

Northwest Indian Fisheries Commission

NEWS



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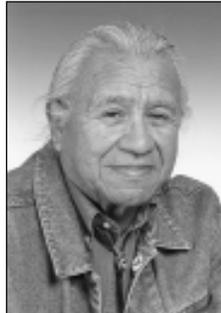
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Salmon Recovery: Let's Not Be Short-Term Thinkers

**By Billy Frank Jr.
NWIFC Chairman**

The citizens of this state are confused about salmon recovery, and it's no wonder. Information they receive about this critical issue is so jumbled that it is virtually impossible for them to form well-founded opinions about it. Most people are becoming more aware of the fact that salmon recovery will affect them, one and all.



But very few have a clear picture of how it will impact the economy, their jobs, their lifestyles or their environment.

These unknowns create a dangerous situation because there is no shortage of deep-pocketed special interest groups who want people to bow to bought-and-paid-for rhetoric supporting their self-serving agendas. Take Initiative 696, for example.

The proponents of state Initiative 696 want you to believe that getting rid of all commercial fisheries will solve the salmon problem. What they fail to tell you is that there is not much of a commercial fishery left in this state. Like the tribal fishery, the commercial fishery has been reduced 80 to 90 percent over the past decade. The fact is that fish-

eries have been responsive to the needs of the salmon resource. This isn't to say that harvesters, whether commercial, recreational or tribal, should now bow out of the circle of accountability. We know it is critically important for all of us to continue to be responsive to the needs of fish, and to continue to be able to participate in their protection. But that's where Initiative 696 falls short. The net effect of the initiative would be to rip a valuable ally out of the salmon restoration picture.

The minute you hear anyone try to use a scapegoat in salmon recovery, as is the case with 696, I guarantee you that they are setting a smoke screen to protect or advance their own interests.

Do your research with the Public Disclosure Commission and you will find that the last attempt to eliminate commercial fishing in Washington (I-640 in 1995) was bankrolled by aluminum smelters, chemical companies and other industrial users of the Columbia River.

Unlike the 696 backers, I freely admit that we, the tribes, have an agenda of our own. We want to harvest fish. To be able to do that, there must be fish to harvest – for a long time to come. For that to happen, we have long realized that we must be ready, willing and able to partner our efforts with anyone who will work with us.

On the cover: Josh Hermann, Skokomish, strains on a beach seine alive with chinook salmon at the Hoodsport Hatchery. Hermann and other Skokomish tribal members were taking advantage of a chinook run in Hood Canal that was strong enough to support limited treaty and non-treaty fisheries. *Photo: D. Williams*

Northwest Indian Fisheries Commission News

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For Sockeye, Pink Salmon

'Disastrous' Fishing Season Devastates North Sound Tribes

“Disastrous” is how North Sound treaty Indian fishing tribes are describing an obliterated 1999 Fraser River sockeye and pink salmon fishing season.

The preseason forecast called for better than 8 million Fraser River sockeye to return, but that prediction was off by nearly 5 million, which precluded most commercial sockeye fishing in Washington and Canada. Any relief expected from a pink salmon season also didn't materialize, as Fraser River pinks avoided United States waters.

“Our fishermen really rely on sockeye,” said Lorraine Loomis, Swinomish tribal member and Skagit System Co-operative fisheries manager. “It's the most important fishery for many of them — it's how they make their boat payments.

“Not only was there no commercial fishery, but now a lot of the homes are without any fish. Our community freezer doesn't have fish for ceremonies and funeral dinners,” Loomis said. “This was a disaster to the entire tribal community.”

With his brother and cousin, Swinomish fisherman Chase Wilbur operates the same 62-foot purse seine boat his father operated for years. He said he invested \$9,000 just getting ready for a season that never happened. A needed

It's the most important fishery for many of them. It's how they make their boat payments.'

**– Lorraine Loomis,
Swinomish Tribe**

engine rebuild scheduled for next spring will have to be put off.

“This will probably put some people out of the fishing business, and others will be scraping to get by through the winter,” Wilbur said. “Hopefully we'll have a fishing season next year. If not, I may have to look at selling the operation.”



