



Skagit Hydro Project FERC Relicensing Update

October 17, 2023

Will Honea, Skagit County

Jenna Friebel, Skagit Drainage Consortium

Daryl Hamburg, Skagit Dike Partnership



Photo credit: Marlin Greene/One Earth Images

AGENDA

Background and Overview of Key Issues

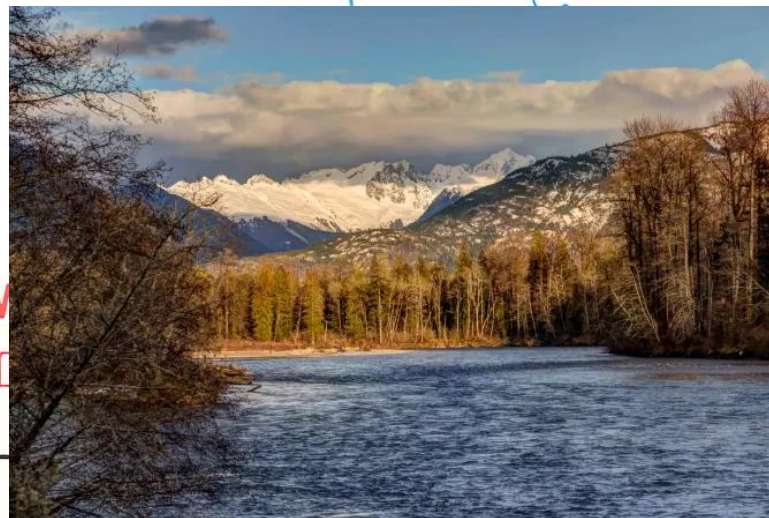
~ Will Honea

Importance of Ross flood storage: Skagit Flood Risk Reduction

~ Daryl Hamburg

Proposed Ross Integrated Operations Plan and Fisheries Overview

~ Jenna Friebe



Skagit Project generates about 1/3 of Seattle's electricity

Asset long ago paid for/amortized
Carbon-free electricity

Skagit Project generates over \$150 million per year in electricity (estimated BPA rates; at minimum)

Skagit Project is largest Low Impact Hydropower Institute ("green power") certified hydro project in US

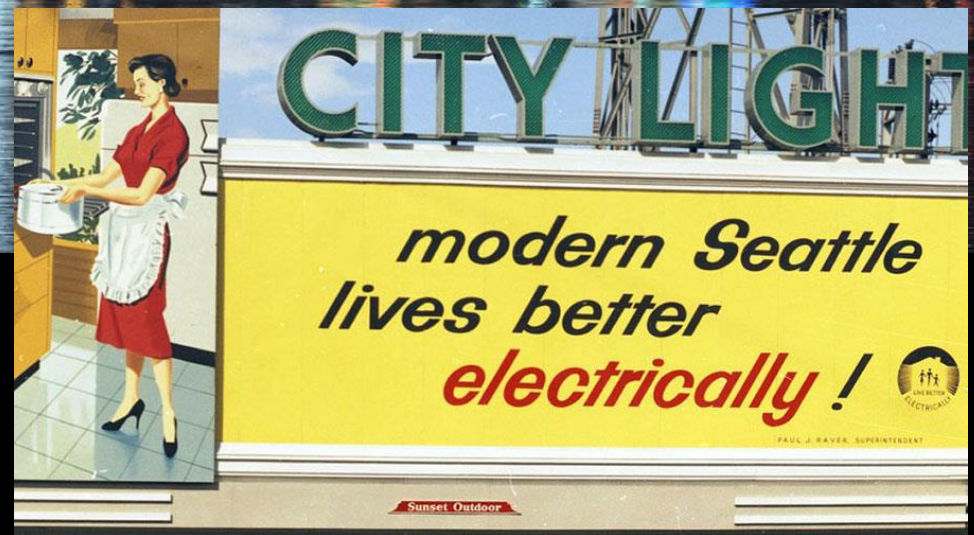
Seattle sells power into wholesale electrical markets, California etc



Seattle has power rates significantly lower than average large US city; has allowed Seattle to grow into a global commerce hub, creating tremendous wealth for residents/businesses

Seattle City Light's core mission is to keep electricity as cheap as possible for Seattle residents and business, which its actions and positions reflect

Seattle City Light is *not* a Skagit Valley Government; no broad obligations to Skagit citizens, landowners, farmland, infrastructure, etc - that's our job, along with Skagit Tribes



This tension has been at center of the fish/farm issue in the Skagit, starting in 1995 when last Skagit Project FERC license was issued



Dam operators must obtain an operating license from the Federal Energy Regulatory Commission (FERC) once every 50 years – dam operations, environmental, recreation, fisheries mitigation license conditions

Skagit Project and FERC license heavily impacts the Skagit Valley – flood risk management, salmon recovery, Treaty rights, land use, our tax base, and local-tribal relations

FERC relicensing is the **only** opportunity to ask anything of Seattle related to their dams *for a half century*

Last FERC license process took almost two decades to complete (1977-1995)

Local Skagit government was not involved in last FERC relicensing process, very poor results for Skagit (\$6.2 million fisheries mitigation, land off tax rolls)

FERC PROCESS



Skagit County, Skagit Drainage Consortium and Skagit Dike Partnership participate extensively in FERC relicensing process and studies since 2019

Seattle City Light filed Final License Application in May 2023

Existing license expires April 30, 2025, settlement discussions ongoing

Skagit local government has been excluded from main settlement forum with tribes and agencies (Partners Committee) despite apparent discussion of extensive mitigation plans involving Skagit farmland

We are participating in larger group that includes NGOs, formed more recently, meets less frequently

Confidentiality agreement required to participate (public process, public agencies, public money)

If no comprehensive settlement by early next year, process will likely require legal intervention by stakeholders

SUMMARY

Flood Control:

- Flood control is the Skagit Project's first operational priority, and single most important Skagit flood risk mitigation measure
- We are not looking to increase floodplain development potential or modify FEMA maps based on Ross storage; we are only looking to protect what is here; expressed willingness to contractually commit to this concept
- Skagit local government (in cooperation with US Army Corps, Upper Skagit Indian Tribe, National Park Service and others) have developed a Ross Integrated Operations Plan that optimally balances fisheries, instream flows, recreation, littoral habitat, and flood risk management
- We are *not* standing on the idea that flood control is first operational priority; instead, our plan seeks to bring all parties together around a reasonable plan that protects fisheries and our community, with negligible power production loss
- Ross Integrated Operations Plan affords approximately the same amount of flood storage that was available during the November 2021 flood
- For further information see Skagit County-Skagit Dike Partnership Comment Letter on Skagit Project License, dated February 6, 2023 (*This filing has been modified per RIOP discussed above.*) See, www.skagitcounty.net/FERC2023



TREATY
BETWEEN
THE UNITED STATES
AND THE
DWAMISH, SUQUAMISH, AND OTHER ALLIED AND
SUBORDINATE TRIBES OF INDIANS IN
WASHINGTON TERRITORY.
JANUARY 22, 1855. RATIFIED APRIL 11, 1859.



SUMMARY

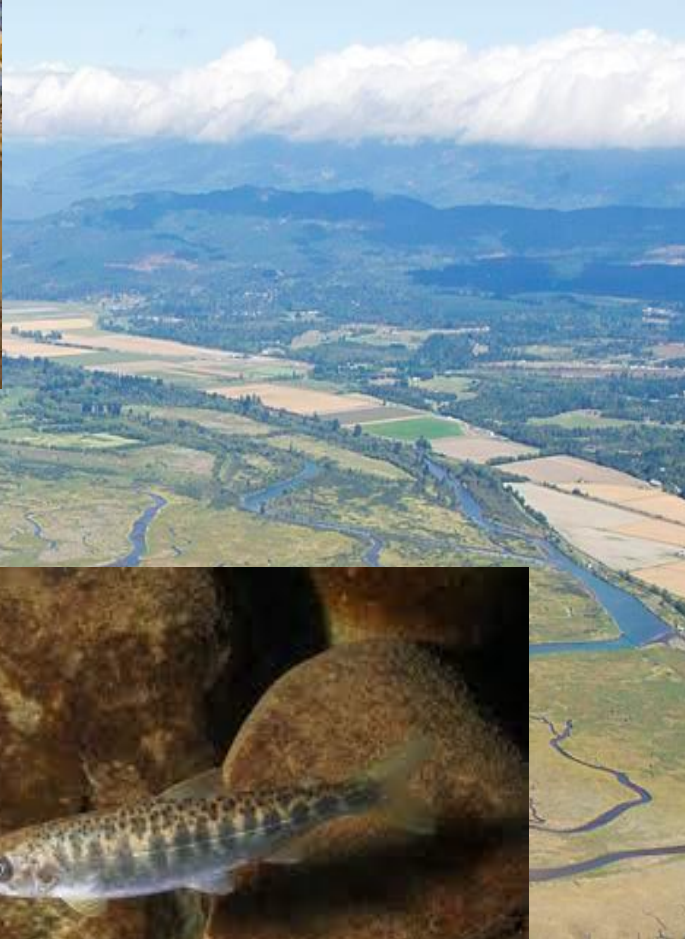
Fisheries Mitigation:

- We are committed to 2005 Skagit Chinook Recovery Plan estuary goals; we have clear plan (ERSA), top tier salmon habitat *and* climate resilience
- But cannot allow the Skagit's farmland to become a mitigation bank for urbanized Puget Sound. See, Skagit County Offsite Compensatory Mitigation Ordinance (2022)
- Skagit Drainage Consortium and Upper Skagit Indian Tribe initiated federally-supervised mediation with other Skagit tribes, relevant resource agencies, and Skagit County -- to advance multi-benefit estuary projects and resolve tidegate permitting consistent with ERSA list
- Relevant local government and tribes at the table
This is the path forward on the delta/estuary

SUMMARY

Fisheries Mitigation:

- Significant public recovery funding available for estuary restoration; *only* Seattle can do fish passage
- Unreasonable to propose estuary projects without dike/drainage districts centrally involved in planning, design, engineering, maintenance, and operations
- We need Seattle City Light to afford our community space so we can get to work on agreed estuary projects with our Skagit tribal partners
- Seattle should proceed with good faith development of fish passage per agencies and tribes
- For further information see joint Skagit County-Skagit Drainage Consortium Comment Letter on Skagit Project license, dated January 3, 2023 (*no material change to our position*)
- See, www.skagitcounty.net/FERC2023

