

Tribal Natural Resources Management



A report from
the Treaty Indian Tribes
in Western Washington
2014

We, the Indians of the Pacific Northwest, recognize that our fisheries are a basic and important natural resource and of vital concern to the Indians of this state, and that the conservation of this natural resource is dependent upon effective and progressive management. We further believe that by unity of action, we can best accomplish these things, not only for the benefit of our own people, but for all of the people of the Pacific Northwest.

- PREAMBLE TO THE NWIFC CONSTITUTION

From the Chairman



Boldt made his historic ruling in *U.S. v. Washington*. The Boldt decision affirmed the fishing, hunting and gathering rights that we reserved in treaties with the U.S. government. It recognized us as natural resources co-managers with the state of Washington and recognized our right to half the harvestable fish and shellfish in western Washington.

Although ready to rule sooner, Judge Boldt purposely delayed releasing his landmark decision so he could deliver it on the birthday of one of the great champions of civil rights for all Americans.

A lot has changed in the 40 years since Judge Boldt's ruling. While our treaty rights have been upheld, the natural resources on which they are based remain in steep decline, putting those rights at risk. This decline is being caused by the continuing loss of habitat at a rate faster than we can restore it. Despite success stories like the removal of two fish-

blocking dams on the Elwha River, the overall quality and quantity of salmon habitat throughout western Washington have declined steadily and show no signs of improvement.

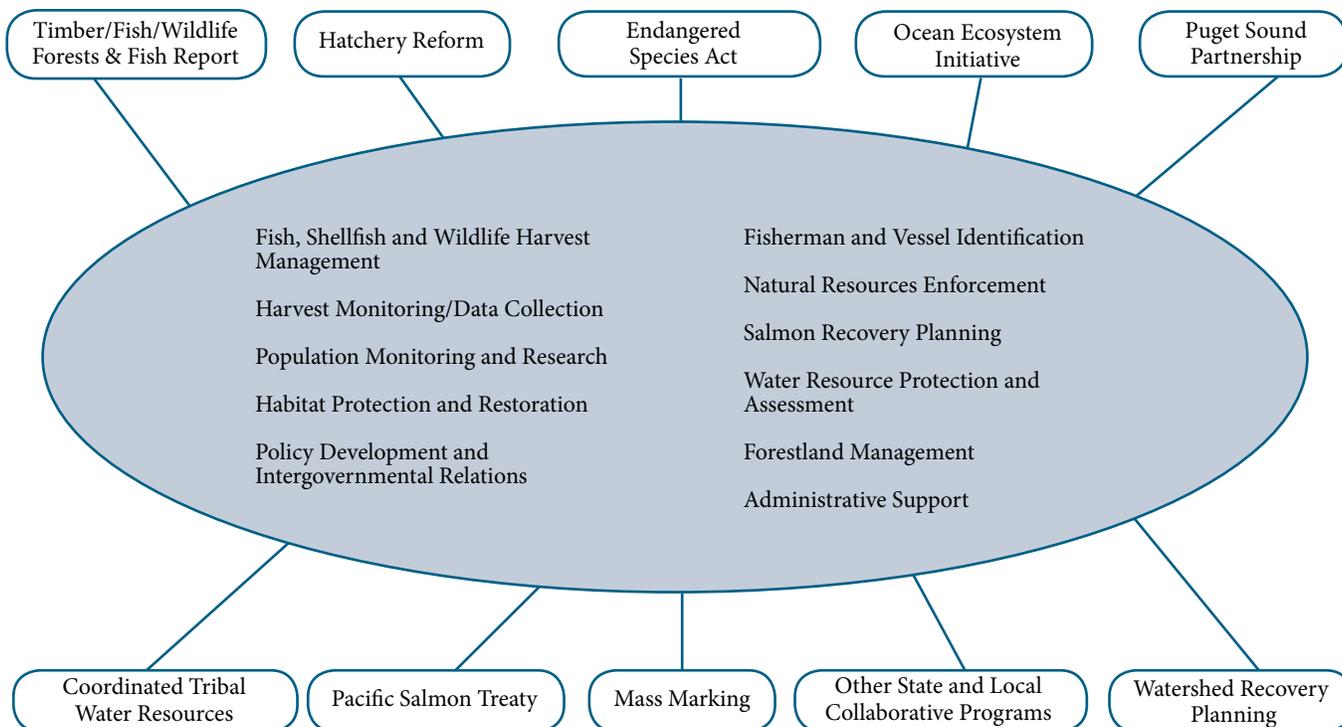
That's one of the reasons the western Washington treaty tribes began our Treaty Rights at Risk initiative, now in its third year. We are calling on the federal government to align its agencies and programs, and lead a more coordinated salmon recovery effort. We want the United States to take charge of salmon recovery because it has a trust obligation and the authority to ensure both salmon recovery and protection of tribal treaty rights. Progress has been slow, but we are making headway and remain encouraged.

We know that if we are going to save the salmon, we must be more like them. No matter what obstacles are put in their way, the salmon never quit, and we won't either.