A disastrous sockeye season may put some tribal fishermen out of business, says Swinomish purse seine operator Chase Wilbur. Photo: L. Harris

Things were so bad in the North Sound that Lummi Nation took the dramatic action in September of declaring its reservation and its usual and accustomed fishing grounds an Economic Fishery Resource Disaster Area. The tribe is requesting assistance from the Small Business Administration, the Bureau of Indian Affairs and all related agencies that provide assistance in the event of economic disasters. Lummi Nation estimates an overall community loss of \$18 million.

It is critical that bureaucracies respond quickly to those affected by natural disasters, said Larry Priest, Lummi Vice Chairman and a purse seine fisherman. “For the fishermen, this is not a house being blown apart, this disaster is home foreclosures and evictions. But most of all, it's losing the very tool of making a living — your fishing boat.”

Makah fishermen and fishermen from the three S'Klallam tribes had moderate catches in the Strait of Juan de Fuca before test fisheries and monitoring of escapement pointed to a low run. The low sockeye returns are believed to be linked to poor juvenile survival rates caused by unfavorable ocean conditions.

Pink salmon were also a no-show for U.S. fishermen in 1999. Fisheries managers reported that, not only was the run late, but pinks migrated via Johnstone Strait (east of Vancouver Island) instead of the Strait of Juan de Fuca. When they finally showed up in harvestable numbers, there were not enough in U.S. waters to create a viable fishery. A provision in an agreement between the United States and Canada allows for a sockeye and pink allocation payback for U.S. fishermen in future years, and negotiations will take place with Canada to determine how much.

– L. Harris

Olympia Oysters Return To Tribal Lands

They were once abundant on Puget Sound's beaches, but overharvesting more than a century ago, along with pollution from a young state's careless industries, all but wiped out the Olympia oyster.

Western Washington's only native oyster, the Olympia, is gaining a foothold in Hood Canal once again, thanks to a cooperative project between the Skokomish Indian Tribe, shellfish grower Taylor Shellfish Co. Inc., and the non-profit Puget Sound Restoration Fund.

With favorable growing conditions and a little luck, the first crop of Olympias could be ready to harvest from the Skokomish tideflats in about three years.

The brood oysters for the Skokomish project were collected from northern Hood Canal beaches. They were moved to the state shellfish laboratory and spawned. The resulting "seed" attached naturally to bits of shell, and the young oysters – barely visible to the naked eye – were moved in bags to the tideflats for a month of growing. The final step was to scatter the oysters onto a growing plot.

Taylor Shellfish Co. Inc. president Bill Taylor and Skokomish shellfish biologist Eric Sparkman took turns ferrying students from Hood Canal School in a rowboat out to the growing plot – a sheltered lagoon on the reservation's tideflats – to toss thousands of oysters overboard.

Now all that's left to do is wait and see how the 50,000 transplants take to their new home.

"Depending on the growing conditions, it will probably be at least three years until these oysters reach market size," Sparkman said. "If there is any harvest at all, it will probably just be for subsistence, but even that's not a certainty yet. Right now this is just in the experimental phase."



Bill Taylor and Hood Canal School students toss juvenile Olympia oysters onto a growing plot on the Skokomish delta. Photo: D. Williams

America's hunger for oysters in the 19th century led to the demise of the Olympia oyster, Sparkman said. Then came water quality problems caused by industrial development.

"Pollution from one pulp mill near Shelton wiped out all of the commercial industry for Olympias in the area in the 1940s, and that's when the Pacific oyster really took off here," he said.

The Puget Sound Restoration Fund's mission is to reintroduce native plants and animals whose numbers have been greatly reduced. The fund's Betsy Peabody said there could be as many as seven different Olympia oyster reintroduction sites throughout Puget Sound and Hood Canal.

