## Studying the Skagit

More than 30 studies in two years will occur around the Skagit River Hydroelectric Project

The Skagit River Hydroelectric Project is a series of three dams in the upper Skagit River watershed that provide 20 percent of Seattle City Light's power. Hydropower is clean, carbon-free energy and is the nation's leading renewable power source. The Skagit Hydroelectric Project's power is crucial in our battle against climate change.

The dams are also important for other reasons, including flood control, water storage and species protection. Additionally, Ross Lake, Diablo Lake, and Gorge Lake are reservoirs within the North Cascade National Recreation Area that welcome thousands of visitors each year.

The Project is in a very special region. The Skagit River is vital to restoring healthy salmon runs in the Puget Sound and saving Southern Resident Orca from extinction. The river is the lifeblood of the entire watershed and a spiritual treasure to the people who live in the area.

The Federal Energy Regulatory Commission (FERC) licenses the project, and the current license expires in 2025. As part of relicensing, City Light will conduct a broad variety of scientific studies. These studies are informed by past research and partner organizations, and they help us understand how to best make improvements to the environment.

City Light will likely spend over \$20 million on 33 studies, most of which will be completed during or before 2023. When the studies are done, they will guide the protection, mitigation, and enhancement plans that will be part of the next license.

The 33 studies include:

- 8 for water, water quality, and river dynamics
- 5 for fish
- 6 for wildlife and other species
- 4 for cultural impacts
- 4 for wetland and plants
- 3 for recreation
- 3 for operations

It is crucial to update the science and the mitigation strategies because the environment is always changing. Climate impacts are especially disruptive, and we need sound science to protect the environment we depend upon for clean air, water and electricity. We also look to see how to protect the many species that live in the Skagit River watershed.

## Learn More:

## About the Skagit Project:

<u>www.seattle.gov/city-light/energy-and-environment/environment/hydroelectric-resources</u>
About the relicensing process:

www.seattle.gov/city-light/in-the-community/current-projects/skagit-relicensing.

## Revised Study Plan Highlights

Tribes, federal and state agencies, and the other licensing participants are essential for shaping the many research studies that Seattle City Light will do around relicensing. City Light introduced a Proposed Study Plan in December 2020. Based on dozens of meetings, calls and written comments, a Revised Study Plan was developed for the April 7, 2021 filing. Highlighted below are some of the improvements City Light made with partners.

**FISH PASSAGE.** A Fish Passage Study was expanded to include a comprehensive investigation of upstream and downstream fish passage at all three dams.

**TRIBUTARY HABITAT.** A Reservoir Tributary Habitat Assessment was added to evaluate the productivity potential of habitat in certain tributaries to Ross Lake, Diablo Lake, and Gorge Lake. The assessment will help create fish population models and assess the feasibility of fish passage.

**NATIVE FISH GENETICS.** A Native Fish Genetics Baseline Study was added to analyze existing data samples, utilize an expert genetics panel, and plan for more data collection.

**ENTRAINMENT.** A Fish Entrainment Study was added to update and revise existing information related to concerns about downstream passage of juvenile fish.

**LOWER SKAGIT RIVER SYNTHESIS STUDY.** This study will look at the lower Skagit River from the Sauk River confluence to the Skagit River delta and estuary. It will help us understand Project effects on various salmon life stages and inform second-year studies to fill in data gaps.

**WATER QUALITY.** Water quality is vital for a healthy ecosystem and is tied to culturally important resources for Indian tribes and Canadian First Nations. We are expanding water quality studies to increase the number of sampling sites and the types of water quality markers that are being tested.

**GEOMORPHOLOGY.** We will be expanding the studies that monitor how river sediment affects the river and habitat. City Light also added a pilot study and workshop process to better engage partners.

**RECREATION ASSESSMENT.** This assessment has been expanded to more than double the number of sites and increase the number of visitors who are surveyed. New trail usage studies have also been added to help understand the potential risks to nearby cultural resources.

**RECREATION FLOWS.** City Light has added a flow study to learn more about recreation flows in the Skagit River below Gorge Dam.

**TRANSMISSION LINE CULTURAL RESOURCES SURVEY.** We have expanded study methods to include extensive pedestrian surveys in the transmission line right-of-way to inventory cultural and archaeological resources.

**EXPANDED CULTURAL RESOURCES STUDY AREA.** A one-mile study buffer was added to provide more context for understanding the visual and acoustic effects of the Project on cultural resources.

To ensure the studies garner sound science, all City Light studies will be led by technical experts in the study area and will follow generally accepted scientific methods and quality control/assurance procedures. In addition, studies that involve modeling will include workshops with the licensing participants.