

AVISTA CORPORATION

LAKE SPOKANE AND NINE MILE RESERVOIR 2016 AQUATIC WEED SUMMARY REPORT

SPOKANE RIVER LICENSE APPENDIX B
WASHINGTON 401 CERTIFICATION SECTION 5.3(E)

SPOKANE RIVER HYDROELECTRIC PROJECT
FERC PROJECT No. 2545

Prepared By:
Avista Corporation

February 15, 2017

TABLE OF CONTENTS

| | | |
|-----|---|---|
| 1.0 | INTRODUCTION | 1 |
| 1.1 | Background | 1 |
| 1.2 | License Requirements | 1 |
| 1.3 | Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Program..... | 2 |
| 2.0 | 2016 PROGRAM TASK LIST IMPLEMENTATION | 3 |
| 2.1 | Coordination with the Cooperating Parties | 3 |
| 2.2 | Aquatic Weed Herbicide Treatments in Lake Spokane | 3 |
| 2.3 | Flowering Rush Control in Lake Spokane and Nine Mile Reservoir | 4 |
| 2.4 | Lake Spokane and Nine Mile Reservoir Monitoring | 6 |
| 2.5 | Education..... | 7 |
| 2.6 | Planned Activities for 2017..... | 8 |
| 3.0 | REFERENCES | 9 |

FIGURES

- Figure 1. 2016 Treatment Sites
- Figure 2. Spokane Lake Park Treatment Area
- Figure 3. Nine Mile Recreation Treatment Area
- Figure 4. Lake Forest Treatment Area
- Figure 5. Lakeridge Park and Nine Mile Boating Lane Treatment Area
- Figure 6. Suncrest Treatment Area
- Figure 7. Lake Forest Treatment Area
- Figure 8. Willow Bay and Lakeview Treatment Area
- Figure 9. Lakeshore Estates Treatment Area
- Figure 10. Lake Spokane Flowering Rush
- Figure 11. Nine Mile Flowering Rush

APPENDICES

- Appendix A. Consultation Record

1.0 INTRODUCTION

This Lake Spokane Aquatic Weed Summary Report (Report) summarizes aquatic weed management efforts that Avista Corporation (Avista) implemented in 2015 in accordance with the Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Program (AWMP) (Avista, 2010). These efforts included site-specific aquatic weed herbicide treatments in Lake Spokane and Nine Mile Reservoir, flowering rush (*Butomus umbellatus*) control in Lake Spokane and Nine Mile Reservoir, winter drawdown monitoring, and educational and public outreach activities. Treatment and monitoring locations discussed in this Report are identified on Figure 1.

In order to effectively implement the AWMP, Avista coordinates its weed control activities with the Washington Department of Ecology (Ecology), the Washington Department of Fish and Wildlife (WDFW), the Washington Department of Natural Resources (WDNR), the Washington State Parks and Recreation Commission (State Parks), Stevens County Conservation District, Stevens County Noxious Weed Control Board, Spokane County Conservation District, Spokane County Noxious Weed Control Board, Lincoln County Weed Control Board, and the Lake Spokane Association (Cooperating Parties).

1.1 Background

On June 18, 2009, the Federal Energy Regulatory Commission (FERC) issued Avista a License (License) for the Spokane River Hydroelectric Project (Project) for a 50-year license term (FERC, 2009). The Project consists of five hydroelectric developments (HEDs) located on the Spokane River in northern Idaho (Kootenai and Benewah Counties) and eastern Washington (Spokane, Stevens, and Lincoln Counties). The five HEDs, from upstream to downstream, include:

- Post Falls (River Mile [RM] 102.0)
- Upper Falls (RM 74.2)
- Monroe Street (RM 74.0)
- Nine Mile (RM 58.1)
- Long Lake (RM 34.0)

1.2 License Requirements

In 2010, Avista developed the AWMP as required by Ecology's Section 401 Water Quality Certification (Certification), which is incorporated as Appendix B of the License. As required by the Certification, the AWMP was prepared in consultation with Ecology, WDFW, and WDNR. On January 13, 2011, FERC issued an Order modifying and approving the AWMP pursuant to Article 401(A)(5).

1.3 Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Program

The AWMP was developed to control non-native, invasive aquatic weeds in Lake Spokane, a 5,060-acre, 23.5-mile-long reservoir, created by Long Lake Dam at River Mile (RM) 33.9. The AWMP also includes monitoring for and controlling invasive aquatic weeds in Nine Mile Reservoir, a 440-acre, 6-mile-long reservoir created by Nine Mile Dam (located at RM 58.1). Lake Spokane was surveyed for aquatic weeds in 2000 (TetraTech 2001), in 2007 (AquaTechnex 2007) and again in 2012 (AquaTechnex 2012). The AWMP summarizes the 2000 and 2007 surveys and identifies the following noxious weeds in Lake Spokane: curly-leaf pondweed (*Potamogeton crispus*), Eurasian watermilfoil (milfoil) (*Myriophyllum spicatum*), fragrant waterlily (*Nymphaea odorata*) and yellow floatingheart (*Nymphoides peltata*). Flowering rush (*Butomus umbellatus*) was identified in Lake Spokane in 2010 by Ecology. Additionally, in 2012 Avista identified milfoil and reaffirmed flowering rush in Nine Mile Reservoir. As such, a revised monitoring and control plan was completed and included in the 2013 Summary Report.

The goals of the AWMP are to: (1) reduce invasive aquatic weeds at public and community boat access points, (2) maintain a moderate level of ongoing control of aquatic weeds in areas from 0 to 14 feet in depth through the use of winter drawdowns in Lake Spokane, and (3) support weed control efforts and facilitate coordination among the entities involved in aquatic weed control on Lake Spokane. Elements of this AWMP include:

- Coordinating with Cooperating Parties,
- Implementing site-specific aquatic weed control actions at the primary recreation access points on Lake Spokane,
- Implementing a reservoir-wide winter drawdown for the purpose of aquatic weed control on Lake Spokane,
- Monitoring to evaluate the effectiveness of site-specific aquatic weed control actions and reservoir-wide winter drawdowns,
- Periodic monitoring for invasive, non-native aquatic plants in Nine Mile Reservoir, and
- Preparing an annual report summarizing aquatic weed management activities and their effectiveness.

Avista implements prioritized aquatic weed monitoring and control activities in accordance with the annual Program Task List (List). This List is developed in coordination with the Cooperating Parties on an annual basis. The List includes activities that Avista is directly responsible for and other tasks (i.e. local workshops, conferences, other agreed upon site-specific weed control efforts) that Avista may support. Items on the List include, but are not limited to: education and outreach related to aquatic weed control, monitoring or surveys for aquatic weeds, and site-specific control activities targeting specific public and private lake access points (see Section 2.1).

2.0 2016 PROGRAM TASK LIST IMPLEMENTATION

2.1 Coordination with the Cooperating Parties

On February 17, 2016, Avista held an annual meeting with the Cooperating Parties and presented proposed tasks for 2016. The 2016 List was refined in coordination with the Cooperating Parties and included the following tasks:

- Evaluate the public and community boat launches in Lake Spokane and potential areas of weed infestation in Nine Mile Reservoir for invasive and/or problematic aquatic weeds, delineate herbicide treatment areas where necessary, and conduct pre-treatment surveys;
- Treat up to 20 acres with herbicide treatments on Lake Spokane and Nine Mile Reservoir;
- Conduct pre-drawdown monitoring on Lake Spokane; and
- Implement flowering rush control in Lake Spokane and/or Nine Mile Reservoir.

2.2 Aquatic Weed Herbicide Treatments in Lake Spokane

In 2016, Avista completed herbicide treatments to reduce aquatic weeds identified in Section 1.3 at public recreation areas with boat launches and community boat launch sites on Lake Spokane. A total of 45.38 acres were treated at the following locations: Nine Mile Recreation Area and boating lane, Spokane Lake Park, Lakeridge, Suncrest, West Shore, West Shore Boating Lane, Felton Sough, Willow Bay Resort/Lakeview, and Lakeshore Estates (Figures 1-9).

Avista retained Lakeland Restoration Services (Lakeland) to complete the herbicide applications. A total of 40 gallons of diquat dibromide, a contact herbicide, was applied with a targeted application rate of 4 ppm, along with 40 gallons of Hydrothol 191, with a targeted application rate of 0.4 ppm was utilized on July 11, 2016. The data collected and recorded on field monitoring sheets is contained in the 2016 Lake Spokane Herbicide Treatment Summary Report (Lakeland, 2016), and includes species observed, relative abundance (percent cover by species) and total cover by species.

Pre- and post-treatment surveys were completed and included visual observations and rake toss samples from a boat at each location. Rake tosses generally consist of 3-4 rake throws within the treatment area and 2-3 rake throws outside the treatment area. The number of rake throws varied, based upon the size of the treatment area. In addition to the rake tosses, BioBase mapping was completed in and out of the treatment areas to measure the plant volume present before and after treatments. The treatment areas ranged in size from 0.39 acres to 23.65 acres. The species observed, relative abundance, and total cover by species were recorded. Data collected during pre-treatment surveys was compared with the data collected during the post-treatment surveys (Table 1). The total aquatic vegetation cover (all aquatic species included) for each location was estimated during the pre-treatment surveys and then compared to the total aquatic vegetation cover estimated at each location during the post-treatment surveys to evaluate the effectiveness (efficacy) of the treatments. The lake bottom and/or the aquatic vegetation was visible at all sampling locations therefore visual observations were utilized to estimate total cover. If the lake bottom or aquatic vegetation had not been visible, cover estimates would have

been completed based upon the density of vegetation found on the rake throws. The efficacy is measured by the percent reduction in total aquatic vegetation cover. Overall, the total aquatic vegetation cover was reduced by 72% for the combined treatment sites.

