

Lummi Nation Surface Water Quality Program and Regulating Water Quality to Protect Tribal Foods



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Purpose Statement

- The purpose of this presentation is to:
 - Provide background information on the Lummi Nation;
 - Summarize the Lummi Nation approach to environmental reviews; and
 - Describe the Lummi Nation Surface Water Quality Standards Program – a regulatory approach to protecting tribal foods.
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Presentation Outline

- Introduction
 - Lummi Nation Overview
 - Environmental Baseline Issue
 - Water Quality Standards Program Overview
 - Fish Consumption Rates
 - Summary and Conclusions
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Lummi Nation Overview



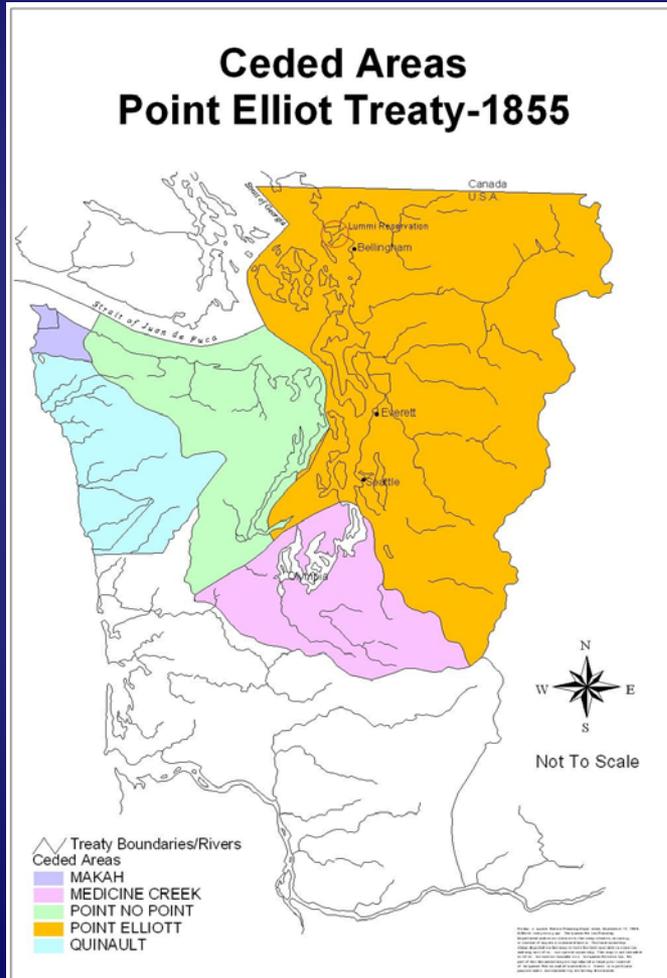


In a Nutshell

- The Lummi Nation signed the 1855 Treaty of Point Elliot.
- Like most northwestern Indian tribes, the Lummi have a relatively small Reservation and a large Usual and Accustomed (U&A) area.
- The Lummi are a fishing tribe – Lummi fish for salmon, other finfish, and shellfish (e.g. crab, clams, oysters).
- Lummi rights to harvest fish throughout the U&A is guaranteed by the Treaty. These rights have been reaffirmed by various federal court cases including the 1974 Boldt decision.
- Treaty Tribes are ensured 50 percent of the Total Allowable Catch and are fishery co-managers.