Billy Frank Jr.
NWIFC Chairman

Tribal Natural Resources Management Core Program

Natural resources management functions and associated programs of the treaty tribes in western Washington:



Year in Review

Natural resources issues addressed in 2013 by the treaty Indian tribes in western Washington included ongoing efforts to implement the tribal Treaty Rights at Risk initiative, a remedy ruling in the culvert case, and efforts to raise the state's fish consumption rate to better protect Indian people and all citizens in the state of Washington.

Treaty Rights at Risk Initiative Continues

The treaty Indian tribes began the Treaty Rights at Risk initiative in July 2011 because salmon populations continued to decline as a result of habitat being lost and damaged faster than it can be restored. The tribes are asking the U.S. government to take charge of salmon recovery as part of its trust obligation and authority to protect tribal treaty rights and the salmon resource reserved by those treaties.

During 2013, tribes continued efforts to work with federal agencies and the Executive Office of the President to implement recommended changes. The tribes worked with federal officials to identify specific actions needed to restore and protect salmon and their habitat. In addition, tribes continue to press Congress to hold an oversight hearing on Treaty Rights at Risk in 2014 to review the adequacy of the federal response.

Learn more at treatyrightsatrisk.org.

Federal Judge Issues Remedy in Culvert Case

On March 29, 2013, federal court Judge Ricardo Martinez gave the state of Washington 17 years to fix hundreds of fish-blocking culverts under state roads that violate tribal treaty fishing rights. The remedy ruling followed a 2007 summary judgment in favor of the tribes, which held that the failing culverts harm tribal treaty rights by preventing salmon from accessing hundreds of miles of quality habitat in western Washington. Tribes filed initial litigation in the case in 2001.

Repairs will be funded through the state's separate transportation budget and will not come at the expense of education or social services. The state has appealed the ruling.

Federal Government Shutdown and Sequestration

After a two-week federal shutdown, President Obama signed legislation on Oct. 17, 2013 that allowed the government to reopen, and ensured that the nation did not default on its debt. The law provided funding at the FY13 post-sequestration levels through Jan. 14, 2014.

This piecemeal approach to the appropriations process flies in the face of the Indian Self-Determination and Education Assistance Act, which provides for advance payments to tribes and tribal organizations. More importantly, it negatively affects some basic tribal operations by forcing tribes to reduce or furlough staff.

Tribes continue to oppose the sequestration called for in the Budget Control Act

of 2011. These continued reductions will set back Indian Country for generations to come.

Tribes have called on Congress and the Administration to exclude tribal programs from sequester cuts that violate federal trust responsibility and treaty obligations. Tribal programs are not an entitlement – they were paid for when treaties were signed and tribes gave up most of their land. Congress must act now to replace sequestration so it does not cripple tribal programs, which already are underfunded drastically. Sequester cuts to tribal programs will not balance the federal budget.



Quinalt tribal member Jim Jones prepares salmon to feed thousands of attendees to the 2013 Tribal Canoe Journey.

Debbie Preston

Tribes Seek to Increase Fish Consumption Rate

Washington state has one of the largest populations of seafood consumers in the country, but uses one of the lowest fish consumption rates to set water quality standards. The lower the rate, the higher the level of pollution allowed.

One of the factors used to protect humans from toxic chemicals is based on how much seafood is being consumed. The state acknowledges that the current rate of 6.5 grams of seafood per day – about one 8-ounce serving a month – does not protect most Washington citizens from chemicals in our waters that can cause illness or death. That's especially true for Indian

tribes and others who eat large amounts of fish and shellfish. Oregon raised its rate in 2011 to 175 grams per day. Tribes believe everyone in Washington deserves at least that same level of protection.

Unfortunately, some industry leaders are trying to delay or stop the process of setting a more accurate rate because they say it will increase their cost of doing business. This will be an important issue in 2014 as tribes continue to work with the state to set a new rule and address its implementation so we can have both a healthy environment and a healthy economy.

Learn more at keepseafoodclean.org.

Habitat Management

Habitat protection and restoration are essential for recovery of wild salmon in western Washington. Tribes are addressing priority actions needed to recover salmon in each watershed.

- In 2011, the tribes developed the Treaty Rights at Risk Initiative, calling on the federal government to align its agencies and programs to better meet salmon recovery goals, particularly those for habitat protection and restoration. The initiative calls on the federal government to lead a more coordinated salmon recovery effort because it has both the obligation and authority to recover salmon and protect tribal treaty rights.
- The NWIFC Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP) provides a “living database” of local and regional habitat conditions. In 2013, SSHIAP launched an interactive map to track repairs to state-owned culverts, a tool to map potential

steelhead habitat, and a data exchange for research about the nearshore environment.

