



DEPARTMENT OF  
**ECOLOGY**  
State of Washington



Chelan River Hydroelectric Facility on Chelan River

## **Report to the Legislature on Water Power License Fees**

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Expenditures, Recommendations,  
Accountability, and Recognition

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# **Report to the Legislature on Water Power License Fees**

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## **Expenditures, Recommendations, Accountability, and Recognition**

by  
Water Quality Program  
Washington State Department of Ecology

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Washington State Department of Ecology  
Olympia, Washington

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## Executive Summary

Revised Code of Washington (RCW) 90.16.050 directs that the Department of Ecology (Ecology) submit this biennial progress report to the appropriate committees of the Legislature to justify the appropriate use of water power license fees as intended by law.

WDFW and Ecology jointly manage state hydropower environmental regulatory programs, share the revenue from water power license fees to support the program, and collectively consult with interested parties to improve the programs. This report describes the progress made in three areas:

1. How fees were expended in the current biennium and expected workload in the next biennium.
2. Recommendations and accountability of programs supported by the fees.
3. Recognition of hydropower projects that exceed their environmental regulatory requirements.

Washington State maintains authority under Section (§) 401 of the Clean Water Act (CWA) to certify any federal permit or license that may result in a discharge to waters within state jurisdiction. The §401 water quality certification (§401 WQ certification), and conditions therein, ensure that the federally permitted actions meet state laws and protect the quality of state water, habitat, and aquatic resources. Hydropower dams that receive a license to operate from the Federal Energy Regulatory Commission<sup>1</sup> (FERC) are required to obtain this certification from the state. Ecology, with technical assistance from the Washington Department of Fish and Wildlife (WDFW) issues these §401 WQ certifications for hydropower projects in the state. Ecology and WDFW co-manage the state hydropower environmental regulatory program. This program includes the development of the state §401 WQ certification necessary to receive a federal license. Once licensed the state program oversees the implementation of certifications, conditions, and other relevant environmental conditions the FERC includes under its authority.

Annual fees are collected from hydropower project owners under the authority of RCW 90.16.050. The fees are based on the amount of state surface water that is used annually for power development. Hydropower fees were first established in 1929 and are assessed to all non-federally owned hydropower projects. These fees are referred to as *base fees*<sup>2</sup> and help to fund the Ecology/ United States Geological Survey (USGS) cooperative stream flow gauging program. Additional fees, referred to as *water power license fees*, were established by the Washington State Legislature in 2007 and are assessed only to hydropower projects that are under the licensing authority of FERC. The 2007 law revision maintained the base fee and added a *water power license fee* specifically to support expenses associated with staff at Ecology and WDFW responsible for issuing and implementing §401 WQ certifications. The 2007 law

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<sup>1</sup> The Federal Energy Regulatory Commission does not issue licenses to other federal agencies. Dams in Washington owned by the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation do not receive a license and therefore are not subject to state water quality certifications.

<sup>2</sup> Although not a requirement, information on base fees is also included to provide a complete account of fees collected under RCW 90.16.050.

## Water Power License Fees-Report to Legislature

requiring these fees included a sunset date of June 30, 2017. However in 2015 and 2016, Ecology worked with fee payers and the legislature to extend the sunset date to June 30, 2023. This report to the legislature includes the reporting requirement of the 2007 law for fiscal year 2016 and the new reporting requirements of the 2016 law that became effective in fiscal year 2017.

In the 2017-2019 biennium, Ecology collected \$592,161 in base fees. An additional \$1,018,610 was collected from FERC-licensed projects. These water power license fees help fund technical and policy staff from Ecology and WDFW to develop and implement license requirements. The total biennial cost to the state agencies for FERC hydropower licensing and implementation was \$1,839,348. The FERC-licensed project fees funded 55 percent of the full workload associated with hydropower projects in the biennium. Federal and state funds supported the remaining 45 percent of the work performed. The supplemental sources and funding totals for each FY18 and FY19 are detailed in Table B and Table C of this report. We expect the need for supplementation from these sources again in the 2019-2021 biennium to cover the full workload.

State agencies have annual accountability and reporting requirements under RCW 90.16.050(1)(c)(i)(A) [amended in 2007] and RCW 90.16.050, section (3) [amended in 2016]. These requirements include consultation with hydropower project operators and other interested parties, submittal of an annual performance survey to water power license fee stakeholders, collaboration on annual work plans with hydropower project operators on upcoming work for the next calendar year, and hosting an annual stakeholder meeting.

The annual performance survey provides an effective method for Ecology and WDFW to learn where improvements to the hydropower regulatory programs can be made. The survey was designed to gain feedback on performance in four areas: general customer service, licensing process, license implementation, and feedback on the survey design. In general, the survey responses provided positive feedback on state agency performance. Survey respondents also provided feedback on areas where Ecology and WDFW staff can improve. In general, responses received indicated state agencies can work on better consistency across the state agencies, as a whole, in areas of responsiveness and feedback provided.

In response, Ecology and WDFW are committed to focusing on timely responses that include the appropriate legal, technical, and policy staff in each meeting and decision. Each hydropower project has been assigned an Assistant Attorney General (AAG) from the state Attorney General's office. Ecology has also included staff engineers when water quality or water resource modeling is under review. Policy issues that need to be reviewed by state agency managers for consistent application of regulation are coordinated by regional and headquarters staff. Each project is assigned one staff person from each state agency and can ask to include a manager to review any decision that affects the hydropower project. Ecology and WDFW are committed to ensuring greater consistency concerning staff performance and decision-making. We are meeting this goal by increasing the frequency of our agency workgroup meetings. These meetings are used to discuss current issues and share decisions among regional staff to ensure we educate new staff and maintain consistent program policies.



## Water Power License Fees-Report to Legislature

In 2017 Ecology and WDFW created an initial survey in order to effectively get feedback from all of the hydropower licensee fee holder and stakeholders. The purpose was to meet the new survey requirements as well as get formal feedback on how best to conduct surveys in the future in order to meet the intended purpose of the statute. Results of the 2017 survey were presented at the 2017 Annual Hydropower Fee Stakeholder meeting and several stakeholders expressed an interest in participating in a workgroup to improve the survey.

In September and October of 2018, Ecology and a group of stakeholders developed an annual survey workgroup. This workgroup held three meetings, approximately 1.5 hours in length, in which it analyzed the structure of the initial survey created and distributed in 2017, provided suggestions for improvement, determined the best method to receive feedback, drafted new questions, and finalized a new and improved survey. As a result, a new and improved survey was completed and distributed to all hydropower fee holder and stakeholders on October 16, 2018. The new survey incorporated a modified structure to allow respondents to provide feedback on each topic in several ways: condensed and expanded questions and free form text options to provide narrative detail. A summary of the results of this survey is included in the Accountability and Recommendations section of this report.

Lastly, Ecology provides recognition to hydropower projects that exceed their regulatory requirement. This report includes current certification in Washington State issued by the Low Impact Hydropower Institute (LIHI). LIHI is a non-profit 501(c)(3) organization dedicated to reducing the impacts of hydropower generation through the certification of hydropower projects that have avoided or reduced their environmental impacts pursuant to LIHI's criteria. Ecology responds to inquiries from LIHI and certification applicants to provide regulatory oversight information necessary for LIHI to certify these hydropower projects.

The current statutory language of RCW 90.16.050 enacted on July 1, 2016 is as follows.

## **Current statutory language – RCW 90.16.050**

[ 2016 c 75 § 1; 2007 c 286 § 1; 1929 c 105 § 1; RRS § 11575-1.]

### **Use of water for power development—Annual license fee—Progress report—Exceptions to the fee schedule—Ensuring accountability in the programs**

(1) Every person, firm, private or municipal corporation, or association hereinafter called "claimant", claiming the right to the use of water within or bordering upon the state of Washington for power development, shall on or before the first day of January of each year pay to the state of Washington in advance an annual license fee, based upon the theoretical water power claimed under each and every separate claim to water according to the following schedule:

(a) For projects in operation: For each and every theoretical horsepower claimed up to and including one thousand horsepower, at the rate of eighteen cents per horsepower; for each and every theoretical horsepower in excess of one thousand horsepower, up to and including ten thousand horsepower, at the rate of three and six-tenths cents per horsepower; for each and every theoretical horsepower in excess of ten thousand horsepower, at the rate of one and eight-tenths cents per horsepower.

(b) For federal energy regulatory commission projects in operation that are subject to review for certification under §401 of the federal clean water act, the following fee schedule applies in addition to the fees in (a) of this subsection: For each theoretical horsepower of capacity up to and including one thousand horsepower, at the rate of thirty-two cents per horsepower; for each theoretical horsepower in excess of one thousand horsepower, up to and including ten thousand horsepower, at the rate of six and four-tenths cents per horsepower; for each theoretical horsepower in excess of ten thousand horsepower, at the rate of three and two-tenths cents per horsepower.

(c) To justify the appropriate use of fees collected under (b) of this subsection, the department of ecology shall submit a progress report to the appropriate committees of the legislature prior to December 31, 2009, and biennially thereafter.

(i) The progress report will:

(A) Describe how license fees and other funds used for the work of the licensing program were expended in direct support of the federal energy regulatory commission licensing process and license implementation during the current biennium, and expected workload and full-time equivalent employees for federal energy regulatory commission licensing in the next biennium. In order to increase the financial accountability of the licensing, relicensing, and license implementation program, the report must include the amount of licensing fees and program funds

## Water Power License Fees-Report to Legislature

that were expended on licensing work associated with each hydropower project. This project-specific program expenditure list must detail the program costs and staff time associated with each hydropower project during the time period immediately prior to license issuance process, the program costs and staff time deriving from the issuance or reissuance of a license to each hydropower project, and the program costs and staff time associated with license implementation after the issuance or reissuance of a license to a hydropower project. This program cost and staff time information must be collected beginning July 1, 2016, and included in biennial reports addressing program years 2016 or later. The report must also include an estimate of the total workload, program costs, and staff time for work associated with either certification under section 401 of the federal clean water act or license implementation for federally licensed hydropower projects expected to occur in the next reporting period, or both. In addition, the report must provide sufficient information to determine that the fees charged are not for activities already performed by other state or federal agencies or tribes that have jurisdiction over a specific license requirement and that duplicative work and expense is avoided;

**(B)** include any recommendations based on consultation with the departments of ecology and fish and wildlife, hydropower project operators, and other interested parties; and

**(C)** recognize hydropower operators that exceed their environmental regulatory requirements.

**(ii)** The fees required in (b) of this subsection expire June 30, 2023. The biennial progress reports submitted by the department of ecology will serve as a record for considering the extension of the fee structure in (b) of this subsection.

**(2)** The following are exceptions to the fee schedule in subsection (1) of this section:

**(a)** For undeveloped projects, the fee shall be at one-half the rates specified for projects in operation; for projects partly developed and in operation the fees paid on that portion of any project that shall have been developed and in operation shall be the full annual license fee specified in subsection (1) of this section for projects in operation, and for the remainder of the power claimed under such project the fees shall be the same as for undeveloped projects.

**(b)** The fees required in subsection (1) of this section do not apply to any hydropower project owned by the United States.

**(c)** The fees required in subsection (1) of this section do not apply to the use of water for the generation of fifty horsepower or less.

**(d)** The fees required in subsection (1) of this section for projects developed by an irrigation district in conjunction with the irrigation district's water conveyance system shall be reduced by fifty percent to reflect the portion of the year when the project is not operable.