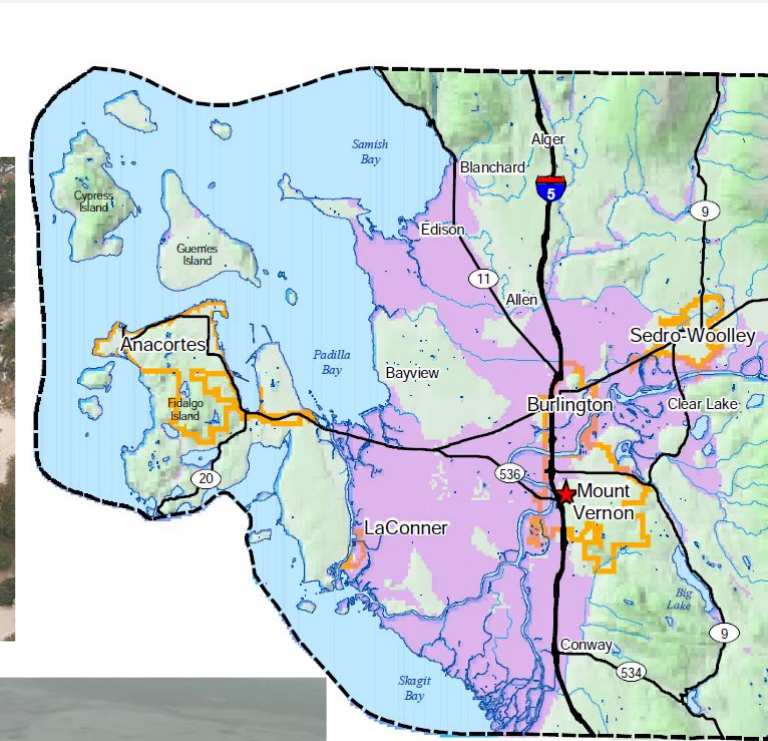


Daryl Hamburg

Chair, Skagit Dike Partnership

Skagit River Fun Facts

- ❖ Skagit River: third largest river on the West Coast
 - Sacramento and Columbia
 - Skagit is the only river with wild and scenic designation
 - Sauk & Cascade have uncontrolled flows
- ❖ Major populations and infrastructure is located in the Skagit floodplain
 - Burlington, Mount Vernon, Sedro Woolley, La Conner, Hamilton, Lyman
 - Critical EMS facilities (fire, public works, police, hospitals)
 - Anacortes Water Treatment Plant
 - I-5, Hwy 9, Hwy 20, Hwy 536, Hwy 11
 - PSE Power transfer stations are in the floodplain



LEGEND

- | | |
|-----------------------------|---------------------------|
| ★ County Seat | ▭ County Boundary |
| ≡ Interstate | ▭ Incorporated Area |
| ≡ State Route | ▭ Major Water Body |
| ▭ FEMA 100-Year Flood Plain | — River, Creek, or Stream |

Recent Major Flood Trends 1990-present

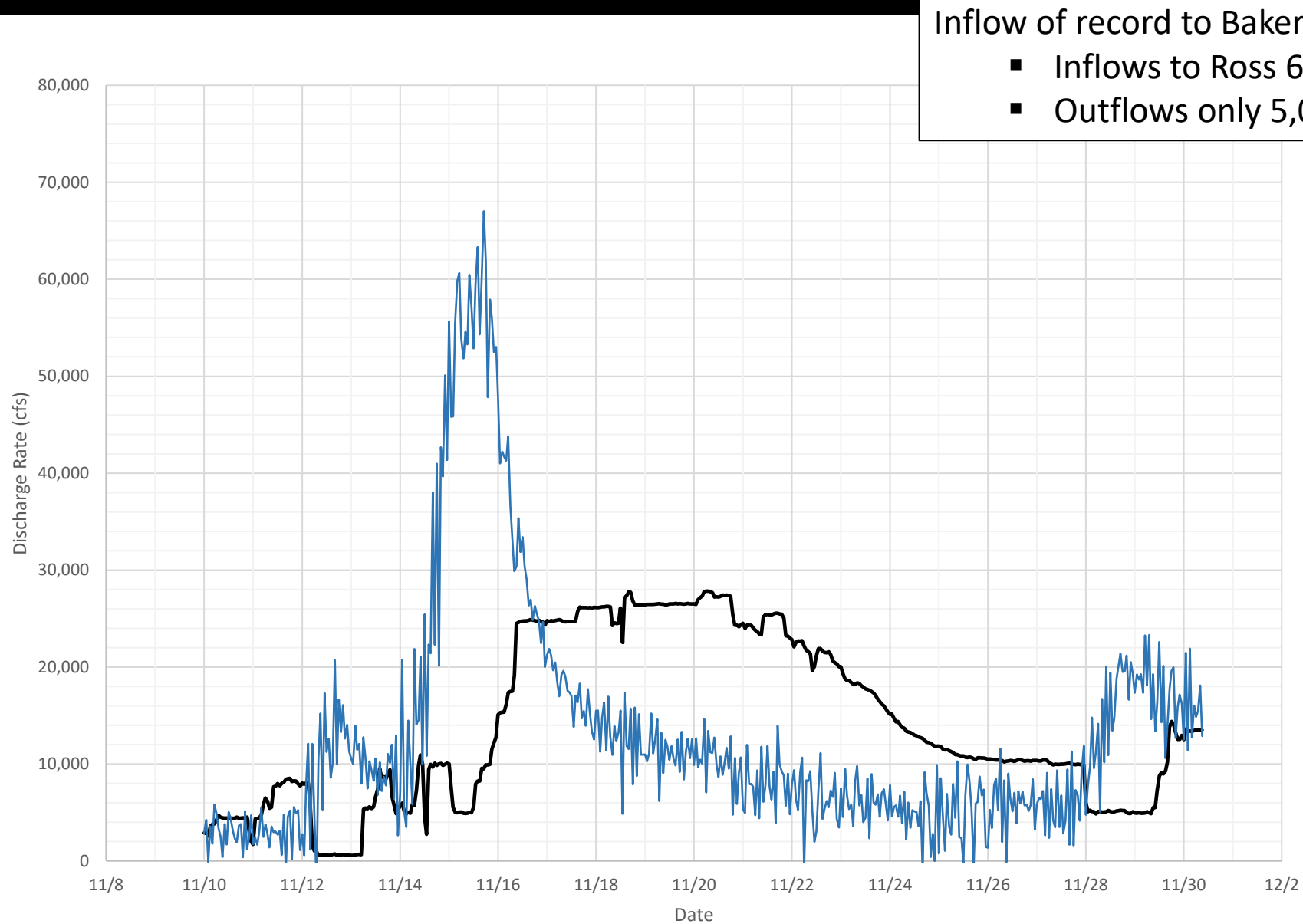
Climate Trends

Floods predicted to shift
floods earlier in the fall.

ARs predicted to be
more intense.