- Tribes continue to address the habitat concerns identified in the 2012 State of Our Watersheds report. The report, which documents ongoing loss and damage of salmon habitat, can be viewed at nwifc.org/sow.
- Tribes conduct extensive monitoring of water quality for pollution, and ensure factors such as dissolved oxygen and temperature levels are adequate for salmon and other fish. To make limited federal funding work to its fullest, tribes partner with state agencies, industries and property owners through collaborative habitat protection, restoration and enhancement efforts.
- In western Washington, the National Oceanic and Atmospheric Administration’s Pacific Coastal Salmon Recovery Fund has supported projects that have restored thousands of acres of forest, protected hundreds of acres of habitat and removed hundreds of fish passage barriers.

Bringing Back Bull Kelp

After watching bull kelp vanish from the shorelines around Kitsap County for 20 years, the Suquamish Tribe is working with the Puget Sound Restoration Fund (PSRF) to explore methods for reintroducing the aquatic vegetation.

Bull kelp serves as a physical barrier that reduces nearshore erosion by absorbing wave energy. Bull kelp forests also are excellent habitat for juvenile salmon, which use kelp beds as refuge from predators and for foraging.

“The reasons for the kelp decline are uncertain, but habitat loss along shorelines, pollution, nutrient discharges, increased sedimentation, boat wake and propeller damage may interfere in the plant’s complex life history cycle,” said Brian Allen, a PSRF ecologist.

“It’s well documented that salmon and steelhead require healthy habitat to thrive,” said

Paul Dorn, the tribe’s senior salmon research biologist. “The challenge is that salmon use very diverse habitats. Most of our salmon recovery projects are focused in the watersheds and estuaries. In this case, we’re trying to look at and understand what’s happening to these underwater kelp forests that are generally out of view from most people.”

Since 2010, there have been multiple efforts to learn more about bull kelp.

Allen and Dorn have been studying bull kelp beds off Bainbridge Island, Elliott Bay, and adjacent to the tribe’s reservation at Jefferson Head. In 2013, PSRF coordinated with the Washington Department of Natural Resources’ (DNR) acoustic research team to document kelp bed growth over large areas, including Bainbridge Island and Port Madison.



Tiffany Royal

Paul Dorn, Suquamish senior research biologist, and Brian Allen of PSRF study bull kelp near Bainbridge Island.

Hatchery Management

Hatcheries must remain a central part of salmon management in western Washington as long as lost and degraded habitat prevents watersheds from naturally producing abundant, self-sustaining runs of sufficient size to meet the tribal treaty fishing harvest right.

- Tribal, state and federal agencies operate more than 100 salmon enhancement facilities in western Washington. It is the largest salmon hatchery system in the world. More than 100 million salmon and steelhead are released annually from these hatcheries. Tribes alone released more than 41 million salmon in 2012, including 10.7 million chinook and 8.1 million coho.

- Most tribal hatcheries produce salmon for harvest by both Indian and non-Indian fishermen. Some serve as wild salmon nurseries that improve the survival of juvenile fish and increase returns of salmon that spawn naturally in our watersheds.
- Tribes conduct an extensive mass marking and coded-wire tag program. Young fish are marked by having their adipose fin clipped before release. Tiny coded-wire tags are inserted into the noses of young salmon. The tags from marked fish are recovered in fisheries, providing important information about marine survival, migration and hatchery effectiveness.

Captive Broodstock Reaches Spawning Age

More than 500 chinook salmon that reached maturity in 2013 could produce about 1 million eggs at the Lummi Nation's Skookum Creek Hatchery.

Of those, more than 600,000 juveniles are expected to be released into the river in spring 2014.

The fish are part of a captive broodstock program to preserve threatened South Fork Nooksack River chinook. The multi-agency effort involves the Lummi Nation, the Nooksack Tribe, the state Department of Fish and Wildlife (WDFW) and the National Oceanic and Atmospheric Administration (NOAA). Its goal is to help the recovery of South Fork Nooksack chinook, a significant population that must be on a path to recovery before Endangered Species Act restrictions can be lifted.

In 2007, the partners began collecting juvenile chinook in the South Fork Nooksack River to raise to spawning age. The juveniles were genetically tested to sort out stray fish from hatchery programs, and the South Fork Nooksack chinook were transferred to the WDFW Kendall Creek Hatchery for initial rearing. Half of the fish were reared in fresh water at

Kendall, while the other half were transferred to the NOAA Manchester Research Station for rearing in salt water.

The first offspring spawned from the captive broodstock were released in 2011. Project managers expect the program to peak in 2016 with the release of 1 million juveniles. Based on a conservative survival rate, more than 4,000 adult chinook could return to the South Fork Nooksack in 2019.

Historically, about 13,000 natural origin South Fork spring chinook spawned in the Nooksack River, but since 1999, surveys estimated that fewer than 100 native spring chinook returned as adults. Degraded and lost habitat are the main reasons for the population's decline.

"We needed to protect this population while we conduct extensive habitat work," said Merle Jefferson, natural resources director for the Lummi Nation. "Our hope is that these fish, when they return, will jumpstart the population in restored habitat."

Both the Nooksack Tribe and the Lummi Nation have done extensive restoration work in the South Fork to re-establish suitable habitat for salmon to rear, feed and spawn.