– D. Williams

Welcoming The Salmon

Lummi Nation dancers perform during the seventh annual Salmon Homecoming in Seattle Sept. 18. Visitors were treated to a variety of dances, songs, exhibits, demonstrations and other activities during the three-day event on the city's waterfront. Photo: D. Preston



Whatcom Creek Explosion Sends Tribes Into Action

When a ruptured oil pipeline spilled nearly 300,000 gallons of gasoline into Whatcom Creek this summer and ignited, the resulting fireball killed three people and destroyed 1½ miles of salmon-bearing stream.

It also thrust the Lummi Nation and Nooksack Tribe, and their considerable expertise in natural resource management, into emergency response.

“We have plenty of experience responding to human-caused problems in the watershed, and this also illustrates why the tribes sometimes call into question industries that claim their activities are safe for the community and the environment,” said Bob Kelly, Nooksack Natural Resources Director.

Tens of thousands of fish were estimated to have died in the Olympic Pipe Line Co. blast June 10, including more than 5,000 salmonids. Many other species — birds, frogs, nightcrawlers, bugs, salamanders, otters, etc. — were also killed. Trees and brush were seared as the creek’s riparian habitat was gutted in the 1½-mile stretch.

“This is a tragic example, but to us

'Basically what we found was that there was nothing alive in the creek.'

**– John Thompson,
Lummi Natural
Resources**



Lummi Natural Resources staff collect dead fish and wildlife along a devastated portion of Whatcom Creek. *Photo: Lummi Natural Resources*

a ruptured oil pipeline isn’t that far from dairy waste in the river, a refinery releasing sludge into the bay, or erosion caused by a logging road. When human activities are at odds with the environment, the environment usually loses,” said Merle Jefferson, Lummi Natural Resources Director.

From the outset, natural resource staff from the Lummi Nation and Nooksack Tribe were involved in environmental damage assessment, along with staff from other agencies. John Thompson and Gregg Dunphy of Lummi Natural Resources (LNR) were on site within hours, helping to collect and categorize dead fish and wildlife species.

“Basically what we found was that there was nothing alive in the creek,” said Thompson, environmental protection manager for LNR.

Nooksack water resources specialist Claire Cdebaca and biologist Dale Griggs were on hand soon after, joining Thompson and others to determine data needs and how to prevent further damage. Jim Hansen, LNR habitat restoration coordinator, was instrumental in helping to develop plans to prevent erosion and invasive species.

“Our role was to supplement the expertise of the other agencies and provide the expertise that wasn’t there,” said Thompson.

The explosion also prompted Lummi Cultural Director Al Scott Johnnie and Tom Edwards, LNR Timber, Fish and Wildlife Technician, to begin looking into the cultural impacts

to an area of critical historical importance to the tribes. Nooksack Cultural Director Peter Joseph began doing the same.

“The creek has cultural and spiritual significance not only for the Lummi and Nooksack tribes,” said Edwards. “Our people historically gathered medicinal plants and materials for ceremony; they fished up there and it was a place of spiritual cleansing.”

The two tribes remain heavily involved in disaster response through a trustees committee under the federal Oil Pollution Act, and through a joint restoration committee subgroup. Jefferson and Kelly will act as trustees of their tribes in protecting and restoring Whatcom Creek. The committees include representation from the tribes, City of Bellingham, and state and federal agencies, and are charged with implementing short term and developing long term restoration plans for the creek.

“Our concern is for the safety of the community and the loss of natural and cultural resources,” said Jefferson.

The tribes anticipate reimbursement for their staffs’ out-of-pocket costs by Olympic, but questions remain on how tribal members will be compensated for the loss of fisheries and cultural resources.

More than \$7 million is currently going into clean-up and restoration efforts. – *L. Harris*

'There Is A Great Sense Of Family'

Beauty Of Beach Seining In Family, Place And Selectivity

As Swinomish tribal elder Gus Stone and his extended family pulled on a beach seine net at Lone Tree Point for most of a hot August day, it was clear this was a rare set.

By the time eight family members had pulled on, then picked the net clean, the count was nearly 5,000 pink salmon.

With 500 fish considered a good set, Stone's catch was a clear exception in an otherwise extremely bleak season.

Whether 5,000 fish or five, Stone says he prefers beach seine fishing on traditional grounds to almost any other method. "It's right here at home," he said. "You don't have to go out into marine waters."