Lakeshore Estates was the only treatment site with a lower efficacy (30%). This may be due to treatment location relative to flows, the size and shape of the treatment area, species composition, sampling variations or other unknown factors.

Pre-and post-treatment surveys were completed together by both Avista and Lakeland. Table 2 identifies all of the species observed during the pre- and post-treatment surveys. Detailed data sheets identifying the species present at each location and the cover by species are maintained electronically by Avista for future comparisons or reference.

Table 1. Herbicide Treatment Effectiveness Table

| LOCATION | ACREAGE TREATED | Aquatic Vegetation Cover | | |
|----------------------------|-----------------|--------------------------|-------|-----------|
| | | Pre- | Post- | Efficacy* |
| Nine Mile Resort | 4.88 | 60% | 15% | 75% |
| Lake Spokane Park | 0.60 | 100% | 35% | 65% |
| Lakridge | 0.88 | 100% | 15% | 85% |
| Suncrest | 1.66 | 60% | 10% | 83% |
| West Shore | 0.92 | 90% | 30% | 67% |
| West Shore Boating Lane | 7.28 | 70% | 15% | 79% |
| Felton Slough | 0.39 | 70% | 10% | 86% |
| Willow Bay Resort/Lakeview | 3.83 | 70% | 10% | 86% |
| Lakeshore Estates | 1.29 | 50% | 35% | 30% |
| Nine Mile Boating Lane | 23.65 | 100% | 35% | 65% |
| Totals | 45.38 | | | 72% |

* Efficacy is determined by the difference between pre-treatment and post-treatment cover divided by the pre-treatment percent cover.

2.3 Flowering Rush Control in Lake Spokane and Nine Mile Reservoir

Lake Spokane

In 2010, Ecology completed a survey of Lake Spokane and identifying and mapping approximately 100 locations of flowering rush. Subsequently, between 2011-2015, Avista implemented hand removal of flowering rush utilizing a diver suction device which removed approximately 200, 900, 485, 580 and 1,583 flowering rush plants, respectively.

In 2016, Avista continued to implement flowering rush control and contracted with ACE Diving to locate and remove flowering rush during September and October. Treatments were carried out by SCUBA divers, aided by people wading and/or snorkeling in shallow sites as appropriate.

Prior to initiating any flowering rush treatments, Avista completed reconnaissance level surveys with ACE Diving to locate the plants. The preferred option for controlling flowering rush was by hand pulling, utilizing a diver suction device taking special care to ensure the entire plant was removed. Approximately 238 flowering rush plants were removed from the locations identified in Figure 10.

Table 2. Species Observed during Pre- and Post-Treatment Surveys

| Species Observed During Surveys | |
|---------------------------------|----------------------------------|
| Common Name | Scientific Name |
| Sago pondweed | <i>Potamogeton pectinatus</i> |
| Small pondweed | <i>Potamogeton pusillus</i> |
| Elodea | <i>Elodea canadensis</i> |
| Richardson's pondweed | <i>Potamogeton richardsonii</i> |
| Najas | <i>Najas spp.</i> |
| Muskwort | <i>Chara spp.</i> |
| Coontail | <i>Ceratophyllum demersum</i> |
| Curlyleaf pondweed | <i>Potamogeton crispus</i> |
| Flat-stem pondweed | <i>Potamogeton zosteriformis</i> |
| Fragrant waterlily | <i>Nymphaea odorata</i> |
| Filamentous algae | |
| Eurasian watermilfoil | <i>Myriophyllum spicatum</i> |
| Flowering rush | <i>Butomus umbellatus</i> |

Nine Mile Reservoir

Flowering rush was identified in 2012 during informal surveys of Nine Mile Reservoir that were completed independently by both Avista and Ecology. In 2013, Avista and Ecology completed a visual survey of Nine Mile Reservoir for flowering rush and identified approximately 200 flowering rush plants. In 2014, Avista completed another visual survey and identified approximately 1,150 plants.

In 2014 and 2015, Avista implemented diver hand removal (described above) and removed approximately 170 and 160 flowering rush plants from Nine Mile Reservoir. In 2016 approximately 235 flowering rush plants were removed from the locations identified in Figure 11. Flowering rush removal efforts in Nine Mile Reservoir were focused at the most densely populated locations.

2.4 Lake Spokane and Nine Mile Reservoir Monitoring

Lake Spokane and Nine Mile Reservoir Aquatic Weed Monitoring

In 2016, Avista contracted with Aquatechnex LLC to complete an Aerial Shoreline Analysis (ASA) of both Lake Spokane and Nine Mile Reservoir to identify and map aquatic weeds. The ASA was completed utilizing a high resolution digital camera linked to a GPS receiver that recoded locations points to identify areas with aquatic weeds. The areas were then mapped and species were identified utilizing the point-intercept method and hydroacoustic aquatic vegetation biovolume mapping.

In Lake Spokane a total of 1,479 acres of aquatic vegetation was identified, and included the following estimated acreages listed by dominant plant species below:

- Milfoil-221 acres
- Curly leaf pondweed-152 acres
- Flowering rush-34 acres
- Native pondweed and/or elodea-771 acres
- Floating Yellow Heart-66 acres
- Fragrant water lily-235 acres

In Nine Mile Reservoir a total of 46.9 acres of aquatic vegetation was identified and included the following estimated acreages listed by dominant plant species below:

- Milfoil-20.3 acres
- Native pondweed and/or elodea-26.6 acres
- Flowering rush

Pre-Drawdown Vegetation Monitoring

In 2016, Lake Spokane was not drawn down for a significant amount of consecutive days due to unseasonably high inflows and warmer than normal weather during the winter.

Ten monitoring locations (identified on Figure 1) were established in high-use recreation areas, community boat launch areas, and in problematic aquatic weed areas for pre- and post-drawdown monitoring. Drawdown monitoring was completed in June-August of 2016 and consisted of rake throws and visual observations made at each of the ten monitoring locations. Data recorded on field monitoring sheets includes the specific dates, monitoring locations, species observed, relative abundance, total cover by species, estimated plant height and/or biomass (when possible) for an approximate 10 x 10 foot sampling plot. This information has been collected for multiple years to assist in determining if the overall plant cover and biomass is reduced due to the winter drawdowns.

After six years of monitoring, no conclusive evidence has been determined that the drawdown is reducing overall aquatic vegetation cover and biomass in Lake Spokane. However in 2015 and 2016, milfoil was observed more frequently and with greater distribution in Lake Spokane than in the previous years. This could be due to the lack of drawdown over the winter or because temperatures were unseasonably warmer earlier than in previous years, resulting in a longer growing season. The results of the 2011-2016 drawdown monitoring are identified in Table 3.

Table 3. Winter Drawdown Monitoring - Total Cover of All Species Observed

| Winter Drawdown Data | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Total Days Water level was lowered ten feet or more | 0 | 57 | 23 | 50 | 0 | 32** |
| Total Days Soil Temperature Was Below Zero | 0 | 0 | 0 | 0 | 0 | 0 |
| Dates of Drawdown | 0 | Jan20-Mar16 | Feb21-Mar15 | Jan20-Mar10 | 0 | 0 |
| Monitoring Location | Total Cover of All Species* | | | | | |
| Lake Spokane Campground W | 5% | 0% | 0% | 0% | 2% | 5% |
| Lake Spokane Campground E | 16% | 20% | 45% | 10% | 15% | 20% |
| Lakeshore Estates | 43% | 70% | 85% | 65% | 75% | 65% |
| Willow Bay Resort | 66% | 46% | 75% | 75% | 75% | 80% |
| Lake Forest Community | 85% | 50% | 45% | 100% | 100% | 100% |
| Sportsmans | 100% | 45% | 105% | 105% | 105% | 105% |
| Suncrest | 63% | 64% | 60% | 30% | 35% | 30% |
| Lake Ridge/Nine Mile Boat Lane | 90% | 97% | 35% | 35% | 65% | 65% |
| Nine Mile Rec Area W | 75% | 75% | 55% | 40% | 55% | 60% |
| Nine Mile Rec Area E | 95% | 95% | 55% | 55% | 60% | 60% |

*The species composition is a combination of species identified in Table 2.

**Water elevation was down ten or more feet for 32 days, however these days were not consecutive. Nineteen days were from January 13-31, and 13 days were from February 14-26. As such, soil temperature monitoring was not completed in 2016.

Soil Temperature Monitoring

Soil temperature monitoring was not completed in 2016 due to high inflows in the winter and the lack of a consistent drawdown of Lake Spokane. Between 2011 and 2016, no soil temperatures below freezing were observed for any significant amount of time to adversely affect milfoil.

2.5 Education

The AWMP also requires Avista to implement education and outreach activities relevant to minimizing the spread of aquatic weeds as part of the comprehensive Interpretation and Education (I&E Plan). As described in the I&E Plan, Avista cooperates with the relevant agencies to develop brochures and other outreach materials that explain how to minimize the spread of invasive aquatic species.