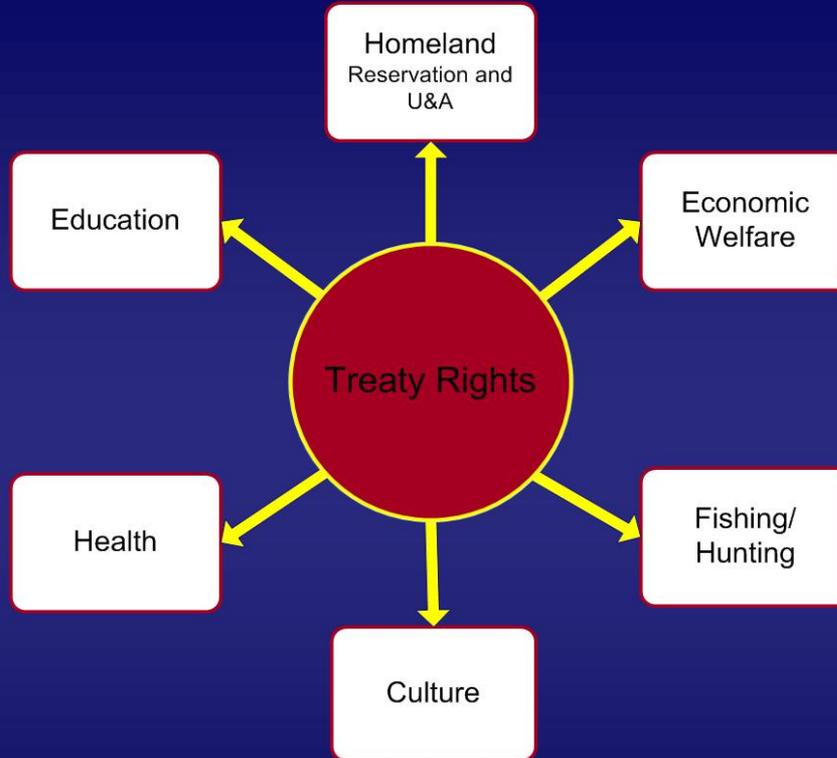
The Point Elliot Treaty



- Lummi is a Coastal Salish tribe
- As part of the Point Elliot Treaty of 1855, vast areas of land were ceded to the United States
- The Treaty created a trust responsibility for the United States with respect to the Lummi Nation
- U.S. government agencies can not permit activities unless tribal interests are protected.