**(e)** Any irrigation district or other municipal subdivision of the state, developing power chiefly for use in pumping of water for irrigation, upon the filing of a statement showing the amount of power used for irrigation pumping, is exempt from the fees in subsection (1) of this section to the extent of the power used for irrigation pumping.

**(3)** In order to ensure accountability in the licensing, relicensing, and license implementation programs of the department of ecology and the department of fish and wildlife, the departments must implement the following administrative requirements:

**(a)**

**(i)** Both the department of ecology and the department of fish and wildlife must be responsible for producing an annual work plan that addresses the work anticipated to be completed by each department associated with federal hydropower licensing and license implementation.

**(ii)** Both the department of ecology and the department of fish and wildlife must assign one employee to each licensed hydropower project to act as each department's designated licensing and implementation lead for a hydropower project. The responsibility assigned by each department to hydropower project licensing and implementation leads must include resolving conflicts with the license applicant or license holder and the facilitation of department decision making related to license applications and license implementation for the particular hydropower project assigned to a licensing lead.

**(b)** The department of ecology and the department of fish and wildlife must host an annual meeting with parties interested in or affected by hydropower project licensing and the associated fees charged under this section. The purposes of the annual meeting must include soliciting information from interested parties related to the annual hydropower work plan required by (a) of this subsection and to the biennial progress report produced pursuant to subsection (1)(c)(i) of this section.

**(c)** Prior to the annual meeting required by (b) of this subsection, the department of fish and wildlife and the department of ecology must circulate a survey to hydropower licensees soliciting feedback on the responsiveness of department staff, clarity of staff roles and responsibilities in the hydropower licensing and implementation process, and other topics related to the professionalism and expertise of department staff assigned to hydropower project licensing projects. This survey must be designed by the department of fish and wildlife and the department of ecology after consulting with hydropower licensees and the results of the survey must be included in the biennial progress report produced pursuant to subsection (1)(c)(i) of this section. Prior to the annual meeting, the department of ecology and the department of fish and wildlife must analyze the survey results. The departments must present summarized information based on their analysis of survey results at the annual meeting for purposes of discussion with hydropower project licensees.

## **About This Report**

As prescribed by the statute, Ecology is required to submit a biennial progress report to the appropriate committees of the Legislature to justify the appropriate use of the water power license fees.

## Water Power License Fees-Report to Legislature

This report describes progress made in three areas:

1. How fees were expended in the current biennium and expected workload in the next biennium.
2. Recommendations and accountability of programs supported by the fees.
3. Recognition of hydropower projects that exceed their environmental regulatory requirements.

## Previous Biennial Progress Reports to the Legislature

Statute requires biennial reporting to provide the Legislature with progress on the collection and use of the fees. These reports serve as the record for ensuring the fees are appropriately supporting the licensing and implementation of hydropower projects as the 2007 legislation and 2016 amendments intended. Table A provides links to previous biennial reports for review.

**Table A. Previous Biennial Progress Reports**

<b>Water Power License Fees: Biennial Reports to the Legislature Expenditures, Recommendations, Accountability, and Recognition:</b>
<a href="#">2015 – 17 biennium report</a> <sup>3</sup>
<a href="#">2013 – 15 biennium report</a> <sup>4</sup>
<a href="#">2011 – 13 biennium report</a> <sup>5</sup>
<a href="#">2009 – 11 biennium report</a> <sup>6</sup>
<a href="#">2007 – 09 biennium report</a> <sup>7</sup>

<sup>3</sup> <https://fortress.wa.gov/ecy/publications/SummaryPages/1810033.html>

<sup>4</sup> <https://fortress.wa.gov/ecy/publications/SummaryPages/1610007.html>

<sup>5</sup> <https://fortress.wa.gov/ecy/publications/SummaryPages/1410048.html>

<sup>6</sup> <https://fortress.wa.gov/ecy/publications/SummaryPages/1210048.html>

<sup>7</sup> <https://fortress.wa.gov/ecy/publications/SummaryPages/0910095.html>

## Water Power License Fee Expenditures

Revised Code of Washington (RCW) 90.16.050 requires a progress report, submitted by the Department of Ecology (Ecology), each biennium that describes how license fees were expended for the Federal Energy Regulatory Commission (FERC) hydropower licensing process in the previous biennium, and expected workload and full-time equivalent (FTE) employees for FERC licensing in the current biennium.

Legislative changes made to RCW 90.16.050 and RCW 90.16.090 allowed Ecology to revise the annual hydropower projects' water rights fee for use of water in Washington State beginning in December 2007. The changes to the law provided authorization to Washington Department of Fish and Wildlife (WDFW) and Ecology to spend these funds on specific activities associated with environmental protection, mitigation, and enhancement measures included in FERC-issued hydropower project licenses. The changes included the following license fee schedule for FERC projects:

[RCW 90.16.050 (1)(b)]

*For federal energy regulatory commission projects in operation, the following fee schedule applies in addition to the fees in (a) of this subsection: For each theoretical horsepower of capacity up to and including one thousand horsepower, at the rate of thirty-two cents per horsepower; for each theoretical horsepower in excess of one thousand horsepower, up to and including ten thousand horsepower, at the rate of six and four-tenths cents per horsepower; for each theoretical horsepower in excess of ten thousand horsepower, at the rate of three and two-tenths cents per horsepower.*

Fee collection is based on the calendar year. In the 2017-2019 biennium, average annual revenues of \$509,305 were collected from FERC licensed projects based on RCW 90.16.050. Ecology also collected average annual revenues of \$296,080 in base fees provided by RCW 90.16.050 (1) (a) to help fund the Ecology/USGS cooperative stream gauging program in the state. These base fees were collected prior to the 2007 legislation and are not subject to the 2023 sunset date.

For more detail of fees charged to each licensee for base fees [RCW 90.16.050 (1)(a)] and FERC project fees [RCW 90.16.050 (1)(b)], see Appendix A of this document.

The water power license fees provide funding for state agency participation, which is necessary to issue Clean Water Act §401 water quality certifications and to implement other environmental requirements in FERC licenses under state authority. These funds are directed to Ecology's Water Quality (WQ) and Water Resources (WR) programs. Ecology uses half of this funding to contract with WDFW for related services such as technical assistance in meeting license requirements to protect, mitigate, and enhance fish, wildlife, and habitat. FERC-licensed hydropower project activities affect a wide range of water quality and habitat conditions and prompt a variety of engagements with the state agencies, for example project plan reviews, water quality standards compliance, site visits, legal consultation, in-stream flow development and others. Due to these state agency responsibilities and the number of hydropower projects in Washington, the fees have not covered the full workload associated with hydropower compliance in past biennia. We also do not expect fee revenue to fully support the workload in the next biennium.

The following sections provide a description of the hydropower activities and responsibilities of Ecology's WQ Program and WR Programs, and WDFW's Ecosystem Services Division.

## **Water Quality Program Hydropower Responsibilities**

Water Quality (WQ) Program FERC hydropower license work occurs at both the headquarters and regional levels. WQ staff in headquarters provide technical support to the regional §401 WQ certification coordinators for analysis of water quality studies, approvals of quality assurance project plans (QAPPs), review of water quality models, and interpretations of the water quality standards to develop §401 WQ certifications. WQ headquarters participation enhances consistency among regions on the development and implementation of certifications statewide. Headquarters staff also organize annual meetings with the operators, state agencies, and interested stakeholders. Ecology and WDFW will continue to work with stakeholders through annual meetings and this detailed report, to show accountability for the effective use of these fees and transparency of how the funds are spent.

Regional Water Quality Program §401 WQ certification staff provide the lead point of contact for the dam relicensing and certifications in their regions. Responsibilities include all aspects of hydropower licensing to issue §401 WQ certifications, including:

- Participation in the FERC relicensing process—including meetings, workgroups, and settlement negotiations—as they relate to Ecology's §401 WQ certification authority.
- Review and preparation of comments on natural resource study plans, QAPPs, and environmental documents related to water quality.
- Development of §401 WQ certification conditions that protect, address impacts, and enhance water quality, flow, and habitat issues, with the assistance of Ecology's WR Program and WDFW.
- Communication with FERC, the licensee, tribes, state and federal resource management agencies (including U.S. Fish and Wildlife Service), and stakeholders, on issues associated with conditions in the §401 WQ certification.

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- Implementation of conditions in the §401 WQ certification and settlement agreements after issuance.
- Participation of Ecology managers and staff in the Water Power License Fee Structure Stakeholders Workgroup.

In the past few biennia, there were fewer existing dams entering the relicensing process than in the preceding 10 years (2002-2012). As a result, the state agency workload has shifted to implementation and management of recently issued §401 WQ certifications. However, the implementation and management of these §401 WQ certifications continue to be a large workload for the agency. Most of these relicensed dams now have compliance schedules included in their §401 WQ certification conditions which require ongoing implementation activities to comply with WQ standards.

### **WQ implementation activities include:**

- Review and approval of monitoring studies and water quality attainment plans.
- Total dissolved gas abatement approvals and related activities.
- Adaptive management activities associated with compliance schedules.
- Development of use attainability analyses (UAAs) as compliance schedules expire.
- Water quality modeling when necessary to determine future compliance.

Additionally, in the next several biennia a few large hydropower dams will be entering the relicensing phase. The relicensing phase generally begins 10 years prior to the expiration date of the license. Ecology and WDFW will work with these projects to plan and develop necessary research and to gather data necessary for relicensing and the development of the §401 WQ certification. This workload will be in addition to the continued work on implementing the §401 WQ certification conditions for those projects recently relicensed.

Ecology may also amend orders to some §401 WQ certifications. These amendments may be necessary to correct an error in the certification, incorporate a change in state water quality regulations, or to allow new construction or changes in operation.

## **Water Resources Program Hydropower Responsibilities**

Water Resources (WR) Program staff provide technical analysis of licenses that may require flow modifications from new developments, and as a result of species protections (such as an Endangered Species Act listing) that were not present when the license was first issued by FERC. License conditions create continuous work – adjusting flows to the needs of fish, removing fish barriers, fish passage at dams, and modifying flow releases. These actions require a process of adaptive management with input from WR instream flow specialists. WR staff located at headquarters also process billing statements and collect the water power license fees.

### **WR activities include:**

- Supporting settlement agreements and §401 WQ certifications through adaptive management workgroups.



- Adaptive flow-related management in response to new information, and flow management related to §401 WQ certification conditions.
- Settlement agreement negotiations and development of memorandums of agreement for instream flows for licenses and amendments to licenses.
- Water right permitting for power use.
- Writing instream flow language for §401 WQ certifications.
- Collecting and administering water power license fees.
- The WR Program has expected the workload in the next biennium will be similar in nature and quantity to that of the last 2017-2019 biennium. The WR Program will continue to assist the operators and regional Ecology FERC coordinators with the implementation of flow and habitat-related conditions.