Flood Date	Flood Category	Stage Mount Vernon (ft)
Nov. 11, 1990	Major	Unverified
Nov. 25, 1990	Major	37.37
Nov. 30, 1995	Major	37.34
Oct. 17, 2003	Major	33.12
Oct. 21, 2003	Major	42.21
Nov. 6, 2006	Major	39.37
Nov. 23, 2017	Major	34.69
Nov. 16, 2021	Major	37.32

2021 Flood Recap – The Importance of Ross Storage

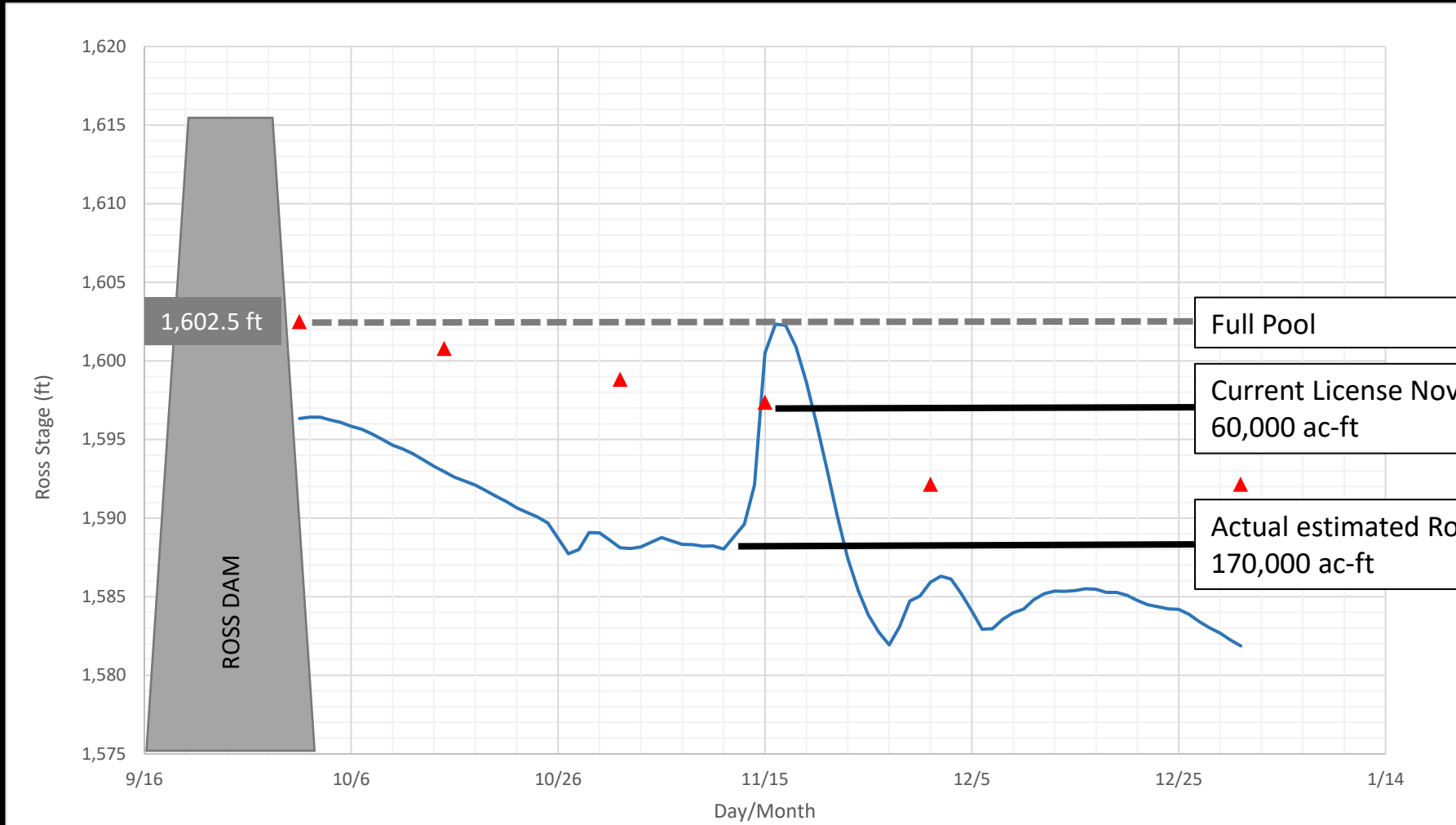


Inflow of record to Baker and Skagit

- Inflows to Ross 67,000 cfs
- Outflows only 5,000 cfs at peak

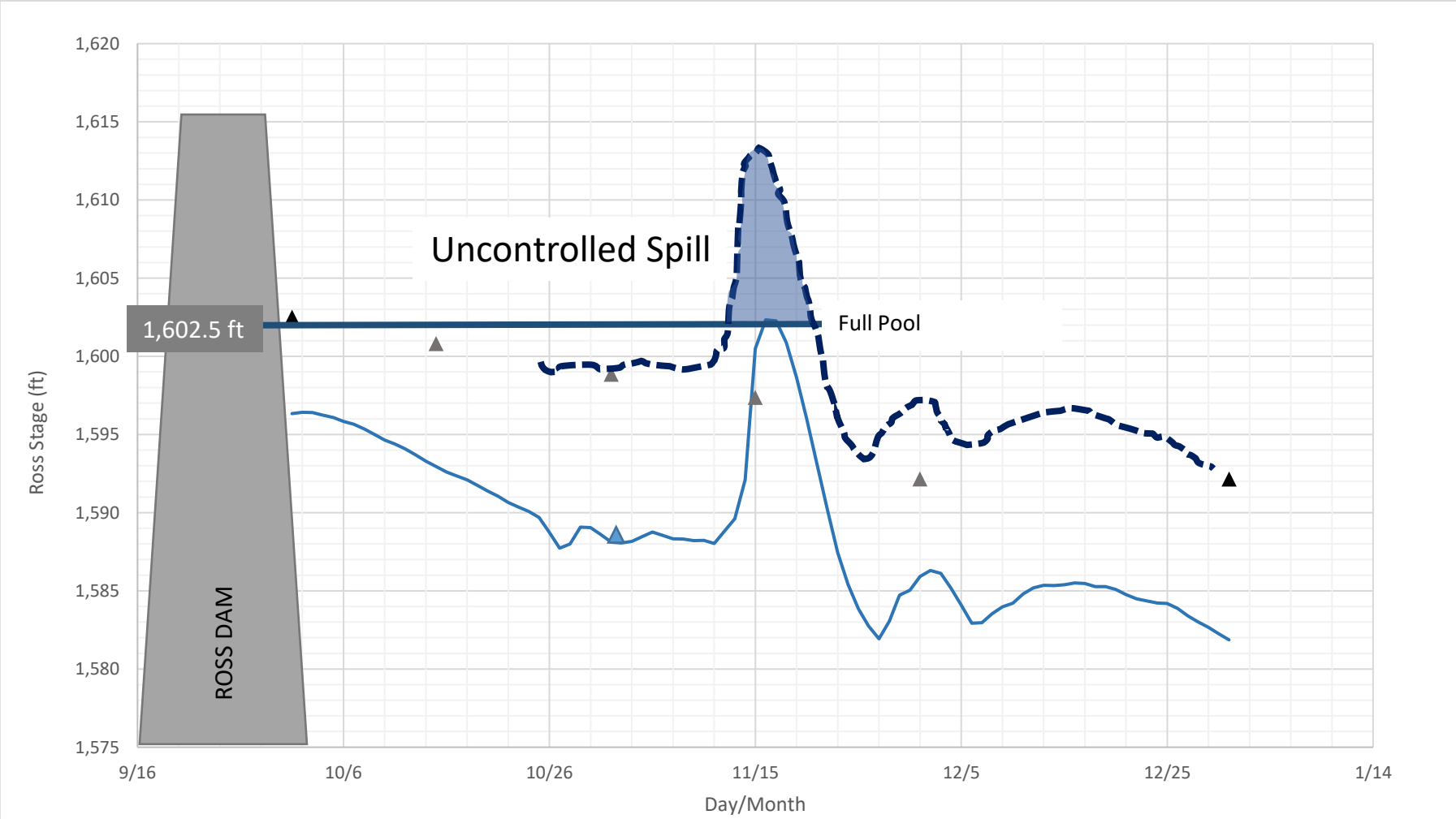
2021 Flood Recap – The Importance of Ross Storage