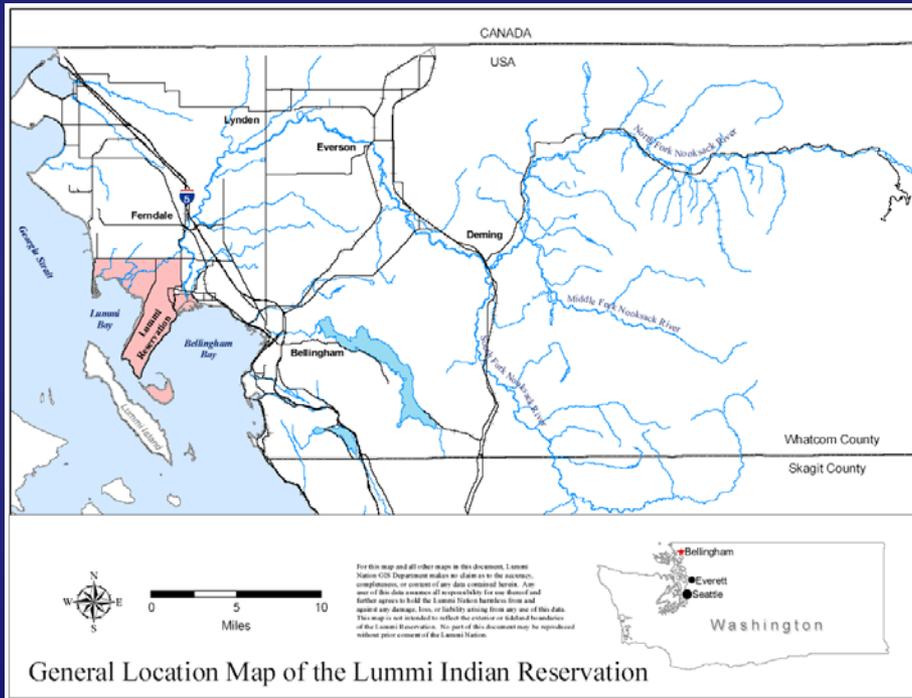
Treaty Right is Very Broad



Treaty Right Connections



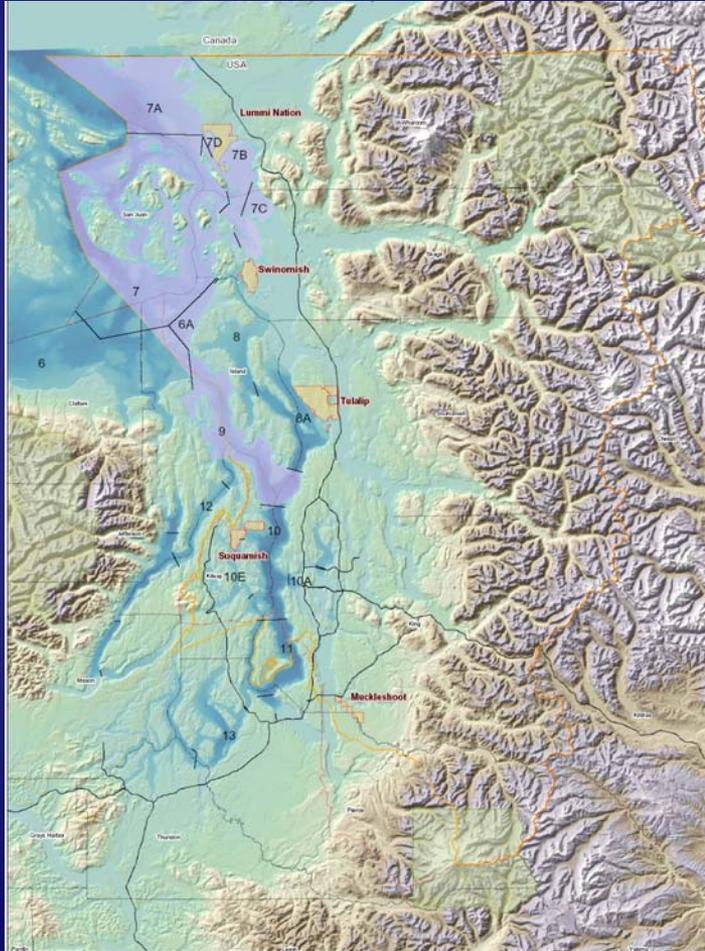
Brief History – the Reservation



- The Lummi Indian Reservation was created and reserved for the exclusive use of the Lummi people by the Point Elliot Treaty
- The Reservation is intended to be a permanent, economically viable homeland for the Lummi people