Staff at NOAA's Manchester Research Station ultrasound a chinook salmon to determine its sex and whether it is ready to be spawned. The adult salmon was collected as a juvenile from the Nooksack River and raised in a hatchery to help rebuild a dwindling population.

Kari Neumeier

Harvest Management

Salmon

Treaty Indian tribes and the Washington Department of Fish and Wildlife co-manage salmon fisheries in Puget Sound, the Strait of Juan de Fuca and nearshore coastal waters.

- For decades, state and tribal salmon co-managers have reduced harvest in response to declining salmon runs. Tribes have cut harvest by 80-90 percent since 1985.
- The tribes monitor their harvest using the Treaty Indian Catch Monitoring Program to provide accurate, same-day catch statistics for treaty Indian fisheries. The program enables close monitoring of tribal harvest levels and allows inseason adjustments.
- Under *U.S. v. Washington* (the Boldt decision), harvest occurs only after sufficient fish are available to sustain the resource.
- Tribal and state managers work cooperatively through the Pacific Fishery Management Council and the North of Falcon process to develop fishing seasons. The co-managers also cooperate with Canadian and Alaskan fisheries managers through the U.S./Canada Pacific Salmon Treaty.

Nisqually Fish Plant Keeps Boats on the Water



Emmett O'Connell

Scotti Wells, Puyallup, helps his uncle Reuben Wells Sr., Nisqually, unload salmon during the Nisqually Tribe's chinook fishery.

The Nisqually Indian Tribe is creating a stable market for tribal fishermen by buying and processing salmon.

“What we’re trying to do here is to make sure tribal fishermen can afford to stay on the water,” said Rick Thomas of the Nisqually seafood marketing program.

During the fall chinook season, the tribe purchased a small portion of the tribal catch. They then processed the fish at a nearby tribally leased fish plant and shipped the final product to customers throughout the country.

“Typically buyers will pay premium prices in the first few days of a fishery, and then the price drops because of market demands,” Thomas said. “Too much supply inherently drops the price.”

By purchasing less than 25 percent of the catch for the program at a consistent premium price, competition is encouraged to match the price.

“They’re able to keep the re-

source price consistently high throughout the season,” Thomas said. “Our goal is to make sure that tribal fishers, not only Nisqually, take home livable wages. A good portion of the fishers rely on fishing as a single source of income for their families.”

The tribe also is operating a small processing plant to prepare salmon and seafood for wholesale and food retail sales. From there the fish are either sold to tribal casinos or directly to food service accounts.

The plant is part of the Affiliated Tribes of Northwest Indians’ Economic Development Project salmon marketing program.

Since its inception in 2010, the program has assisted more than 150 tribal fishermen and businesses. The program has generated an economic impact of more than \$1 million in new sales, increased revenues and higher premiums for tribal fishers’ catches.

Shellfish

Treaty tribes harvest native littleneck, manila and geoduck clams, Pacific oysters, Dungeness crab, shrimp and other shellfish throughout the coast and Puget Sound.

- In 2013, the tribe and state explored ways to improve management of underutilized species, including sea cucumbers, Olympia oysters and sea urchins.
- Tribes worked with property owners on harvest management of non-tribal tidelands, and increased tribal harvest of crab.
- Tribal shellfish enhancement results in higher and more consistent harvest that benefits both tribal and non-Indian diggers.

- Shellfish harvested in commercial fisheries are sold to licensed shellfish buyers who sell either to the public or to other distributors.
- Shellfish from ceremonial and subsistence fisheries are for tribal use only, and are a necessary part of their culture and traditional diet.
- Tribal shellfish programs manage harvest with other tribes and the state through resource-sharing agreements.
- In 2012, treaty tribes in western Washington commercially harvested more than 970,000 pounds of manila and littleneck clams; nearly 2 million pounds of geoduck clams; nearly 300,000 pounds of oysters; 7.6 million pounds of crab; 618,000 pounds of sea cucumbers and more than 185,000 pounds of shrimp.

Swinomish Seed Manila Clams for Subsistence

The Swinomish Tribe is developing a manila clam fishery on Lone Tree Point to support tribal subsistence needs.

“We’re using habitat we already have to increase opportunities for our tribal members to gather shellfish,” said Lorraine Loomis, fisheries manager for the tribe. “Shellfish always have been part of our traditional diet and culture.”

In 2011, shellfish biologist Julie Barber seeded five test plots totaling 1,000 square feet with good survival results. The following year, tribal members and staff seeded an entire acre of varied beach habitat north of the lone tree that gives the beach its name.

“This beach includes areas of desirable habitat such as sand and gravel, as well as areas of mud and fine silt, which is poor manila clam habitat,”

Barber said. “Because the tribe will not be enhancing the poor substrate with gravel, as many commercial growers do, we avoided seeding these areas.”

In 2013, tribal staff monitored survival and growth throughout the seeded area to determine how survival differs along the beach by location and elevation.