Place and family are the true blessings of beach seine fishing, added fisherman and Swinomish Tribal Chairman Brian Cladoosby. Up to 13 members of Cladoosby's family – men, women and children – were working the same net about 200 yards from Stone.

"There is a great sense of family," Cladoosby said. "Everybody pitching in and helping out. It's hard work, but it's enjoyable. We love living off what the sea has to offer us. Every set we thank our Creator for providing."

Beach seining can be highly effective on a gently sloping beach and where fish migrate close to shore. One end of the net is anchored to the shore while the other end is slowly run out on a boat perpendicular to the land. The net forms a circle as it is slowly brought back to shore by the boat. Once back on the beach, the net is pulled to shore by hand, trapping fish in the heavy mesh.

Fisheries managers like the selectivity of a beach seine fishery. Because it simply herds the fish together, beach seines can be used in situations where a surplus of a targeted species is complicated by the presence of a critically weak or federally protected species, making it difficult to proceed with a traditional fishery.

That's the case in the Skokomish River, which has a composite run of hatchery and wild chinook salmon, as well as a few summer chum. Puget Sound chinook and Hood Canal summer chum salmon were listed as "threatened" under the Endangered Species Act earlier this year.

State and tribal fisheries managers identified a surplus of chinook returning to the southern end of Hood Canal and the Skokomish River. They agreed that strictly controlled treaty and non-treaty fisheries for surplus chinook could occur without jeopardizing stock recovery plans.

The problem with a traditional tribal gillnet fishery in the river was with the summer chum. While that species is

considered extinct in the Skokomish River, the lower reaches often hold a handful of the scarce fish in late summer – fish from other streams that tend to come into the river mouth before finding their home stream. Their possible presence made life difficult for Dave Herrera, Skokomish fisheries manager, who had to balance the right of his tribe's fishermen to harvest the surplus chinook with the need to protect summer chum.

"Not harming those summer chum meant we couldn't

use our traditional gillnet gear," Herrera said. "So we went to beach seines in the lower river. With a beach seine, you can be selective and release non-targeted fish unharmed while still having an effective fishery.

"It was either go with beach seines and hook and line fisheries, or we would have to close down the lower portion of the river to all fishing, and that would have meant a lot of lost opportunity for our fishers," he said. – D. Williams/L. Harris



Members of an extended Swinomish family pull on a beach seine net at Lone Tree Point in August. Photo: L. Harris

Joe DeLaCruz: Boldt Decision Gave Tribes Unified Voice

Boldt
25
1974-1999

It has been 25 years since Judge George Boldt issued his landmark ruling in U.S. vs. Washington, which re-affirmed the tribes' treaty-reserved fishing rights and established the tribes as co-managers of the resource. Joe DeLaCruz, past Quinault Nation Chairman for 21 years, was the last witness to speak in the Boldt court case in 1974. He has spent years traveling to and from Washington, D.C. and is known to be both quiet negotiator and fiery orator who tells it like it is. He recently reflected on how the "Fish Wars" and the Boldt Decision played a big part in progress of relationships with the U.S. government and sovereignty issues for all tribes.

"I have a little different perspective. I saw the 'Fish Wars' as a catalyst to bring people together," said DeLaCruz, who was a regional and national representative for tribes then as he is today.

DeLaCruz has been "carrying a briefcase full of paper with the treaties and promises from the government for 30 years." While he didn't get arrested for fishing, as many tribal fishermen did back then, his battle has been in the trenches of state and national government, fight-

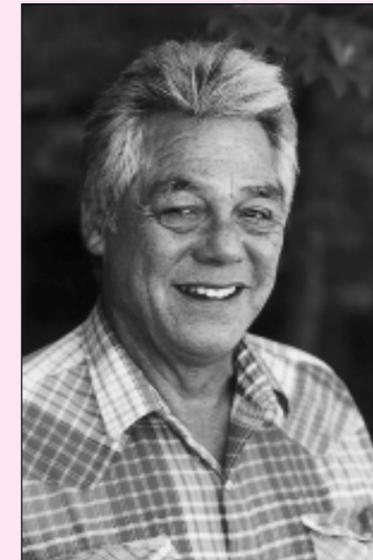
ing for tribal sovereignty and self-determination.