In 2016, Avista distributed an aquatic weed brochure, specific to Lake Spokane that discusses the elements of Avista's AWMP, benefits of a healthy aquatic weed ecosystem, negative effects of invasive aquatic weeds, and ways to prevent the spread of invasive aquatic weeds. Avista also worked closely with the Lake Spokane Association to provide educational information on aquatic weed management.

2.6 Planned Activities for 2017

Avista plans to meet with the Cooperating Parties in March, 2016 to develop the List that will identify the year's weed control activities. Avista anticipates the following tasks will be included in the 2016 List:

- Annual meeting with Cooperating Parties,
- Evaluate the public and community boat launches in Lake Spokane (and potential areas of Nine Mile Reservoir) for invasive or problematic aquatic weeds, delineate herbicide treatment areas where necessary and conduct pre-treatment surveys,
- Implement up to 20 acres of herbicide treatments in Lake Spokane and/or up to 20 acres in Nine Mile Reservoir,
- Conduct pre/post-drawdown monitoring,
- Flowering rush monitoring, mapping and control work in Lake Spokane,
- Flowering rush monitoring, mapping or control in Nine Mile Reservoir,
- Current mapping and distribution of flowering rush in both Lake Spokane and Nine Mile Reservoir will be compared with previous years maps to determine the extent and density,
- Implement educational activities including the distribution of educational brochures provided by Avista and cooperating parties,
- Submit Annual Summary Report to Ecology, WDFW and WDNR, and
- Submit Annual Summary Report to FERC following agency review.

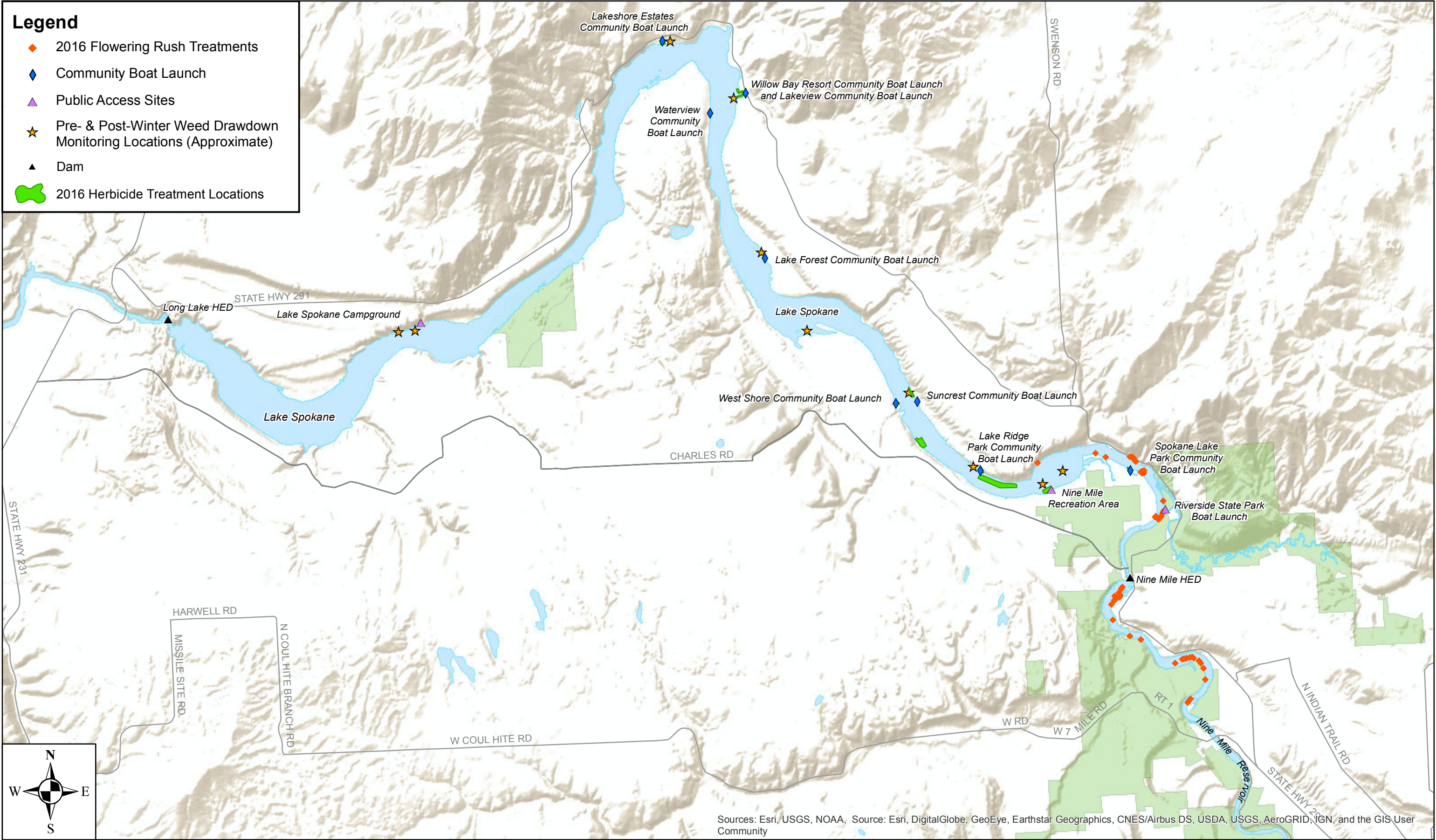
3.0 REFERENCES

- AquaTechnex. 2007. Aquatic Plant Survey and Mapping Project for Lake Spokane. Prepared by AquaTechnex, Centralia, WA for Avista Corporation, Spokane, WA. Fall 2007.
- AquaTechnex. 2012. Aquatic Plant Survey and Mapping Project for Lake Spokane. Prepared by AquaTechnex, Centralia, WA for Avista Corporation, Spokane, WA. Fall 2007.
- Avista. 2010. Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Program. Spokane River Hydroelectric Project FERC Project No. 2545-091.
- Avista. 2011. Lake Spokane and Nine Mile Reservoir Monitoring Plan for the Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Program. Spokane River Hydroelectric Project FERC Project No. 2545-091.
- Avista. 2012. Lake Spokane and Nine Mile Reservoir Monitoring Plan for the Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Program. Spokane River Hydroelectric Project FERC Project No. 2545-091.
- Lakeland Restoration Service. 2015. Lake Spokane and Nine Mile Reservoir Herbicide Treatment Summary Report.
- TetraTech. 2001. Lake Spokane Integrated Aquatic Plant Management Plan. Prepared by TetraTech, Inc., Seattle, WA. Prepared for Stevens County Conservation District and Washington State Department of Ecology. February 2001.

FIGURES

Legend

- 2016 Flowering Rush Treatments
- Community Boat Launch
- Public Access Sites
- Pre- & Post-Winter Weed Drawdown Monitoring Locations (Approximate)
- Dam
- 2016 Herbicide Treatment Locations