Manila clams are a staple of many tribal shellfish programs because they survive at higher elevations in the intertidal zone than native littleneck clams, and are found in a shallower depth, so they are easier to dig. They reach a harvestable size two or three years after planting.

So far, survival seems to be better on the southern part of the beach, so the tribe plans to concentrate its efforts there.



Swinomish Junior Princess Raven Edwards (*Tsi ya bus II*) eats manila clams during the tribe’s annual clam bake at Lone Tree Point.

Kari Neumeier

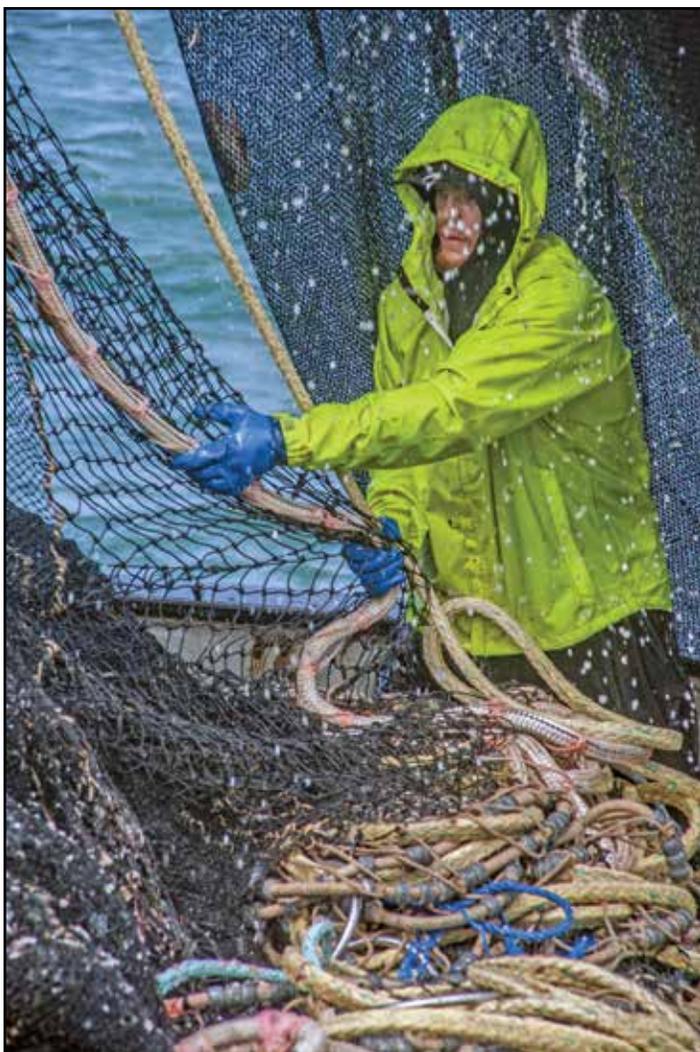
Harvest Management (continued)

Marine Fish

Treaty tribes are co-managers of the marine fish resource. They work closely with the state of Washington, federal agencies and in international forums to develop and implement species conservation plans for all groundfish stocks in Puget Sound and along the Pacific coast.

- The Pacific Fishery Management Council, which includes the tribal and state co-managers, regulates the catch of black cod, rockfish and other marine fish. Halibut are managed through the International Pacific Halibut Commission, established by the governments of the United States and Canada. Tribes are active participants in season-setting processes and the technical groups that serve those bodies.

- The state of Washington, Hoh Indian Tribe, Makah Tribe, Quileute Tribe and the Quinault Indian Nation are working with the National Oceanic and Atmospheric Administration to develop research goals that look at changing ocean conditions and managing ocean resources.
- The tribes and state support ocean monitoring and research leading to ecosystem-based management of fishery resources. In 2013, the Quinault Indian Nation developed a nearshore ocean-monitoring system that uses sensors in crab pots to gather water quality information.



Debbie Preston

Isaac Ellingson, Quinault Indian Nation fisherman, helps lay a purse seine on the deck of the *Catherine Kate* during a sardine fishery.

Quinault Fisherman Adds Sardines to Net

The Pixar film *Finding Nemo* may be fiction, but Quinault Indian Nation (QIN) fisherman Tim Haataia can verify that one scene is very real.

To free a net full of fish, *Nemo's* father exhorts the mass to swim downward, forcing fishermen to open the net to prevent sinking.

"They can totally sink your boat," Haataia said. "You have to be watching all the time – if the net is too tight and fish begin to die, you have to be ready to open the net and let them go."

Like most fishermen, Haataia found that having his 58-foot boat idle for any period longer than a couple of weeks made it more of a struggle to make ends meet, so he took up the challenge of the sardine fishery because it allowed him more fishing days.

A spotter plane helped fishermen locate the skittish schools of fish, with each fisherman paying a portion of the pilot's cost.

The first year, the fish were available a short distance off Westport. Last year, Haataia found the fish more dispersed than. He motored for hours to find sardines in the area where he could fish.