- ❖ SCL had approximately 170,000+ ac-ft of storage at Ross
 - Current License = 60,000 ac-ft
 - Nov. 2021 SLC had extra 110,000 ac-ft of storage



2021 Flood Recap – The Importance of Ross Storage

- ❖ Extra Storage at Ross provides more control of peak flood
- ❖ Less risk of uncontrolled spill



Ross Dam spilling water

2021 Flood Recap – The Importance of Ross Storage



- Overtop Levees
- Overtop Mount Vernon Floodwall
- Cutoff routes to hospitals
- Impacts to critical sewer and drinking water facilities
- Impacts to PSE power grid
- Impacts to local roads and highways
- Major community evacuations
- Major environmental consequences

Per US Army Corps, flood would have been **appx. 8-ft higher** without reservoir storage space

[Seattle District > Seattle District News Releases](#)



Jenna Friebe

Executive Director
Skagit Drainage Consortium

Ross Integrated Operations Plan

Overview

- ❖ Developed by Skagit County and Skagit Dike Partnership
- ❖ Incorporated significant input from key LPs.
- ❖ Consists of:
 - (1) license articles specific to Ross Lake Operations
 - (2) Adaptive Management Plans.

- ❖ Makes only minor modification to the current license
- ❖ Improves Ross Lake operations for multiple objectives
 - ❖ Fisheries
 - ❖ Reservoir and stream habitat
 - ❖ Flood risk reduction
- ❖ Has minimal impacts to power generation
- ❖ Consistent with the primary purpose of Ross – flood control



Ross Integrated Operations Plan

Proposed License Articles	Proposed Adaptive Management Plans
Ross Summer Variable Reservoir Operations Zone	
<ul style="list-style-type: none"> ▪ Full Pool June 1: 1,597.5 ft ▪ Begin Drawdown on July 31 	<ul style="list-style-type: none"> ▪ AMP for variable full pool between El. 1,597.5 and 1,602.5 ft ▪ Establish a Ross Reservoir Operations Committee to implement the AMP and make management decisions
Flood Risk Reduction	
<ul style="list-style-type: none"> ▪ 165,000 ac-ft by Nov. 1 	<ul style="list-style-type: none"> ▪ Establish a Fall Drawdown Committee to implement the AMP and make decisions about use of 3-ft operational buffer ▪ AMP to allow encroachment into Ross Regulatory Flood Pool [FIRO]
Fisheries Settlement Agreement	
<ul style="list-style-type: none"> ▪ No Change 	<ul style="list-style-type: none"> ▪ Develop an AMP Plan for pulse flows ▪ Develop an AMP for process flows ▪ Develop an AMP for minimum winter Ross levels ▪ Maintain the Flow Coordinating Committee (FCC)