## **Washington Department of Fish and Wildlife Hydropower Responsibilities**

Washington Department of Fish and Wildlife (WDFW) staff activities included:

- Assisting Ecology during the development, implementation, and adaptive management of §401 WQ certifications. The agency provided technical fish and aquatic habitat expertise, including instream flow modeling and evaluation.
- Providing technical assistance and collaborating with hydropower project owners, tribes, and stakeholders throughout the FERC licensing and implementation process. Technical assistance includes consultation in the development and implementation of settlement agreement articles; and management plans resulting from settlement agreements, FERC license articles, and §401 WQ certification requirements. These management plans include elements necessary to protect aquatic resources as well as terrestrial resources.
- Providing internal WDFW coordination among WDFW Programs (Fish, Wildlife, Habitat, and Enforcement) and Divisions (Science, Fish Passage, etc.) to ensure agency-wide consistency in consultation with Ecology, FERC, and hydropower project owners.
- Oversight and consultation on natural resource protection and enhancement measures that are required by the FERC-issued operating licenses.
- Participation in natural resource technical committees during licensing, and communication with FERC, Ecology, tribes, project owners, and stakeholders.
- Providing Ecology with quarterly summary reports of fee expenditures associated with each FERC-licensed hydropower project
- Participation of WDFW managers and staff in the Water Power License Fee Structure Stakeholders Workgroup.

The 2017-2019 biennium contract provided WDFW an average of \$255,000 per fiscal year from water power license fees. For the 2019-2021 biennium, Ecology and WDFW maintained this funding amount in the renewed Interagency Agreement (IAA Contract # C2000096) to continue work on FERC-licensed and proposed hydropower projects.

In general, WDFW's role is to monitor the implementation and adaptive management of the protection, mitigation, and enhancement measures for salmonids, bull trout, sturgeon, lamprey,

and resident fish, and to consult with Ecology regarding these matters. WDFW staff participation is anticipated in any resource protection and enhancement measures that affect fish and wildlife, or their habitat, as well as measures that affect beneficial uses of water and fish and wildlife oriented recreation.

## Detail of Fund Expenditures

### Summary of expenditures 2017-2019 biennium expenditures

The water power license fee totals in Table B and Table C show the total expenditures to support the state hydropower program in the 2017-2019 biennium. For project specific expenditure information in the 2017-2019 biennium, see Appendix A.

**Total State agency expenditures to support the hydropower program in FY2018 amounted to \$982,282.**

**Table B. 2018 FERC Project Expenditures by Agency, Program, Fiscal Year and Fund Source**

Funding Source	Ecology Water Quality & Program A	Ecology Water Resources	WDFW Habitat Management	Totals
Water Power License Fees	\$ 361,896	\$ 26,394	\$ 285,871	\$ 674,161 <sup>i</sup>
General Fund - State	-	-	\$ 109,664	\$ 109,664
Other State Funds	\$ 12,483	-	-	\$ 12,483
Federal	\$ 59,371	-	\$ 105,240	\$ 164,611
Other <sup>ii</sup>	\$ 9,863	-	\$ 11,500	\$ 21,363

<sup>1</sup> Funds are spent from Water Power License Fees in the 027 Reclamation Account (<http://www.ofm.wa.gov/fund/detail.asp?fund=027>).

<sup>2</sup> Attorney General's Office assistance is a biennium total average between both fiscal years. AAG time is funded by assorted program funds.

**Total State agency expenditures to support the hydropower program in FY2019 amounted to \$857,066.**

**Table C. 2019 FERC Project Expenditures by Agency, Program, Fiscal Year and Fund Source**

Funding Source	Ecology Water Quality & Program A	Ecology Water Resources	WDFW Habitat Management	Totals
Water Power License Fees	\$ 302,588	\$ 10,798	\$ 232,129	\$ 545,515 <sup>1</sup>
General Fund - State	-	-	\$ 150,073	\$ 150,073
Other State Funds	\$ 13,975	-	-	\$ 13,975
Federal	\$ 66,560	-	\$ 60,082	\$ 126,642
Other <sup>2</sup>	\$ 9,863	-	\$ 11,500	\$ 21,363

<sup>1</sup> Funds are spent from Water Power License Fees in the 027 Reclamation Account (<http://www.ofm.wa.gov/fund/detail.asp?fund=027>).

<sup>2</sup> Attorney General's Office assistance is a biennium total average between both fiscal years. AAG time is funded by assorted program funds.

The total biennial cost to the state agencies for FERC hydropower licensing and implementation was \$1,839,348. The FERC-licensed project fees funded 55 percent of the full workload associated with hydropower projects in the biennium. Federal and state funds supported the remaining 45 percent of the work performed. The supplemental sources and funding totals for

each FY18 and FY19 are detailed in Table B and Table C of this report. We expect the need for supplementation from these sources again in the 2019-2021 biennium to cover the full workload.

### **Other funds that support the agency hydropower responsibilities**

Table B and Table C details the total expenditures for the 2017-2019 biennium which were \$1,839,851. Included in Table B and Table C are *other funding sources* that supplement license fee revenue to fully support agency staff involved in hydropower licensing, management staff time for policy direction and interagency coordination, and costs for legal consultation from the State Attorney General's (AG) Office. Supplementary state funds are drawn from General Fund-State and the State Toxics Control Account. Supplementary federal funds are drawn from the Secretary of Interior, Dingell-Johnson Act grant and the Environmental Protection Agency, Clean Water Act grant to support WDFW and Ecology hydropower programs, respectively.

In the FY2018 and FY2019, supplementary state and federal funds provided approximately 22 percent of the funding for Ecology's hydropower program and 45 percent of WDFW's hydropower program. Without these supplementary funds, the state would not be able to fully support \$401 WQ certification and license implementation activities effectively.

### **Fee expenditures on pre-licensing for proposed hydropower projects**

Although the workload associated with relicensing of larger existing projects has decreased in recent biennia, new small-scale projects continue to apply to the FERC for pre-application approval. These include proposed hydropower projects in existing canals, small headwater streams, open and closed-loop pumped storage systems. These proposals require state agency involvement to inform project proponents of requirements to meet state environmental regulations.

Since many of these are in the pre-application phase, they are not yet assessed fees pursuant to RCW 90.16.050 unless or until they receive a water right and a FERC license to operate. Although RCW 90.16.050 does not prohibit the use of fee revenue to fund state agency work on these new project proposals, some stakeholders prefer that fee revenue not be used to support work on projects that do not yet pay fees. The state agencies continue to include the work on these projects within the hydropower program funded by fee revenue and supplementary funding sources.

However, considering this stakeholder concern, the state agency hydropower programs can report that supplementary state and federal funds for the program continue to exceed the expenditures specifically associated with these new project proposals as described above (i.e. those projects in pre-licensing phase that do not yet have a water right, thus, are not assessing fees pursuant to RCW 90.16.050). Ecology and WDFW will continue to use supplemental funding from state and federal funding sources to support this workload.

## Hydropower program workload in FY2018 and FY2019

Table D below provides further detail of fulltime equivalent (FTE) workload for FY2018 and FY2019. The table includes level of work funded by water power license fees (*FTEs funded by hydro fees*) compared to staffing levels required for each agency’s program (*Total FTE for FERC projects*).

**Table D. State Agency Fulltime Equivalent (FTE) Program Staffing in the FY2018 and FY2019**

State Agency/Program	Project Involvement	FTEs funded by hydro fees	FTEs funded by other sources	Total FTE for FERC projects
<b>Ecology - Water Quality and Water Resources programs, including administration</b>	Technical assistance on instream flow issues for all projects statewide.	0.69	2.43	3.12
<b>WDFW – Habitat, Fish, and Wildlife Programs</b>	Technical assistance and policy on fish, wildlife, water quality, and water resource issues for all projects statewide.	2.61	2.14	4.75
<b>—————▶ Total State Agency FTEs</b>		3.30	4.57	7.87

The workload and FTE estimates for the state agencies may differ from one biennium to the next. In a biennium where more hydropower projects are being relicensed, the state workload for the existing projects will largely consist of §401 WQ certification and FERC license article oversight activities. After projects are relicensed, continued state agency participation is necessary to assist and oversee the implementation of conditions, settlement agreements, water quality compliance schedules, and other requirements of the certifications and license articles.

In accordance with RCW 90.16.050(1)(c)(i)(A), Appendix B includes the staff time and program costs expended for each hydropower project under FERC regulatory authority. The table includes Ecology and WDFW staff time and program costs for each hydropower project in FY2018, which began July 1, 2017 and FY2019, which began July 1, 2018. Expenditures not directly attributable to work on a specific hydropower project are not included<sup>8</sup>.

Additionally, the report must include a summary of program costs and staff time associated with projects in the license implementation phase after the license issuance, and program costs and staff time associated with reissuance of a license to a hydropower project. For clarity, it is important to explain the terms used throughout RCW 90.16.050(1)(c)(i)(A). Licensing, relicensing, and §401 WQ certification are terms used in this section that relate to the same work. Each hydropower project requiring a FERC license, whether new (licensing) or existing (relicensing), is evaluated for compliance. Conditions to meet state regulations are established by Ecology and WDFW and are issued through the state §401 WQ certification. These conditions are then incorporated into the FERC license. The state does not issue the license to operate; this

<sup>8</sup> Non-project specific expenditures include staff training, leave time, and administrative duties not attributable to any one hydropower project. Table B includes total annual expenditures, including non-project specific expenditures.

is the responsibility of the FERC. The state actions are to establish a §401 WQ certification necessary for a FERC license to be issued and to then to work with the hydropower projects to ensure proper implementation of the §401 WQ certification conditions that have been placed into the FERC license. As a result, the terms, licensing, relicensing, and issuance §401 WQ certification, all relate to the state agency work to research, establish, and ultimately issue state environmental conditions to allow finalization of a FERC license. Implementation are those activities that occur after the finalization of the FERC license. To meet the requirements in RCW 90.16.050(1)(c)(i)(A) to separate costs and staff time between these activities, Table D reflects this concept. Table D summarizes program costs and staff time in FY2017 from Appendix B associated with both, licensing activities and license implementation activities. The expenditures in Table D include the cumulative expenditures in direct support of each hydropower project as directed by RCW 90.16.050(1)(c)(i)(A).

**Table E. Fiscal Year 2018 - Total Workload and Expenditures by Licensing Phase<sup>5</sup>**

	<b>Ecology Staff Hours</b>	<b>Ecology Program Cost</b>	<b>WDFW Staff Hours</b>	<b>WDFW Program Cost</b>	<b>Total costs and percentage by licensing phase</b>
<b>Total workload and expenditures for licensing</b> <i>(includes pre-licensing and relicensing of projects)</i>	625	\$ 46,258	2271	\$ 143,746	<b>\$ 190,004</b> <b>(15%)</b>
<b>Total workload and expenditures for license implementation</b> <i>(includes work with one license surrender project)</i>	5866	\$ 421,724	7627	\$ 625,497	<b>\$ 1,047,221</b> <b>(85%)</b>
<b>Totals</b>	6491	\$ 467,982	9898	\$ 769,243	<b>\$ 1,237,225</b> <b>(100%)</b>

### **Expected workload and full time employee needs in 2019-2020 biennium**

Workload in the 2019-2021 biennium is expected to be similar to the 2017-2019 biennium for both Ecology and WDFW. During the last biennium, the nature of the work changed for some projects. Many of these projects were issued adaptive management requirements within the §401 WQ certification in accordance with WAC 173-201A-510(5) *Compliance schedules for dams*. These compliance schedules were necessary to allow time for the hydropower projects to evaluate reasonable and feasible methods necessary to meet water quality standards. Several compliance schedules came to an end without yet attaining water quality standards. Ecology has been working with these projects on proposed alternatives using compliance tools such as site

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specific criteria, use attainability analysis, or water quality offsets<sup>9</sup>. The application of these tools will require rulemaking under WAC 173-201A through the state administrative procedures act process. The nature of this work for Ecology staff will, in general, include more rule procedure work than technical review and may require more resources from rulemaking staff and the attorney general's office. If hydropower utility owners choose to apply to Ecology for rulemaking, expenditures to support the hydropower program may increase in the 2019-2021 to support rulemaking efforts such as rule writing and regulatory analysis required by the state administrative procedures act. This increase in expenditures is unknown since it is dependent upon the quantity, type, and complexity of the rulemaking requested, (e.g. use attainability analysis, site specific criteria, etc.)

