

# COMPREHENSIVE TRIBAL NATURAL RESOURCES MANAGEMENT 2009



AN ANNUAL REPORT FROM  
THE TREATY INDIAN TRIBES IN WESTERN WASHINGTON

# MEMBER TRIBES OF THE NORTHWEST INDIAN FISHERIES COMMISSION



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On the cover: The West Shore Canoe Family of Lummi Nation paddles during the annual Tribal Canoe Journey in July 2008.  
NWIFC: K. Neumeier. Map: NWIFC: R. McFarlane

# INTRODUCTION

The treaty Indian tribes in western Washington are leaders in the management of the region's natural resources. Our sovereignty, treaty rights, strong leadership and thousands of years of traditional knowledge make us unique in our ability to effectively address natural resources issues.

Operating from a strong foundation of cooperation, for many years we have been seeking consensus and finding success in resolving natural resources challenges throughout the region.

Treaty tribes in western Washington are Hoh, Jamestown S'Klallam, Lower Elwha Klallam, Lummi Nation, Makah, Muckleshoot, Nisqually, Nooksack, Port Gamble S'Klallam, Puyallup, Quileute, Quinault Indian Nation, Sauk-Suiattle, Skokomish, Squaxin Island, Stillaguamish, Suquamish, Swinomish, Tulalip and Upper Skagit.

We created the Northwest Indian Fisheries Commission (NWIFC) following the 1974 ruling in *U.S. v. Washington* (Boldt Decision) that reaffirmed our treaty-reserved rights to salmon, wildlife, shellfish and other resources and established us as natural resources co-managers with the state of Washington.

The NWIFC is a support service organization that provides direct assistance to member tribes, ranging from fish health programs to data modeling. The NWIFC also provides a forum where tribes can address issues of mutual concern, and functions as an information clearinghouse and coordinating body for the tribes.

Our work and the solutions we develop happen on the ground in local watersheds. We always have lived in these watersheds and always will. Our steady leadership presence in the region helps create local solutions for tough natural resources management issues.

We work with our neighbors to develop consensus-based solutions. We are guided by our belief that we must act in the best interests of those who will follow seven generations from now.

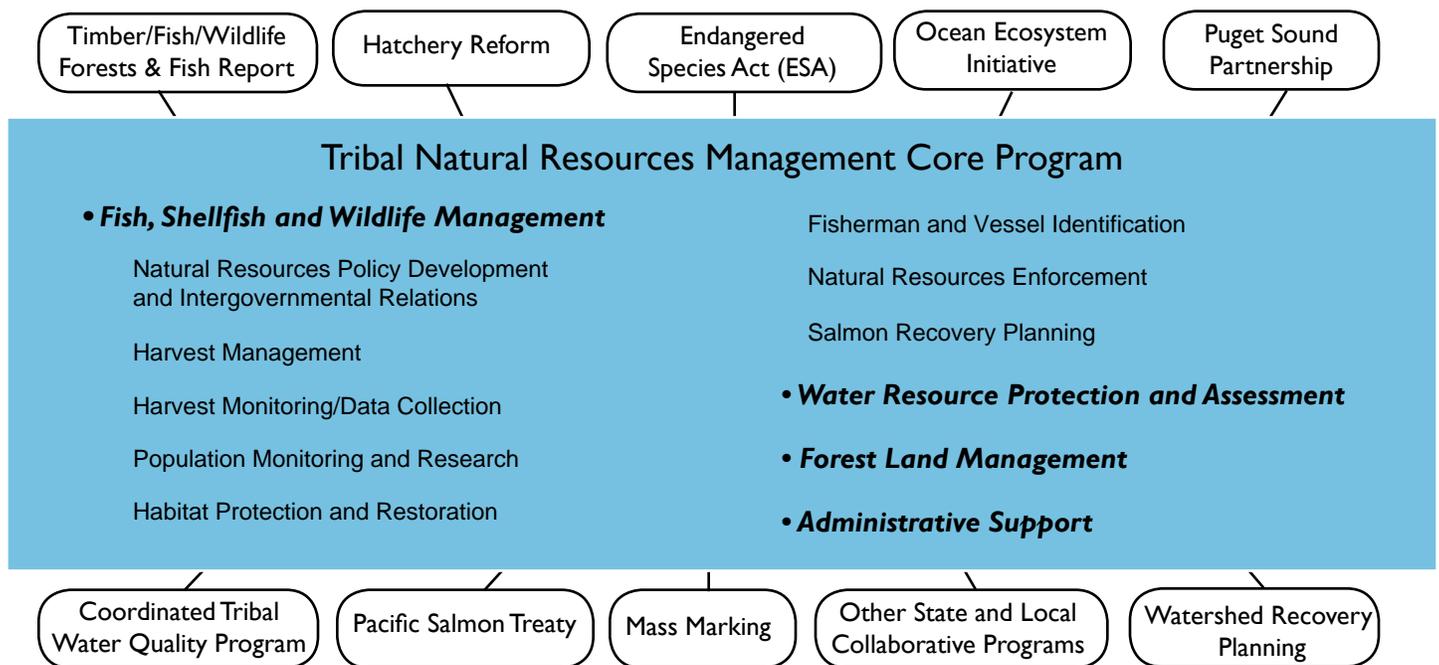
Among all natural resources managers, treaty tribes in western Washington are able to help craft solutions that are legally, politically and technically feasible.

We bring:

- ◆ A culture of stewardship and thousands of years of traditional knowledge, combined with a steady management presence aimed at improving overall ecological health.
- ◆ The legal clout of sovereignty and treaty rights that benefit not only the tribes, but all citizens of the Pacific Northwest.
- ◆ Strong technical knowledge and capabilities to improve management through monitoring and evaluation.
- ◆ A commitment to cooperation in managing the region's natural resources.

This report provides a broad outline of tribal natural resources management activities in Fiscal Year 2008. More information is available at [www.nwifc.org](http://www.nwifc.org), including links to Web sites of member tribes.

## Tribal Natural Resources Management Core Program and Collaborative Initiatives



# TRIBAL COOPERATIVE MANAGEMENT



(From left to right) David Troutt, natural resources director for the Nisqually Tribe, Rep. Norm Dicks (D-Belfair), and David Dicks, executive director of the Puget Sound Partnership, listen to a presentation by Jean Takekawa, manager of the Nisqually Wildlife Refuge, about the refuge's estuary restoration efforts. *NWIFC: E. O'Connell*

## Introduction

Cooperation has been the keystone of natural resources management in Washington since the early 1980s, when the treaty Indian tribes and state of Washington, as co-managers, chose cooperation over litigation to resolve their differences.

Since then, a spirit of cooperation has flourished and manifested itself into a series of collaborative conservation processes that are effectively guiding natural resources management in western Washington.

This management philosophy achieves an economy of scale that enables efficient and effective use of limited funding. Examples include the Puget Sound Partnership, Ocean Ecosystem Management Initiative, Timber/Fish/Wildlife Agreement and Coordinated Tribal Water Resources Program. All of these processes complement and inform fundamental tribal co-management programs for salmon, shellfish and wildlife.

The tribes know that cooperation is the only way everyone will be able to meet the many challenges ahead, such as declining salmon runs, global warming and the need for developing sustainable energy sources.

# PUGET SOUND PARTNERSHIP

Puget Sound is sick. Wild salmon stocks have declined steadily, largely due to loss and degradation of spawning and rearing habitat. Thousands of acres of commercial shellfish beds are closed because of pollution. The great inland sea that defines western Washington has been recognized as a National Estuary of Concern by the U.S. Environmental Protection Agency (EPA) and requires a major effort to restore its ecosystem.

Washington Gov. Chris Gregoire has enlisted high-level leaders in the Puget Sound Partnership, an effort to recover Puget Sound's health by 2020. Treaty tribes in western Washington have taken a leadership role in this effort along with other ongoing natural resources management responsibilities.

The tribes have a high standard for the recovery of Puget Sound – they want to clean it up enough so they can eat fish and shellfish every day.

## *Evolution of the Partnership*

In 2007, Puget Sound steelhead were listed as “threatened” under the federal Endangered Species Act (ESA), joining three other western Washington salmon stocks – Puget Sound chinook, Hood Canal/Eastern Strait of Juan de Fuca summer chum and Lake Ozette sockeye.

When chinook and summer chum were listed in 1999, salmon leaders created the Shared Strategy for Puget Sound Salmon Recovery, a bottom-up collaborative approach to wild salmon recovery that linked ongoing initiatives at the tribal, local, state and federal levels. The effort was led by former EPA administrator Bill Ruckelshaus and Northwest Indian Fisheries Commission Chairman Billy Frank Jr.

After nearly six years of intense work, a recovery plan that meets ESA requirements for Puget Sound chinook and Hood Canal summer chum was delivered to the National Oceanic and Atmospheric Administration's fisheries department (NOAA Fisheries), the federal agency charged with implementing the ESA. The endorsement and participation of NOAA Fisheries in the Shared Strategy process was critical to the success of the plan that is now being implemented. The plan addresses all the factors for the decline of chinook in Puget Sound. The 10-year trajectory for recovery of Puget Sound chinook integrates harvest, hatcheries and habitat in a plan that considers the needs of both people and fish.

The regional policy committee that guided development of the recovery plan has further expanded its membership and is now known as the Puget Sound Salmon Recovery Council. The group includes representatives from each of the 14 watersheds in Puget Sound, as well as representatives from tribal, local, state and federal governments, environmental groups and business interests.



A canoe approaches the shore during the annual Tribal Canoe Journey in August 2007. NWIFC: K. Neumeyer

The success of the Shared Strategy and its inclusive approach to addressing natural resources management challenges led Gov. Gregoire in 2005 to create the public/private Puget Sound Partnership. In 2007, the Partnership became a state agency.

Billy Frank Jr. and Bill Ruckelshaus were selected to co-chair development of the Partnership and now serve on the Partnership's Leadership Council. The Leadership Council is the governing body of the Puget Sound Partnership. Its seven members are leading citizens chosen from around the sound and appointed by the governor.

## *Developing a Plan*

In 2008, the Partnership adopted an Action Agenda to chart the course for Puget Sound restoration and protection efforts for years to come. Tribal participation was vital to the development of this agenda.

Tribes always have had a presence in every major watershed in what is now the state of Washington. They have thousands of years of experience in the region, and a vested interest in the health of Puget Sound's natural resources.

As co-managers with the state of the region's natural resources, the tribes co-authored the Puget Sound Chinook Salmon Recovery Plan, which is being implemented through the Puget Sound Partnership. Their involvement in the Partnership is crucial to ensure the success of these salmon recovery efforts.

For efficiency, and because the Puget Sound Partnership leaders are the same leaders of the Shared Strategy effort, the recovery of chinook and summer chum in Puget Sound is being implemented through the Partnership and incorporated in its Action Agenda.

The Action Agenda provides critical data and a strategy for tackling threats to waters in and around Puget Sound.

Its goals are to:

- ◆ Protect the last remaining intact places.
- ◆ Restore damaged and polluted sites.
- ◆ Stop water pollution at its source.
- ◆ Coordinate all protection, restoration and cleanup efforts.

The Action Agenda provides strong science and policy guidance that offers the best chance to fix the health of Puget Sound. Tribes play an important role by bringing together watershed

decision-makers to resolve tough natural resources issues, and ensuring the salmon recovery components are implemented.