Up until the Boldt Decision, most relationships with the state and federal government were based on easier "social" issues like cultural functions, DeLaCruz said. Real progress on difficult issues such as sovereignty and self-determination had not been made.

"But once Boldt happened, it gave us a unified voice and we pushed from Gov. Evans on through to get an Office of Indian Affairs in state government. We got that and, finally, we got the Centennial Accord in 1989, which each of the governors has signed," he said. "But it took the fish wars to move a lot of this stuff along."

Nationally, government-to-government relationships between tribes and the federal government also improved with the impetus of the Boldt Decision, DeLaCruz said.

"President Nixon's statement regarding self-determination was very key and it's moved on from there," De LaCruz said. "Nixon moved federal policy regarding Indians to-



Joe DeLaCruz

ward self-determination and self-governance rather than encouraging assimilation of Indian people."

He cited recent annual meetings with the Clinton administration where the treaty language was honored regarding heads of state coming to tribes to meet, rather than summoning them to Washington, D.C.

"It was really good, too, because those first meetings were just elected tribal leaders, no attorneys. We got memorandums of understanding the first time and executive orders the second time which strengthen government to government and self-determination," he said.

"If you look at U.S. history, you have an executive branch and legislative branch expression of government-to-government relationships and most Supreme Court decisions affirm that as well. The Boldt Decision gave us more than just talking, it gave us tools," DeLaCruz said.

DeLaCruz sees the Boldt Decision and the tribes as keys to the beginning of the modern state-of-the-art management of natural resources. "As someone who helped form the Northwest Indian Fisheries Commission, I think that has been important in providing a consistent voice for tribes in resource management issues," he said.

DeLaCruz's vision of the future is that all tribes will be able to develop and operate their governments as they wish and responsibly relate to other governments. "We've got a ways to go, but we're going to get there," he said. – D. Preston

Debris Removal Difficult, Rewarding

Branches whip back and scratch faces, blackberry bushes tear at pants and hands, and rotten wood threatens to break a leg every time a foot crashes through.

All this happens walking to work.

Then there's the work. Standing, often waist-deep, in a stream whose rushing waters have been stilled by thousands of pounds of discarded cedar in the stream channel. Your job: break up the waterlogged cedar into moveable chunks, manually haul it out of the channel, and find somewhere – anywhere – to stack it out of the floodplain so it won't re-enter the stream in high water and block fish passage or destroy good fish habitat.

Not your average day of work, and not a job that most people are willing to do. But if it's for the benefit of fish and one of only a few ways to make a living, there are Hoh tribal members and others willing to do this back-breaking labor day in and day out.

"You could say it's ultra-labor intensive," Jesse Welch quipped, his face dotted with splashes of cedar from splitting up the wet wood.

Welch is part of a 10-man crew working to remove the cedar left in stream channels by logging and salvage operations of old. It is a daunting task, seemingly never-ending, as many miles of streams in the Hoh and other nearby basins have similar problems.

However, the men see the reward in their work almost immediately. Once they remove the debris, water begins to flow again, its brownish cast lightens and fine sediment is flushed down the stream channel, revealing hidden gravel that fish can use for spawning.

It has taken the Hoh Tribe five years to do the ground-work necessary to map and inventory streams within the tribe's usual and accustomed treaty area, and convince others of the problems associated with the old debris.

"We surveyed over 700 miles of streams and wetlands, and found over 100 miles of historic fish habitat in the Hoh blocked to fish access by logging and salvage debris, culverts, and landslides," said Jill Silver, habitat biologist for the tribe. "We're working slowly to partner with landowners to address these blockages."

Places for fish to rest, feed, grow, and overwinter are key to healthy fish populations. The Hoh River does not have an estuary, the lagoon where the sea and river meet. Because these are normally key areas for fish rearing and overwintering, the Hoh River system must provide these functions in its tributaries, side channels, and wetlands.