The 2019-2021 biennium average annual staff time and program costs to support both state agencies' hydropower programs is expected to remain similar to those shown in FY2019 Table E above. Approximately 20 percent of the workload and program costs will be expended for new and existing projects entering the licensing process to develop new §401 WQ certification conditions. Approximately 80 percent of the workload and program costs will be expended to assist with and oversee hydropower projects current §401 WQ certification conditions and other FERC license environmental requirements. Similar to the 2017-2019 biennium, the staff time necessary for the state hydropower program is expected to average approximately 7.5 full time employees. This work is divided among a larger number of staff but corresponds to this quantity of full-time equivalent resources.

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<sup>9</sup> Site specific criteria, use attainability analyses, and water quality offsets are tools for application of water quality criteria in the state surface water quality standards.

## Accountability and Recommendations

### Annual Water Power License Fee Stakeholder Meeting

In accordance with RCW 90.16.050(3)(b) the Department of Fish and Wildlife (WDFW) and the Department of Ecology (Ecology) are directed to host an annual meeting to solicit information from interested parties. These meetings had previously been held periodically since the original 2007 legislation on water power license fees, but will now occur no less than annually. The purpose of the annual stakeholder meeting, at a minimum, is to discuss preparations for the Water Power License Fee report, including a review of annual work plans and the annual state agency performance survey. In consultation with stakeholders, Ecology and WDFW host these annual meetings in the fall. The first meeting pursuant to the new legislation was held on October 10, 2017. Invitations to provide feedback through the annual survey and to attend the annual meetings are extended to:

- All water power license fee payers.
- Private citizens that have shown interest in hydropower licensing in Washington.
- Non-governmental organizations (NGOs) involved in hydropower licensing.
- Legal offices that represent hydropower operators.

#### Attendance at the 2018 annual meeting included:

Ecology and WDFW staff and managers  
Hydropower operator staff from;  
Avista Corporation  
Centralia City Light  
Chelan County PUD  
Cowlitz County PUD  
Douglas County PUD  
Grant County PUD  
Okanogan County PUD  
PacifiCorp  
Puget Sound Energy  
Seattle City Light  
Snohomish County PUD  
Tacoma Power  
Tollhouse Energy Company

### Annual Work plans

In accordance with RCW 90.16.050(3)(a)(i), WDFW and Ecology are directed to develop work plans that include the work anticipated by each department associated with federal hydropower licensing and license implementation. Work plans also support requirements within RCW 90.16.050(1)(c)(i)(B) to consult with water power license fee payers. WDFW and Ecology

worked with each hydropower project owner to develop and review the 2019 annual work plans for FERC-licensed projects. The final work plans were assembled into a document and can be reviewed at Ecology's Water Power License Fees website<sup>10</sup>. As required by the 2016 legislation, the state must ensure that duplicative work is avoided. The collaborative development of these work plans between the state agencies and each hydropower facility ensures that the state avoids duplicative work other state or federal agencies or tribes are already performing.

## **Ecology and WDFW Staff Assignments**

In accordance with RCW 90.16.050(3)(a)(ii), WDFW and Ecology are directed to assign one employee to each licensed hydropower project to act as each department's designated licensing and implementation lead for a hydropower project. These hydropower project leads are identified for each project in Appendix E of this report.

## **Annual State Agency Performance Survey**

In accordance with RCW 90.16.05 (3)(c) the Department of Fish and Wildlife (WDFW) and the Department of Ecology (Ecology) consult with water power license fee payers and other interested parties. This includes annual meetings and annual state agency performance surveys. The purpose of these consultation efforts is to solicit feedback on the responsiveness of department staff, clarity of staff roles and responsibilities in the hydropower licensing and implementation process, and other topics related to the professionalism and expertise of department staff assigned to hydropower project. The statute further stipulates the survey must be designed by WDFW and Ecology after consulting with hydropower licensees, and the results of the survey must be included in the biennial progress report.

These additional accountability reporting requirements placed into law in 2016 are inclusive of the original (2007 law) requirements to consult with hydropower project operators, and other interested parties. As such the new required annual survey, work plans, and annual stakeholder meeting meet the state agency reporting requirements under RCW 90.16.050(1)(c)(i)(A) [amended in 2007] and RCW 90.16.050(3) [amended in 2016].

In 2017 Ecology and WDFW created an initial survey in order to effectively get feedback from all of the hydropower licensee fee holder and stakeholders. The purpose was to meet the new survey requirements as well as get formal feedback on how best to conduct surveys in the future in order to meet the intended purpose of the statute. Results of the 2017 survey was presented at the 2017 Annual Hydropower Fee Stakeholder meeting and several stakeholders expressed an interest in participating in a workgroup to improve the survey.

In September and October of 2018, Ecology and a group of stakeholders developed an annual survey workgroup. This workgroup participated in three meetings, approximately 1.5 hours in length. The tasks of this workgroup were to analyze the structure of the initial survey created and distributed in 2017, provide suggestions for improvement, determine the best method to receive

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<sup>10</sup> [https://www.ezview.wa.gov/site/alias\\_\\_1962/committees\\_ferc/37134/ferc.aspx](https://www.ezview.wa.gov/site/alias__1962/committees_ferc/37134/ferc.aspx)



feedback, draft new questions, and finalize a new and improved survey. As a result, a new and improved survey was complete and then distributed to all the hydropower fee holder and stakeholders in both 2018 and 2019. More specifically, the survey was distributed on October 16, 2018, and then distributed the following year on September 25, 2019. The new survey incorporated a modified structure to allow for respondents to provide feedback on each topic in several ways; condensed and expanded questions, and free form text options to provide narrative detail. Complete survey results for both 2018 and 2019 can be found at Ecology's Water Power License Fees website.<sup>11</sup>

## About the Survey

The survey consists of 39 questions relevant to hydropower project staff and other industry stakeholders. The survey begins with three optional questions about the participant (Questions 1 thru 3), followed by 33 multiple choice questions; four questions required responses and 29 questions were optional. The multiple choice response options were, *strongly agree*, *agree*, *undecided/neutral*, *disagree*, *strongly disagree*, and *N/A*. The questions were divided into four major topic areas. The first question of each topic was required and the remaining questions in each topic was optional. To ensure respondents had the opportunity to share any specific ideas, each topic section included a final free form text option. These four major topics were:

- **Responsiveness** – overall performance of staff response time (Questions 4 thru 12). This topic section included nine questions, one required question followed by seven optional questions, and one free form text question.
- **Clarity of staff roles and responsibilities** – overall effectiveness of communication between the state agencies and hydropower project operators (Questions 13 thru 19). This topic section included seven questions, one required question followed by five optional questions, and one free form text question.
- **Professionalism** – overall professionalism of state agency staff when communicating and working with hydropower operators (Questions 20 thru 27). This topic section included seven questions, one required question followed by five optional questions, and one free form text question.
- **Expertise** – Overall knowledge and familiarity of state agency staff of the hydropower projects they manage. (Questions 28 thru 37). This topic section included nine questions, one required question followed by seven optional questions, and one free form text question.

Lastly, the survey included three final questions that asked for any additional feedback, comments, or questions from the participant (Questions 37 thru 39).

The statute directs that the biennial progress report include results from the performance survey. We are providing an overview of survey results in this section. Appendix A includes result summaries for each question, showing the range of answer choices, and specific narrative survey

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<sup>11</sup> [https://www.ezview.wa.gov/site/alias\\_\\_1962/committees\\_ferc/37134/ferc.aspx](https://www.ezview.wa.gov/site/alias__1962/committees_ferc/37134/ferc.aspx)

responses (Questions 12, 19, 27, 37, 38) regarding state agency responsiveness, clarity of staff roles and responsibilities, professionalism, expertise, and other comments. Question 1 of the survey requested email addresses for the respondents; this information does not affect the outcome of the survey or the feedback provided by Ecology and WDFW. Therefore, Question 1 is not included in Appendix A or in this report.

## **2018 Survey participation**

### **About the respondents**

The survey was completed by 18 participants. To ensure that Ecology and WDFW received authentic and meaningful feedback, the survey allowed for anonymous participation. Nine participants remained anonymous while the following nine participants provided optional identifying information:

- Mason County PUD #1
- Hancock Creek & Calligan Creek Hydro
- Sunset Fish passage and Energy Project
- Priest Rapids Hydroelectric Project
- Lewis River Hydro Projects
- PacifiCorp
- City of Centralia (Yelm Hydro Project)
- Cowlitz PUD
- Spokane River Project
- Okanogan County PUD
- Tacoma Power

### **Topic 1: Responsiveness**

Out of the 18 survey participants, nine participants answered the seven optional questions in this topic section, and five participants provided additional feedback for the free form text question.

### **Topic 2: Clarity of staff roles and responsibilities**

Out of the 18 survey participants, nine participants answered the five optional questions in this topic section, and five participants provided additional feedback for the free form text question.

### **Topic 3: Professionalism**

Out of the 18 total survey participants, nine participants answered the five optional questions in this topic section, and two participants provided additional feedback for the free form text question.

#### **Topic 4: Expertise**

Out of the 18 total survey participants, nine participants answered the five optional questions in this topic section, and three participants provided additional feedback for the free form text question.

### **2019 Survey participation**

The following is a description of the results for the survey distributed in 2019.

#### **About the respondents**

The survey was completed by 9 participants. Again, the survey allowed for anonymous participation. One participant remained anonymous while the following eight participants provided optional identifying information:

- PUD of Northern Wasco County
- City of Seattle
- Cowlitz PUD
- Yelm Hydroelectric Project
- City of Tacoma
- Avista Corporation
- PacificCorp Company
- Puget Sound Energy

#### **Topic 1: Responsiveness**

Out of the nine survey participants, three participants answered the seven optional questions in this topic section, and two participants provided additional feedback for the free form text question.

#### **Topic 2: Clarity of staff roles and responsibilities**

Out of the nine survey participants, two participants answered the five optional questions in this topic section, and one participant provided additional feedback for the free form text question.

#### **Topic 3: Professionalism**

Out of the nine total survey participants, three participants answered the five optional questions in this topic section, and two participants provided additional feedback for the free form text question.

## **Topic 4: Expertise**

Out of the nine total survey participants, three participants answered the seven optional questions in this topic section, and one participants provided additional feedback for the free form text question.

## **Summary of 2018 and 2019 Survey Results**

There was 50% more participation in 2018 survey then there was in 2019 survey. In general, respondents declared a higher level of satisfaction with state agency staff in the 2019 survey results. Below is a summary of the combination of the 2018 and 2019 year survey results.

### **Topic 1: Responsiveness**

In general, we received favorable responses (*Agree to Strongly agree*) for the majority of multiple choice questions related to the responsiveness of Ecology and WDFW staff in the last two years. Areas included satisfaction with agency staff working on hydropower projects, including:

- Timely and sufficient assistance on questions, technical requests, and decisions.
- Timeliness of reviews.
- Collaboration effectiveness to help develop and/or implement project 401 certifications.