The Action Agenda addresses four key questions:

1. What is a healthy Puget Sound?
2. What is the current status of Puget Sound and what are the biggest threats to it?
3. What actions must be taken to move from where we are today to a healthy Puget Sound by 2020?
4. Where do we start?

“The goals for Puget Sound cleanup are pretty simple. I want families to be able to swim in it, fish in it and dig shellfish from its beaches,” Gregoire said.

“We couldn’t agree more,” said NWIFC Chairman Frank. “The only way we’re going to get there is by working together.”

## Puget Sound Partnership Case Study

# Canoe Journey Helps Collect Water Quality Data

As the Swinomish canoe family paddled through the San Juan Islands to Cowichan, B.C., for the 2008 Tribal Canoe Journey, they collected important water quality data along the way. Information such as temperature, salinity, oxygen levels and turbidity was measured at 10-second intervals from a water quality probe towed behind the canoe. The data was posted online at the end of each day on the U.S. Geological Survey’s (USGS) Web site ([www.usgs.gov/coastsalish](http://www.usgs.gov/coastsalish)).

The Canoe Journey provided a unique opportunity for research, because water quality data collected from a canoe isn’t tainted by exhaust or turbulence from a motorized boat. Last summer, canoes towed water quality probes along the routes beginning at Swinomish, Squaxin Island and Skokomish, as well as the Sto:lo and Homalco first nations in British Columbia. Puget Sound and the Strait of Georgia – a region known traditionally

as the Salish Sea – suffers from deteriorating water quality that threatens most nearshore and marine habitats.

“You just look around and see that everything has degraded,” said Swinomish Chairman Brian Cladoosby. “Our goal is to try to make the Salish Sea something that our children, grandchildren and seven generations down the way will be proud of – something we will leave in better shape than we received it.”

The data collected in 2008 provides a baseline map to compare with data collected during future Tribal Canoe Journeys, and could reveal areas of concern for scientists to study more closely, said USGS research geologist Eric Grossman, who provided technical assistance during the journey.

Based on the preliminary data, Grossman noticed an unusually warm water temperature of 71 degrees in Hood Canal, along with more jellyfish than other areas. “Jellyfish can be in-



USGS research geologist Eric Grossman tests a water quality probe to be towed by the Swinomish Tribe’s canoe during the Tribal Canoe Journey.

*USGS: John Clemens*

dicative of poor water quality,” he said. “They can be the last ones to thrive in poor water quality conditions.”

# OCEAN ECOSYSTEM INITIATIVE



A Quileute tribal fisherman motors back toward his net at sunset near the mouth of the Quillayute River. *NWIFC: D. Preston*

The marine environment off the Olympic Peninsula is among the most pristine in the United States. These waters are important habitat for a wide variety of fish, shellfish, seabirds and marine mammals. The region supports important fishery resources, including several salmon species, groundfish and shellfish. Marine resources form an economic base for the coastal communities in this area. The region and its marine resources face growing pressures from fishing, tourism, shipping, invasive species and climate change.

Coastal treaty Indian tribes always have relied on the ocean's resources. Species such as salmon, groundfish, whales and crab are central to tribal cultures. The treaty Indian tribes believe that these and all natural resources are connected and that only a holistic ecosystem management approach can ultimately be successful in meeting the needs of those resources and the people who depend upon them.

As co-managers of the natural resources along the Washington coast, tribes must deal with an increasing number of environmental challenges. Among those is the death of thousands of bottom-dwelling fish and Dungeness crab caused by extremely low oxygen levels in waters off the Washington and Oregon coasts each summer.

The need for an ecosystem-based approach to address fisheries management and environmental issues in Washington coastal waters has come into sharp focus in recent years, fueled in large part by major studies conducted by the U.S. Commission on Ocean Policy and the Pew Charitable Trusts.

To address serious declines in water quality, losses of species and habitats, and a host of other problems plaguing coastal waters, the U.S. Commission on Ocean Policy in 2004 delivered recommendations for a coordinated and comprehensive national ocean policy to the president and Congress. The Com-

mission's final report, "An Ocean Blueprint for the 21st Century," contains 212 recommendations addressing all aspects of ocean and coastal policy.

Among those recommendations were:

- ◆ Restructure U.S. ocean governance, including establishing a National Ocean Council within the Executive Office of the president.
- ◆ Strengthen the National Oceanic and Atmospheric Administration (NOAA).
- ◆ Increase spending on marine research and education.

To support a transition to ecosystem-based management of fisheries resources, the state of Washington, the Hoh Indian Tribe, the Makah Tribe, the Quileute Tribe and the Quinalt Indian Nation have launched a five-year ocean monitoring and research initiative called the Ocean Ecosystem Initiative.

This initiative will expand on and collaborate with existing physical and biological databases and support the ongoing efforts of the tribes and state to manage coastal fisheries resources.

Effective conservation actions for rockfish and other groundfish species will depend on accurate knowledge and distribution of the seafloor habitat types and associated species. The establishment of a finer-scale biological database is an essential step toward improving the region's forecasting capability of stock status and abundance as well as overall ecosystem health.

The Ocean Ecosystem Initiative will provide the opportunity for a better understanding of ocean climate interactions within the region and the effects on the region's fishery resources. The current groundfish stock assessment approach does not allow resource managers to make accurate connections between oceanographic conditions and changes in local stock populations.

The effort also aids the implementation of the strategies outlined in the U.S. Commission's Ocean Plan.

## *Habitat Mapping*

The Ocean Ecosystem Initiative also calls for sonar mapping and surveying of the seabed off the Olympic coast.

Less than 25 percent of this region's seabed has been mapped and surveyed to catalog species and habitat types. Acquiring this data is essential to effectively address groundfish conservation concerns and minimize potential fishery interactions with deep-water coral and sponge species.

Tribes and state resources agencies propose addressing these issues by collaborating on a research plan with the Olympic Coast Marine Sanctuary to assist in completing sonar mapping of the seafloor. This is a necessary first step to determine

the abundance and distribution of essential groundfish habitat, as well as identify potential locations of deep-water coral and sponge communities.

Data gathered from these surveys would be compiled in a Geographic Information System database to allow access by all resources managers. In addition, raw data could be processed to produce maps indicating seabed geology, geological hazards and other attributes.

Recent oceanographic survey cruises have expanded the knowledge of the extent and varieties of deep-water corals, sponges and ocean vents off Washington's coast. Still, resources managers lack a complete picture of the status and abundance of these seafloor habitats. The seafloor survey work and database is essential to manage resources quantitatively and comprehensively – as an ecosystem. The initiative would enable state and tribal agencies to address emerging ecosystem management concerns.

## Rockfish Assessment

Tribes plan to conduct a comprehensive stock assessment of rockfish resources along the continental shelf and slope off the Olympic coast. To complement this effort, tribes also want to enhance existing groundfish port sampling.

Tribal and state assessment surveys will focus on areas not sampled by NOAA's Northwest Science Center trawl surveys because of seafloor conditions. A state, tribal and federal technical workgroup will convene to develop the sampling plan and assessment approaches necessary to incorporate this additional survey information into the biennial stock assessment and forecasting process.

## Intergovernmental Policy Council

The Hoh Tribe, Makah Tribe, Quileute Tribe, Quinault Indian Nation and the state of Washington established the Intergovernmental Policy Council to provide a regional forum and develop recommendations for the management of coastal resources in the Olympic Coast National Marine Sanctuary.

The state and coastal treaty tribes will work with the sanctuary program on a five-year management plan review for the outer coast national marine sanctuary. Work will focus on evolving on developing management objectives in six priority areas: improving partnerships; characterization and monitoring; spill prevention, contingency planning and response; climate change; ocean literacy; and marine debris.

## Ocean Management Case Study

# Oil Spill Recovery Training Vital for Tribes

Immediate action after an oil spill is critical to the effort to protect the most sensitive areas of shoreline on the Olympic coast.

That's why coastal tribes, in partnership with state and federal governments and private industry, continue to position equipment and train tribal staff members as oil spill first responders.

"There is a lot of ship traffic out there. We have 26 miles of rugged coastline and many cultural resources such as razor clams that could be lost if a spill does happen," said Justine James, Timber/Fish/Wildlife biologist for the Quinault Indian Nation (QIN).

James completed the 24-hour Hazardous Waste Operations and Emergency Response Standard training with 11 other QIN staff and community members in February 2008. James is also the cultural resources contact for agencies responding to a spill on QIN lands. "They tell us it's going to be 12 to 16 hours before any of the other trained responders and equipment can get out here, so we need as many people trained to respond as possible," she said.



Makah tribal member Brandon Moss helps retrieve an oil boom from the Wa'atch River in Neah Bay during an oil spill drill.

NWIFC: D. Preston

During the three-day course, participants received first responder training and an understanding of various spill response strategies. Tribal members from the Hoh, Makah and Quileute tribes also completed the course. Each tribe has a first-response oil spill equipment trailer provided by the Department of Ecology.

Meanwhile, the Makah Tribe has worked hard to get as much mechanical oil spill response equipment stationed in Neah Bay as possible, following spills of more than 3 million gallons in their waters. Natural resources such as fish, marine mammals and other cultural resources have been devastated.

Most recently, the tribe was appointed as a member to the Regional Response Team (RRT), one of 13 such teams that make up the National Response Team. They are the first tribe on the West Coast to be appointed to an RRT. By working to understand the structure of spill response and becoming active in the state, U.S. Coast Guard and Environmental Protection Agency processes, the tribe has become a leader in protecting its own resources.

# TIMBER/FISH/WILDLIFE



Skyley Foster, Quileute fisheries technician, sprays herbicide on invasive knotweed along the Dickey River. The tribe has committed to a multi-year effort to rid the streamside areas of the Quillayute River system of knotweed, which replaces trees important to fish habitat.

*NWIFC: D. Preston*

The Timber/Fish/Wildlife (TFW) Agreement of 1987 is a national success story that has provided a 21-year legacy of collaborative conservation. TFW brings together tribes, state and federal agencies, environmental groups and private forest landowners in a process that ensures protection for salmon, wildlife and other species while also providing for the economic health of the timber industry.

More than two decades ago, treaty tribes and other stakeholders in Washington's forest resources agreed to find common ground for responsible natural resources management instead of waging costly and lengthy battles in the courts to resolve their differences. The result was the unprecedented TFW Agreement. Since then, the tribes and tribal organizations in Washington state have participated in the TFW Agreement, along with the timber industry, state government and the environmental community.

The success of TFW is built on open participation, commitment, development of trust, and partnerships. This has been accomplished through cooperation on a scale never before seen in natural resources management. TFW provides a win-win process, promoting an understanding of the forest-based economy while also protecting the environment and natural resources on which everyone depends.

The timber industry's long-range goals of economic stability and regulatory certainty are shared by the tribes, who view the industry as a long-term partner in forest management. Through TFW, the timber industry has recognized its impact on water quality, fish and wildlife habitat and other resources on which the tribes rely for their economic, cultural and spiritual survival.

This coordinated approach of multi-governments, agencies, industry and the public has provided greater integration of responsibilities and management authorities, which also has resulted in more efficient use of limited financial and professional resources by all participants. Furthermore, the strategic locations occupied by the tribes in each watershed, along with federal trust obligations to treaty tribes, consolidates federal regulatory requirements to enable effective management of federal forest and habitat protection.