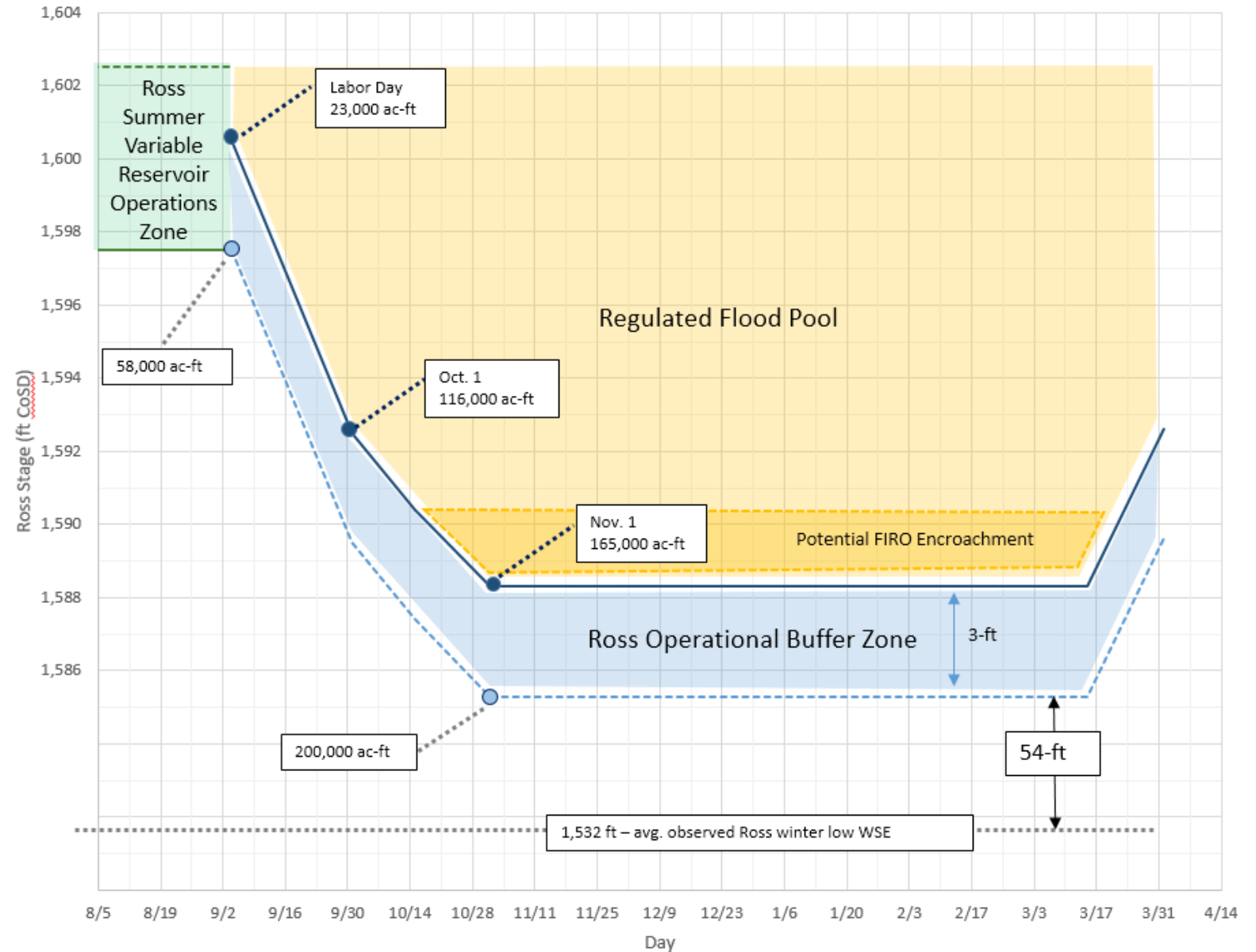
Ross Integrated Operations Plan

Changes License Articles for Ross full pool to allow more flexible summer operation to improve lake habitat

Maintains fall flows for salmon spawning and incubation

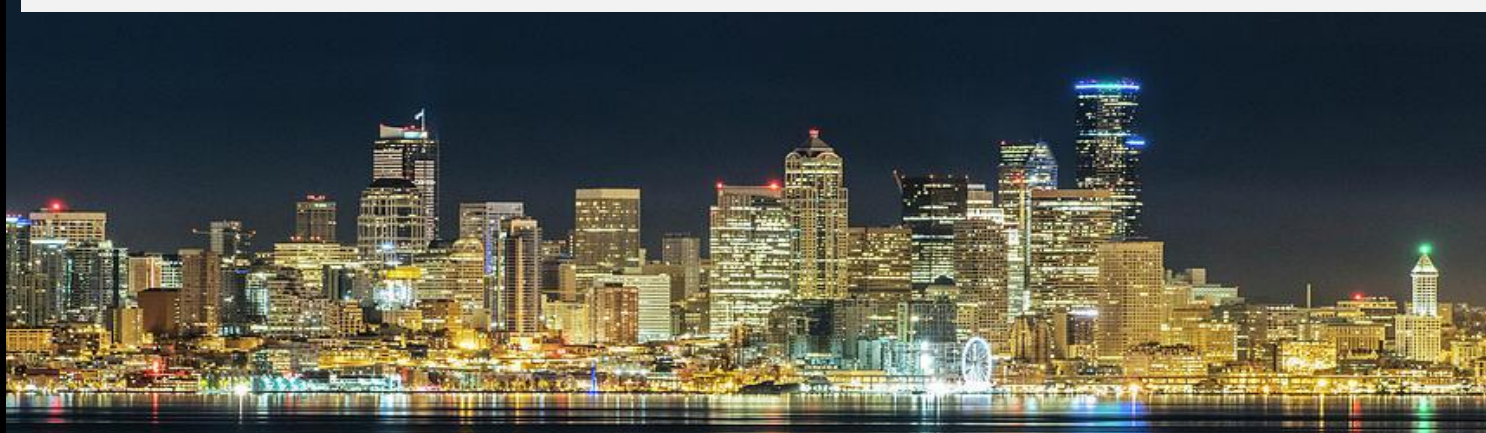
Provides more storage earlier in the flood season

Increases total fall storage for Flood Risk Reduction



Ross Integrated Operations Plan

Negligible Reduction in Power Generation



❖ Avg. 0.1 % reduction in generation

Generation Scenario	Avg. Appx. Annual Generation (MWh) (1988-2020)		
	Base Case	RIOP	Appx. Difference
Ross Peak	719 K	715 K	- 4 K
Gorge Peak	714 K	716 K	+ 2 K
Sub-Total	1,433 K	1,431 K	- 2 K
Ross Off-Peak	87 K	92 K	+ 5 K
Gorge Off-Peak	291 K	286 K	- 5 K
Sub-Total	378 K	377 K	- 1 K

- ❖ Skagit Project generates about 1/3 of Seattle’s electricity
- ❖ Skagit Project generates over \$150 million per year in electricity (est; at minimum)
- ❖ Over a 50 year license = \$7.5 billion
- ❖ Skagit Project is largest Low Impact Hydropower Institute (“green power”) certified hydro-project in US
- ❖ Seattle sells power into wholesale electrical markets, California etc

Fisheries Mitigation vs. Chinook Recovery Goals



Recovery Goals vs Offsite Compensatory Mitigation

Recovery Goals:

Specific habitat projects in specific places according to a specific plan, meant to achieve specific outcomes, do best possible for fish while minimizing high value farmland loss & improving infrastructure/climate resilience.

Offsite Compensatory Mitigation:

Opportunistic projects, not connected to specific recovery-oriented plans & projects, oriented centrally around keeping corporate environmental mitigation costs as low as possible.

2022 Offsite Compensatory Mitigation Ord.

Bottom Line:

Our goal is to harmonize needs of fisheries resource and farming on our land base. We oppose becoming a mitigation bank to absorb environmental impacts created by urbanized areas across the Puget Sound Basin.