### **State agency response to feedback**

Some responses to the multiple choice questions for the 2018 survey indicate this expectation was mostly met, but not consistently met for all hydropower projects. As many as two participants disagreed or strongly disagreed with agency responsiveness. However, the narrative responses on this state agency response to feedback were positive. Ecology and WDFW are committed to focusing on timely responses that include the appropriate legal, technical, and policy staff in each meeting and decision. Each hydropower project is assigned an assistant attorney general (AG) from the state AG office and staff frequently consult with the AG office for guidance on issues. AG attorneys participating in meeting where appropriate or when their participation is requested by a hydropower utility. Ecology has also included staff engineers when water quality or water resource modeling is under review. Policy issues that need to be reviewed by state agency managers for consistent application of regulation are coordinated by regional and headquarter staff. Each project is assigned one staff person from each state agency and can ask to include a manager to review any decision that affects the hydropower project.

### **Topic 2: Clarity of staff roles and responsibilities**

Responses on clarity of staff roles and responsibilities for Ecology and WDFW agency staff received for this topic were predominantly favorable (*Agree to Strongly Agree*) and suggest water power license fee payers know who to contact if they have regulatory questions about their

hydropower project. Areas included satisfaction with agency staff working on hydropower projects, including:

- Knowing which agency to contact.
- Agency staff are engaged in the projects and effectively share workload.
- Agency staff collaborate to solve problems with each other and with the projects.

### **State agency response to feedback**

Ecology and WDFW have committed to ensure greater consistency with decision-making by continuing to develop agency-to-agency relationships and through better coordination by the development of an Inter-Agency Agreement. We continue to develop and participate in agency workgroup meetings. These meeting are used to discuss current issues, share decisions among regional staff, and continue to develop our knowledge and understanding of complex hydropower projects.

### **Topic 3: Professionalism**

Responses received for this topic were mostly favorable (*Agree to Strongly Agree*) and suggest that most water power license fee payers have a positive experience working with state agencies. Areas included satisfaction with agency staff working on hydropower projects, including:

- Agency staff used professional judgement versus personal opinion.
- Agency staff followed through with commitments.
- Agency staff communicated clearly and professionally and were prepare for meetings.

### **State agency response to feedback**

Agency staff will continue to work on policy issues with state agency managers for consistent application of regulation and coordinate with regional and headquarter staff. Each project is assigned one staff person from each state agency and can ask to include a manager to review any decision that affects the hydropower project. Agency staff continuing to participate in trainings and agency workgroup meetings allows for continued development of growth by increased knowledge, and understanding of specific hydropower projects and related complex issues.

### **Topic 4: Expertise**

Responses received for this topic were mostly positive (*Agree to Strongly Agree*) and suggest that most water power license fee payers are satisfied with the level of competency of Ecology and WDFW agency staff. Areas included satisfaction with agency staff working on hydropower projects, including:

- Agency staff demonstrate knowledge and experience in their area of expertise.
- Agency staff are familiar and knowledgeable with project's 401 WQ Certifications.
- Agency staff communicated clearly state requirements and provided technical support.

**State agency response to feedback**

Properly training and retaining staff is important to the state hydropower regulatory programs. Each agency continues to improve on communication among regional staff for consistency. We have increased the frequency of regular internal meetings and agency headquarter staff oversee technical and policy decisions to improve consistency across all hydropower projects in the state.

## Recognition of Hydropower Operators

RCW 90.16.050(1)(C)(i)(c) encourages recognition of hydropower operators that exceed their environmental regulatory requirements.

### Low Impact Hydropower Institute Certification

The Low Impact Hydropower Institute (LIHI) certification is one way hydropower project are recognized for their operations that enhance environmental recreational benefits. Ecology responds to inquiries from LIHI and certification applicants to provide regulatory oversight information necessary for LIHI to certify these hydropower projects.

The Low Impact Hydropower Institute (LIHI) is a non-profit 501(c)(3) organization dedicated to reducing the impacts of hydropower generation through the certification of hydropower projects that have avoided or reduced their environmental impacts pursuant to LIHI's criteria.

Ecology recognizes hydropower utilities that rise above, or exceed, their environmental regulatory requirements. In order to be certified by LIHI, a hydropower facility must meet criteria in the following eight areas:

- River flows.
- Water quality.
- Fish passage and protection.
- Watershed protection.
- Threatened and endangered species protection.
- Cultural resource protection.
- Recreation.
- Facilities recommended for removal.

The criteria standards are typically based on the most recent, and most stringent, mitigation measures recommended for the dam by expert state and federal resource agencies, even if those measures aren't a requirement for operating. A hydropower facility meeting all eight certification criteria will be certified by LIHI. Once certified, the owner or operator can market the power from the facility to consumers as produced by a LIHI- certified facility.

Hydropower projects in Washington that received LIHI certification can be found on the [LHI website](#)<sup>12</sup>. The following are the 5 LIHI certifications that are active in Washington State.

### Dalles Dam North Fishway Hydroelectric Project

On April 21, 2011, the Dalles Dam North Fishway Hydroelectric Project, (FERC #P-7076), operated by Northern Wasco County Public Utility District (PUD), earned a 5-year LIHI certification (#71) effective July 17, 2010 and expired on July 17, 2015. In November 2015 the

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<sup>12</sup> <http://lowimpacthydro.org/project-map/>

LIHI certified that the project continues to satisfy the LIHI Certification Criteria. The certification is effective until July 17, 2020. The Project is adjacent to the US Army Corps of Engineers Dalles Dam. The PUD facility is located on the north shore of the Dalles Dam in Washington State. The project diverts auxiliary flows designated for augmenting fish ladder flows. The turbine is powered by an 800 cfs screened intake structure that separates the fish from most of the flow. The fish-free water powers the turbine and then supplements the flow in the north shore fishway entrance. The project is recognized for maintaining adequate fish flows for adult migration, while generating electricity and improving the ladders system to ensure that juvenile fish are excluded from the auxiliary flows.

### **Seattle City Light – Skagit River Project**

On August 28, 2008 the Skagit River Project (FERC #P-553), owned and operated by Seattle City Light, was issued a 8-year LIHI certification (#5) later, on May 15, 2016, receiving a new certification term extending ten years and will be effective until May 14, 2026. The Skagit River Hydroelectric Project is located in the upper Skagit River basin, in northeastern Puget Sound, Washington. Headwaters of the Skagit River originate in Canada, and the project occupies a scenic area in the Mount Baker-Snoqualmie National Forest and Ross Lake National Recreation Area, adjacent to North Cascades National Park. The project includes three dams: Ross, Diablo, and Gorge. The project is recognized for maintaining instream flows beneficial to salmon and steelhead reproduction and rearing. In addition, the project provides flood control storage and a variety of high-quality recreational opportunities, including hiking, sport fishing, boating, and guided tours.

### **City of Tacoma – Nisqually Project**

The Nisqually Hydroelectric Project (FERC #P-1862), operated by the city of Tacoma, first earned a LIHI certification (#8) in 2003. The project was re-certified in 2008, 2013, and most recently on April 15, 2018. The certification is effective until April 14, 2023. The project is located on the Nisqually River in western Washington, south of the city of Tacoma. The Nisqually River originates from the Nisqually Glacier on Mount Rainier, and flows about 80 miles west to Puget Sound. The project was recognized for operating conditions that provide increased minimum flows in the bypassed reach and modified flows overall to provide for minimum flows in the river below the LaGrande powerhouse. In addition, the project maintained 177 acres of project lands dedicated to developed recreation, including three recreation facilities on the northern shores of Alder Lake: Alder Lake Park, Sunny Beach Point Day-use Area, and Rocky Point Day-use Area.

### **Chelan County Public Utility District (PUD)**

The Lake Chelan Hydropower Project (FERC #P-637), operated by Chelan PUD, earned a LIHI certification (#30) on January 24, 2008. The project was re-certified on September 26, 2012 and September 26, 2017. The current certification is effective until September 25, 2022. The project is located on the Chelan River, near the city of Chelan, in Chelan County, Washington. The project occupied 465.5 acres of federal lands administered by the U.S. Forest Service and U.S. Department of the Interior, National Park Service. The project was recognized for



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maintaining flow for habitat and recreation in the 4.5 mil long reach of the Chelan River that is bypassed by the project. In addition, the project maintained a regime of lake elevation levels to meet a complex synthesis of recreational needs, bypass flows, and electrical generation.

## Conclusion

This report on water power license fee revenue and expenditures presents information to meet the requirements of RCW 90.16.050 in order to provide accountability measures for the agencies responsible for administering the program.

To address stakeholder recommendations and performance survey feedback, Ecology and WDFW are taking the following actions:

1. Continue to reach out to all hydropower project owners and operators, and all identified interested parties to gain greater participation in annual surveys and meetings. This will allow the state programs to maintain the level of service expected from these stakeholders.
2. Increase communication between Ecology and WDFW. The goal of greater communication is to ensure defensible and consistent decisions concerning technical and policy decisions in a timely manner.
3. Ensure that Ecology and WDFW are properly trained in hydropower and regulatory policy. Agency headquarter staff will oversee technical and policy decisions to improve consistency across all hydropower projects in the state.

# Appendices

## Appendix A. Water Power License Fees Revenue for FY2018 and FY2019

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
Avista Corporation	Little Falls	non-FERC	\$1,489.91	\$0.00	\$1,489.91	\$0.00	\$2,979.82
Avista Corporation	Long Lake (Spokane)	P-2545	\$2,527.57	\$4,493.45	\$2,527.57	\$4,493.45	\$14,042.04
Avista Corporation	Monroe Street (Spokane)	P-2545	\$751.09	\$1,335.27	\$751.09	\$1,335.27	\$4,172.72
Avista Corporation	Nine Mile (Spokane)	P-2545	\$1,446.90	\$2,572.25	\$1,446.90	\$2,572.25	\$8,038.30
Avista Corporation	Upper Falls (Spokane)	P-2545	\$647.35	\$1,150.83	\$647.34	\$1,150.84	\$3,596.36
Bellingham, City of	Mirror Lake	P-7747	\$363.27	\$645.82	\$363.27	\$0.00	\$1,372.36
Black Creek Hydro, Inc.	Black Creek	P-6221	\$357.05	\$634.77	\$357.05	\$634.77	\$1,983.64
Cascade Water Alliance/Puget Sound Energy	White River	P-12685	\$1,166.93	\$2,074.55	\$1,166.93	\$2,074.55	\$6,482.96
Cascadian Home Farm	Cascadian Farm Hydro	non-FERC	\$10.19	\$0.00	\$10.19	\$0.00	\$20.38
Centralia, City of	Yelm Hydro Plant	P-10703	\$664.36	\$1,181.09	\$664.36	\$1,181.09	\$3,690.90
Columbia Basin Hydropower	Eltopia Branch	P-3842	\$131.23	\$233.29	\$262.46	\$102.06	\$729.04