## Goals in Common

TFW matches the collective experience and expertise of participants in a consensus decision-making process. The TFW agreement is not written in stone. Foremost, it is an organic process that yields to a changing environment. Participants encourage evaluation and modification of the agreement to protect natural resources and improve forest practices. Experience will determine if the needs of the parties are being met. This is the Adaptive Management system, which evokes solutions that are politically, legally and technically feasible.

All parties embrace the following five goals:

- ◆ Provide the greatest diversity of species and habitat for wildlife on forestlands.
- ◆ Provide long-term protection of habitat productivity for wild fish stocks.
- ◆ Protect the water quality needs of people, fish and wildlife.
- ◆ Inventory, evaluate, preserve, protect and ensure tribal access to traditional cultural and archaeological places in forestlands.
- ◆ Assure sustainable growth and development of the state's forest products industry.

"We want our farmers to keep farming. We want the timber industry to keep growing trees," said Billy Frank Jr., chair of the Northwest Indian Fisheries Commission. "We all want to be good neighbors and do the right thing."

## TFW Process and Structure

TFW begins with information from the scientists, fisheries managers and foresters on the front lines of the forest floor. Committees then incorporate that information into the decision-making process.

All committees at the policy and technical level work toward consensus decisions. They may also agree to disagree. Some issues require research and monitoring or further discussions, but this does not stall the process. Decision-makers are held accountable to ensure protection of natural resources. Once a recommendation is made, it moves up the TFW organizational

structure for adoption as a policy or regulation. These decisions are made with an eye toward a long-range plan that stabilizes both the timber industry and natural resources.

Adaptive management is an approach that views natural resources management as experimental. Its premise is that scientific knowledge and experience gained by agreed-upon monitoring and evaluation will lead to more responsive natural resources management. Through adaptive management, TFW participants are allowed flexibility to test or change methods instead of operating under a rigid set of regulations that can only be challenged successfully through litigation.

All TFW participants coordinate through two primary committees:

- ◆ The Policy Group is composed of directors of state agencies and policy representatives from federal and tribal governments, landowners and the environmental groups. The Policy Group also acts as the TFW Board of Directors.
- ◆ The Administrative Committee coordinates and implements the TFW Agreement. It provides day-to-day management and serves as the TFW Executive Committee.

Under the Administrative Committee are the technical committees, which include:

- ◆ The Cooperative Monitoring, Evaluation and Research Committee (CMER). CMER was established to answer ongoing scientific questions. CMER is the technical arm of TFW. Among many projects this year, tribal and state CMER staff advanced a project looking at hillsides and their vulnerability to landslides after a catastrophic slide in the Chehalis River system.
- ◆ The Cultural/Archaeological Committee helps develop a system to protect cultural/archaeological resources under the TFW Agreement.
- ◆ The Field Implementation Committee facilitates the implementation of the TFW Agreement, the Forest Practices Act and regulations at the regional and field levels.
- ◆ The Northwest Indian Fisheries Commission (NWIFC) acts as a central clearinghouse and facilitator for member tribes.

A variety of factors – including the listings of several western Washington salmon stocks under the Endangered Species Act (ESA), ongoing statewide water quality degradation and concern over the continued economic viability of the timber industry – brought TFW participants together in November 1996 to develop joint solutions to these problems. The result was a plan to update forest practice rules called the Forests and Fish Report (FFR), which was completed in April 1999, and later adopted by the Washington State Legislature.

The FFR is based on four goals:

- ◆ To provide compliance with the ESA for aquatic and riparian-dependent species on non-federal forestlands.
- ◆ To restore and maintain riparian habitat on non-federal forestlands to support a harvestable supply of fish.
- ◆ To meet the requirements of the federal Clean Water Act for water quality on non-federal forestlands.
- ◆ To maintain the economic viability of the timber industry in the state of Washington.

## *Tribal Implementation of TFW/FFR*

While there is not consensus among tribes on the entire Forests and Fish Report, there is consensus that the Adaptive Management Program component is critical to its success. Adaptive Management allows participants to constantly gauge the effectiveness of management practices and determine if changes are needed.

Tribal participation is a critical component of TFW and FFR implementation. The tribes offer a centuries-old tradition of resource stewardship, practice state-of-the-art technological innovation and are strategically located to respond to critical management needs in local watersheds.

For the tribes, the primary factor in the success of TFW has always been the cooperative decision-making process. This consensus-based approach has empowered the tribes and acknowledged their management authority regarding forest practices management. As they have throughout the TFW process, participating tribes are utilizing the NWIFC for necessary technical expertise and to coordinate their work effectively and collaboratively.

Tribal involvement with the implementation of the FFR has evolved with the availability of federal funds to support those efforts. A tribal base program for evaluation of forest management impacts on treaty-protected resources is furthering the development of tribal capacity in the areas of silviculture, geology and hydrology to complement their fisheries expertise. Additionally, tribal programs require coordination, information management and access to technical expertise to support tribal efforts as co-managers.

The tribes are continuing to evaluate the forest management guidelines set forth in the FFR for adequacy in meeting tribal salmon recovery goals. They are developing a coordinated tribal response to improve both the content and application of the FFR in watersheds throughout the state of Washington as a tool aimed at responding to ESA listings within the forested landscape.

## Timber/Fish/Wildlife Case Study

# Storm Blowdown Tests Timber/Fish/Wildlife Rules

Timberlands about half the size of Washington, D.C. were flattened by the December 2007 storm that packed winds of more than 147 mph along the southwestern coast of the state.

The estimated 17,000 acres of blown down timber on state and private timberlands rigorously tested the forest practice regulations developed within the Timber/Fish/Wildlife (TFW) program.

Through TFW and its evolution – the 1999 Forests and Fish Report – state, federal, tribal and environmental representatives and the timber industry aim to protect fish and wildlife habitat while providing for the economic health of the timber industry.

“We didn’t want to make some sort of blanket exception to go in and harvest it all just because it was such an unusual event,” said

Mark Mobbs, manager of the Department of Environmental Protection for the Quinault Indian Nation (QIN).

“We’re using the process outlined in the forest practice regulations,” Mobbs added. “We will have to make a lot of individual site visits because the wind treated each area differently.”

Roughly 600-800 million board feet of lumber was expected to be salvaged from the blowdown. That’s about 20 percent of the annual timber harvest for Washington state. Two-thirds of the salvage was to be on private timberlands.

Under normal conditions, a buffer of trees is left along fish-bearing streams. Timber harvest is rarely allowed close to the stream, but because the storm flattened many of these areas, TFW partners had to decide where and how much



Joel Green (left), TFW biologist for the Quinault Indian Nation, and representatives from state and federal agencies survey blowdown damage from a December 2007 storm in Grays Harbor.

NWIFC: D. Preston

can be salvaged. Downed timber provides important habitat near streams.

“Trees that fall into the stream create pools and backwater areas for fish to rest and hide, and trees that fall on the forest floor provide habitat for amphibians and small mammals,” said Joel Green, TFW fisheries biologist for QIN. “Downed trees also help prevent bank erosion, and provide nutrients for the forest floor and the nearby stream as they decay.”

Also discussed was whether to allow more salvage to make it easier to plant new trees. “We have to balance the long-term benefits of planting the new trees versus the importance of the downed timber already there,” Green said.



Joe Garrick Jr., left, and Dean Jackson, fisheries technicians for the Quileute Tribe, record the temperature of Beaver Creek near its headwaters off state Highway 113 northeast of Forks.

*NWIFC: D. Preston*

# COORDINATED TRIBAL WATER RESOURCES PROGRAM

The treaty Indian tribes in western Washington partnered with the federal Environmental Protection Agency (EPA) 17 years ago to create and implement a nationwide model of cooperation and creativity in addressing water quality issues under the Clean Water Act.

Building on the success of that initiative, these same tribes have embarked on a new partnership with the U.S. Geological Survey (USGS) to expand the Coordinated Tribal Water Quality Program into a Coordinated Tribal Water Resources Program.

While much has been accomplished in the area of water quality, the treaty Indian tribes and the Northwest Indian Fisheries Commission (NWIFC) have identified the need for a comprehensive assessment of water resources in western Washington as the basis for better management of those resources.

In western Washington, climatic changes and urban development are having profound effects on water resources and aquatic ecosystems. This situation will worsen with an expected doubling of the population in the Puget Sound region during the next 20 years.

Judicious management of water resources and protection of tribal rights requires information about the quantity and quality of water available in western Washington. The assessment will produce scientific information on water resources that could be used to support a variety of tribal water resources management, administrative and legal activities, including:

- ◆ Establishing instream flows to sustain viable and harvestable populations of fish.
- ◆ Identifying limiting factors for salmon recovery.
- ◆ Protecting existing ground and surface water supplies.
- ◆ Reviewing and evaluating administrative decisions, such as proposed water permits and instream flows, and project proposals on- and off-reservation.
- ◆ Participating in federal, state and local planning processes for water quantity and water quality management.

## *USGS Partnership*

The treaty Indian tribes in western Washington have partnered with USGS to develop a cooperative scientific framework for a comprehensive assessment of water resources in western Washington. The assessment will support tribal water resources management by evaluating water availability, out-of-stream uses of water by tribal and non-tribal parties, and water requirements for ecosystems in western Washington.

As a federal agency within the Interior Department, USGS has a trust responsibility to tribal governments. It also is the pre-eminent authority among governments for water resources, providing valuable expertise, oversight and guidance to the tribal effort.

Since the 19th century, water resources in western Washington have been the subject of extensive scientific investigation by tribal, federal, state and local government agencies, public utilities and private interests. Despite this recent history of investigations, data collected through these efforts are not readily available for current management activities. Many of the investigations were motivated by a specific local concern, such as locating a dam to generate hydroelectricity, determining instream flows for a specific river reach, or assessing water use for a municipality.

Although some investigations have integrated information about the availability and use of water sources for specific basins or sub-basins, this information has not been comprehensively compiled for western Washington. A tribal water resources assessment will collect available information on the region's water sources, quality and uses. Existing and new information systems will be used to make the information readily available to tribal water resources managers.

In addition to providing a comprehensive perspective on water resources in western Washington, the assessment will identify information gaps and approaches for filling them. A

primary objective of the assessment will be to identify where additional monitoring, surveys or focused studies are needed.

The tribes have shown, through their work with EPA in the Coordinated Tribal Water Quality Program, that a strong working relationship can be developed with USGS. The tribal/EPA effort has improved relationships, thereby enhancing the success of ecosystem management.

Additionally, the tribal/EPA model program has produced transferable tools that can be shared with tribes throughout the nation. These tools include:

- ◆ Routine coordination and networking among tribes, state agencies and EPA.
- ◆ A Coordinated Tribal Water Quality database design and structure.

- ◆ A tribal water quality standards template.
- ◆ A Coordinated Tribal Water Quality Program design manual.
- ◆ A cooperative state/tribal 303(d) strategy

Much of this cooperative approach and work can be utilized in the water assessment effort. A unified tribal commitment and call for data will be the foundation of collecting and compiling the most important assessment of this region's water resources ever developed.

By embarking on this effort, tribes and the USGS are initiating a shift in the region's water discussions from one of speculation and politics to one of substance and purpose. Successful completion could support meaningful dialogue addressing flow setting, water conservation and growth.

## Coordinated Tribal Water Resources Program Case Study

# Tribe Looks at Stormwater Runoff Impacts on River

Scientists have long known the problems stormwater contamination can cause for salmon, but the focus typically has been on heavily urbanized areas, not small towns.

The Sauk-Suiattle Indian Tribe has formed an unusual partnership to see how stormwater from a rural town might affect productive reaches for spawning and rearing.