Sardines are caught using a purse seine deployed by a skiff to encircle the school of fish. The net is hauled in, closing the "purse" and trapping the fish. Fish are vacuumed from the net and deposited into the boat's hold.

The sardines he caught were 8 to 9 inches long and most were sold directly overseas to foreign markets.

Wildlife Management

The treaty Indian tribes are co-managers of wildlife resources in western Washington, which include species such as deer, elk, bear and mountain goats.

- Western Washington treaty tribal hunters account for a small portion of the total combined deer and elk harvest in the state. In the 2012-13 season, treaty tribal hunters harvested a reported 461 elk and 649 deer, while non-Indian hunters harvested a reported 9,162 elk and 33,914 deer.
- Tribal hunters do not hunt for sport, but for sustenance. Most do not hunt only for themselves. Tribal culture in western Washington is based on extended family relationships with hunters sharing game with several

families. Some tribes have designated hunters who harvest wildlife for tribal elders and others unable to hunt for themselves, as well as for ceremonial purposes.

- All tribes prohibit hunting for commercial purposes.
- As a sovereign government, each treaty tribe develops its own hunting regulations and ordinances for tribal members. Tribal hunters are licensed by their tribes and must obtain tags for animals they wish to hunt.
- Many tribes conduct hunter education programs aimed at teaching tribal youth safe hunting practices and the cultural importance of wildlife to the tribe.

Tribes Partner to Reduce Nuisance Elk Damage

The Stillaguamish and Tulalip Tribes collaborated with a dairy farm in Acme to put up an elk exclusion fence to minimize pasture damage.

“They have serious damage issues on some of their properties,” said Jennifer Sevigny, wildlife biologist for the Stillaguamish Tribe. “There appear to be a lot of elk spending the majority of the year in and around their farm. This is one way as co-managers we can help address the problem.”

Property owners and farmers in Whatcom and Skagit counties have complained that the recovering Nooksack elk herd destroys fences and devours crops.

“Obviously, the elk want the best feed source, and that’s usually our field,” said Galen Smith, who operates Coldstream Farm with his father-in-law, Jeff Rainey. “We like the elk, but we have to manage them.”

Smith and Rainey, along with tribal staff, put up a three-strand electric fence around the 35-acre pasture. A white ribbon is visible to elk, and reportedly,

once one elk gets shocked by the fence, the whole herd stays away.

“This is two days of work and costs about \$4,000,” said Mike Sevigny, wildlife manager for Tulalip. “If this solves the problem, it’s a pretty economical fix.”

As many as 120 elk at time have threatened Coldstream’s pasture. “There are 15 bull elk around here right now,” Smith said in August. “We haven’t been able to put the field into corn because of the elk grazing. If we can change the elk’s pattern with this fence, then we can have corn.”

The wildlife managers can monitor elk that have been fitted with global positioning system (GPS) collars to see how they react to the electric fence.

The tribes also plan to set up elk exclusion cages in a variety of agricultural areas to determine just how much the animals are eating. These cages will protect small portions of the pasture and will be compared to the surrounding area to measure elk forage.



Tulalip tribal technician Charlie Cortez helps install an elk exclusion fence at a dairy farm in Acme.

Kari Neumeier

Regional Collaborative Management

Ocean Ecosystem Management

The state of Washington, the Hoh, Makah and Quileute tribes and the Quinault Indian Nation work with the National Oceanic and Atmospheric Administration (NOAA) to integrate common research goals to understand changing ocean conditions and create the building blocks for managing these resources.

- In recognition of the challenges facing the Olympic coast ecosystem, the tribes and state of Washington established the Intergovernmental Policy Council (IPC) to guide management of Olympic Coast National Marine Sanctuary. Many of the research and planning goals established by tribes and the state mirror the recommendations of the U.S. Ocean Policy.
- Climate change and ocean acidification have been top priorities the past two years. Because of their unique vulnerability, coastal indigenous cultures are leaders in societal adaptation and mitigation in response to events driven by climate change. The tribes held a first-of-its-kind national First Stewards symposium in Washington, D.C., in 2012 to examine the

consequences of climate change on coastal indigenous communities throughout the United States and Pacific Islands. That effort spawned a nonprofit organization of the same name dedicated to tackling climate change in these communities. The tribes continue to work with the state of Washington and federal partners to respond to the findings of the state's blue ribbon panel on ocean acidification.

- Coastal tribes are participating with NOAA and the state of Washington to develop a coastal marine spatial plan for the outer coasts. This component would serve both an overall state plan encompassing waters from the lower Columbia River estuary to Puget Sound, as well as a larger federal regional coastal marine spatial plan for the West Coast.
- Coastal tribes engage with the White House's National Ocean Council and Council on Environmental Quality regarding implementation of the National Ocean Policy and developing joint goals and objectives on ocean governance.

Puget Sound Partnership

The Puget Sound Partnership (PSP) was created in 2007 to recover Puget Sound's health by 2020. Tribes are actively involved in leadership and participation in a wide range of projects to improve the health of Puget Sound.