Date: 12-14-2016

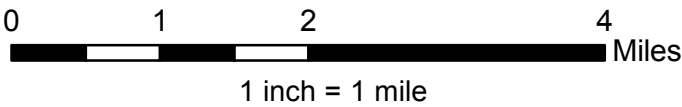
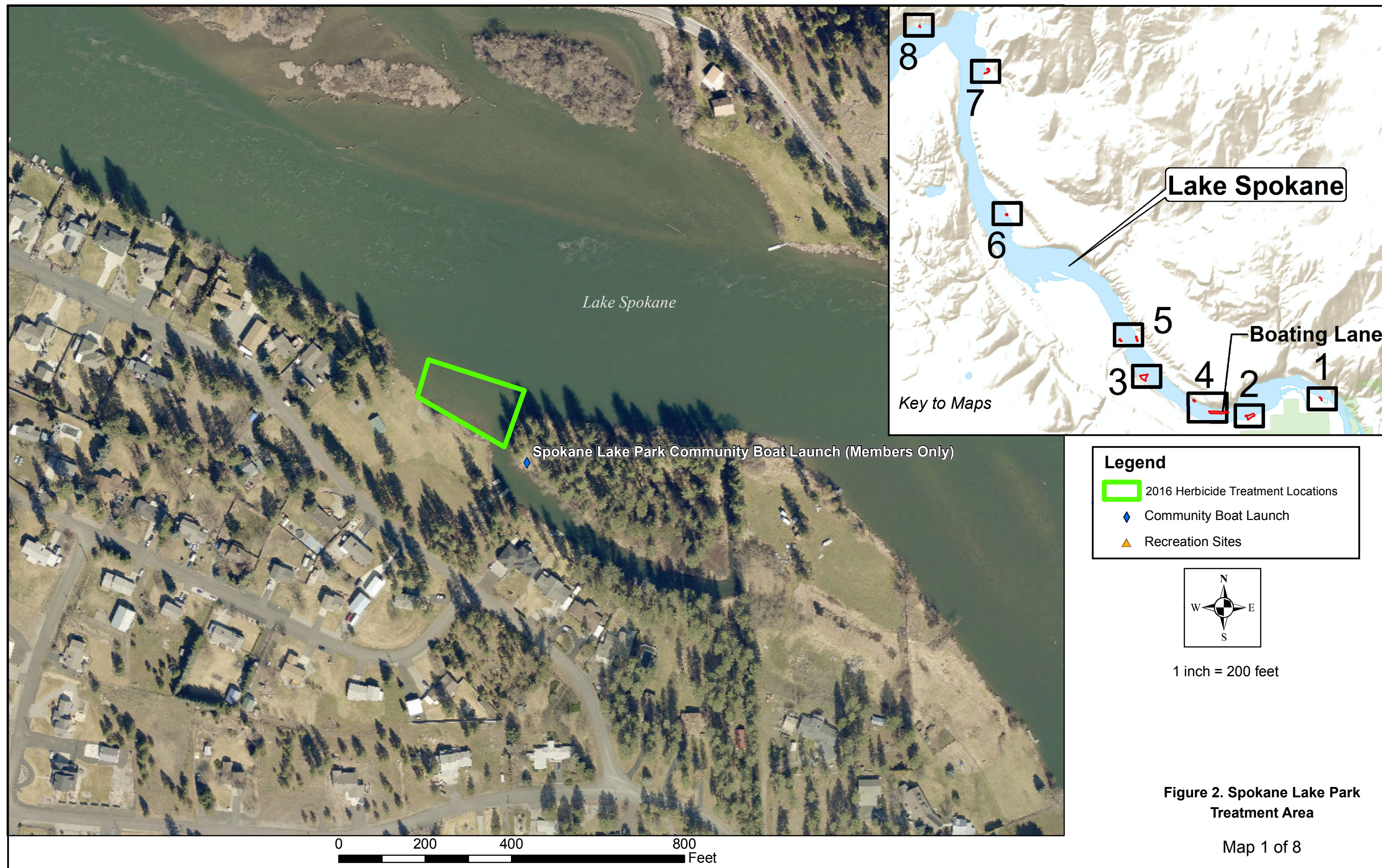
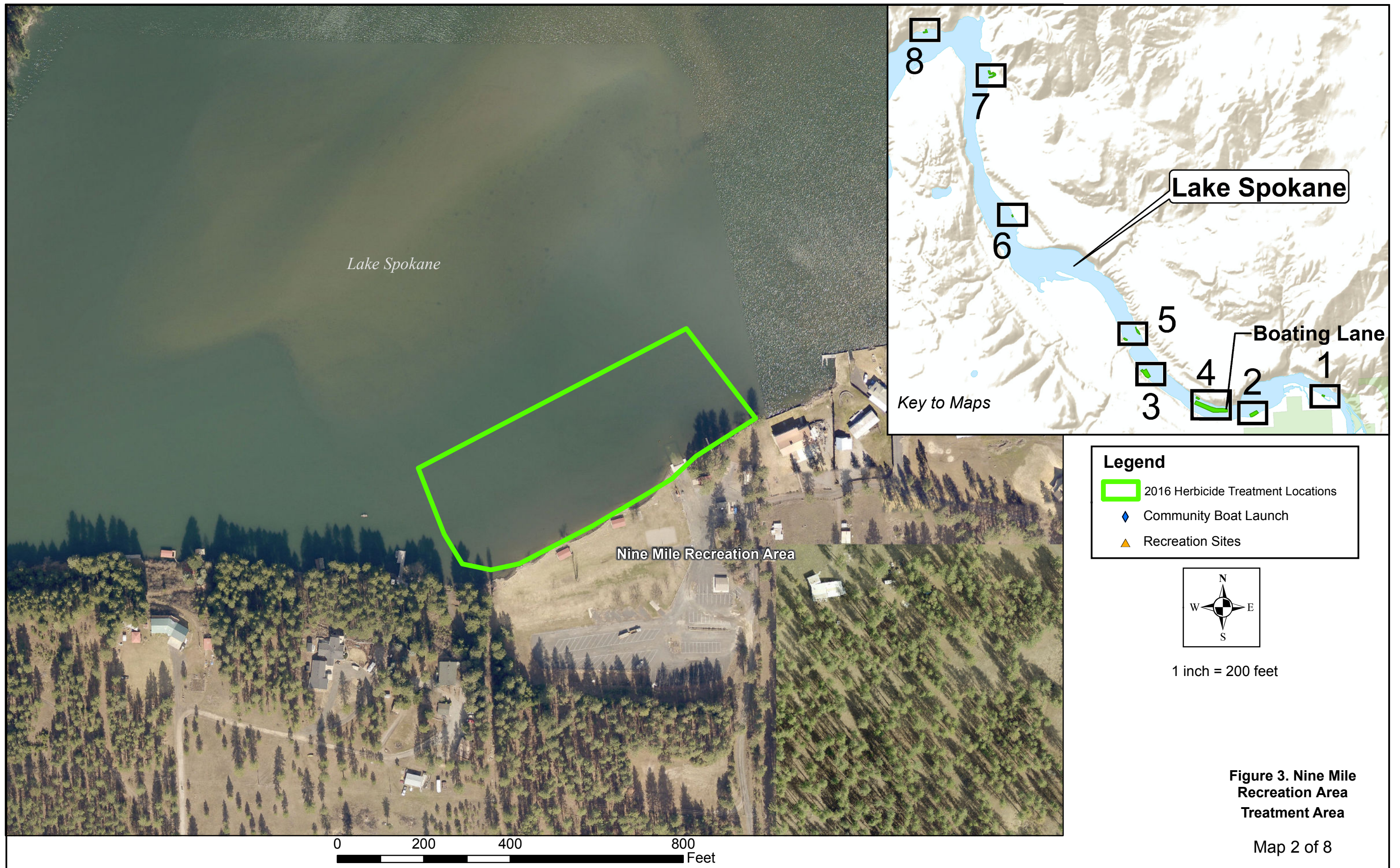
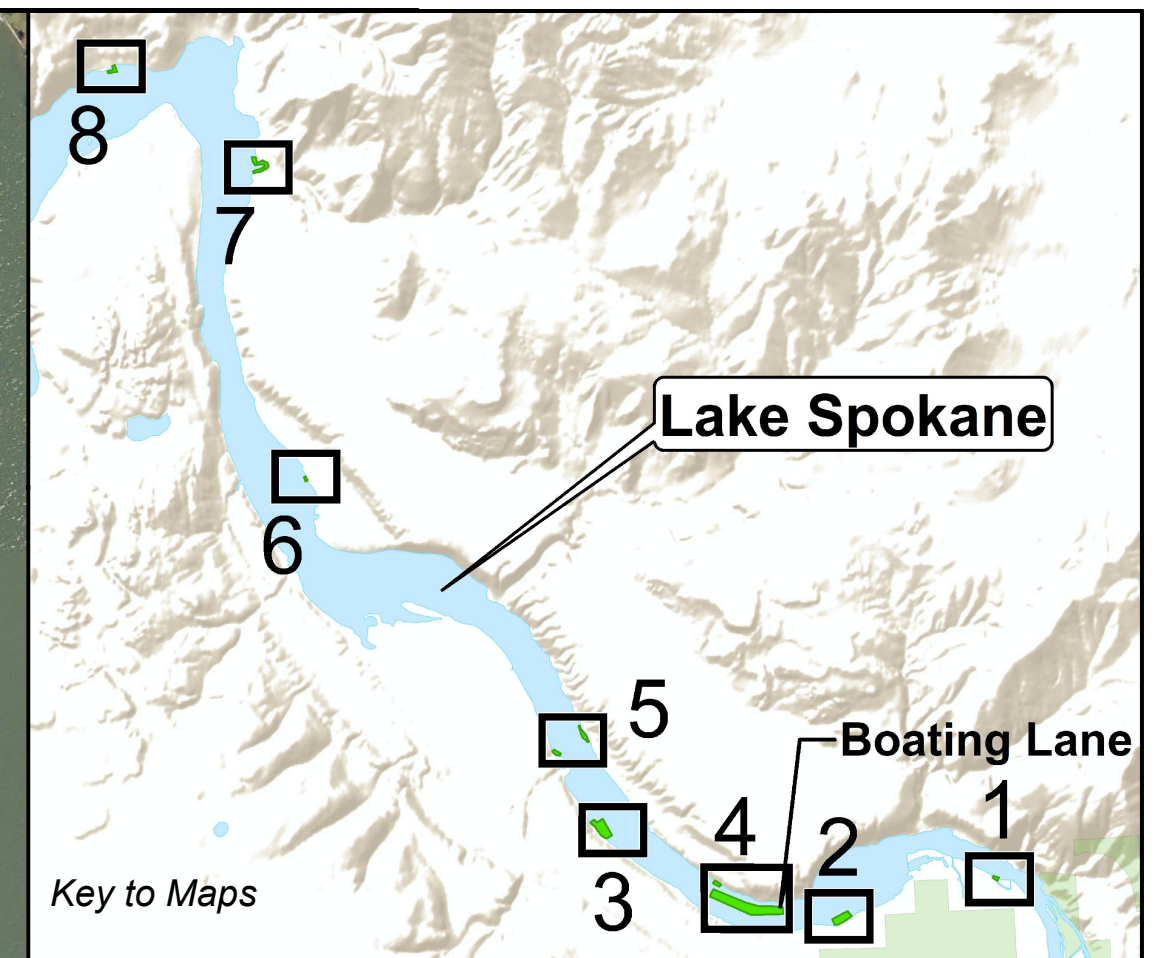