These wetlands were once cedar forests that flooded on an annual basis. Juvenile fish found refuge among the wetland plants during high flows. Water percolating out of the



Gene Gaddie, a member of a Hoh tribal work crew, shuttles a piece of cedar from a tributary to the Hoh River.

Photo: D. Preston

ground and flowing into the wetlands from rainfall was clear and cold. The water in the channels choked with cedar is slow and warm, low in oxygen content and high in harmful acidity.

Reclaiming those areas restores critical habitat and improves water quality for several fish species important to the tribe. In patches of old growth timber, both upstream and downstream from the harvested timber units, the stream is alive with cutthroat trout and aquatic insects.

"It shows that if the habitat is right, fish will thrive there," said Silver.

Paying for projects such as this is always problematic. The tribe has enough funding to pay the current crew for about four months. Timberland owner Rayonier has allowed the tribe to clear the parts of Hell Roaring Creek on its land, and the Washington Department of Natural Resources is loaning a crew to work on state land.

The problem is extensive. Eight of the 11 miles of Hell Roaring Creek are severely impacted by cedar debris, and lack of funding may halt the work in the rest of the Hoh Basin before it's completed. The tribe has brainstormed ways to continue to pay for the project, including selling salvaged cedar and using the money to clear the streams.

Until that idea gets support from landowners, the tribe must find ways to move some of the cedar to other sites if the ground isn't high enough to keep it out of the stream. Helicopter time to move those loads mounts the cost quickly.

"There's lots of work to do out there, and restoring access is just the beginning," Silver said. "We're looking forward to seeing fish and bugs in Hell Roaring Creek again."

– D. Preston

Eelgrass Beds Are Focus Of Study

The green forest of fir and cedar blanketing Hood Canal's shoreline is mimicked by another forest beneath the waves. Just off the narrow rocky beaches, fanning across flat river deltas, and clinging to the thin shelf of shallow water that contours the shoreline before falling off into blue-black depths, the health of this eelgrass forest plays an important role in the lives of salmon.

Juveniles just entering saltwater for the first time feed on small invertebrates found in eelgrass beds, and to keep from becoming a meal themselves, young salmon hide in the beds from winged, finned, and flipped predators. Eelgrass beds also serve as a nursery for herring – a favorite food of salmon – which lay their eggs on the slender green blades.

If wild salmon are the canary in the coal mine – nature's yardstick to measure the health of our environment – eelgrass might be the salmon's canary. The importance of eelgrass to summer



Bill Couch and Sophie Coulloumme from the UW School of Fisheries take GPS readings as part of a mapping project. *Photo: D. Williams*

cal habitat.

“The summer chum's life history makes eelgrass an important component,” said Ted Labbe, lead habitat biologist for the Treaty Council. “The adults come in to the rivers in late summer and spawn, and their offspring emerge earlier than fall chum offspring do. They end up spending a lot of time

summer in Hood Canal and the eastern Strait of Juan de Fuca, the overall habitat recovery planning began a few years ago when a summer chum habitat workgroup composed of tribal, federal, and state biologists came together to evaluate limiting factors for summer chum, both in the freshwater and saltwater landscapes.

“One of the first things we discovered was not only was there very little data on the quality and quantity of near-shore habitat, but it was data that was mostly over two decades old,” Labbe said.

Teams of biologists and technicians went into the field to close the data gap. All of the shoreline

modifications are being mapped – the docks, marinas, bulkheads, and other structures. Then comes vegetation types. They must be charted, and their locations noted.

Collecting data from such a large area would take more time and money than anyone has. So the group is using a unique blend of old-fashioned fieldwork and high-tech aerial imagery.

The result will be a complete set of map overlays describing the locations and types of shoreline structures, as well as eelgrass beds and salt marshes.

“People have said that bulkheads and other armoring tend to coarsen up the bottom, which disrupts eelgrass production,” Labbe said. “When we combine the data, we'll be able to tease out the relationships between shoreline modifications and eelgrass production.