Town leaders in nearby Darrington asked the tribe to partner in a study to quantify the impacts of stormwater discharges into the Sauk River. Darrington is a small timber town of 1,500 people just upstream from the Sauk-Suiattle Reservation.

Using grant money from the federal Environmental Protection Agency's Indian General Assistance Program, the tribe developed a project plan and purchased a specialized automatic sampler. Technical consultants from the Skagit River System Cooperative (the natural resources arm of the Sauk-Suiattle and Swinomish tribes) and Wilson Engineering of Bellingham updated Darrington's old survey data and storm drain maps, pinpointing where pipes might need upgrades to handle expected growth in the next 20 years.

In the meantime, Sauk-Suiattle water quality technicians have been using the automatic sampler to collect stormwater runoff from Darrington's main outfall each time it rains. The sampler's computer is connected to a flow meter that sits in the bottom of the culvert. When rain flushes runoff into the pipe, the flow meter triggers the sampler to begin sucking water up a tube into 24 plastic bottles in the sampler.

The computer graphs each storm's flow fluctuations to determine how much stormwater from each bottle to include



Toby Bill, a Sauk-Suiattle natural resources technician, uses a specialized automatic sampler to collect stormwater runoff near Darrington.

*Sauk-Suiattle Tribe*

in a composite sample for the lab. The lab is testing for a variety of potential contaminants, including dissolved metals. Copper, for example, is deposited on pavement as shavings from vehicle brake pads. Studies elsewhere have shown that even extremely small amounts of copper dissolved in streams can turn off the alarm pheromone in juvenile salmon, making them more vulnerable to predators.

Data are still being analyzed. Results will be used to present Darrington with some options for how to help clean the town's stormwater runoff.

# TRIBAL SALMON MANAGEMENT



An adult chinook salmon is released into the South Fork of the Skokomish River as part of a state and tribal supplementation program.  
*NWIFC: T. Royal*

## *Introduction*

Indian tribes always have lived in every major watershed in what is now the state of Washington. From time immemorial, tribal cultures, spirituality and economies have centered on fishing, hunting and gathering natural resources in the region.

As a sovereign government, each tribe regulates and coordinates its own fisheries management program within its usual and accustomed fishing area. Tribal management jurisdiction includes six species of salmon: chinook, coho, chum, pink, sockeye and steelhead. Tribes conduct fisheries off the Washington coast, in coastal rivers and bays, and throughout the inland waters of Puget Sound and its tributaries.

A tribe's salmon management program typically includes a manager who oversees staff working in the areas of harvest management, enhancement and habitat. The fisheries manager develops fisheries plans and run size forecasts, assesses spawning escapement needs, and monitors stock status, among other duties.

Each tribe or tribal natural resources management cooperative maintains enforcement programs to ensure that fishing regulations are observed. Enforcement officers work with state and federal enforcement personnel to protect the resource. Violations of tribal fishing laws are prosecuted in tribal courts.

## Integrating Harvest, Hatcheries and Habitat

Restoring all wild salmon populations to self-sustaining levels that can support harvest is the primary salmon management goal of the treaty Indian tribes.

Integration of the three H's (harvest, hatcheries and habitat) is the key to salmon management and the focus of the treaty Indian tribes in western Washington. That means that all three of these key aspects of salmon management must work together:

- ◆ Harvest management must be conservative, protecting weak wild stocks while allowing appropriate harvest of healthy, primarily hatchery-raised salmon.
- ◆ Hatchery practices must protect the genetic integrity and survival of wild salmon stocks while also producing salmon for harvest.
- ◆ Habitat quality and quantity – the primary limiting factors for wild salmon productivity – must be improved to take advantage of advancements in harvest and hatchery practices.

More than 30 years ago, state and tribal salmon co-managers began sharply reducing harvest in response to declining wild salmon runs. Today's harvest levels are only 80-90 percent of those in 1985. This overall reduction in salmon harvest has come at great cost to the spiritual, cultural and economic well-being of the treaty Indian tribes. Reducing harvest alone, however, cannot compensate for the ongoing decline in natural wild salmon production caused by lost and degraded salmon habitat.

Together, more than 100 tribal, state and federal hatcheries in western Washington comprise the largest hatchery system in the world, producing nearly three-fourths of all the salmon harvested in Puget Sound and playing a critical role in meeting treaty tribal harvest obligations.

With hatchery reform efforts now under way, the treaty tribes and state of Washington are drawing upon state-of-the-art science to minimize the impacts of artificial propagation on wild salmon.

Tribal governments have made strides to protect salmon habitat, both on their reservations through land-use and water resources authorities, and off-reservation by collaborating with non-Indian neighbors to protect and restore watersheds that support salmon. Extensive habitat protection and restoration throughout the region is beyond the power of the tribes alone to implement. Only through concerted federal, state, tribal, local and private efforts can it be achieved.

## Collaborative Conservation

The needs of salmon, like all natural resources, are myriad and complex, crossing many watersheds, legal jurisdictions and political boundaries. No resource can be managed individually because all are connected.

The tribes know that cooperation is essential to successful natural resources management. Through a spirit of collaborative conservation that has prevailed in the region since the early 1980s, the tribes work with state, federal and local governments, conservation groups, industry and others on comprehensive efforts to return all wild salmon populations to self-sustaining levels.



Lower Elwha Klallam hatchery technician Phillip Blackcrow prepares "purses" of coho salmon carcasses for planting in a side channel of the Elwha River. The carcasses were placed in the river with the intention of providing food for young salmon, trout and other wildlife, as well as adding nutrients to the river for plant growth. *NWIFC: T. Royal*

# SALMON HARVEST

Harvest management must be responsive to the conservation needs of the salmon resource, protecting weak wild stocks while allowing appropriate harvest of healthy, mostly hatchery-raised salmon stocks.

Salmon stocks and fisheries in Puget Sound, the Strait of Juan de Fuca and nearshore coastal waters are co-managed by the treaty Indian tribes and Washington Department of Fish and Wildlife (WDFW). Tribal and state managers work cooperatively, through the Pacific Fishery Management Council (PFMC) and the North of Falcon process (NOF), to develop fishing seasons that protect the weakest salmon stocks. The PFMC is a public forum established by the federal government that is charged with creating a comprehensive fisheries plan for ocean fishing, incorporating the varied interests of tribal, state and federal managers and commercial, sport fishing and environmental groups.

While the PFMC is planning coast-wide ocean fisheries, treaty tribes and the states of Oregon and Washington in the NOF process are outlining inshore and coastal fisheries. The process is named for the geographic region it covers: north of Cape Falcon, Ore., to the Canadian border. Through NOF, tribal and state biologists forecast expected salmon returns to specific areas.

## *U.S./Canada Pacific Salmon Treaty*

Adult salmon returning to most western Washington streams migrate through both U.S. and Canadian waters, and are harvested by fishermen from both countries. For decades, there were no restrictions on the interception of returning salmon by fishermen of neighboring countries.

In 1985, after two decades of discussions, the Pacific Salmon Treaty (PST) was created through the cooperative efforts of the tribes, state governments, U.S. and Canadian governments, and sport and commercial fishing interests. The Pacific Salmon Commission (PSC) was created by the United States and Canada to implement the treaty, which was updated in 1999 and 2008.

The most recent update of the treaty gave additional protection to weak runs of chinook returning to Puget Sound rivers. The update also provides compensation to Canadian and Alaskan fishermen for lost fishing opportunity, while also funding habitat restoration throughout the region.



Larry Bradley, a Squaxin Island tribal member, hoists a chum salmon during the tribe's fishery in deep South Sound. *NWIFC: E. O'Connell*

The PSC establishes fishery regimes, develops management recommendations, assesses each country's performance and compliance with the treaty, and is the countries' forum to reach agreement on mutual fisheries issues.

An eight-member bilateral body, which includes representatives from tribal, state and federal governments, governs the PSC. Four regional panels composed of fisheries managers and industry representatives advise the PSC on policy matters.

As co-managers of the fishery resources in western Washington, the tribes' participation in implementing the PST is critical to achieve the goals of the treaty to protect, share and restore salmon resources. In addition to serving at the policy level on the PSC and its panels, tribal representatives participate on the many committees and work groups that provide technical support to implement the treaty.

Population estimates are based on biological data collected during salmon out-migration, along with habitat information and weather conditions that affect salmon populations. The number of fish available to harvest, determined by the co-managers, is what's left after escapement needs are met. Escapement is the number of fish needed to spawn and sustain a run at a desired level.

The following are several examples of how harvest is co-managed by the tribes, the state of Washington and federal government.

## *Puget Sound Chinook Harvest Management Plan*

The Puget Sound Chinook Recovery Plan addresses all aspects of the decline of Endangered Species Act-listed (ESA) wild Puget Sound chinook, and includes a harvest management plan to aid recovery. The harvest plan, developed by the co-managers, has been approved by the National Oceanic and Atmospheric Administration's fisheries department, the federal agency in charge of implementing the ESA.

The Chinook Harvest Plan is intended to ensure that fishery-related mortality will not harm rebuilding efforts of natural Puget Sound chinook salmon populations. The fundamental

intent of the plan is to enable harvest of strong, productive stocks of chinook and other salmon species, and to minimize harvest of weak or critically depressed chinook stocks.

The harvest management plan outlines objectives that will guide the Washington co-managers in planning annual harvest regimes through 2009. The tribal and state co-managers are developing a new harvest management plan to take effect in 2010. The new plan will emphasize the protection of weak stocks while taking into consideration 10 years of new data collected by the co-managers.

While the plan guides the implementation of fisheries in Washington that are under the co-managers' jurisdiction, it also considers the total harvest impacts of all fisheries, including those in Alaska and British Columbia, to ensure that conservation objectives for Puget Sound are achieved.

Tribal hatcheries also must comply with federal ESA requirements to ensure that their management practices do not harm listed salmon. ESA compliance work extends to non-salmon species as well. For example, tribes must ensure that their fisheries management programs do not harm recently listed Puget Sound orcas or damage critical habitat that has been set aside for their needs. Meanwhile, ESA listings continue to increase in the region. Puget Sound steelhead recently was added to the list. In response, the tribes and the state are creating a joint steelhead management plan.

## Treaty Indian Fishery Catch Monitoring Program

One of the keys to successful salmon harvest management in western Washington is the Treaty Indian Fishery Catch Monitoring Program (TICMP), managed by the Northwest Indian Fisheries Commission (NWIFC).

The TICMP provides accurate catch statistics for treaty Indian fisheries in the *U.S. v. Washington* case area. Using procedures developed cooperatively with WDFW, harvests of all salmon, shellfish and marine fish by treaty Indian fishers are entered into a database. This allows a single set of data – accepted by both the tribes and state of Washington – to be maintained as the historical database in managing Puget Sound and coastal Washington fisheries. This program also provides NWIFC member tribes the ability to access both treaty and non-treaty summary catch data for Puget Sound and coastal Washington fisheries over the Internet, using an online database system developed and maintained by NWIFC.

All state and tribal licensed fish dealer/buyers are issued numbered fish tickets by WDFW and are required by law to fill out a ticket for each landing. When treaty fishers sell their catches, their identification number is included on a ticket that records the number, weight, species and location of harvest. Once the catch data have been recorded, the information is reviewed by the tribe, edited and entered into the database where it is incorporated into the record of final catch statistics. More than 50,000 fish tickets are processed annually by tribes and NWIFC.