- The 2012-13 Puget Sound Action Agenda emphasized three region-wide strategic initiatives: to prevent urban stormwater runoff pollution, protect and restore habitat, and recover shellfish beds.
- Progress is being made to remove armoring along the shores of Puget Sound to restore natural sediment transportation processes. A key project this year will be the restoration of more than 2,800 feet of shoreline habitat for salmon. Chinook in particular benefit from these projects.
- Treaty tribal representatives are active in partnership efforts to protect salmon habitat. One approach seeks improved habitat protection through review and improvements to current regulatory processes.

- The Tulalip Tribes, PSP, city, state and federal partners, and nonprofits began phase two of the Qwuloolt Estuary Restoration Project, one of the largest restoration projects in the state. It is designed to be a model of recovery in the midst of rapid growth and will benefit several species of fish.
- The Salish Sea Marine Survival Project was launched to investigate why marine survival rates for many stocks of chinook, coho and steelhead are less than one-tenth of what they were 30 years ago. The project is entering a five-year period of intensive research, after which the results will be converted into conclusions and management actions.

Fishers Focus of Cooperative Tracking Study

Olympic Peninsula treaty tribes are helping monitor fishers that have been reintroduced to Olympic National Park.

Starting this summer, and for the next several years, the Lower Elwha Klallam, Jamestown S’Klallam, Port Gamble S’Klallam, Skokomish, Makah and Quileute tribes will be collecting hair samples and photos of the small mammals.

Fishers are members of the weasel family, and historically were found throughout the western United States. During the 20th century, however, they were trapped and extirpated from the Olympic Peninsula.

In 1998, the state listed the fisher as an endangered species, resulting in a statewide restoration effort. Beginning in 2008, 90 fishers were relocated from British Columbia and reintroduced into Olympic National Park.

To monitor the success of the effort, biologists are luring fishers to stations deep within the park and the peninsula’s forests using raw chicken and skunk scent as bait. Motion-sensor cameras capture photos of the animals, while hair samples are snagged when a fisher crawls

into a tunnel-like box to eat the chicken.

“The hair snags provide genetic information and help show whether fishers are breeding, while the photographs provide additional information about the population,” said Kim Sager-Fradkin, Lower Elwha Klallam’s wildlife biologist.

The stations are set up for six weeks at a time and checked every two weeks before they are taken down and moved to another spot.

Agencies participating in this phase of the project include the National Park Service, U.S. Geological Survey, U.S. Forest Service, U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, the tribes and private landowners.

“Although we are just at the beginning of what is planned to be a four-year study, we are cautiously optimistic,” said Patti Happe, the national park’s wildlife biologist. “We have gotten pictures of fishers at four different stations, and are awaiting the results of the DNA analysis to determine if the fishers detected are one of the original 90, or their offspring.”



Olympic National Park

A fisher is recorded by wildlife cameras in Olympic National Park. Treaty tribes are partnering with the park and other agencies to monitor the small mammals that have been reintroduced to the park.

Forest Management

Two processes, the Timber/Fish/Wildlife (TFW) Agreement and the Forests and Fish Report (FFR), provide the framework for an adaptive management process that brings together tribes, state and federal agencies, environmental groups and private forest landowners to protect salmon, wildlife and other species while providing for the economic health of the timber industry.

- Treaty tribes in western Washington manage their forestlands to benefit people, fish, wildlife and water.

- Reforestation for future needs is part of maintaining healthy forests that are key to vibrant streams for salmon, and that enable wildlife to thrive.
- Forestlands are a source of treaty-protected foods, medicine and cultural items.
- A tribal representative serves on the state’s Forest Practices Board, which sets standards for activities such as timber harvests, road construction and forest chemical applications. Tribes also are active participants in the FFR Cooperative Monitoring, Evaluation and Research Committee (CMER).

Regional Collaborative Management (continued)

Tribal Environmental Protection and Water Resources Program

The Coordinated Tribal Water Quality Program was created by the Pacific Northwest tribes and the federal Environmental Protection Agency (EPA) to address water quality issues under the Clean Water Act.

- EPA's General Assistance Program (GAP) was established in 1992 to improve capacity for environmental protection programs for all tribes in the country. Many tribes are now participating in the pilot "Beyond GAP" project to build on the investments of the last 20 years by creating environmental implementation programs locally while supporting national environmental protection objectives.

- These programs are essential to combat the threats to tribal treaty resources such as declining water quality and quantity. In western Washington, climate change and urban development negatively affect water resources and aquatic ecosystems and will get worse with a state population expected to rise by 1 million in the next 20 years.
- Tribal water quality resource program goals include establishing instream flows to sustain harvestable populations of salmon, identifying limiting factors for salmon recovery, protecting existing groundwater and surface water supplies, and participating in multi-agency planning processes for water quantity and quality management.

Across Puget Sound, Tribes Test for Toxins



Emmett O'Connell

Nisqually Tribe natural resources technician Jimsan Dunstan samples water at Johnson Point in Olympia.