“When we're done with this, we may have a stronger leg to stand on when we say to the counties, ‘you need to protect these specific areas,’” Labbe said. “We want to partner with them and make this data available as an encouragement to help them do the right thing.” – *D. Williams*

'The summer chum's life history makes eelgrass an important component.'

– Ted Labbe, Point No Point Treaty Council

chum salmon, which, along with Puget Sound chinook, recently protected under the federal Endangered Species Act, has sparked a new study by the Point No Point Treaty Council.

Biologists from the tribal natural resources consortium are mapping eelgrass beds and other marine vegetation, and studying how docks, bulkheads, and other structures have affected criti-

in Hood Canal before they move out to the Pacific Ocean, and it's that extended time in the Canal that makes eelgrass so important.

“We know that fish use these areas to feed and migrate through,” Labbe said. “But we have only a very cursory understanding of the relationship between shoreline modifications and the integrity of eelgrass beds.”

While field work is being done this

Dam's Removal Will Open Miles Of Habitat

Removal of a dam on Goldsborough Creek near Shelton that has severely restricted fish passage in the stream for decades will begin in the spring. Coho, chum, steelhead and cutthroat trout will all benefit from the dam's removal, which will open access to about 22 miles of upstream spawning and rearing habitat.

Situated about 2 miles upstream from the creek's mouth on Oakland Bay, the dam site has played a number of roles over the years, including serving as a small-scale hydroelectric project, before being acquired by Simpson Timber Co. in the 1950s. The timber company used the structure to provide water for its pulp mill operation, but with the availability of municipal water and damage caused by flooding in 1996, the company no longer uses the dam.

Simpson and the State Legislature have each pledged \$1.1 million toward the several million dollar cost of the dam's removal by the U.S. Army Corps of Engineers. Other partners in the

project include the Squaxin Island Tribe and South Puget Sound Salmon Enhancement Group. Supporters also include Mason County and the City of Shelton.

"We have been working toward the removal of this dam for a long time," said Jim Peters, tribal natural resources director. "We are excited about the prospects for improved salmon production in Goldsborough Creek as a result of this project. In particular, coho and chum production will increase dramatically."

Army Corps of Engineers plans call for removing the 35-foot-tall dam in stages and rebuilding the stream's slope with in-stream weirs that will control the stream's flow. The first step will be to divert the stream through a pipeline around the project and remove the top 15 feet of the structure. About 25,000 cubic yards of sediment behind the dam will be excavated and used to fill in the



A 35-foot-tall dam on Goldsborough Creek will be removed in the spring, opening miles of salmon habitat. *Photo: T. Meyer*

area below the dam to re-establish the stream's grade. Seven groups of fence-like weirs will then be installed throughout the length of the project to control the creek's water flows. The weirs will ensure adequate flows for fish passage even during periods of low water.

"This dam is like a cork in a bottle that is blocking salmon access to good quality upstream spawning and rearing habitat," said Peters. "This watershed is like coho heaven. If we give salmon a chance to be successful by opening up miles of good habitat, they will make the best of it." – *T. Meyer*

Tribal Volunteers Help Improve Elk Habitat

Treaty Indian tribe volunteers joined the Washington Department of Fish and Wildlife, Weyerhaeuser and citizen wildlife advocacy groups this summer to improve habitat for a starving elk herd on the flanks of Mount St. Helens. Puyallup, Skokomish and Swinomish tribal members spent several days clearing brush and planting grass and clover to provide more food for the elk at the state's Mount St. Helens Wildlife Area.

Late, heavy snowfalls at lower-than-normal elevations last winter forced the elk into the area, which was unable to support the 600-head herd. About 80 elk died of starvation at the site.

About a half-dozen tribal members participated in the habitat improvement work. In addition, the Puyallup Tribe provided \$1,000 worth of grass and clover seed for the effort.

"Cooperation is the key to providing the help these animals need," said Todd Wilbur, chairman of the Inter-



Tribal volunteers pull scotch broom to improve elk forage near Mount St. Helens. *Photo: C. Madsen*

tribal Wildlife Committee of the Northwest Indian Fisheries Commission. "By working together we can find ways to help this herd not only today, but in the long term as well." – *T. Meyer*

Elk, Drivers Benefit From Crossing Project

State and tribal wildlife managers may have finally found a way for the ever-growing Sequim elk herd to safely cross busy Highway 101, and the big animals don't even have to learn how to push a crosswalk button.