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
<b>Columbia Basin Hydropower</b>	Main Canal Headworks	P-2849	\$522.45	\$928.80	\$1,044.90	\$406.35	\$2,902.50
<b>Columbia Basin Hydropower</b>	P.E.C. 66.0	P-3843	\$125.18	\$222.55	\$250.36	\$97.37	\$695.46
<b>Columbia Basin Hydropower</b>	Russel D. Smith	P-2926	\$252.41	\$448.73	\$504.82	\$196.32	\$1,402.28
<b>Columbia Basin Hydropower</b>	Summer Falls	P-3295	\$1,512.00	\$2,688.00	\$3,024.00	\$1,176.00	\$8,400.00
<b>Crystal Springs Hydroelectric</b>	Crystal Springs Hydro	P-3873	\$0.00	\$0.00	\$307.52	\$442.24	\$749.76
<b>Dale Peterson Orchards, Inc.</b>	Company Creek	non-FERC	\$40.89	\$0.00	\$40.89	\$0.00	\$81.78
<b>Electron Hydro LLC</b>	Electron	non-FERC	\$1,030.91	\$0.00	\$1,030.91	\$0.00	\$2,061.82
<b>Energy Northwest (WPPSS)</b>	Packwood Lake	P-2244	\$1,281.27	\$2,277.82	\$1,281.27	\$2,277.82	\$7,118.18
<b>Fred Pickering (Biggs Creek)</b>	Biggs Creek	non-FERC	\$9.57	\$17.02	\$9.57	\$17.02	\$53.18
<b>Halbrook, David A.</b>	Falls Creek	P-5497	\$63.00	\$112.00	\$63.00	\$0.00	\$238.00
<b>Holden Village, Inc.</b>	Holden Village	non-FERC	\$157.09	\$0.00	\$157.09	\$0.00	\$314.18

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
<b>Holden Village, Inc.</b>	Railroad Creek No. 1	non-FERC	\$10.74	\$0.00	\$10.74	\$0.00	\$21.48
<b>Hydro Technology Systems Inc.</b>	Meyers Falls	P-2544	\$235.02	\$417.82	\$235.02	\$417.82	\$1,305.68
<b>Janda, John L. (Paid by Russell Stallman)</b>	Janda Power House	non-FERC	\$0.00	\$0.00	\$17.47	\$0.00	\$17.47
<b>Koma Kulshan Associates</b>	Koma Kulshan	P-3239	\$885.60	\$1,574.40	\$885.60	\$1,574.40	\$4,920.00
<b>Lilliwaup Falls Generating Co.</b>	Lilliwaup Creek	P-3482	\$114.95	\$204.37	\$114.95	\$0.00	\$434.27
<b>McNary Hydro</b>	McNary Northshore Fishway	P-10204	\$558.10	\$992.18	\$558.10	\$992.18	\$3,100.56
<b>Millstream Farms</b>	Touchet River	non-FERC	\$12.96	\$0.00	\$12.96	\$0.00	\$25.92
<b>Northern Wasco County Public Utility District</b>	The Dalles Dam	P-7076	\$409.09	\$727.27	\$409.09	\$727.27	\$2,272.72
<b>Rosario Signal LLC</b>	Cascade Creek	non-FERC	\$16.30	\$0.00	\$16.30	\$0.00	\$32.60
<b>PacifiCorp Company</b>	Merwin (Ariel Site)	P-935	\$4,637.86	\$8,245.09	\$4,637.86	\$8,245.09	\$25,765.90
<b>PacifiCorp Company</b>	Swift	P-2111 & P-2213	\$10,245.27	\$18,213.82	\$10,245.27	\$18,213.82	\$56,918.18

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
<b>PacifiCorp Company</b>	Yale Site	P-2071	\$5,061.27	\$8,997.82	\$5,061.27	\$8,997.82	\$28,118.18
<b>Port Angeles, City of</b>	Morse Creek	P-6461	\$180.08	\$320.15	\$180.08	\$320.15	\$1,000.46
<b>Port Townsend Paper Corporation</b>	Quilcene Pipeline	P-5411	\$104.91	\$186.51	\$104.91	\$0.00	\$396.33
<b>Public Utility District No. 1 of Chelan County</b>	Chelan Falls	P-637	\$3,080.03	\$5,475.60	\$3,080.03	\$5,475.60	\$17,111.26
<b>Public Utility District No. 1 of Chelan County</b>	Dryden	non-FERC	\$218.25	\$0.00	\$218.25	\$0.00	\$436.50
<b>Public Utility District No. 1 of Chelan County</b>	Little Leavenworth	non-FERC	\$17.18	\$0.00	\$17.18	\$0.00	\$34.36
<b>Public Utility District No. 1 of Chelan County</b>	Rock Island	P-943	\$18,903.07	\$33,605.45	\$18,903.07	\$33,605.45	\$105,017.04
<b>Public Utility District No. 1 of Chelan County</b>	Rocky Reach	P-2145	\$38,467.64	\$68,386.91	\$38,467.64	\$68,386.91	\$213,709.10
<b>Public Utility District No. 1 of Chelan County</b>	Stehekin	non-FERC	\$86.58	\$0.00	\$86.58	\$0.00	\$173.16
<b>Public Utility District No. 1 of Chelan County</b>	Tumwater	non-FERC	\$451.02	\$0.00	\$451.02	\$0.00	\$902.04
<b>Public Utility District No. 1 of Douglas County</b>	Wells Dam	P-2149	\$27,774.00	\$49,376.00	\$27,774.00	\$49,376.00	\$154,300.00

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
Public Utility District No. 1 of Lewis County	Cowlitz Falls	P-2833	\$2,113.77	\$3,757.82	\$2,113.77	\$3,757.82	\$11,743.18
Public Utility District No. 1 of Lewis County	Mill Creek	P-4949	\$172.80	\$307.20	\$172.80	\$0.00	\$652.80
Public Utility District No. 1 of Okanogan Co.	Similkameen Dam - Enloe	P-12569	\$233.59	\$415.27	\$233.59	\$415.27	\$1,297.72
Public Utility District No. 1 of Pend Oreille Co.	Box Canyon	P-2042	\$2,876.79	\$5,114.29	\$2,876.79	\$5,114.29	\$15,982.16
Public Utility District No. 1 of Pend Oreille Co.	Calispell Creek	non-FERC	\$126.41	\$0.00	\$126.41	\$0.00	\$252.82
Public Utility District No. 1 of Snohomish County	Henry M. Jackson Project	P-2157	\$3,428.82	\$6,095.67	\$3,428.82	\$6,095.67	\$19,048.98
Public Utility District No. 1 of Snohomish County	Calligan Creek	P-13948	\$245.70	\$436.80	\$491.40	\$873.60	\$2,047.50
Public Utility District No. 1 of Snohomish County	Hancock	P-13994	\$237.35	\$421.96	\$474.70	\$843.91	\$1,977.92
Public Utility District No. 1 of Snohomish County	Wood Creek	P-3603	\$187.12	\$332.66	\$187.12	\$0.00	\$706.90
Public Utility District No. 1 of Snohomish County	Youngs Creek	P-10359	\$562.09	\$999.27	\$562.09	\$999.27	\$3,122.72
Public Utility District No. 2 of Grant County	Priest Rapids	P-2114	\$31,036.50	\$55,176.00	\$31,036.50	\$55,176.00	\$172,425.00



Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
<b>Public Utility District No. 2 of Grant County</b>	Wanapum	P-2114	\$31,144.91	\$55,368.73	\$31,144.91	\$55,368.73	\$173,027.28
<b>Public Utility District No. 2 of Grant County</b>	P.E.C. Headworks	P-2840	\$473.73	\$184.22	\$473.73	\$184.22	\$1,315.90
<b>Public Utility District No. 2 of Grant County</b>	Quincy Chute	P-2937	\$589.50	\$229.25	\$589.50	\$229.25	\$1,637.50
<b>Puget Sound Energy</b>	Lower Baker	P-2150	\$3,118.38	\$5,543.78	\$3,118.38	\$5,543.78	\$17,324.32
<b>Puget Sound Energy</b>	Snoqualmie Falls	P-2493	\$1,689.34	\$3,003.27	\$1,689.34	\$3,003.27	\$9,385.22
<b>Puget Sound Energy</b>	Upper Baker	P-2150	\$2,984.73	\$5,306.18	\$2,984.73	\$5,306.18	\$16,581.82
<b>Rocky Brook Hydro</b>	Rocky Brook Hydro LLC	P-3873	\$0.00	\$0.00	\$307.52	\$0.00	\$307.52
<b>Transalta</b>	Skookumchuck Dam	P-4441	\$202.72	\$328.58	\$202.72	\$0.00	\$734.02
<b>Western Hydro LLC (paid by Mentor Law Group PLLC)</b>	Nooksack Falls	non-FERC	\$449.93	\$0.00	\$449.93	\$0.00	\$899.86
<b>Seattle, City of</b>	Boundary	P-2144	\$31,341.48	\$55,718.18	\$31,341.48	\$55,718.18	\$174,119.32
<b>Seattle, City of</b>	Cedar Falls	non-FERC	\$1,183.09	\$0.00	\$1,183.09	\$0.00	\$2,366.18

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
Seattle, City of	Diablo Dam (Skagit)	P-553	\$5,184.00	\$9,216.00	\$5,184.00	\$9,216.00	\$28,800.00
Seattle, City of	Gorge Dam (Skagit)	P-553	\$6,199.57	\$11,021.45	\$6,199.57	\$11,021.45	\$34,442.04
Seattle, City of	Newhalem	P-2705	\$366.19	\$651.00	\$366.19	\$651.00	\$2,034.38
Seattle, City of	Ross Dam (Skagit)	P-553	\$9,230.32	\$16,409.45	\$9,230.32	\$16,409.45	\$51,279.54
Seattle, City of	South Fork Tolt	P-2959	\$818.13	\$1,454.44	\$818.13	\$1,454.44	\$4,545.14
Seefeld Corporation	Smith Creek	P-5982	\$34.36	\$61.09	\$34.36	\$0.00	\$129.81
Sheep Creek Hydro, Inc.	Big Sheep Creek	P-5118	\$225.82	\$401.45	\$225.82	\$0.00	\$853.09
Sollos Energy LLC	Burton Creek	P-7577	\$96.54	\$171.64	\$96.55	\$0.00	\$364.73
South Fork Associates, Limited Partnership	Weeks Falls	P-7563	\$404.80	\$719.63	\$0.00	\$0.00	\$1,124.43
Southern California Public Power Company	Tieton Hydroelectric Project	P-3701	\$768.21	\$1,365.71	\$768.21	\$1,365.71	\$4,267.84
Spokane, City of	Upriver Hydro Plant	P-3074	\$886.91	\$1,576.73	\$886.91	\$1,576.73	\$4,927.28

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
Tacoma, City of	Alder (Nisqually)	P-1862	\$1,841.73	\$3,274.18	\$1,841.73	\$3,274.18	\$10,231.82
Tacoma, City of	Cushman No. 1	P-460	\$1,755.82	\$3,121.45	\$1,755.82	\$3,121.55	\$9,754.64
Tacoma, City of	Cushman No. 2	P-460	\$3,269.46	\$5,812.46	\$3,269.45	\$5,812.37	\$18,163.74
Tacoma, City of	Ebey Hill Diversion	P-10428	\$355.56	\$632.10	\$355.56	\$632.10	\$1,975.32
Tacoma, City of	LaGrande Dam (Nisqually)	P-1862	\$128.93	\$229.20	\$128.93	\$229.20	\$716.26
Tacoma, City of	LaGrande Powerhouse (Nisqually)	P-1862	\$2,684.56	\$4,772.54	\$2,684.56	\$4,772.54	\$14,914.20
Tacoma, City of	Mayfield (Cowlitz)	P-2016	\$5,759.18	\$10,238.55	\$5,759.18	\$10,238.55	\$31,995.46
Tacoma, City of	McMillan Reservoir (Hood St)	P-10256	\$188.14	\$334.46	\$188.14	\$0.00	\$710.74
Tacoma, City of	Mossyrock (Cowlitz)	P-2016	\$10,810.59	\$19,218.81	\$10,810.59	\$19,218.81	\$60,058.80
Tacoma, City of	Wynoochee River	P-6842	\$727.77	\$1,293.82	\$727.77	\$1,293.82	\$4,043.18
Trinity Conservancy, Inc.	James Creek	non-FERC	\$12.27	\$0.00	\$12.27	\$0.00	\$24.54