The TICMP is an important tool for salmon co-management. Because the data is shared on a same-day basis, the program enables harvest levels to be monitored closely and in real-time. The program also ensures the 50-50 sharing formula between the tribes and state is upheld. In addition, historical catch data is used to develop annual abundance forecasts and evaluate and manage fisheries through computer models.

### Harvest Management Case Study

## Short Tribal Fishery Benefits Sport Fishermen

Sharp cuts in fishing by the Puyallup Tribe of Indians in 2008 allowed sport fishermen to start fishing for chinook on the Puyallup River two weeks early.

"The tribe was going to be off the water more this year to reduce impacts on returning chinook, and this gave more oppor-

tunities for sport fishermen," said Chris Phinney, the tribe's salmon fisheries management biologist. The cuts by the tribe were agreed to in the spring of 2008 during the tribal and state salmon fisheries management process.

The Puyallup Tribe has been reducing its in-river fishery for the past several years to protect returning wild chinook. This is the second year the tribe will have no directed chinook fishery. Sport anglers on the Puyallup River are required to release wild chinook, decreasing impact to the stock.

"This kind of selective fishery works best in places like the lower Puyallup River where there are a lot of hatchery fish and very few wild fish," Phinney said. Tribal and state co-managers estimate that more than 80 percent of the chinook returning to the Puyallup this year will be hatchery fish.

"With large numbers of hatchery fish available, it's easy for sport fishermen to sort wild and hatchery fish," he said. "Unlike in saltwater mixed stock areas where there are dozens of stocks present, terminal areas like rivers are very effective places to have selective sport fisheries."

While sport and non-treaty commercial fishermen can chase productive runs of salmon around the region, tribal fishermen are bound by treaty to fish only in certain areas. "The Puyallup Tribe has an inherent interest in seeing more salmon return to the Puyallup River because this is our home river," said Herman Dillon Jr., chair of the tribe's fish commission.



Puyallup Tribe elders Nancy Shippentower-Games and Don McCloud pull in their net during a fishery.

NWIFC: E. O'Connell

# SALMON HATCHERY MANAGEMENT

The first salmon hatcheries in the state of Washington were built more than 100 years ago, largely to compensate for the lost natural salmon production caused by damaged and disappearing habitat.

Today, more than 100 hatcheries are operated in Puget Sound and coastal Washington by the treaty tribes, Washington Department of Fish and Wildlife (WDFW) and U.S. Fish and Wildlife Service (USFWS), making up the largest hatchery system in the world. More than 39 million salmon were released from tribal hatcheries alone in 2007.

Hatchery salmon are needed to meet treaty tribal harvest obligations because many wild salmon populations are severely depressed. Without hatcheries, there would be almost no salmon harvest at all in western Washington. Tribal hatcheries support the tribes' treaty-reserved rights to fish, provide additional fish for harvest by non-Indian fishermen, and help build natural runs that are culturally and spiritually important to the tribes.

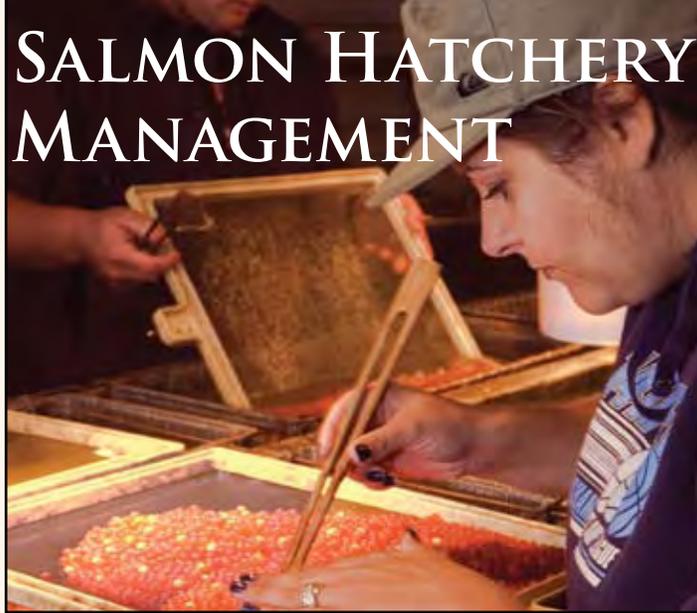
Hatcheries are helping to recover what were once thriving salmon populations. Some hatcheries support wild runs through broodstock programs in which native fish are captured and spawned, and their progeny are released to help bolster naturally spawning salmon runs.

## Hatchery Reform Project

In 2000, Congress created the Puget Sound and Coastal Washington Hatchery Reform Project – a systematic, science-based examination of how hatcheries can help recover and conserve salmon populations while supporting sustainable fisheries.

Hatchery Reform addresses concerns about possible impacts of hatchery operations on all Puget Sound and coastal salmon stocks including those listed as “threatened” under the federal Endangered Species Act (ESA). These include Puget Sound chinook, Puget Sound steelhead, Hood Canal summer chum and Lake Ozette sockeye salmon.

Hatcheries are not meant to replace healthy spawning and rearing habitat, but to be an extension of it, like a productive river tributary. Together with ongoing habitat restoration and strict harvest regulations, Hatchery Reform is a fundamental part of efforts to recover wild salmon and sustain fisheries in Washington.



Dahni Buesch, Lonesome Creek Hatchery manager for the Quileute Tribe, sorts eggs. *NWIFC: D. Preston*

In 2002, an independent science panel, the Hatchery Scientific Review Group (HSRG), was developed to evaluate tribal, state and federal hatchery programs and their goals. The group listed more than 1,000 recommendations for changes at individual hatcheries and 18 recommendations for changes across the entire western Washington hatchery system.

The tribes have been implementing these changes that cover all aspects of modern, scientific resource management:

- ◆ Implementation – Working with WDFW to develop joint watershed hatchery plans that prioritize hatchery reform goals, actions, and funding with habitat and harvest actions to recover threatened populations and fisheries in the most efficient way possible.
- ◆ Science – Building a strong scientific foundation for hatchery decisions by collecting better data on migrating juveniles, returning adults, and the factors that affect their survival.
- ◆ Capacity – Ensuring scientific expertise in disciplines such as genetics, fish health, risk assessment and population modeling, and conservation biology that are important in making scientifically defensible decisions.

## Hatchery Rehabilitation and Maintenance

Some of the HSRG's recommendations included making capital improvements to tribal hatchery facilities. However, most of those badly needed improvements are beyond the tribes' financial reach. While tribal facilities in western Washington have been rearing and releasing fish for nearly four decades, these hatcheries have been rapidly deteriorating because of little federal funding for maintenance and rehabilitation.

Most tribal hatcheries operating today were built with the aid of federal funding when the tribes started their fisheries programs in the 1970s following the Boldt decision. However, federal funding has not kept pace with the ongoing needs of these nearly 40-year-old facilities. The funding shortfall threatens not only the ability of the tribes to implement essential hatchery reform projects to help protect wild salmon stocks, but also the tribe's basic ability to produce hatchery salmon for harvest.

Tribal hatcheries need consistent funding to ensure facilities are safe, effective and operating with the best management practices. Funds also are needed to ensure that tribal hatchery operations complement regional salmon recovery efforts and are in compliance with the latest regulatory and legislative mandates.

## 100 Years of Salmon Hatchery Experience

Third party litigation is possible if tribal hatcheries are unable to meet standards for ESA-listed wild salmon in western Washington. If tribes were forced to close their hatcheries, all sport and commercial fisheries would be closed. Such closures would also breach the federal government's trust responsibility to the tribes. The federal government, through the Bureau of Indian Affairs, has a responsibility to maintain these facilities in good operational condition to ensure compliance with ESA mandates and Hatchery Reform recommendations.

### Fish Health, Genetics

The member tribes of the Northwest Indian Fisheries Commission (NWIFC) created the Tribal Fish Health Program (TFHP) in 1988 to meet the needs of their salmon enhancement and supplementation programs. The program's goal is to assist tribes in rearing and releasing healthy fish that will help sustain tribal fisheries and restore wild populations.

The TFHP conducts a health-monitoring program designed to maintain the health of the fish while they are in the hatchery and to identify and correct problems before they occur. NWIFC pathologists conduct monthly health exams on fish stocks at each tribal hatchery from the time the adults return to spawn until the time their progeny are released from the hatchery.

NWIFC geneticists work with tribal hatchery programs through the Hatchery Reform effort to ensure protection of wild salmon diversity and maintain the genetic health of hatchery-produced salmon.

### Mass Marking and Coded-wire Tagging

Congress mandated in 2003 that all salmon released from federally funded hatcheries be marked so they could be identified for conservation purposes. In response, the tribes developed an extensive program to "mass mark" hatchery production.

Hatchery salmon are mass marked by having their fleshy adipose fin removed. Mass marking enables certain sport fisheries to be a "mark selective" fishery so anglers can distinguish between abundant fin-clipped hatchery salmon and their wild counterparts. Wild fish are released after being hooked, although some die as a result of the trauma. Mass marking provides additional tools for evaluating and managing hatchery programs.

The treaty tribes also operate an extensive, research-based coded-wire tag program. Tags inserted into the noses of young salmon provide information for fishery and stock assessment and analysis. When coded-wire tagged salmon are sampled as adults, tag data provides important information about survival rates, migration patterns, harvest rates and hatchery effectiveness.

Fish from many tribal facilities are tagged as "indicator stocks," which help assist fisheries management and monitor rebuilding efforts under the Pacific Salmon Treaty between the United States and Canada.

The tribes' NWIFC operates four specially designed trailers to mass mark and tag hatchery coho, chinook and steelhead. The tribes annually mass mark more than 5.5 million fish and insert coded-wire tags in nearly 4 million fish. Millions more are mass marked by the state, USFWS and the Canadian government.

In 1907, when the state built the Wallace River Hatchery on the Skykomish River, members of the Tulalip Tribes canoed up the Snohomish River, bringing wild salmon eggs to the new facility.

A century later, the tribes and state are still working together to release hatchery salmon into Puget Sound, but now, eggs are collected at the Wallace River Hatchery and trucked to Tulalip's Bernie Kai Kai Gobin Hatchery for fertilization. Eggs from hatchery fish are mixed with those from wild stock caught at nearby Sunset Falls, to ensure certain traits are passed on that could improve the chances of survival.

"Many salmon behaviors are genetic responses to environmental cues. For example, migration behavior and homing, avoiding predators and finding food – these are genetically inherited adaptations to the local natural environments that the fish evolved in," said Mike Crewson, Tulalip Tribes fisheries enhancement biologist. "Our goal is to create fish that are as close as possible to their better-surviving, wild counterparts. We incorporate the genetics of wild fish to improve fish health and instincts, which increases survival of hatchery fish after release."

When possible, hatchery conditions also mimic those in the natural environment.

"We must continue to help hatchery salmon survive harsher environments, minimize wild salmon harvest through regulation and monitoring, and increase wild salmon runs through habitat protection and restoration," said Mel Sheldon, chairman of the Tulalip Tribes.



Dennis Hegnes, fish culturist for Tulalip Tribes, spawns chinook at the state's Wallace River Hatchery.

NWIFC: K. Neumeyer

# SALMON HABITAT MANAGEMENT



The Quinault Indian Nation built a logjam on the floodplain of the Quinault River as part of the tribe's efforts to restore sockeye spawning habitat.