Figure 1. 2016 Treatment Sites

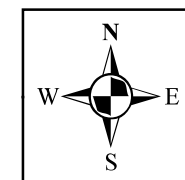






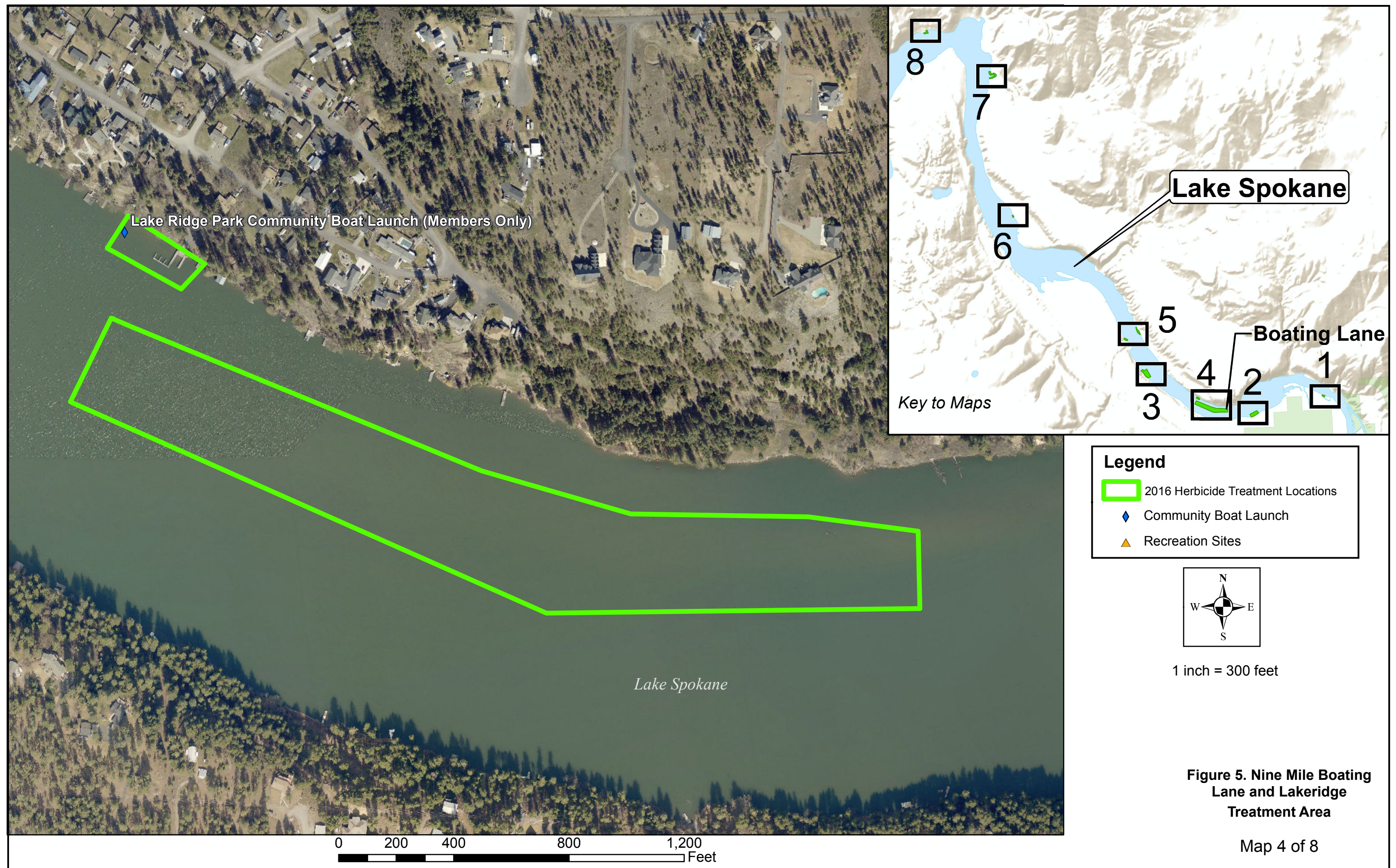
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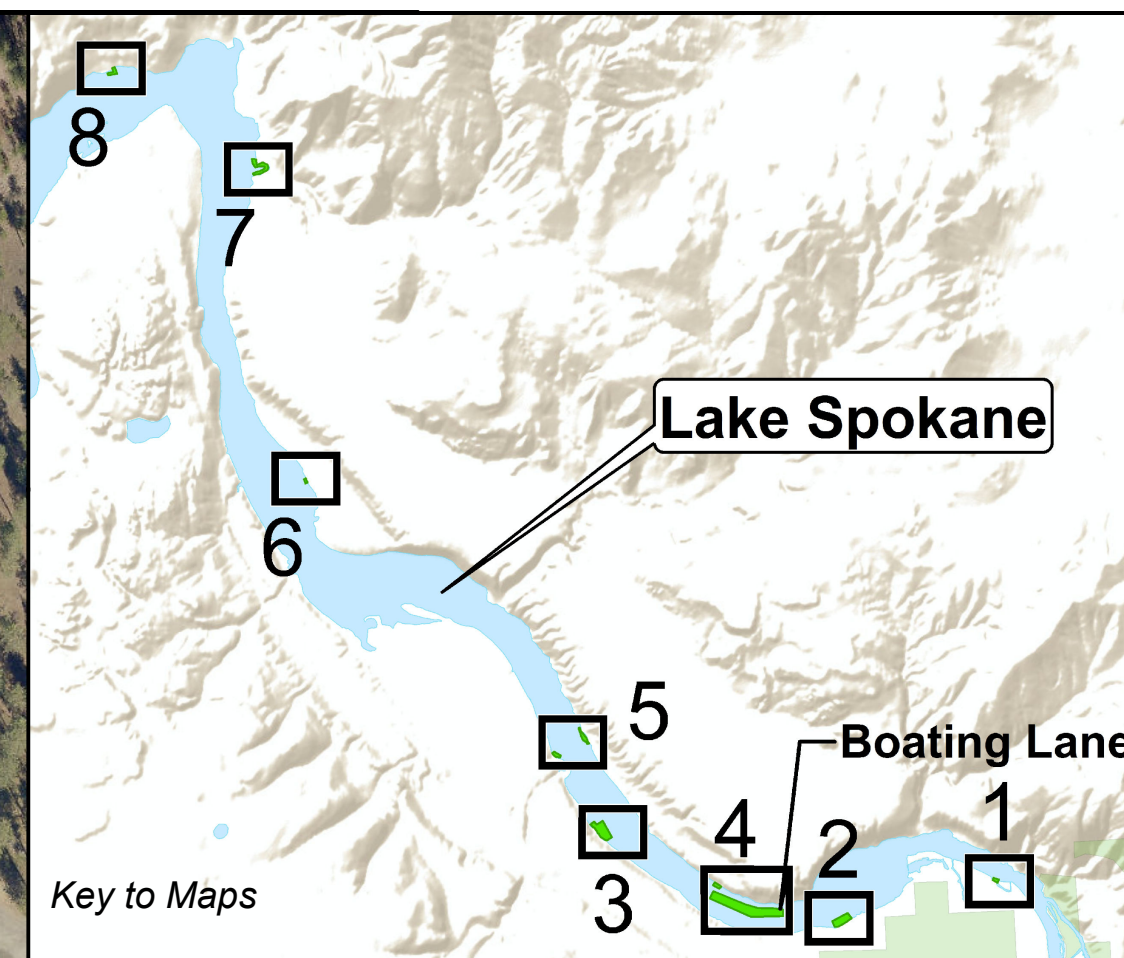
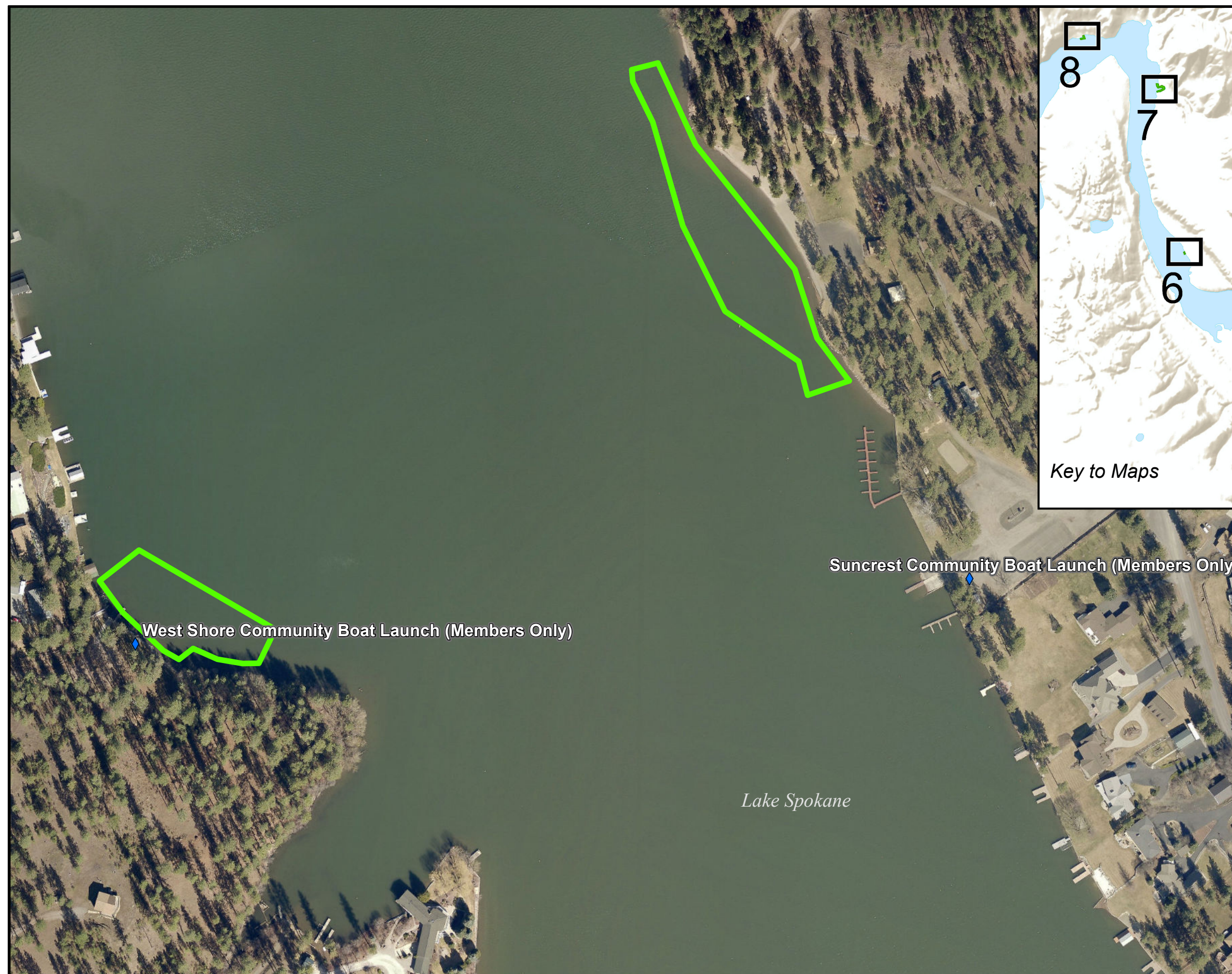
-  2016 Herbicide Treatment Locations
-  Community Boat Launch
-  Recreation Sites