Water Power License Fees-Report to Legislature

Licensee	Project Name	FERC No.	2018 Base Fee	2018 FERC Fee	2019 Base Fee	2019 FERC Fee	TOTAL
Trinity Conservancy, Inc.	Phelps Creek	P-719	\$63.92	\$113.64	\$63.92	\$113.64	\$355.12
Twin Falls Hydro Associates	S.F. Snoqualmie River (Twin Falls)	P-4885	\$1,955.04 <sup>13</sup>	\$3,475.64 <sup>14</sup>	\$977.52	\$1,737.82	\$8,146.02
Walla Walla, City of	Twin Reservoirs	P-10376	\$276.87	\$492.22	\$276.87	\$0.00	\$1,045.96
Yakima-Tieton Irrigation District	Cowiche	P-7337	\$246.60	\$95.90	\$123.30	\$219.20	\$685.00
Yakima-Tieton Irrigation District	Orchard Unit 1	P-7338	\$195.21	\$75.92	\$97.61	\$173.52	\$542.26
Yakima-Tieton Irrigation District	Orchard Unit 2	P-7338	\$195.99	\$76.22	\$98.00	\$174.21	\$544.42
<b>Water Power</b>	<b>License Fee</b>	<b>Table Totals</b>	<i>2018 base fee is</i> <b>\$295,101.78</b>	<i>2018 FERC fee is</i> <b>\$512,784.46</b>	<i>2019 base fee is</i> <b>\$297,059.39</b>	<i>2019 FERC fee is</i> <b>\$505,825.64</b>	<i>Fee revenue total for biennium is</i> <b>\$1,610,771.27</b>

<sup>13</sup> Includes 2017 Base Fee that was paid in 2018.

<sup>14</sup> Includes 2017 FERC Fee that was paid in 2018.

## Appendix B. State agency workload by project – Fiscal Year 2018 and 2019

Operator	FERC Project No.	Project Name (s)	Phase of licensing process	Ecology Staff time (hrs)	Ecology Program Costs	WDFW Staff time (hrs)	WDFW Program Costs	State Program Total Costs
AVISTA CORPORATION	P-2545	SPOKANE RIVER (4 projects ) Long Lake Monroe Street Nine Mile Upper Falls	Implementation	294	\$21,018	90	\$8,712	\$29,730
COLUMBIA BASIN HYDROPOWER	P-14329	BANKS LAKE PUMPED STORAGE	Pre-licensing	74	\$5,582	403	\$18,856	\$24,438
BLACK CREEK HYDRO INC.	P-6221	BLACK CREEK	Implementation	0	\$0	0	\$0	\$0
CENTRALIA CITY OF	P-10703	YELM HYDRO PLANT	Implementation	11	\$802	0	\$0	\$802
COLUMBIA BASIN HYDROPOWER	P-3842	ELTOPIA BRANCH CANAL	Implementation	0	\$0	0	\$0	\$0
COLUMBIA BASIN HYDROPOWER	P-2849	MAIN CANAL HEADWORKS	Implementation	0	\$0	0	\$0	\$0
COLUMBIA BASIN HYDROPOWER	P-3843	POTHOLES EAST CANAL	Implementation	0	\$0	0	\$0	\$0
COLUMBIA BASIN HYDROPOWER	P-2926	RUSSEL D SMITH PEC 22.7	Implementation	0	\$0	0	\$0	\$0
COLUMBIA BASIN HYDROPOWER	P-3295	SUMMER FALLS	Implementation	0	\$0	0	\$0	\$0
ENERGY NORTHWEST	P-2244	PACKWOOD LAKE	Implementation	126	\$8,063	106	\$7,968	\$16,031

Water Power License Fees-Report to Legislature

Operator	FERC Project No.	Project Name (s)	Phase of licensing process	Ecology Staff time (hrs)	Ecology Program Costs	WDFW Staff time (hrs)	WDFW Program Costs	State Program Total Costs
HYDRO TECHNOLOGY SYSTEM, INC.	P-2544	MEYERS FALLS	Implementation	266	\$18,258	25	\$2,051	\$20,309
KOMA KULSHAN ASSOCIATES	P-3239	KOMA KULSHAN	Implementation	0	\$0	0	\$0	\$0
MCNARY HYDRO	P-10204	MCNARY DAM FISH ATTRACTION	Implementation	0	\$0	0	\$0	\$0
PACIFICORP	P-935	MERWIN	Implementation	21	\$1,519	0	\$0	\$1,519
PACIFICORP	P-2111	SWIFT NO. 1	Implementation	50	\$3,805	0	\$0	\$3,805
PACIFICORP	P-2071	YALE	Implementation	20	\$1,317	0	\$0	\$1,317
PACIFICORP	P-2213	SWIFT NO. 2 (owned by Cowlitz PUD)	Implementation	2	\$126	215	\$15,642	\$15,768
PICKERING, FRED	P-9044	BIGG'S CREEK	Implementation	0	\$0	0	\$0	\$0
PORT ANGELES, CITY OF	P-6461	MORSE CREEK	Implementation	28	\$2,265	0	\$0	\$2,265
PUD NO 1 OF CHELAN COUNTY	P-637	LAKE CHELAN	Implementation	569	\$39,983	928	\$71,777	\$111,760
PUD NO 1 OF CHELAN COUNTY	P-943	ROCK ISLAND	License reissuance	43	\$2,938	11	\$723	\$3,661
PUD NO 1 OF CHELAN COUNTY	P-2145	ROCKY REACH	Implementation	561	\$38,467	657	\$51,689	\$90,156
PUD NO 1 OF DOUGLAS COUNTY	P-2149	WELLS	Implementation	291	\$21,437	373	\$59,095	\$80,532
PUD NO 1 OF LEWIS COUNTY	P-2833	COWLITZ FALLS	Implementation	367	\$29,054	203	\$14,379	\$43,433

Water Power License Fees-Report to Legislature

Operator	FERC Project No.	Project Name (s)	Phase of licensing process	Ecology Staff time (hrs)	Ecology Program Costs	WDFW Staff time (hrs)	WDFW Program Costs	State Program Total Costs
PUD NO 1 OF OKANOGAN COUNTY	P-12569	ENLOE PROJECT	Implementation	242	\$15,899	460	\$28,312	\$44,211
PUD NO 1 OF PEND OREILLE COUNTY	P-2042	BOX CANYON	Implementation	295	\$21,540	139	\$16,092	\$37,632
	P-2225	SULLIVAN LAKE	License surrender	0	\$0	0	\$0	\$0
PUD NO 1 OF SNOHOMISH COUNTY	P-13948	CALLIGAN CREEK	Implementation	68	\$4,984	0	\$0	\$4,984
PUD NO 1 OF SNOHOMISH COUNTY	P-13994	HANCOCK CREEK	Implementation	88	\$6,616	0	\$0	\$6,616
PUD NO 1 OF SNOHOMISH COUNTY	P-2157	HENRY M JACKSON	Implementation	67	\$4,623	352	\$22,231	\$26,854
PUD NO 1 OF SNOHOMISH COUNTY	P-14295	SUNSET FALLS	Pre-licensing	247	\$19,952	0	\$0	\$19,952
PUD NO 1 OF SNOHOMISH COUNTY	P-10359	YOUNGS CREEK	Implementation	3	\$232	0	\$0	\$232
PUD NO 2 OF GRANT COUNTY	P-2114	COLUMBIA RIVER (2 projects ) Priest Rapids Wanapum	Implementation	402	\$29,015	564	\$62,900	\$91,915
PUD NO 2 OF GRANT COUNTY	P-2840	POTHOLES EAST CANAL HEADWORKS	Implementation	0	\$0	0	\$0	\$0
PUD NO 2 OF GRANT COUNTY	P-2937	QUINCY CHUTE	Implementation	0	\$0	0	\$0	\$0
PUD OF NORTHERN WASCO COUNTY	P-7076	DALLES DAM NORTH FISHWAY	Implementation	0	\$0	29	\$1,991	\$1,991

Water Power License Fees-Report to Legislature

Operator	FERC Project No.	Project Name (s)	Phase of licensing process	Ecology Staff time (hrs)	Ecology Program Costs	WDFW Staff time (hrs)	WDFW Program Costs	State Program Total Costs
PUGET SOUND ENERGY, INC.	P-2150	BAKER RIVER (2 projects) Upper Baker Lower Baker	Implementation	380	\$26,942	769	\$59,348	\$86,290
PUGET SOUND ENERGY, INC	P-10888	KOMA KULSHAN T. L.	Implementation	0	\$0	0	\$0	\$0
PUGET SOUND ENERGY, INC	P-2493	SNOQUALMIE FALLS	Implementation	65	\$4,971	64	\$5,506	\$10,477
SHELL ENERGY NORTH AMERICA L.P.	P-14795	BATTERY HILL PUMPED STORAGE	Pre-licensing	84	\$5,916	478	\$25,230	\$31,146
SEATTLE, CITY OF	P-2144	BOUNDARY	Implementation	530	\$38,879	604	\$40,462	\$79,341
SEATTLE, CITY OF	P-2705	NEWHALEM CREEK	Implementation	3	\$232	0	\$0	\$232
SEATTLE, CITY OF	P-553	SKAGIT RIVER (3 projects) Ross Gorge Diablo	License reissuance	177	\$11,870	1,379	\$98,937	\$110,807
SEATTLE, CITY OF	P-2959	TOLT RIVER - SOUTH FORK	Implementation	0	\$0	201	\$15,658	\$15,658
BLACK CANYON HYDRO	P-14110	BLACK CANYON HYDROELECTIC	Pre-licensing	0	\$0	0	\$0	\$0
SOUTH FORKS ASSOCIATES L.P.	P-7563	WEEKS FALLS	Implementation	0	\$0	0	\$0	\$0
SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY	P-3701	TIETON DAM	Implementation	0	\$0	59	\$2,936	\$2,936
SPOKANE, CITY OF	P-3074	UPRIVER	Implementation	29	\$2,323	0	\$0	\$2,323



Water Power License Fees-Report to Legislature

Operator	FERC Project No.	Project Name (s)	Phase of licensing process	Ecology Staff time (hrs)	Ecology Program Costs	WDFW Staff time (hrs)	WDFW Program Costs	State Program Total Costs
TACOMA, CITY OF	P-6842	WYNOOCHEE DAM	Implementation	70	\$5,479	63	\$6,260	\$11,739
TACOMA, CITY OF	P-2016	COWLITZ RIVER (2 projects ) Mossyrock Mayfield	Implementation	629	\$44,913	810	\$66,347	\$111,260
TACOMA, CITY OF	P-460	LAKE CUSHMAN (2 projects ) Cushman No. 1 Cushman No. 2	Implementation	193	\$14,397	434	\$31,602	\$45,999
TACOMA, CITY OF	P-1862	NISQUALLY RIVER (3 projects ) Alder Dam LaGrande Dam LaGrande Powerhouse	Implementation	172	\$12,590	482	\$34,539	\$47,129
TRINITY CONSERVANCY INC	P-719	TRINITY	Implementation	24	\$1,975	0	\$0	\$1,975
TWIN FALLS HYDRO ASSOCIATES LP	P-4885	TWIN FALLS	Implementation	0	\$0	0	\$0	\$0
YAKIMA-TIETON IRRIGATION DISTRICT	P-7337	COWICHE	Implementation	0	\$0	0	\$0	\$0
YAKIMA-TIETON IRRIGATION DISTRICT	P-7338	ORCHARD AVENUE	Implementation	0	\$0	0	\$0	\$0