NWIFC: D. Preston

Conservative harvest management and reformed hatchery practices aren't enough to sustain healthy salmon populations. Wild salmon recovery is inhibited by poor habitat quality and quantity. To make the most of advances in harvest and hatchery practices, the habitat must be improved.

Salmon habitat has been lost and degraded steadily for the past 150 years as the non-Indian population in western Washington has exploded. As the habitat goes, so go the salmon.

Forests have been cleared, fish passage blocked by dams and the region crisscrossed with roads. Trees and other vegetation along streams and rivers have been removed, reducing shade and woody debris that is needed for fish survival. Puget Sound chinook salmon, listed as "threatened" under the Endangered Species Act, require deep, sheltered pools of cold water. Water that is too warm can result in disease, reduced salmon egg survival and even death.

The treaty Indian tribes are working hard to restore some of that lost habitat. Dozens of engineered logjams are being built to return natural processes to rivers and streams. The structures, patterned after naturally occurring logjams, scour pools, create side channels and provide refuge and shade for salmon.

Tribes also conduct extensive water quality monitoring to check for pollution and to ensure that other factors, such as dissolved oxygen levels, are adequate for salmon and other fish. And tribes collaborate with property owners to improve salmon-bearing stream habitat on private land.

To make limited federal funding work to its fullest, the tribes partner with state agencies, environmental groups, industry and others through collaborative habitat protection, restoration and enhancement efforts.

One such effort is the Timber/Fish/Wildlife Forests and Fish Report (see page 7). Forest practices are cooperatively managed to ensure protection for salmon while also ensuring the health of the timber industry.

## *Court Case Removes Obstacles*

Tribes won a major victory for salmon and their habitat in 2007 when federal court Judge Ricardo Martinez ruled that state culverts blocking fish and diminishing salmon runs violate Indian treaty fishing rights.

"This duty arises directly from the right of taking fish that was assured to the Tribes in the Treaties, and is necessary to fulfill the promises made to the Tribes regarding the extent of that right," Martinez ruled in a summary judgment.

In western Washington alone, more than 1,100 culverts owned by the state Department of Transportation and Department of Natural Resources block more than 750 miles of salmon stream and 2.5 million square meters of habitat.

It was estimated that repairing the fish-blocking culverts on the state's timetable could take as long as 100 years, but by then, few, if any, salmon would be left. The tribes and state are developing a timely, more prioritized plan for repairing the culverts.

While the federal courts have consistently ruled in favor of the tribes and their treaty-reserved rights, each tribe knows that the battle to preserve, protect and enhance the natural resources of this region can only be won if everyone works together.

"Cooperation is the key," said Billy Frank Jr., Northwest Indian Fisheries Commission chairman. "If we work together – all of us – there's nothing we can't do."

## *Pacific Coastal Salmon Recovery Fund*

The Pacific Coastal Salmon Recovery Fund (PCSRF) was established by Congress in Fiscal Year 2000 to aid the conservation, restoration and sustainability of Pacific salmon and their habitats. Congressional appropriations have been made to Pacific Coast and Columbia River Indian tribes, as well as the states of Oregon, Washington, Idaho and Alaska to aid recovery of weak wild salmon stocks and leverage additional funding and volunteer participation by local and private entities.

PCSRF funding supplements extremely limited tribal resources for salmon recovery efforts. To make each federal funding dollar work to its fullest, tribes leverage PCSRF mon-

## Shorelines Mapped to Understand Salmon

The Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP) is studying nearshore habitat with a geomorphic model developed by Aundrea McBride, a research ecologist with the Skagit River System Cooperative. The cooperative is the natural resources arm of the Swinomish and Sauk-Suiattle tribes.

The McBride model aims to inform the understanding of nearshore salmon ecology, identify habitat restoration potential and forecast outcomes of restoration efforts.

SSHIAP and the Puget Sound Nearshore Ecosystem Restoration Project/Puget Sound Nearshore Partnership are using it to map geomorphology along the marine shorelines of Puget Sound and outer Washington coast.

"The nearshore is an important part in the salmon life-cycle," said Osa Odum, Northwest Indian Fisheries Commission coastal biologist. "There are more organisms living in the nearshore compared to freshwater and it changes practically every day because of tides."

Increased development along the shorelines in the past century has damaged nearshore habitat in Puget Sound and the Washington coast. Salmon depend on other prey species that live in the nearshore, such as sandlance and herring. Vegetation in the nearshore, such as eelgrass, is a place for salmon to hide from predators.

"This is a critical area for salmon that we don't know a lot about," Odum said. "This project will give us an overall picture of the nearshore's health and it will help restore and protect it."

ies through partnerships with other tribes, local governments, watershed councils, conservation organizations and others. PCSRF projects are making significant contributions to the recovery of wild salmon throughout the region.

Since the program's inception, tribes of NWIFC have used PCSRF monies to:

- ◆ Restore more than 1,700 acres of riparian habitat.
- ◆ Restore 259 miles of streamside habitat.
- ◆ Restore 28 acres of upland habitat.
- ◆ Remove 81 fish passage barriers, opening 87 miles of salmon habitat.
- ◆ Reduce the impact of 3 miles of road.
- ◆ Restore 47 acres of wetlands.
- ◆ Restore 46 acres of estuary habitat.
- ◆ Restore 52 miles of instream habitat.
- ◆ Treat 14,338 acres of habitat for invasive species.
- ◆ Protect through purchase 218 acres of habitat, protecting 4 miles of streamside habitat.

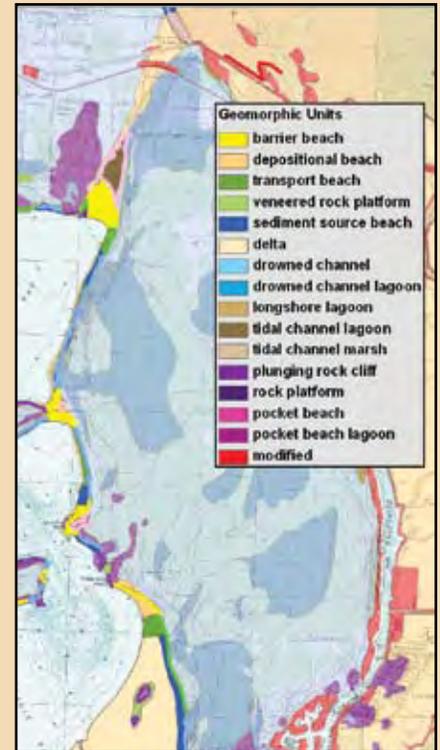
### Salmon and Steelhead Habitat Inventory and Assessment Program

A joint effort of the treaty tribes and state of Washington is the Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP). Formed in 1995, SSHIAP produced the "State of Our Watersheds Report" – a comprehensive account of the health of the region's salmon habitat that is helping to provide a blueprint for salmon recovery. SSHIAP is a long-term data system which utilizes scientifically sound data to provide a unique platform for tracking trends in freshwater and estuarine salmon habitat conditions.

A key feature of SSHIAP is that it quantitatively characterizes habitat conditions linked with stock distribution. This partnership-based "living" database is designed for local-, watershed-, basin-, and regional-scale habitat analyses focused on salmon protection and restoration efforts, and to track trends in habitat over time.

The SSHIAP program is providing a blueprint for joint tribal/state action to define a cooperative process to implement habitat and restoration strategies by:

- ◆ Documenting and quantifying past and current habitat conditions.
- ◆ Providing a consistent framework for data analysis.
- ◆ Assessing the role of habitat loss and degradation on the condition of salmon and steelhead stocks.
- ◆ Assisting in the development of stock- or watershed-specific strategies for habitat protection and restoration.



An example of the nearshore features mapped near Fidalgo Island using the McBride model.

SRSC: Aundrea McBride



# SHELLFISH MANAGEMENT

A handful of manila clam seeds are gathered before being spread onto beaches in Hood Canal. *NWIFC: T. Royal*

## Introduction

Shellfish have been a mainstay of western Washington Indian tribes for thousands of years. Clams, crab, oysters, shrimp and many other species were readily available for harvest year-round.

Shellfish remain important today for economic, subsistence and ceremonial purposes. The rapid decline of many western Washington salmon stocks, due in part to habitat loss from the region's burgeoning human population, has pushed shellfish to the forefront of many tribal economies.

Each treaty Indian tribe maintains a shellfish program that implements direction from the tribal government. A shellfish

biologist assesses shellfish populations throughout a tribe's harvest area and recommends regulations based on the level of shellfish available for harvest.

Each tribe manages its shellfish harvest in concert with non-Indian harvest and the harvest of other tribes by negotiating resource sharing agreements. These agreements ensure that each party is able to harvest its share of the available shellfish, while also protecting the resource. The tribes and state have entered into more than 27 different regional management plans for a variety of shellfish species. Each species has unique management requirements to ensure that biologically sound harvests occur.

Tribes enhance naturally occurring shellfish populations, often to the benefit of both tribal and non-tribal harvesters. Shellfish enhancement results in higher and more consistent levels of harvest than would occur naturally.

Tribes also conduct research on underutilized species such as Olympia oysters, sea cucumbers and sea urchins. Often this research leads to new fisheries or a better understanding of the marine ecosystem.

The tribes have two distinct types of shellfish harvests – commercial and ceremonial/subsistence. Shellfish harvested during a commercial fishery are sold to licensed shellfish buyers who either sell directly to the public or to other distributors. Tribes collect taxes from tribal members who sell shellfish. The taxes are used to help pay for tribal natural resources programs. Ceremonial and subsistence harvests of shellfish, which have a central role in tribal gatherings and daily nutrition, are intended for tribal use only.

Preliminary data for 2007, the most recent data available, indicate that treaty tribes in western Washington commercially harvested approximately 600,000 pounds of manila and native littleneck clams; 1.8 million pounds of geoduck clams; nearly 560,000 pounds of oysters; 5 million pounds of crab; about 75,000 pounds of razor clams; and nearly 200,000 pounds of shrimp. These fisheries occur throughout Washington coastal areas and Puget Sound.

## Tribal Treaty Shellfish Rights

As with salmon, the right to harvest shellfish lies within a series of treaties signed with representatives of the federal government in the 1850s.

*“The right of taking fish at usual and accustomed grounds and stations is further secured to said Indians, in common with all citizens of the United States; and of erecting temporary houses for the purposes of curing; together with the privilege of hunting and gathering roots and berries on open and unclaimed lands. Provided, however, that they shall not take shell-fish from any beds staked or cultivated by citizens.”*

– Treaty of Point No Point,  
Jan. 26, 1855

In exchange for the peaceful relinquishment of what is most of western Washington today, the tribes reserved the right to continue to harvest fish and shellfish from all of their usual and accustomed harvest areas. The tribes were specifically excluded from harvesting shellfish from areas “staked or cultivated” by non-Indian citizens.

Tribal legal efforts to uphold the federal government’s treaty promises began in the early 1900s. While tribes had relatively easy access to their traditional shellfish harvest areas well into the 20th century, they began to be slowly excluded from harvest as the state sold the tidelands to non-Indians without considering the tribes’ treaty-reserved rights.

Early landmark legal decisions would eventually lead to the re-affirmation of the tribe’s treaty-reserved right to harvest shellfish. In 1905, the U.S. Supreme Court ruled in *U.S. v. Winans* that when a treaty reserves the right to fish in all usual and accustomed places, the state may not prevent access to those places.

In 1974, U.S. District Court Judge George Boldt ruled the tribes had reserved the right to harvest half the harvestable salmon and steelhead in western Washington through their treaties. The ruling also established the tribes as co-managers of the salmon resource.