The Jamestown S'Klallam, Nisqually and Stillaguamish tribes are participating in the SoundToxins monitoring program to provide early warning of harmful algal blooms (HAB) and outbreaks of bacteria that could sicken humans.

SoundToxins is managed by the National Oceanic and Atmospheric Administration's Northwest Science Center, Washington Sea Grant and the Washington Department of Health.

"We want to make sure shellfish are safe to consume, not just for tribal members, but for all seafood consumers," said Sue Shotwell, shellfish farm manager for the Nisqually Tribe.

During the shellfish growing season from March to October, tribal natural resources staff sample seawater weekly at designated sites. Additional sites across Puget Sound are monitored for toxin-producing algae by various citizen beach watchers, shellfish farmers, educational institutions and state government agencies. The monitoring results are posted

in an online database.

The SoundToxins program helps narrow down the places where shellfish should be sampled for toxins, which is more expensive and time-consuming than testing the water.

"Just because we find algae that produce toxins doesn't necessarily mean there are toxins in the seafood, but it could mean there will be soon," said Stillaguamish marine and shellfish biologist Franchesca Perez. "If high numbers of an HAB species are found, then a sample of the water is sent to SoundToxins for further analysis, and appropriate parties are contacted to protect consumers and growers."

"The SoundToxins program aims to provide sufficient warning of HAB and *Vibrio* events to enable early or selective harvesting of seafood, thereby minimizing risks to human health and reducing economic losses to Puget Sound fisheries," said SoundToxins program director Vera Trainer of NOAA's Northwest Fisheries Science Center.

NWIFC Functions, Programs and Activities



Debbie Preston

A Quinault canoe approaches shore during the 2013 Tribal Canoe Journey.

The Northwest Indian Fisheries Commission was created in 1974 by the 20 treaty Indian tribes in western Washington that were parties to the *U.S. v. Washington* litigation that affirmed their treaty-reserved salmon harvest rights and established the tribes as natural resources co-managers with the state.

The NWIFC is an inter-tribal organization that assists member tribes with their natural resources co-management responsibilities. Member tribes select commissioners who develop policy and provide direction for the organization. The commission employs about 70 full-time employees and is headquartered in Olympia, Wash., with satellite offices in Forks, Kingston and Burlington.

The NWIFC provides broad policy coordination as well as high-quality technical and support services for its member tribes in their efforts to co-manage the natural resources of western Washington. The NWIFC serves as a clearinghouse for information on natural resources management issues important to member tribes. The commission also acts as a forum for tribes to address issues of shared concern, and enables the tribes to speak with a unified voice.

For the past three years the NWIFC has coordinated the tribal Treaty Rights at Risk Initiative that seeks to encourage the federal government to align its agencies and programs with salmon recovery goals and to lead a more coordinated salmon recovery effort. Tribes are calling on the federal government for assistance because it has both the obligation and authority to recover salmon and protect tribal treaty rights.

Habitat Services

- Coordinate policy and technical discussion between tribes and federal, state and local governments, and other interested parties.
- Coordinate, represent and monitor tribal interests in the Timber/Fish/Wildlife Forests and Fish Report process, Coordinated Tribal Water Resources and Ambient Monitoring programs. Analyze and distribute technical information on habitat-related forums, programs and processes.
- Implement the Salmon and Steelhead Habitat Inventory and Assessment Project.

U.S./Canada

Pacific Salmon Treaty

- Facilitate inter-tribal and inter-agency meetings, develop issue papers and negotiation options.
- Inform tribes and policy representatives about issues affected by the treaty implementation process.
- Serve on the pink, chum, coho, chinook, Fraser sockeye and data-sharing technical committees, as well as other work groups and panels.
- Coordinate tribal research and data-gathering activities associated with implementation of the Pacific Salmon Committee.

Quantitative Services

- Administer and coordinate the Treaty Indian Catch Monitoring Program.
- Provide statistical consulting services.
- Conduct data analysis of fisheries studies and developing study designs.
- Update and evaluate fishery management statistical models and databases.

Fisheries Management

- Long-range planning, wild salmon recovery efforts and federal Endangered Species Act implementation.
- Annual fisheries planning: developing pre-season agreements; pre-season and in-season run size forecasts; monitoring; and post-season fishery analysis and reporting.
- Marine fish management planning.
- Shellfish management planning.

Enhancement Services

- Coordinate coded-wire tagging of more than 4 million fish at tribal hatcheries to provide information critical to fisheries management.
- Analyze coded-wire data.
- Provide genetic, ecological and statistical consulting for tribal hatchery programs.
- Provide fish health services to tribal hatcheries in the areas of juvenile fish health monitoring, disease diagnosis, adult health inspection and vaccine production.

Information and Education Services

- Provide internal and external communication services to member tribes and NWIFC.
- Develop and distribute communication products such as news releases, newsletters, videos, photos and web-based content.
- Respond to public requests for information about the tribes and their tribal natural resources management activities.
- Work with state agencies, environmental organizations and others in cooperative communication efforts.



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