1 inch = 200 feet

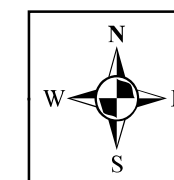
Figure 4. Westshore Boating Lane Treatment Area





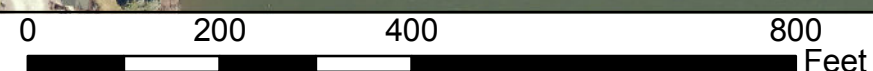
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- 2016 Herbicide Treatment Locations
- Community Boat Launch
- Recreation Sites



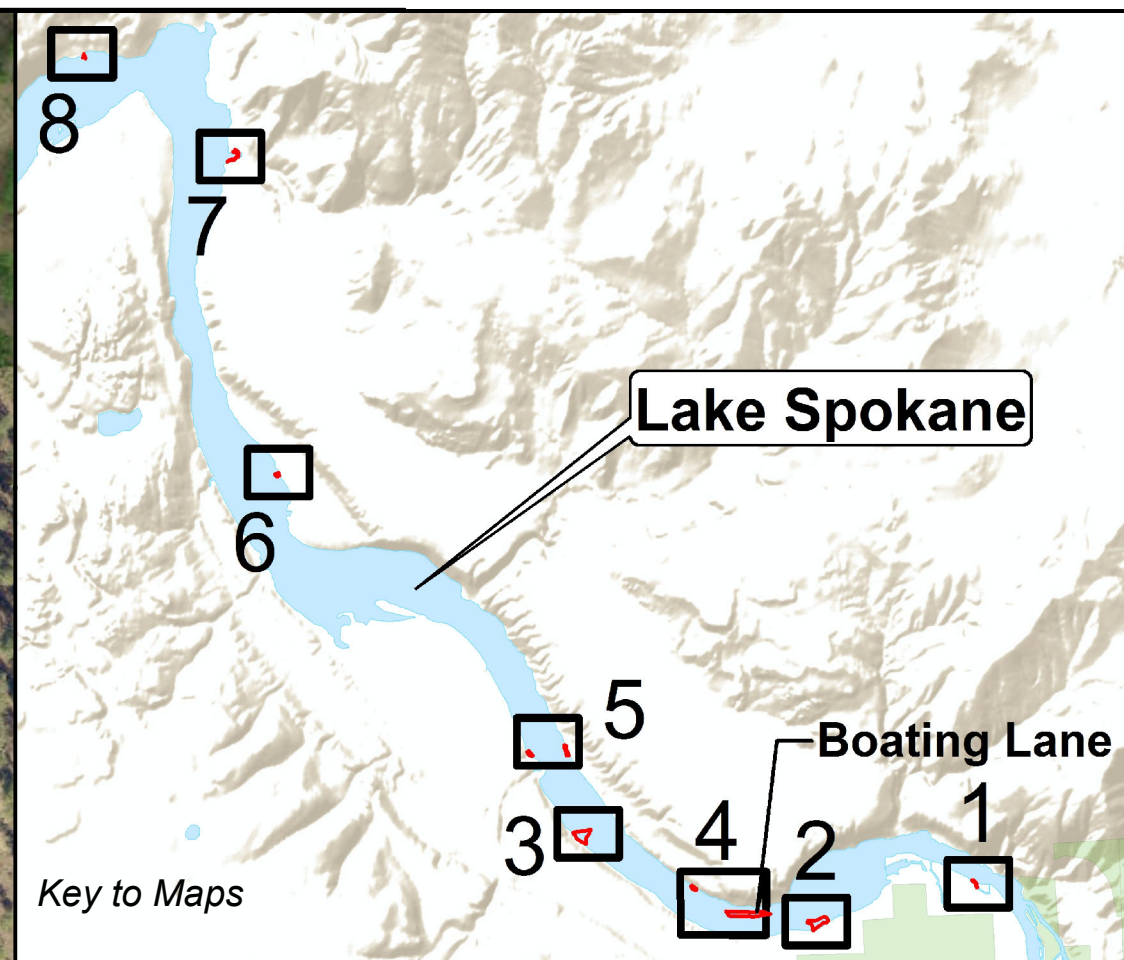
1 inch = 200 feet

Figure 6. West Shore and Suncrest Treatment Area



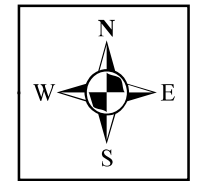


0 200 400 800 Feet



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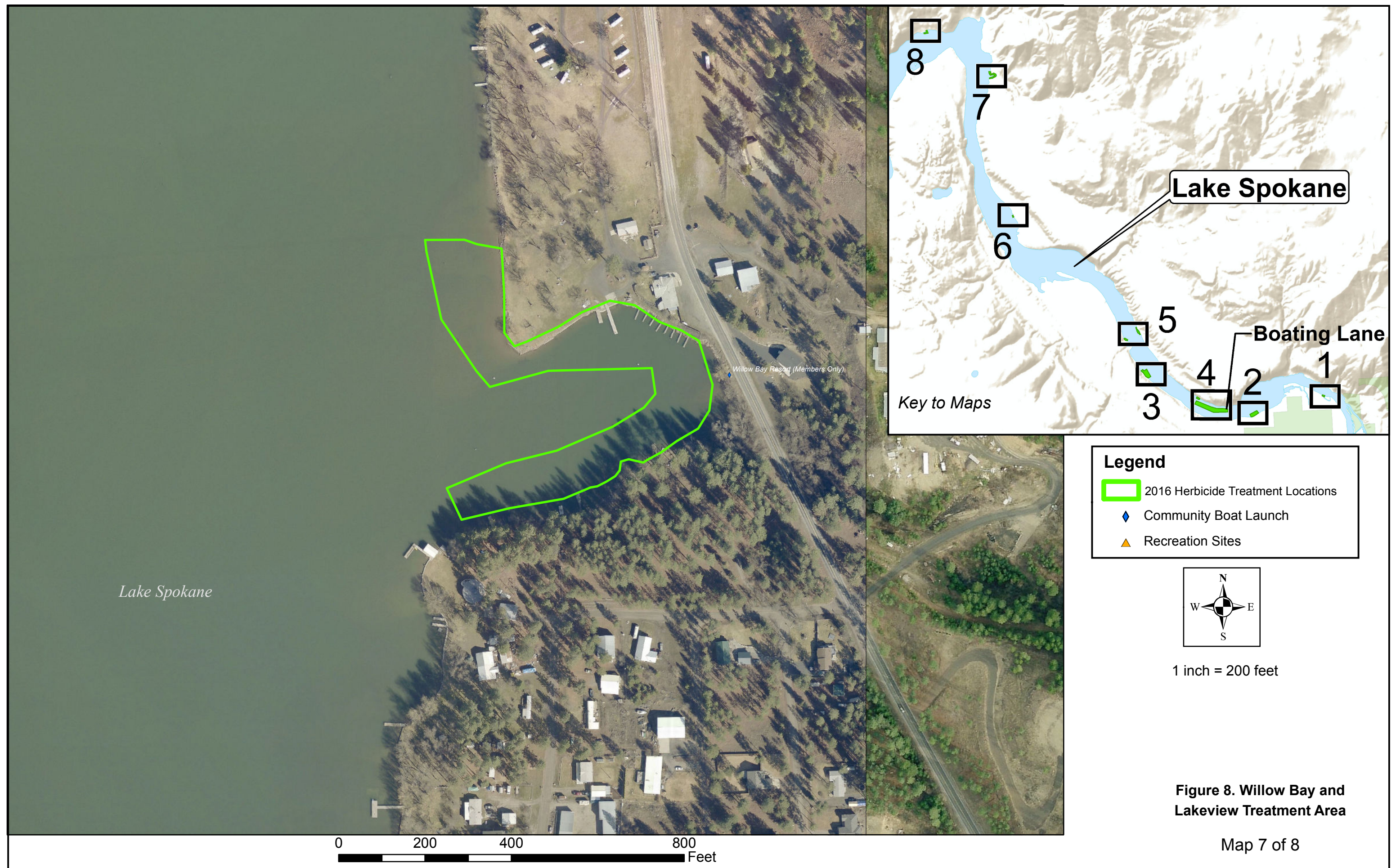
- 2016 Herbicide Treatment Locations
- Community Boat Launch
- Recreation Sites

