</td>
<td>32</td>
</tr>
<tr>
<td>Power</td>
<td>Yes</td>
<td>At campsites</td>
</tr>
<tr>
<td>Restroom</td>
<td>Restroom - with Showers</td>
<td>5 At campsites</td>
</tr>
<tr>
<td>User Fee</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Dump Station</td>
<td>1</td>
</tr>
<tr>
<td>Water (potable)</td>
<td>Yes</td>
<td>At campsites</td>
</tr>
</tbody>
</table>

**GRP Response Strategies Served:**

LKCH-48.0
SA-LKCH-71.4 Photo: Aerial photo of Lake Chelan State Park boat launch. Taken 4/17/07 low water.

**Site Contact**

**Washington State Parks and Recreation Commission**  
Land/Property Contact: Lake Chelan State Park  
Chelan, WA 98816  
509-687-3710

**Nearest Address**

7544 S. Lakeshore Road  
Chelan, WA 98816

**Driving Directions**

1. From I-90 in George, Washington take exit 149 towards Quincy/Wenatchee (0.27 miles)  
2. Turn left on WA-281 (Royal Anne Ave) (10.56 miles)  
3. Turn left on WA-28 (F St SW) (33.79 miles)  
4. Turn left on US-2 (US-97) (1.02 miles)  
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan (0.24 miles)  
6. Turn right on US-97-ALT (State Highway 97a) (23.11 miles)  
7. Make sharp left on WA-971 (Navarre Coulee Rd) (9.05 miles)  
8. Turn right at S Lakeshore Rd to stay on WA971 (S Lakeshore Rd) (0.14 miles)  
9. Take the next left onto State Park Rd, then make the first left to reach the boat launch.
GRP Response Strategies Served:

LKCH-108.3, LKCH-108.4, LKCH-37.0, LKCH-104.4, LKCH-37.5, LKCH-108.5

Comments: Twenty-Five Mile Creek State Park offers two boat ramps. The launch is usable from mid-June to the end of December, if the lake elevation is 1093 ft or above. Check with Information Center 360-902-8844. There is a modern marina with moorage for 20 boats up to 23 feet long. If lake is below 1093 ft use Lake Chelan State Park (BL-LKCH-71.4).
25-Mile Creek Boat Launch

Photo: Aerial photo looking S at 25-Mile Creek State Park boat ramps

Site Contact

Washington State Parks and Recreation Commission
Land/Property Owner: Lake Chelan State Park
Chelan, WA 98816
509-687-3710

Nearest Address

20530 S Lakeshore Rd
Chelan, WA 98816

Driving Directions

1. From I-90, take exit 149 for State Route 281 S toward Quincy/Wenatchee
2. Go north on WA-281 (State Route 281 N)
3. Turn left on WA-28 (F St SW)
4. Turn left on US-2 (US-97)
5. Take ramp on the right to US97-Alt N toward Entiat/Chelan
6. Turn right on US-97-ALT (State Highway 97a)
7. Make sharp left on WA-971 (Navarre Coulee Rd)
8. Turn left on S Lakeshore Rd
9. Finish at 20530 S Lakeshore Rd, 98816, on the right
CHAPTER 5

(Reserved)
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CHAPTER 6

(Reserved)