### Appendix C. FERC Licensing and Implementation Leads

Project Name	Owner	FERC No.	Ecology Project Lead	WDFW Project Lead
Alder (Nisqually)	Tacoma, City of	P-1862	Carol Serdar	Peggy Miller
Baker	Puget Sound Energy	P-2150	Monika Kannadaguli	Brock Applegate
Banks Lake Pumped Storage	Brookfield Renewable Resources	P-13296	Patrick McGuire	Patrick Verhey
Banks Lake Pumped Storage	Grand Coulee Hydroelectric Authority	P-13681	Patrick McGuire	Patrick Verhey
Barclay Creek	Free Flow Power	P-13864	Monika Kannadaguli	Brock Applegate
Battery Pearl Hill Pump Storage Project	Shell Energy Northwest	P-14795	Breean Zimmerman	Patrick Verhey
Big Sheep Creek	Sheep Creek Hydro, Inc.	P-5118	Patrick McGuire	Jeff Lawlor
Black Canyon	Black Canyon Hydro, LLC	P-14110	Monika Kannadaguli	Brock Applegate
Black Creek	Black Creek Hydro, Inc.	P-6221	Monika Kannadaguli	Brock Applegate
Boundary	Seattle, City of	P-2144	Patrick McGuire	Jeff Lawlor
Box Canyon	Public Utility District No. 1 of Pend Oreille Co.	P-2042	Patrick McGuire	Jeff Lawlor
Burton Creek	Sollos Energy, LLC	P-7577	Carol Serdar	Peggy Miller
Calligan Creek	Public Utility District No. 1 of Snohomish County	P-8864	Monika Kannadaguli	Brock Applegate
Cle Elum	Free Flow Power	P-12746	Breean Zimmerman	Patrick Verhey
Cle Elum Storage Dam	FFP, Qualified Hydro 24, LLC	P-13843	Breean Zimmerman	Graham Simon
Cowiche	Yakima-Tieton Irrigation District	P-7337	Breean Zimmerman	Patrick Verhey
Cowlitz Falls	Public Utility District No. 1 of Lewis County	P-2833	Carol Serdar	Peggy Miller
Cushman No. 1	Tacoma, City of	P-460	Carol Serdar	Peggy Miller
Cushman No. 2	Tacoma, City of	P-460	Carol Serdar	Peggy Miller
Deep Creek Project	Foster, Gordon (Northern Light)	P-5991	Patrick McGuire	Leslie King

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Diablo Dam (Skagit)	Seattle, City of	P-553	Monika Kannadaguli	Brock Applegate
Easton Diversion Dam	Qualified Hydro 25, LLC	P-13850	Breean Zimmerman	Graham Simon
Eltopia Branch	Grand Coulee Project Hydroelectric Authority	P-3842	Patrick McGuire	Patrick Verhey
Enloe	Public Utility District No. 1 of Okanogan Co.	P-12569	Breean Zimmerman	Patrick Verhey
Falls Creek	Halbrook, David A.	P-5497	Breean Zimmerman	Patrick Verhey
Gorge Dam (Skagit)	Seattle, City of	P-553	Monika Kannadaguli	Brock Applegate
Green Hydropower Chief Joseph Project	Green Hydropower	P-13525	Patrick McGuire	Patrick Verhey
Green Hydropower Grand Coulee Project	Green Hydropower	P-13522	Patrick McGuire	Patrick Verhey
Green Hydropower Rocky Reach Project	Green Hydropower	P-13534	Patrick McGuire	Patrick Verhey
Hancock Creek	Public Utility District No. 1 of Snohomish County	P-13994	Monika Kannadaguli	Brock Applegate
Henry M. Jackson Project	Public Utility District No. 1 of Snohomish County	P-2157	Monika Kannadaguli	Brock Applegate
Howard Hanson	Free Flow Power	P-13848	Monika Kannadaguli	Peggy Miller
Kachess Storage Dam	Kachess Dam Hydropower, LLC	P-14206	Breean Zimmerman	Graham Simon
Keechelus Storage Dam	Keechelus Hydropower, LLC	P-14116	Breean Zimmerman	Graham Simon
Keechelus Storage Dam	Qualified Hydro 32, LLC	P-14128	Breean Zimmerman	Graham Simon
Koma Kulshan	Koma Kulshan Associates	P-3239	Monika Kannadaguli	Brock Applegate
LaGrande Dam (Nisqually)	Tacoma, City of	P-1862	Carol Serdar	Peggy Miller
LaGrande Powerhouse (Nisqually)	Tacoma, City of	P-1862	Carol Serdar	Peggy Miller
Lake Chelan Project	Public Utility District No. 1 of Chelan County	P-637	Breean Zimmerman	Graham Simon

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Lilliwaup Creek	Lilliwaup Falls Generating Co.	P-3482	Carol Serdar	Peggy Miller
Long Lake	Avista Corporation	P-2545	Patrick McGuire	Leslie King
Lower Baker	Puget Sound Energy	P-2150	Monika Kannadaguli	Brock Applegate
Main Canal Headworks	Grand Coulee Project Hydroelectric Authority	P-2849	Patrick McGuire	Patrick Verhey
Martin Creek Hydroelectric Project	Free Flow Power	P-13865	Monika Kannadaguli	Brock Applegate
Mayfield (Cowlitz)	Tacoma, City of	P-2016	Carol Serdar	Peggy Miller
McMillan Reservoir (Hood St)	Tacoma, City of	P-10256	Carol Serdar	Peggy Miller
McNary Northshore	Northern Wasco Co. PUD	P-10204	Breean Zimmerman	Patrick Verhey
McTaggart Creek	Tacoma, City of	P-460	Monika Kannadaguli	Peggy Miller
Merwin Dam	PacifiCorp Company	P-935	Carol Serdar	Peggy Miller
Meyers Falls	Hydro Technology Systems Inc.	P-2544	Patrick McGuire	Mike McLellan
Mill Creek	Public Utility District No. 1 of Lewis County	P-4949	Carol Serdar	Peggy Miller
Monroe Street	Avista Corporation	P-2545	Patrick McGuire	Leslie King
Morse Creek	Port Angeles, City of	P-6461	Carol Serdar	Peggy Miller
Mossyrock (Cowlitz)	Tacoma, City of	P-2016	Carol Serdar	Peggy Miller
Newhalem	Seattle, City of	P-2705	Monika Kannadaguli	Brock Applegate
Nine Mile	Avista Corporation	P-2545	Patrick McGuire	Leslie King
Orchard Unit 1	Yakima-Tieton Irrigation District	P-7338	Breean Zimmerman	Patrick Verhey
Orchard Unit 2	Yakima-Tieton Irrigation District	P-7338	Breean Zimmerman	Patrick Verhey
P.E.C. 66.0	Grand Coulee Project Hydroelectric Authority	P-3843	Patrick McGuire	Patrick Verhey
P.E.C. Headworks	Grand Coulee Project Hydroelectric Authority	P-2840	Patrick McGuire	Patrick Verhey
Packwood Lake	Energy Northwest (WPPSS)	P-2244	Carol Serdar	Peggy Miller
Phelps Creek	Trinity Conservancy, Inc.	P-719	Breean Zimmerman	Patrick Verhey
Priest Rapids	Public Utility District No. 2 of Grant County	P-2114	Breean Zimmerman	Patrick Verhey
Quilcene Pipeline	Port Townsend Paper Corporation	P-5411	Carol Serdar	Peggy Miller

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Quincy Chute	Grand Coulee Project Hydroelectric Authority	P-2937	Patrick McGuire	Patrick Verhey
Rock Island	Public Utility District No. 1 of Chelan County	P-943	Breean Zimmerman	Patrick Verhey
Rocky Brook Electric Inc.	Rocky Brook Hydro Electric L.P.	P-3873	Carol Serdar	Peggy Miller
Rocky Reach	Public Utility District No. 1 of Chelan County	P-2145	Breean Zimmerman	Patrick Verhey
Ross Dam (Skagit)	Seattle, City of	P-553	Monika Kannadaguli	Brock Applegate
Russel D. Smith	Grand Coulee Project Hydroelectric Authority	P-2926	Patrick McGuire	Patrick Verhey
Ruth Creek	Free Flow Power	P-13866	Monika Kannadaguli	Brock Applegate
Sentinel Mountain Pump Storage	United Power Corporation	P-12759	Patrick McGuire	Jeff Lawlor
Smith Creek	Seefeld Corporation	P-5982	Monika Kannadaguli	Brock Applegate
Snoqualmie Falls	Puget Sound Energy	P-2493	Monika Kannadaguli	Brock Applegate
South Fork Tolt	Seattle, City of	P-2959	Monika Kannadaguli	Peggy Miller
Sullivan Creek	Public Utility District No. 1 of Pend Oreille Co.	P-2225	Patrick McGuire	Jeff Lawlor
Summer Falls	Grand Coulee Project Hydroelectric Authority	P-3295	Patrick McGuire	Patrick Verhey
Swamp Creek	Free Flow Power	P-13867	Monika Kannadaguli	Brock Applegate
Swift No. 1	PacifiCorp Company	P-2111	Carol Serdar	Peggy Miller
Swift No. 2	Cowlitz County PUD	P-2213	Carol Serdar	Peggy Miller
The Dalles Dam	Northern Wasco Co. PUD	P-7076	Breean Zimmerman	Patrick Verhey
Tieton Hydroelectric Project	Southern California Public Power Company/Tieton Hydropower, LLC	P-3701	Breean Zimmerman	Graham Simon
Trinity Hydroelectric Project	Reid Brown	P-719	Breean Zimmerman	Patrick Verhey
Twin Falls (S.F. Snoqualmie R.)	Twin Falls Hydro Associates	P-4885	Monika Kannadaguli	Brock Applegate
Twin Reservoirs	Walla Walla, City of	P-10376	Patrick McGuire	Graham Simon
Upper Baker	Puget Sound Energy	P-2150	Monika Kannadaguli	Brock Applegate

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Upper Falls	Avista Corporation	P-2545	Patrick McGuire	Leslie King
Upriver Hydro Plant	Spokane, City of	P-3074	Patrick McGuire	Leslie King
Wanapum	Public Utility District No. 2 of Grant County	P-2114	Breean Zimmerman	Patrick Verhey
Weeks Falls	South Fork Associates, Limited Partnership	P-7563	Monika Kannadaguli	Brock Applegate
Wells Dam	Public Utility District No. 1 of Douglas County	P-2149	Breean Zimmerman	Patrick Verhey
White River	Cascade Water Alliance/Puget Sound Energy	P-12685	Carol Serdar	Peggy Miller
Wynoochee River	Tacoma, City of	P-6842	Carol Serdar	Peggy Miller
Yale Site	PacifiCorp Company	P-2071	Carol Serdar	Peggy Miller
Yelm Hydro Plant	Centralia, City of	P-10703	Carol Serdar	Peggy Miller
Youngs Creek	Public Utility District No. 1 of Snohomish County	P-10359	Monika Kannadaguli	Brock Applegate