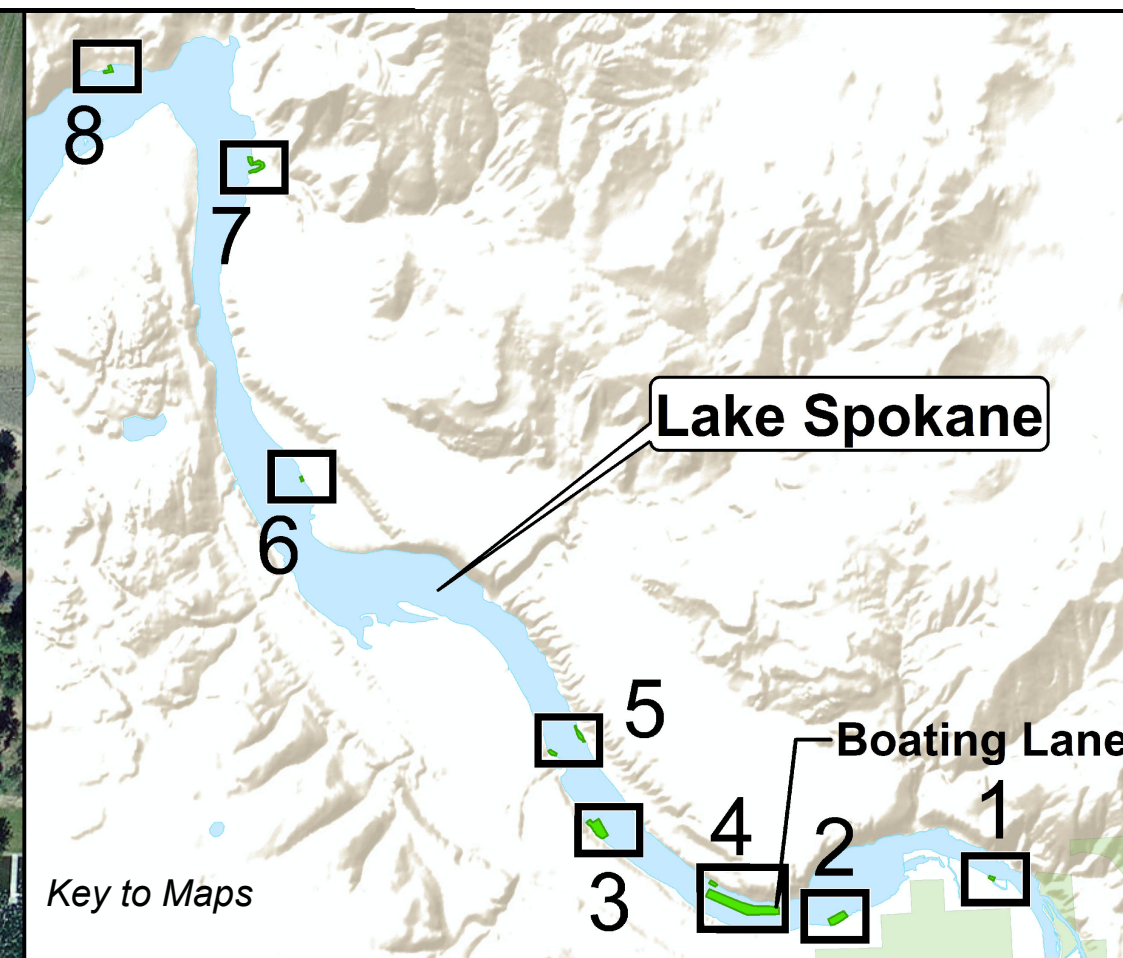


1 inch = 200 feet

Figure 7. Lake Forest Treatment Area

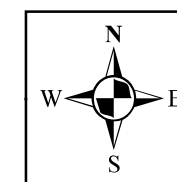
Map 6 of 8





Legend

- 2016 Herbicide Treatment Locations
- Community Boat Launch
- Recreation Sites



1 inch = 200 feet

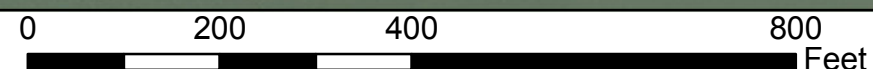
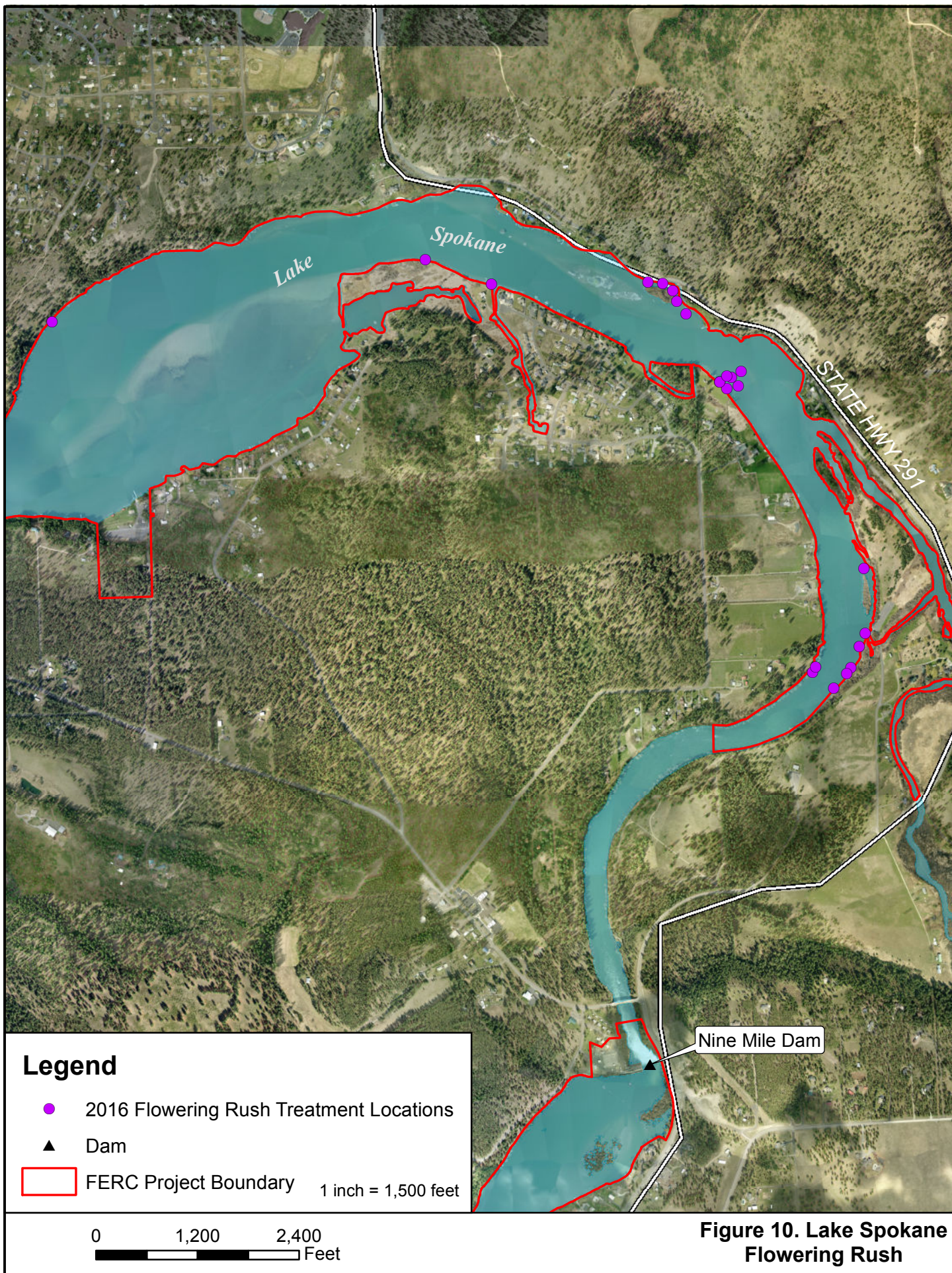
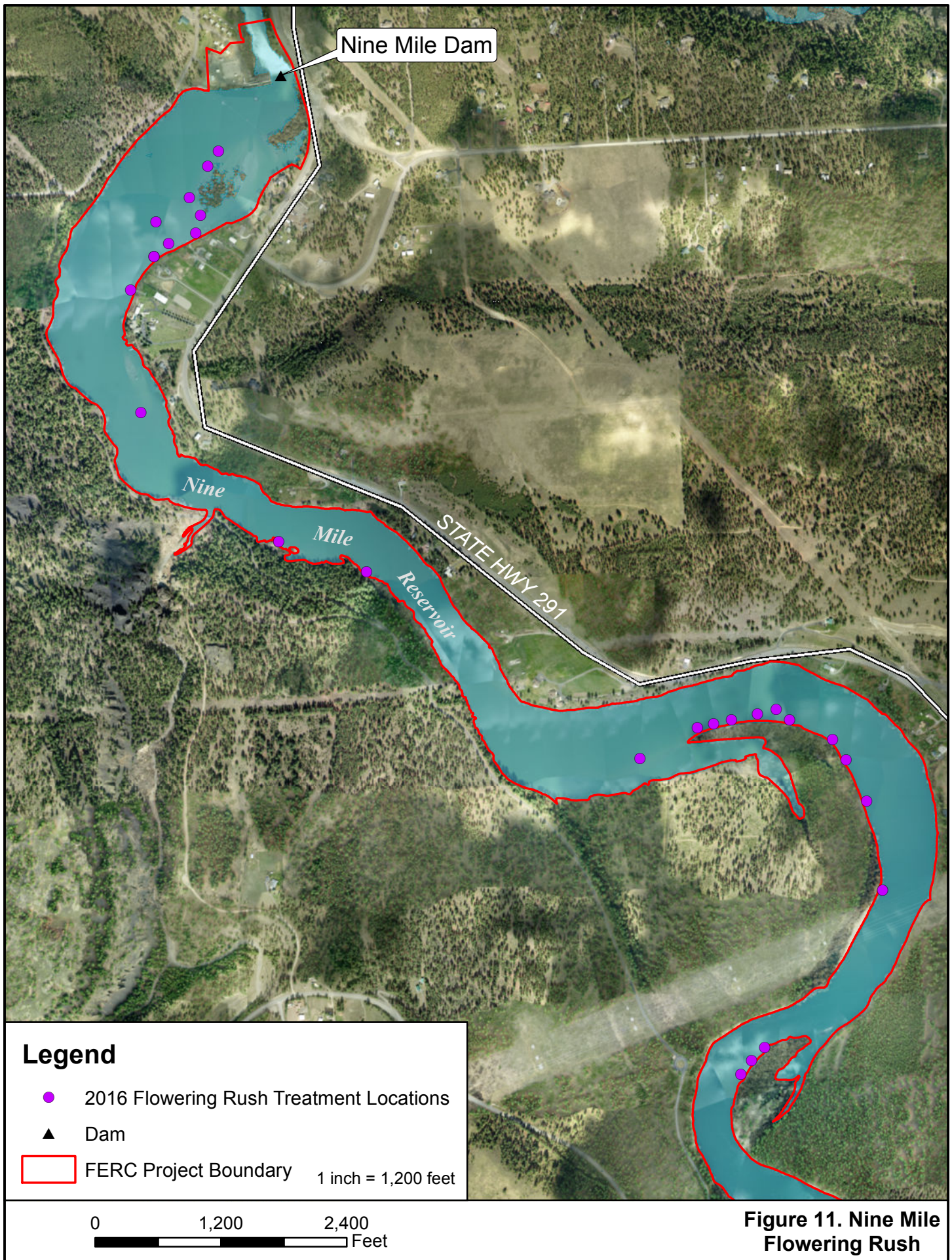