Skagit Chinook Recovery Goals

2005 HB 1418

- Identified projects, prioritize public lands

2005 Skagit Chinook Recovery Plan/2007 Puget Sound Recovery Plan

- State that *“a more detailed, phased approach to estuarine restoration that addresses needs of salmon and the impacts on agriculture”* (Puget Sound Plan, pg 188).

2005 Skagit Tribal-Ag Accord

- States *“Tribes and Agricultural Community agree to develop a staged approach for new estuarine habitat within the Skagit River watershed”*.



Fisher Slough Restoration – levees, drainage infrastructure, and habitat



Skagit River NF Avulsion: Natural Processes that improve connectivity

Skagit Chinook Recovery Goals



- 947 acres restored, 403 acres in design and funded
- 2025 is the 20-year milestone
 - Expect total of 1,350 acres restored
 - Expect 9 of 18 projects to be completed
 - 20-year milestone is 1,080 acres
- Don't need Offsite Compensatory Mitigation Money
 - All projects have been successfully implemented with state and federal funding

Project Name	Plan/Priority		Status
	HB 1418	SCRP	
Wiley Slough	Tier 1	Near-Term	Completed
Leque Island (South)	Tier 1	--	Completed
Leque Island (North)	Tier 1	--	Completed
Milltown	Tier 1	Near-Term	Completed
Deepwater Slough Phase 2	Tier 1	Longer-Range	In Design
Fir Island Farm	Tier 2	Near-Term	Completed
Dodge Valley/ Sullivan's Hacienda	Tier 2	Longer-Range	
SF Levee Setback	Tier 3	Near-Term	Completed
NF Dike Setback	Tier 3	Longer-Range	
Hall Slough	Tier 3	--	
Fisher Slough and Little Fisher Creek	Other	Near-Term	Completed
McGlinn Island Causeway	Other	Near-Term	In Design
Cross Island Connector	Other	Longer-Range	
Cottonwood Island Slough	Other	--	Completed
Telegraph Slough Phase 1	--	Near-Term	
Telegraph Phase 2	--	Longer-Range	
Fornsby/Smokehouse 1	--	Near-Term	Completed
Smokehouse Phase 2	--	Longer-Range	In Design



Skagit Chinook Recovery Goals

A locally grounded realistic plan to advance Chinook Plan recovery goals

Prioritized list of multi-benefit estuary projects

Provides BOTH climate resilience infrastructure AND top-tier estuary habitat restoration

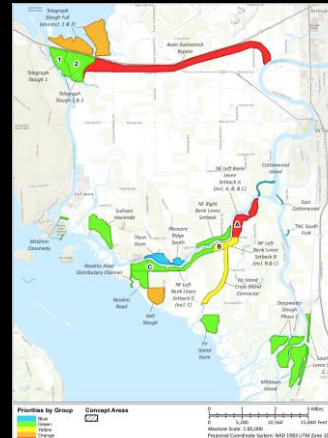
Informed by monitoring and transparency

Key to implementation is the Skagit Federal Mediation Process



Estuary Restoration Strategic Assessment

A Summary Report of the Skagit Hydrodynamic Modeling Project



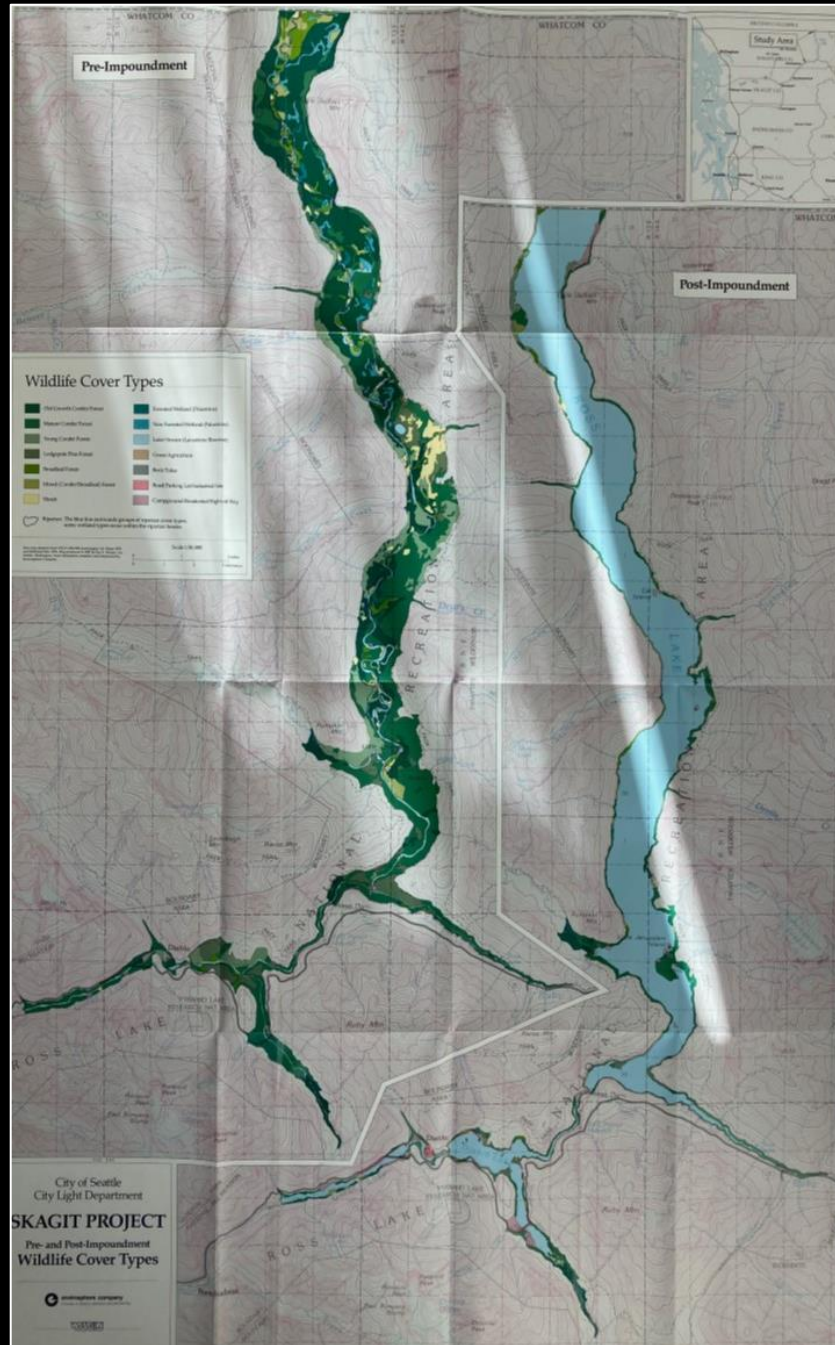


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Skagit River Diablo Canyon 1927 prior to Diablo