After the Boldt Decision was upheld by the U.S. Supreme Court in 1979, the tribal and state co-managers began working together to develop fishery regimes that ensured harvest opportunities for both Indians and non-Indians. This new atmosphere of cooperative natural resources management gave the tribes hope that their treaty-reserved rights to shellfish harvest and management could be restored. Talks between the tribes and the state began in the mid-1980s but were unsuccessful. In 1989, the tribes were forced to file suit in federal court to have their treaty shellfish harvest rights recognized. Years of negotiations followed but were unsuccessful and the issue went to trial in 1994.

## The Rafeedie Decision and Implementation Plan

After hearing testimony from tribal elders, biologists, historians and treaty experts, as well as testimony from private property owners and non-Indian commercial shellfish growers, U.S. District Court Judge Edward Rafeedie followed in the footsteps of Judge Boldt.

He ruled that the treaties’ “in common” language meant the tribes had reserved harvest rights to half of all shellfish from all of the usual and accustomed places, except those places “staked or cultivated” by non-Indian citizens – or those that were specifically set aside for non-Indian commercial purposes. His decision required tribes planning to harvest shellfish on private beaches to follow the time, place and manner restrictions on harvest.

“A treaty is not a grant of rights to the Indians but a grant of rights from them,” Rafeedie wrote in his December 1994 decision, adding that the U.S. government made a solemn promise to the tribes in the treaties that they would have a permanent right to fish as they had always done.

The tribes have moved past litigation and work cooperatively with the state co-managers to implement Rafeedie’s ruling. Tribal shellfish managers have developed harvest management and supplementation plans, and harvest data is collected and shared with other tribes and the state.

## The Shellfish Settlement

While Rafeedie's ruling denied tribal access to half of all shellfish being grown on non-Indian commercial tidelands, it upheld the tribal right to harvest half of the naturally occurring shellfish on those tidelands that would otherwise be available to the tribes. Tribal access to those shellfish, however, would be hugely disruptive and costly for commercial shellfish growers who had spent many years enhancing those tidelands, unaware of the treaty encumbrances.

Enacting the ruling proved difficult because the state and federal governments had allowed many of the best tribal shellfish harvest areas to be sold to private owners more than a century ago. Those purchasers were never told that the tidelands might be subject to tribal harvest.

"Fault for creating this controversy lies squarely within the state of Washington and the United States for selling the tidelands and not objecting to the sale, respectively," Rafeedie said.

Rather than spending years in court or trying to implement the conflicted ruling, the tribes and commercial shellfish growers finalized an agreement that protects and enhances the resource while resolving legal issues from the Rafeedie Decision. The agreement preserves the health of the shellfish industry, recognizes the importance to the tribes of their shellfish harvest rights and provides greater shellfish harvest opportunities for everyone in the state.

As part of the settlement, the tribes are forgoing their treaty right to harvest an estimated \$2 million of shellfish annually from commercial shellfish growers' beds. Over the next 10 years, growers will provide \$500,000 worth of shellfish enhancement on public tidelands of the state's choosing, adding value to the agreement that benefits all citizens of the state.

The tribes will have access to a \$33 million trust, established with \$11 million in state funds and \$22 million in federal funds, to acquire and enhance other tidelands to which they will have exclusive access.

"We had a choice, and we chose cooperation," said Billy Frank Jr., chairman of the Northwest Indian Fisheries Commission. "Everyone loses when we turn to the courts to settle natural resources issues. The shellfish resource is too important – to tribal cultures, to the shellfish industry and to everyone who lives in the Puget Sound region – for us to fight over it."

"Shellfish growers and the tribes have developed a fair solution to a difficult problem," said Bill Taylor, president of Taylor Shellfish Co. "This agreement will right a historical wrong and will put more shellfish on the tidelands for everyone."

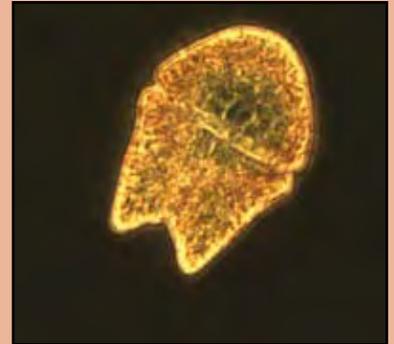
## Shellfish Management Case Study

### Tribe researches shellfish toxins

The waters of Sequim Bay seem clean, with visibility for several feet within the nearshore. But biotoxins lurk within the waters, plaguing the Strait of Juan de Fuca each summer and fall.

The Jamestown S'Klallam Tribe is concerned about these naturally occurring toxins that show up regularly in shellfish tissues following algae blooms. The toxins don't harm shellfish, but if consumed by humans, it can lead to illness or even death.

To learn more about these toxins and the effects on shellfish, the tribe has



*Akashiwo sanguinea* is a naturally occurring algae that has been found to form massive algae blooms.

Jamestown S'Klallam Tribe

been studying water conditions every year between May and October for the past five years.

"We want to better understand how frequently these toxins are showing up in the water and develop an early warning system for the presence of these toxin-producing algae blooms," said Aleta Erickson, Jamestown S'Klallam Tribe's marine ecologist.

Using a special microscope, tribal staff members are identifying and photographing the organisms found in the waters that could be contributing to the problem. The tribe also is looking at weather patterns and excess nutrients, such as those in lawn fertilizers, to see if they are contributing to the problem.

"The frequency of shellfish closures due to high tissue levels of the poisons saxitoxin and domoic acid, which are produced by dinoflagellates and diatoms, have been increasing in recent years," Erickson said. "It has been suggested that increases in nutrient loads in marine waters and changes in water temperature and circulation are possible causes."

Shellfish closures in Sequim Bay have hit tribal citizens hard both financially and culturally because much of the intertidal acreage at the head of the bay is owned by the tribe. The bivalves in the bay are actively managed and harvested for commercial and subsistence use.



# WILDLIFE MANAGEMENT

A herd of Roosevelt elk was spotted near Lake Cushman during an elk population study conducted by the Skokomish Tribe.

NWIFC: T. Royal

## Introduction

Wildlife resources have always been central to the cultures of the treaty Indian tribes in western Washington. Elk, deer, waterfowl and other wildlife have long provided a source of food and clothing for Indian people.

As with salmon and shellfish, the tribes reserved the right to harvest wildlife in treaties with the U.S. government:

*“The right of taking fish at all usual and accustomed grounds and stations is further secured to said Indians in common with all citizens of the Territory, and of erecting temporary houses for the purpose of curing, together with the privilege of hunting and gathering roots and berries on open and unclaimed lands...”*

*-Treaty of Point Elliott, Jan. 22, 1855*

Little has changed over the centuries. The ancient link between the tribes and wildlife remains strong. Wildlife still provides important nutrition to Indian families on reservations where unemployment can run as high as 80 percent. Deer, elk and other wildlife are traditional foods that are important elements of feasts for funerals, naming ceremonies and potlatches. Hides, hooves, antlers, feathers and other wildlife parts are still used in traditional ceremonial items and regalia.

Unfortunately, the quality and quantity of wildlife habitat is declining rapidly in western Washington. Where virgin forests once stood there is now urban sprawl. Deer and elk herds have been squeezed into smaller and smaller areas of degraded and fragmented habitat. Tribal members have been forced to hunt farther and farther from home to harvest their treaty-reserved share of wildlife resources.

The treaty Indian tribes in western Washington, as responsible co-managers, work cooperatively with the state of Washington, citizen groups and others to manage wildlife resources. The tribes and state are developing regional management agreements for hunting animals such as deer, elk, bear, goats and cougars.

The agreements coordinate hunting seasons, harvest reporting and enforcement regulations. The tribes and state also plan to share research data such as herd population and mortality estimates – information that is crucial to planning harvests.

## Courts Clarify Treaty Rights

State and federal courts have consistently upheld the right of treaty tribes to hunt on open and unclaimed land, free of state regulation. The courts generally have ruled that lands such as national forests, which are compatible with hunting, are open and unclaimed. Further, the courts have ruled that to apply a state regulation to a tribal member with a treaty hunting right, the state must prove that the regulation is both reasonable and necessary for conservation purposes.

In 1999, the U.S. Supreme Court upheld the tribal treaty right to hunt on state lands free of state regulation in *Minnesota v. Mille Lacs Band of Chippewa Indians*. The Washington State Supreme Court made a similar ruling in 1999 in *State v. Buchanan*.

The Buchanan case involved a member of a treaty tribe charged by the state with harvesting two elk during a closed season at the state-owned Oak Creek Wildlife Area. Two lower courts ruled that the tribal hunter was simply exercising his treaty-reserved right to hunt on open and unclaimed land when he harvested the elk.

The state Supreme Court ruled that treaty tribes may hunt within original tribal lands and traditional areas and that the wildlife area was open and unclaimed land. The court threw out the state's argument that the treaty hunting right was eliminated when Washington became a state. As in the *Mille Lacs* case, the court said that only the U.S. government may abrogate a treaty right.

While tribes prefer to cooperate with the state of Washington in the implementation of treaty hunting rights and responsibilities as co-managers of the wildlife resources, they realize that they may be forced to seek a clarification of their treaty hunting rights through the federal courts.

The treaty Indian tribes in western Washington have a long history of co-managing natural resources with the state of Washington. The tribes and state have had numerous successes in implementing cooperative natural resources management efforts to protect, restore and enhance the productivity of natural resources in Washington.



A black-tail deer pauses from browsing in the Hoh River watershed. Black-tail deer are important to tribes for ceremonial and subsistence purposes. *NWIFC: D. Preston*

The Washington Fish and Wildlife Commission, the state Department of Fish and Wildlife's (WDFW) governing body, has recognized that "the preservation of healthy, robust and diverse fish and wildlife populations is largely dependent on the state and tribes working in a cooperative and collaborative manner."

## Herd Recovery Leads to Harvest

For the past two years, the state and the Point Elliott treaty tribes have shared the harvest of some Nooksack elk in the North Cascade Mountains. Indian and non-Indian hunters stopped hunting the Nooksack herd in the 1990s because its population was rapidly declining.

Tribes contributed close to \$1 million and thousands of hours toward restoration work in the Nooksack River watershed, with individual tribes spending as much as \$250,000 during the past decade. Tribal and state efforts to rebuild the declining Nooksack herd included relocating 98 elk from the Mount St. Helens area, improving elk forage and a decade-long moratorium on hunting.

As a result of these efforts, the herd increased to about 600 elk, up from fewer than 350 in recent years. Twenty years ago, the herd numbered about 1,700 elk. The rebounding of the herd signaled to wildlife managers that the population could sustain itself through a hunt. In both 2007 and 2008, state and tribal wildlife biologists determined that the herd had an adequate bull-to-cow ratio to allow a limited hunt of 30 bull elk without affecting productivity. The nine Point Elliott Treaty tribes shared 15 permits, and non-tribal hunters were permitted to harvest the other 15 bull elk.

It is important to understand that tribal hunters do not hunt for sport. Hunting is a spiritual and personal undertaking for each hunter. All tribes prohibit hunting for commercial purposes.

Western Washington treaty tribal hunters account for a very small portion of the total combined deer and elk harvest in the state. According to statistics for 2007-2008, tribal members harvested 369 elk and 623 deer, while non-Indian hunters harvested 8,024 elk and 37,892 deer. Most tribal hunters do not hunt only for themselves. Tribal culture in western Washington is based on extended family relationships. A tribal hunter usually shares his game with several families. In some cases, tribes may designate a hunter to harvest one or more animals for elders or families who are unable to hunt.