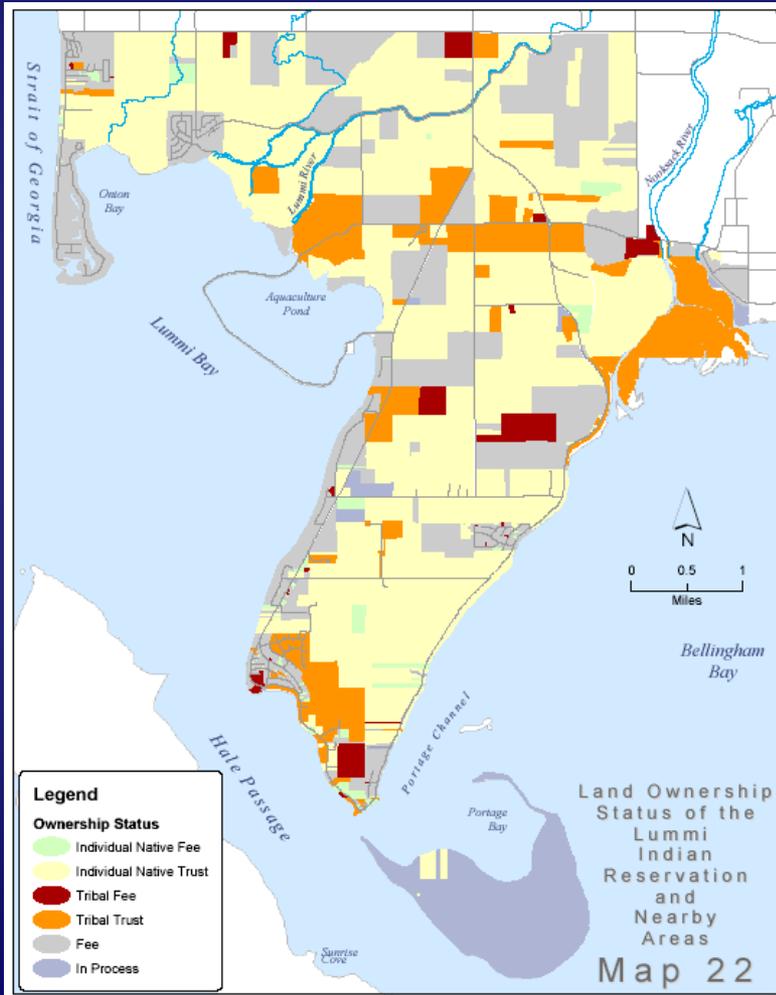
Brief History – the U&A



- Lummi fishing, hunting, and gathering rights were reserved by the Treaty at all Usual and Accustomed (U&A) grounds and stations.
- Lummi Nation U&A grounds and stations include:
 - Nooksack River Basin,
 - Coastal rivers/streams from Fraser River to environs of Seattle,
 - San Juan Islands.



The Lummi Reservation Today



- The Lummi Reservation is comprised of about 12,500 acres of upland and about 7,000 acres of tidelands
- The Lummi Nation and/or enrolled members own about 75 percent of uplands
- The Lummi Nation owns 100 percent of tidelands



The Lummi People



- Approximately 4,200 enrolled Lummi tribal members.
- Approximately 2,400 tribal members live on Reservation – the remainder live in the region or elsewhere.





The Lummi Government

- The Lummi Nation is a sovereign government and has been since time immemorial.
- The Lummi Nation was one of ten tribes nationally that initiated the Self-Government Demonstration Project (1988)
- The Lummi Nation is governed by an elected 11 member Lummi Indian Business Council and the General Council (all voting enrolled members).
- Numerous departments (e.g., Cultural, Economic Development, Police, Education, Health, Planning, Natural Resources)
- Independent Tribal Court system.

Treaty Rights Are Being Impacted





Governmental Actions



- Create family wage jobs
 - Lummi Government and enterprises (3rd largest employer in Whatcom County area)
 - Tribal enterprises (e.g., Silver Reef Casino, gas stations, mini-marts, Northwest Indian College, K-12 School)
- Train dislocated workers
 - Construction trades
 - Natural Resources restoration
- Seek new business opportunities to continue economic diversification and increase self-reliance and economic independence



Governmental Actions



- Promote education and opportunities for tribal youth.
- Construction of a new \$24 million K-12 school completed during 2004.
- Establish a regulatory framework to protect natural resources, cultural resources, and public health and welfare.
- See website (www.lummi-nsn.gov) for more information and atlas

Environmental Baseline



What is the Appropriate Environmental Baseline?



- Although there is the federal trust responsibility and state/tribal agreements that support protection of tribal resources, the baseline used to evaluate the impacts of proposed development projects is typically current conditions.
- Current conditions are typically degraded from historic conditions and adopting current conditions as the environmental baseline is not protective of tribal interests or Treaty rights.
- Two examples related to the Lummi Nation are the Bellingham Bay Clean-up Project and tribal fishing levels.

Bellingham Bay Historic Shoreline and Nearshore Development



- Aerial Photograph of Impacted Areas/ Development along Bellingham Bay showing historic shoreline
- ASB is the “pond” next to G-P mill site and Whatcom Creek

Bellingham Bay Historic Shoreline and Nearshore Impacts



- 748 acres have been impacted by armoring, dredging, or filling
- Prevents exercise of Treaty fishing rights in impacted areas.
- Land use also contaminated fishing areas with mercury and other toxins