The approximately 80-head herd has seen much of its range in the Bell Hill area turned from grass fields into mansions with million-dollar views of the Strait of Juan de Fuca, Vancouver Island, and the San Juan Islands. But there is still good grazing to be found in the hay fields north of the highway, which means elk leave the timbered flanks of the Olympic foothills and cross 101.

With every passing year, the size of the herd and the number of vehicles on the road grow, making collisions between elk and cars more likely. Last year nine elk were killed near Sequim on 101.

The co-managers have spent several years and thousands of dollars trying to keep the herd away from the urbanizing region, with limited success.

So if the herd won't budge and the highway can't be moved, why not make crossing the road safer for the animals? That's the thinking behind a new high-tech crosswalk of sorts that will use radio-transmitting collars and special road signs along the highway to warn motorists when the herd is nearby and likely to cross.

It's the first project of its kind in the country. Three elk had already been fitted with collars for a herd monitoring project, and another seven animals were collared for the new highway crossing program during a July operation involving Point No Point Treaty Council wildlife biologist Paul Anderson, as well as Washington Department of Fish and Wildlife staff, and local volunteers.



A cow elk, just fitted with a radio transmitting collar, prepares to join the herd. *Photo: D. Williams*



PNPTC wildlife biologist Paul Anderson checks the health of a drugged elk. *Photo: D. Williams*

The project is being funded through a \$75,000 federal grant written by WDFW and the U.S. Forest Service, and administered through the Washington Department of Transportation. Herding and collaring the elk cost about \$13,000, while the signs will cost \$48,000. Radio telemetry receiving stations will cost an additional \$12,700.

Anderson, a veteran of past collaring and elk relocation efforts, was one of three field team leaders in charge of collaring animals that were sedated with a powerful drug shot into them by a dart. Crews, working in warm and humid conditions, scrambled to complete the collaring as quickly as possible to avoid possible elk overheating problems. In addition to Anderson's fieldwork on the collaring project, PNPTC provided in-kind work by performing most of the herd monitoring.

Sally Nickelson, PNPTC wildlife program manager, said the Sequim elk herd's population has been booming of late – something that can't be said for most of the Olympic Peninsula's scattered herds.

The elk have their suburban environs to thank for that. Cougars don't like to get too close to human activity, and hunters can't go after animals that spend much of their time manicuring lawns on Bell Hill and nearby Happy Valley, another popular elk hangout that's close to houses and farms.

"This has been a culturally important herd for the tribes, and it must be kept strong," Nickelson said. "The tribes voluntarily stopped hunting several years ago when the herd's numbers were in decline. It's satisfying to see these elk rebounding and achieving healthy numbers again."

– *D. Williams*

Lillian Pullen



Lillian Pullen

Lillian Pullen, 86, master Quileute basket weaver and an important cultural teacher passed away July 11. A candlelight service was held July 14 and a funeral service July 15, both in LaPush.

“Gram” Lillian was born Oct. 1, 1912. She had 59 grandchildren, 91 great-grandchildren and eight great-great-grandchildren. She was a strong advocate of education for all children and was a midwife in both Queets and LaPush. She was a cultural instructor in the Quileute Tribal School and an integral part of recording and passing on the Quileute language and dictionary.

She was named a Washington State Arts Commission Artist of the Year for her basket weaving and contributions to Indian culture. In 1988, she was named National Indian Elder Educator by the National Indian Education Association.

She was instrumental in organizing the power canoe races, was a past Quileute Days organizer and was an assistant minister of the LaPush Shaker Church.



Net Working

Johnny Bryson, Quinalt, repairs his net in Taholah. Bryson says repairing his nets, rather than buying new ones, saves him a lot of money. 'The art of repairing nets is kind of getting lost. There aren't a lot of guys out there that know how to do it any more,' he said. *Photo: D. Preston*

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