## Enforcement, Education

As a sovereign government, each treaty tribe develops its own hunting regulations and ordinances governing tribal members. Each tribe also maintains an enforcement program to ensure compliance with tribal regulations. As responsible managers, tribes know the value of enforcement as a management tool. The ratio of tribal enforcement officers to treaty hunters is higher than the ratio of state enforcement officers to non-Indian hunters.

Tribes set seasons based on sound biological information about the ability of the resource to support harvest. Before opening any area to hunting, many tribes forward their regulations to WDFW for review and comment. Tribes also share their harvest data with the agency.

Tribal hunters are licensed by their tribes and must obtain tags for each big game animal they wish to hunt. If a hunter is successful, he must tag the animal and submit a harvest report to the tribe. If a hunter is unsuccessful, he still must report the result, which yields valuable data for state and tribal wildlife managers. Tribal members are required to report all attempts at harvest. All tribal hunters carry photo identification cards that include their name, date of birth and tribal affiliation.

If a tribal member is found in violation of tribal regulations, he is cited in tribal court. Penalties can include fines and loss of hunting privileges. In most cases, tribal hunting regulations address the same harvest and safety concerns as state rules, such as prohibiting the carrying of loaded firearms in vehicles.

A number of tribes conduct hunter education courses, aimed especially at young tribal members, to ensure their hunters are safe when exercising their treaty right. Students are taught how to handle firearms, ethical considerations and the reasons behind tribal hunting regulations. Cultural aspects of hunting, as well as treaty hunting rights, also are covered in the classes.

Collectively, the tribes have created the Inter-tribal Wildlife Committee of the Northwest Indian Fisheries Commission to provide a forum for addressing inter-tribal issues. The committee also provides a unified voice in discussions with state and federal wildlife managers.

## Wildlife Management Case Study

# Feeding Program Saves White River Elk

The Muckleshoot Indian Tribe established a temporary feeding program for the White River elk herd that prevented mass starvation caused by inability to find food following a record-breaking snow fall during the winter of 2007-2008.

"We know that elk are having a hard time this winter," said Dennis Anderson Sr., chairman of the tribe's wildlife committee. "The point of this feeding operation is to help the elk herds survive until the snow melts."

The size of the White River elk herd has declined in recent years from 1,700 to 550 animals due to many factors, including loss of habitat. In Spring 2007, the herd rebounded to about 700 elk, but that was still well below the population objective of around 1,000 elk.

"This herd is already in trouble. One hard winter can do a lot of damage to a small herd," Anderson said. "These elk are not only having a hard time finding food, the snow is so deep in some spots that they're having a hard time even moving around." Near Huckleberry Creek, the snow was more than 3 feet deep.

The project involved hauling 66 tons of alfalfa to more than a dozen remote sites throughout the upper White River



White River elk feed on alfalfa. *Muckleshoot Indian Tribe: D. Vales*

for four straight weeks. Contributions from the Upper Skagit, Swinomish and Tulalip Tribes, as well as Hancock Timber, which manages much of the property where most of the elk live, have offset the feed bill.



# NWIFC FY08 OVERVIEW

Willy Johnstone, Salmon River Hatchery manager, right, moves chinook into a mobile fish-marking trailer operated by NWIFC's fishery biologist Ashley Shaffer. NWIFC: D. Preston

## Introduction

*"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

The Northwest Indian Fisheries Commission (NWIFC) was created in 1974 by the treaty Indian tribes in western Washington as a result of the *U.S. v. Washington* litigation that affirmed

fishing rights reserved by the tribes in treaties signed with the federal government in the 1850s.

The NWIFC is a support service organization that provides direct services to 20 member tribes to assist them in their natural resources co-management efforts. The NWIFC employs 67 full-time staff and is headquartered in Olympia, Wash., with satellite offices in Forks, Mount Vernon and Kingston.

The tribes select commissioners who develop policy and provide direction. The commissioners elect a chairman, vice-chairman and treasurer. The commission's executive director supervises the staff that implements decisions approved by the commissioners.

# YEAR IN REVIEW



Billy Frank Jr., chairman of NWIFC, stands next to the Treaty Tree at the mouth of the Nisqually River in the Nisqually wildlife refuge. *NWIFC: T. Meyer*

Ongoing concern about the declining health of the marine environment in western Washington, efforts to implement the 2007 culvert case ruling favoring the tribes, and improving relations between the tribes and the Washington Fish and Wildlife Commission were among some of the notable activities during the year.

The cleanup of Puget Sound moved forward with delivery of the Puget Sound Partnership's Action Agenda in 2008.

Washington Gov. Chris Gregoire created the public/private Puget Sound Partnership in 2005 to significantly improve the health of Puget Sound by 2020. NWIFC Chair Billy Frank Jr. and former U.S. Environmental Protection Agency director Bill Ruckelshaus co-chaired development of the Partnership and serve on the Partnership's governing Leadership Council. Additional tribal representatives serve on committees that helped create the Action Agenda.

The Action Agenda is the guide to a healthier Puget Sound. It will prioritize cleanup and improvement projects, coordinate federal, state, local, tribal and private resources, and help ensure cooperation.

The four coastal treaty tribes, the state of Washington and the National Oceanic and Atmospheric Administration's National Marine Sanctuary Program continued to work to cooperatively address the need for ecosystem management in the region through the Intergovernmental Policy Council. The council was created in 2007 to manage the marine resources of the Olympic Coast National Marine Sanctuary (OCNMS).

The Intergovernmental Policy Council facilitates communication, the exchange of information and recommendations regarding management of marine resources within the sanctuary.

The tribes and state continued work to implement the federal court's ruling in the culvert case. Western Washington treaty Indian tribes won a major victory in 2007 regarding their treaty-reserved right to ensure protection for salmon from habitat degradation when federal Judge Ricardo Martinez ruled that

state culverts that block fish and diminish salmon runs violate Indian treaty fishing rights. Work during the past year focused on development of a comprehensive remedy for repairing the culverts in a timely manner.

Tribes also moved actively into implementing recovery plans for Puget Sound chinook, Hood Canal summer chum and Lake Ozette sockeye, all of which are listed as "threatened" under the federal Endangered Species Act. Treaty tribes are conducting on-the-ground projects across the H's: Habitat, Harvest and Hatcheries. Examples include the re-introduction of chinook in the upper Skokomish River watershed and joint efforts to preserve South Fork Nooksack River spring chinook through development of a captive brood-stock program.

Anticipating the presidential transition in 2009, NWIFC member tribes have been working to ensure their voices on natural resources issues are heard in Washington, D.C. The 24 treaty tribes in the Pacific Northwest coordinated through the NWIFC and the Columbia River Inter-Tribal Fish Commission, encouraged by the determination of the Obama Administration, have come together to propose a renewed agenda for protecting and managing the natural resources fundamental to the existence of the treaty tribes.

The tribes are asking the Obama Administration and the 111th Congress to:

- ◆ Reaffirm and strengthen the federal government's relationship with sovereign Indian tribes. Support tribal sovereignty with an Executive Order reaffirming and strengthening the Obama Administration's government-to-government relationship with Indian tribes.
- ◆ Uphold the federal government's trust responsibility to honor the treaty promises made to the tribes. Ensure the trust responsibility that salmon and other treaty-reserved resources remain available to the tribes for exercise of their treaty-reserved rights.
- ◆ Adequately and efficiently fund federal treaty obligations through tribal natural resource programs, projects, and agreements. Rebuild tribal capacity with an annual base budget increase of \$12 million to the NWIFC and its 20 member tribes and \$4.5 million annually to the Columbia River Inter-Tribal Fish Commission and its four member tribes.
- ◆ Protect the waters of the Pacific Northwest for the benefit of the natural resources and people dependent on them. Protect and restore tribal water rights and implementation of water quality and quantity standards to ensure the health of Indian people and the salmon upon which they rely.

It is the hope of the tribes of the Pacific Northwest that the new leadership guiding the United States will restore the faith and trust so cautiously placed upon this nation by the signers of those treaties more than 150 years ago.



# NWIFC ACTIVITIES

NWIFC biologist Bill Patton, left, and NWIFC biometrician Rick Co-show take scale samples and record data from a chum during a test fishery near Kingston. *NWIFC: T. Royal*

## Fishery Management and Planning

The primary objective of the Fishery Management and Planning Division is to provide technical assistance and coordination to member tribes in their annual and long-range fishery management planning activities. Activities included:

- ◆ Long-range planning, wild salmon recovery efforts and federal Endangered Species Act implementation.
- ◆ Development of pre-season fishing agreements.
- ◆ Development of pre-season and in-season run size forecasts.
- ◆ In-season fisheries monitoring.
- ◆ Post-season fishery analysis and reporting.

## Quantitative Services

The Quantitative Services Division's objective is to assist-tribal fishery management programs by providing relevant data, quantitative tools and analyses, and technical consulting services to tribal and NWIFC projects. Activities included:

- ◆ Administering and coordinating the Treaty Indian Catch-Monitoring Program.
- ◆ Providing statistical consulting services.
- ◆ Conducting data analysis of fisheries studies and developing study designs.
- ◆ Updating and evaluating fishery management statistical models and databases.

## Enhancement Services

The Enhancement Services Division provides tribal support services in enhancement planning, hatchery coordination, coded-wire tagging and fish health. Activities included:

- ◆ Coded-wire tagging of 4 million fish at tribal hatcheries to provide information critical to fisheries management.
- ◆ Providing genetic, ecological and statistical consulting for tribal hatchery programs.
- ◆ Providing fish health services to tribal hatcheries.

## U.S./Canada Pacific Salmon Treaty

The Pacific Salmon Treaty of 1985 provides for tribal representation at all levels of the Pacific Salmon Commission, which implements the treaty. NWIFC staff are involved in many aspects of the treaty's implementation. Activities included:

- ◆ Facilitating inter-tribal and inter-agency meetings, developing issue papers and negotiation options.
- ◆ Serving on the Fraser sockeye and pink, chum, coho, chinook, and data-sharing technical committees, as well as other work groups and panels.
- ◆ Coordinating tribal research and data-gathering activities associated with implementation of the Pacific Salmon Committee.

## Habitat Services

The Habitat Services Division provides coordination, representation and technical assistance to member tribes on fish habitat and other environmental issues. The division monitors these issues and acts as an information clearinghouse. Activities included:

- ◆ Coordinating policy and technical level discussions between tribes and federal, state and local governments, and other interested parties.
- ◆ Coordinating, representing and monitoring tribal interests in the Timber/Fish/Wildlife Forests and Fish Report process, Coordinated Tribal Water Quality and Ambient Monitoring programs.
- ◆ Implementing the Salmon and Steelhead Habitat Inventory and Assessment Project.

## Information and Education Services

The Information and Education Services Division provides comprehensive public relations and educational services to member tribes. Activities included:

- ◆ Producing news releases, newsletters, brochures, reports, curricula, videos, photographs, exhibits and maintaining the commission's Web site, [www.nwifc.org](http://www.nwifc.org), to educate the public about tribal natural resources management activities and objectives.
- ◆ Responding to hundreds of public requests for information about the tribes and their tribal natural resources management activities.
- ◆ Monitoring state and federal legislation and coordinating tribal input.

**For More Information, Contact:**

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