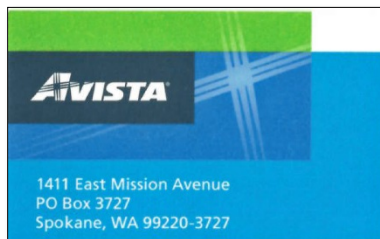
Figure 9. Lakeshore Treatment Area





APPENDIX A
CONSULTATION RECORD

Avista's Letter to the Washington Department of Ecology



December 28, 2016

Pat McGuire
Washington Department of Ecology
4601 N. Monroe Street
Spokane, WA 99205-1295

Subject: Spokane River Project License, FERC Project No. 2545, Appendix B Section 5.3(E), Submittal of the 2016 Lake Spokane and Nine Mile Aquatic Weed Management Program Summary Report

Dear Mr. McGuire:

In accordance with the Federal Energy Regulatory Commission's (FERC) June 18, 2009 Spokane River Hydroelectric Project (No. 2545) License, Appendix B Section 5.3(E), Avista developed and submitted a Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Plan (Plan) for FERC's approval. FERC approved the Plan on January 13, 2011 allowing Avista to begin implementation.

The Plan requires Avista to submit an annual report that summarizes the activities that it implemented during 2016 to monitor and control aquatic weeds on Lake Spokane and Nine Mile Reservoir to the Washington Department of Ecology, the Washington Department of Fish and Wildlife, and the Washington Department of Natural Resources for a 30-day review prior to submitting it to FERC for approval.

With this, please review the attached 2016 Lake Spokane and Nine Mile Aquatic Weed Management Program Summary Report and provide any comments or recommendations that you may have to me prior to February 1, 2017.

If you have any questions regarding the annual report, please feel free to contact me at (509) 495-2796.

Sincerely,

A handwritten signature in black ink, appearing to read "David Armes", is written over a circular stamp or seal.

David Armes
Terrestrial Resource Specialist

Enclosure

cc: Karin Divens, WDFW
Todd Brownlee, WDNR
Speed Fitzhugh, Avista

Washington Department of Ecology's Comments



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

January 30, 2017

Mr. David Armes
Terrestrial Resource Specialist
Avista Corporation
1411 East Mission Avenue, MSC-1
Spokane, WA 99220-3727

RE: Ecology Review and Comment – *Lake Spokane and Nine Mile Reservoir 2016 Aquatic Weed Summary Report*. Spokane River Hydroelectric Project, No. P-2545

Dear Mr. Armes:

The Department of Ecology (Ecology) has reviewed the *Lake Spokane and Nine Mile Reservoir 2016 Aquatic Weed Summary Report* sent to Ecology on December 28, 2016. The Report is a requirement of Section 5.3.E. of the 401 Certification.

Ecology has no comment on the report and acknowledges the *Lake Spokane and Nine Mile Reservoir 2016 Aquatic Weed Summary Report* as submitted satisfies the requirements in Section 5.3.E of the Avista 401 Certification.

Please contact me at (509) 329-3567 or pmcg461@ecy.wa.gov if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Pat McGuire".

Patrick McGuire
Eastern Region 401 Certification Projects Coordinator
Water Quality Program

PDM:jab

cc: Speed Fitzhugh, Avista
Robin Bekkedahl, Avista



Avista's Letter to the Washington Department of Fish and Wildlife



December 28, 2016

Karin Divens
Washington Department of Fish and Wildlife
3860 Chelan Hwy N.
Wenatchee, WA 98801

Subject: Spokane River Project License, FERC Project No. 2545, Appendix B Section 5.3(E), Submittal of the 2016 Lake Spokane and Nine Mile Aquatic Weed Management Program Summary Report

Dear Ms. Divens:

In accordance with the Federal Energy Regulatory Commission's (FERC) June 18, 2009 Spokane River Hydroelectric Project (No. 2545) License, Appendix B Section 5.3(E), Avista developed and submitted a Lake Spokane and Nine Mile Reservoir Aquatic Weed Management Plan (Plan) for FERC's approval. FERC approved the Plan on January 13, 2011 allowing Avista to begin implementation.

The Plan requires Avista to submit an annual report that summarizes the activities that it implemented during 2016 to monitor and control aquatic weeds on Lake Spokane and Nine Mile Reservoir to the Washington Department of Ecology, the Washington Department of Fish and Wildlife, and the Washington Department of Natural Resources for a 30-day review prior to submitting it to FERC for approval.

With this, please review the attached 2016 Lake Spokane and Nine Mile Aquatic Weed Management Program Summary Report and provide any comments or recommendations that you may have to me prior to February 1, 2017.

If you have any questions regarding the annual report, please feel free to contact me at (509) 495-2796.

Sincerely,

A handwritten signature in black ink, appearing to read "David Armes", is written over a horizontal line.

David Armes
Terrestrial Resource Specialist

Enclosure

cc: Pat McGuire, Ecology
Todd Brownlee, WDNR
Speed Fitzhugh, Avista

Washington Department of Fish and Wildlife's Comments

Washington Department of Fish and Wildlife did not provide comments on the Summary Report

Avista's Letter to the Washington Department of Natural Resources



December 28, 2016

Todd Brownlee
Washington Department of Natural Resources
PO Box 47000
1111 Washington Street SE
Olympia, WA 98504-7000

Subject: Spokane River Project License, FERC Project No. 2545, Appendix B Section 5.3(E), Submittal of the 2016 Lake Spokane and Nine Mile Aquatic Weed Management Program Summary Report

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David Armes
Terrestrial Resource Specialist

Enclosure

cc: Pat McGuire, Ecology
Karin Divens, WDFW
Speed Fitzhugh, Avista

Washington Department of Natural Resources' Comments

Washington Department of Natural Resources did not provide comments on the Summary Report.