Skagit River Gorge Reach with water



Fish Passage

NMFS, WDFW, USFWS, National Parks, and Upper Skagit all conclude that there was never a barrier to salmon before the dams

The Skagit Valley above the dams was prime salmon habitat

Seattle's Skagit Project block approximately 37% of Skagit River Watershed

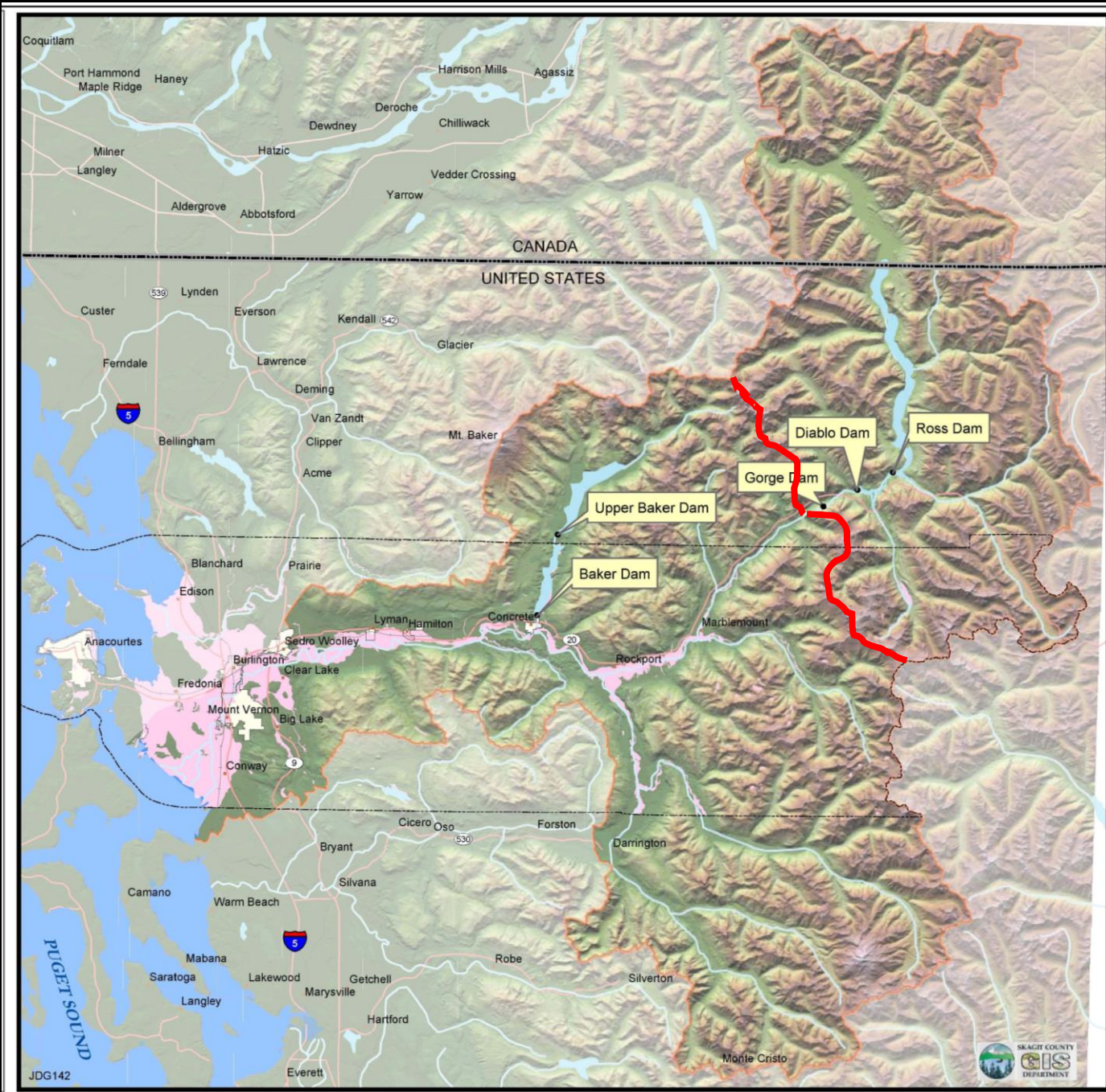
Fish Passage

Virtually every other hydroelectric dam in PNW has been required to provide fish passage

PSE Baker River Project 2007 FERC license

- Major Success: less than 100 salmon in 1999, to over 70,000 salmon in 2023 (700x increase)
- No evidence that it has negatively impacted wild Skagit stocks
- Treaty and non-Treaty harvest; tourism, recreation, and biological productivity

**Only Seattle City Light
can install fish passage at its dams**



Fisheries Mitigation Take-Aways

Local Government's Job: support a holistic plan that reasonably balances & harmonizes all interests

What is likely to create good long-term outcomes for all concerned?

We support agencies and tribes in seeking a REALISTIC plan that achieves BOTH fish passage at Seattle's Skagit Project AND a credible plan for progress on 2005 Skagit Chinook Recovery Plan goals for Skagit estuary

What we articulate is a faithful synthesis of Skagit Treaty Tribes' fishery resource goals (all three tribes) and Skagit County's Comprehensive Plan

The Skagit Valley floodplain is a special place of natural resource productivity – fishing and farming – in a rapidly urbanizing region. Our task is to balance and harmonize while protecting against sprawl, development and conversion for other purposes