Lummi is a Fishing Tribe



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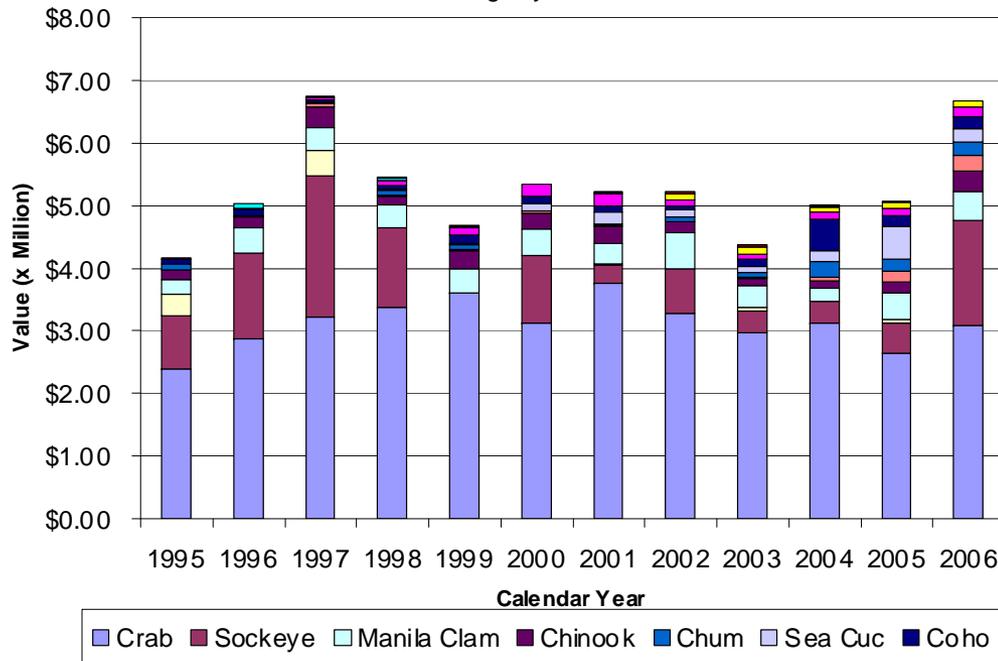
Lummi is a Fishing Tribe

- Lummi has largest fishing fleet of all northwest tribes.
- At its peak in the mid-1980s, the Lummi fishing industry employed approximately 2,000 Lummi members.
- In the 10-year period between 1995 and 2005, on average there were 592 fishing registrations and 126 crabbing registrations each year.
- There are currently over 250 vessels registered with the Lummi Nation.



Lummi is a Fishing Tribe

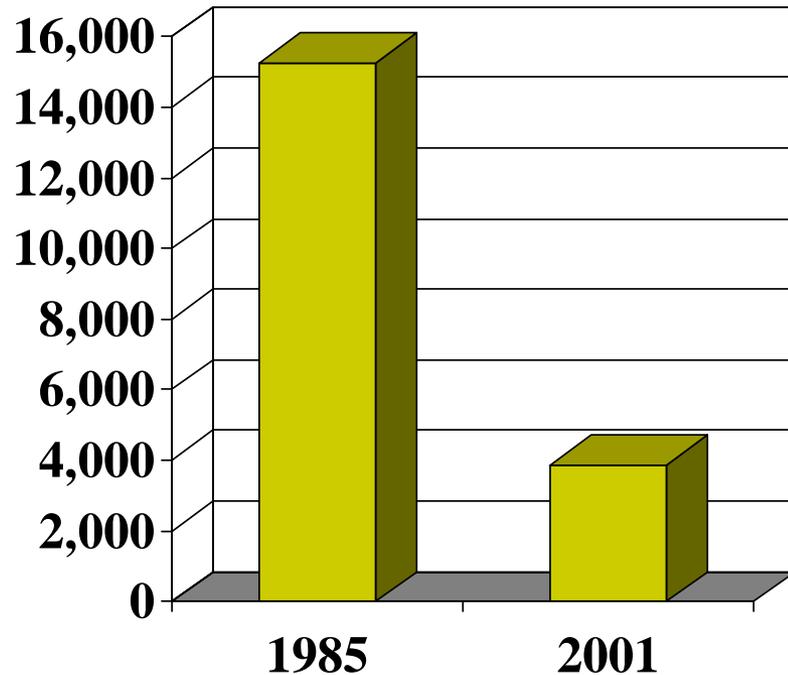
Lummi Landings by Value 1995-2006



- Over the last 10-years, the crab fishery provided the largest percentage of the yearly fishery revenue
- Sockeye salmon and manila clams were next.
- There was no Sockeye fishery during 1999 and 2007!!!
- The loss or reduction of a fishery increases the importance of the other fisheries to the Lummi economy.
- Although there are annual variations, 2001 is representative of the most recent 10 years.



Lummi is a Fishing Tribe



■ Landings (1,000 lbs)

- In 1985, the Lummi Fishing Fleet landed about 15.3 million pounds of fin- and shellfish.
- In 2001, the combined harvest was about 3.9 million pounds of fin- and shellfish.
- Lummi position is that 1985 is a more appropriate environmental baseline than 2001.

Lummi Nation Water Quality Standards Program



What are Water Quality Standards?



- Water Quality Standards (WQS) are rules or laws that are adopted pursuant to the Clean Water Act (CWA) to protect the public health and welfare, enhance the quality of water, and serve the purposes of the CWA by providing, wherever attainable, for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water.
- These uses are commonly referred to as the "fishable/swimmable" goals of the CWA

What is the Lummi Nation WQS Program?



- The Lummi Nation works in close cooperation with federal, state, and local agencies to address water quality issues for a number of reasons including the fact that water flows freely, and generally downstream, across jurisdictional lines.
- The Lummi Reservation, like most Puget Sound Reservations, is located at the downstream end of the watershed.
- The Lummi Nation initially applied to the EPA for eligibility to administer the water quality standards program under Section 518 of the Federal Clean Water Act (CWA) in March 1995.

What is the Goal of the Lummi Nation WQS Program?



- The overall goal of the adoption of water quality standards is to protect the public health of Reservation residents and to attain fishable and swimmable waters within the Lummi Indian Reservation (Reservation).
- The water quality standards apply to all surface waters within the Reservation boundaries.

Why did the Lummi Nation Seek Eligibility to Administer the Water Quality Standards Program?



- To protect the quality of surface waters of the Reservation.
- The Lummi Nation carries out substantial duties and powers including the protection of the natural resources, health, welfare, and safety of tribal members and other Reservation residents.
- This program is fundamental to why governments exist – protection of public health and welfare.

What does “Eligibility to Administer the Water Quality Standards Program” mean?



- The EPA is responsible for administering and ensuring that the goals of the CWA are attained.
- If a state or tribe applies for eligibility and the EPA determines that the state or tribe has the capability to administer the water quality standards (WQS) program, the EPA can delegate their authority to the state or tribe.
- This is a two-part process.
 - A determination by the EPA that a state or tribe is eligible to administer the program.
 - Adoption/approval of the actual water quality standards.
- The application process to administer the WQS program is rigorous and time consuming.



How Long Does the Process Take?

- Original Lummi Nation application filed in March 1995.
- In February 1999 supplemental materials were provided to the EPA.
- During the summer of 1999, the EPA conducted a public comment period on the Lummi Nation application to administer the program.
- Over 500 comment letters received – generally opposing delegation.
- Lummi provided supplemental materials to the EPA from 1999 through 2006.
- EPA approved the Lummi application in March 2007.
- Lummi WQS adopted in August 2007 and sent to EPA.
- EPA approval of Lummi WQS expected May 2008.

What Are Elements of the Lummi Nation WQS?



- The Lummi Nation Surface WQS is a regulation adopted pursuant to the Lummi Code of Laws Title 17 (Water Resources Protection Code).
- The Regulation (17 LAR 07) has 21 sections including:
 - Designated Water Uses and Criteria Classes
 - Narrative and/or Numeric Criteria to protect the designated uses. For example,
 - Criteria for temperature, bacteria, dissolved oxygen, pH
 - Toxic Substances (Aquatic Life Criteria, Human Health Criteria)
 - Anti-Degradation Policy
 - Mixing Zones

Fish Consumption Rates



Fish Consumption Rates in the Lummi Nation WQS



- Fish Consumption Rates are used to address cancer and non-cancer effects from toxics in fish (fin- and shellfish).
- The consumption rate affects the toxic substance criteria of the WQS
- The general equation to estimate risk is:
$$\text{Risk} = \text{Dose} \times \text{Toxicity}$$
- Fish consumption is part of the “Dose” in the computation of Risk (1 in 1,000,000).
- The higher the “Dose”, the lower the “Toxicity” must be to have the same Risk

What is the Appropriate Fish Consumption Rate to Use?



- Environmental Baseline Question:
 - Current conditions or conditions in the mid-1800s.
- Fish Consumption Rates for the current conditions are depressed in some areas due to a variety of factors including environmental degradation that prevents harvest in traditional areas, reduced abundance, alternative food choices.
- Fish consumption is integral to the Lummi way of life (“Schelangen”) and was undoubtedly the primary food source in the mid-1800s.

What is the Appropriate Fish Consumption Rate to Use?



- Wide Range of Fish Consumption Rates in the literature:
 - 6.5 g/day (former EPA default [1980] and current Washington State Water Quality Standard).
 - 17.5 g/day (EPA nationwide default [2000])
 - 63.2 g/day (CRITFC [1994] average current tribal consumption)
 - 142.4 g/day (EPA subsistence default [2000])
 - 159.7 – 221.7 g/day (90th percentile Squaxin Island and Tulalip tribes current consumption)
 - 620 g/day (*U.S. v. Washington* [1974] average salmon consumption)
 - 972 g/day (CRITFC [1994] maximum value, current tribal consumption)

What is the Appropriate Fish Consumption Rate to Use?



- Lummi used the 142.4 g/day (EPA subsistence default [2000]) to determine the toxic substances criteria in the Lummi 2007 Water Quality Standards for a number of reasons including the following:
 - A Lummi-specific fish consumption survey is not currently available.
 - Policy decision related to conflict avoidance and the desire to obtain the tools represented by approved water quality standards.
 - Opportunity to modify the fish consumption rate and the resultant toxic substance criteria exists during the required triennial review of the WQS.

Next Steps Related to Fish Consumption Rates



- Obtain funding and conducting a scientifically valid Lummi-specific fish consumption study:
 - Current efforts working with the EPA have led to submittal of a formal request for assistance to the Agency for Toxic Substances and Disease Registry (ATSDR).
 - Any other ideas?
- Work with the Washington Department of Ecology during their triennial review to ensure that the fish consumption rate used to compute their toxic substances criteria is more protective of tribal people.
- Monitor what is happening in Oregon.

Summary and Conclusion





Summary and Conclusion

- Lummi is a Fishing Tribe.
 - Lummi has Treaty Rights to hunt, fish, and gather throughout the Usual and Accustomed (U&A) grounds and stations.
 - The Lummi U&A extends from the Fraser River to the environs of Seattle.
 - Current conditions are not an appropriate environmental baseline for project evaluations or to determine the Treaty protected levels of fish consumption.
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Summary and Conclusion

- Water Quality Standards are a tool to protect the quality of Reservation surface waters.
- Obtaining delegation from the EPA to administer the WQS program is a lengthy process.
- Lummi has been delegated authority by the EPA to administer CWA sections 401 and 303(c).
- Lummi has adopted WQS with Toxic Substances Criteria based on 142.2 g/day fish consumption.
- EPA approval of the adopted Lummi water quality standards is pending.



Summary and Conclusion

- A Lummi-specific fish consumption survey is needed to:
 - Ensure that the toxic substance criteria of the Lummi Nation WQS protect the public health of tribal members;
 - To support efforts to ensure that the toxic substance criteria of the Washington State WQS protect the public health of tribal members;
 - Provide reliable estimates in risk assessments conducted for hazardous waste clean-up efforts (e.g., Bellingham Bay clean-up)
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Thank you



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