

Director's Report to the Fish and Wildlife Commission

January 11-12, 2008

“A Sound Stewardship of Fish and Wildlife”

We serve Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable fish and wildlife-related recreational and commercial opportunities.

Fish and Wildlife Goal:

Achieve healthy, diverse and sustainable fish and wildlife populations and their supporting habitats

Salmon Spawning Ground Assessment Post December 2-3, 2007 Storm Event: For the past two weeks, WDFW District 17 field staff has continued documenting the impacts to the natural spawning salmonid populations after the December 2-3, 2007 storm event. The Quinault Indian Nation survey staff is also documenting impacts within their Humptulips – Wynoochee surveyed reaches. Our estimates are very conservative at this point, as they rely upon general surveyor field observations versus detailed collection methods.

For both Chehalis and Willapa basins, 90+% of fall chinook, 100% of fall chum, and an estimated 25- 40% of fall coho had spawned prior to this storm event. Fall chinook and chum redds were probably hit the hardest by the high flows since most were constructed the previous month during record low flow conditions. The upper Chehalis, Stillman Creek, and Upper Willapa basins probably experienced the most damage due to the extreme high flows, debris slides, and road failures.

Surveyors have noted several more log jams, channel changes, lots of silt build-up along gravel bars, many exposed banks, and new un-recognizable habitat from the week's prior survey. In several sections, the gravel compositions have changed dramatically from spawnable gravels to cobble or silt or scoured down to bedrock. Crews did estimate at least a 50% redd loss in the East Fork Satsop due to river scouring. In the upper Willapa, one surveyor noted that 100% of the coho and chinook redds were lost due to redd scouring and heavy silt loads. They stated that “it is essentially a new river,” referring to all the habitat changes. Silt loads in some areas were from ½ - 5 feet deep. Redd loss in Trap creek reaches were from an estimated 15 – 60% for chinook, coho, and chum. Mill Creek was estimated to have lost 1 – 2' of gravel. Chinook redd loss in the Naselle reach was estimated at 25%. Impacts to the North River drainage were far less severe compared to the other sub-basins. The impacts of flow scouring, road and slope failures, increased silt loads, and channel alterations, impacted each sub-basin differently. As an example, the 100+ mph high winds knocked down hundreds of trees across our “index” tributary 0104, whereas the next drainage over, tributary 0102, experienced only minimal tree damage.

We will continue to assess the impacts this December storm event had upon our natural spawning salmon stocks. Once the flows drop and stream visibility improves, we will get the opportunity to observe the higher density medium to large rivers. Based upon the storm's timing and hardest hit locations, the resulting redd loss and habitat alterations will definitely limit the production from this fall's spawning population. Consequently, it is our opinion

that adult chinook, coho and chum salmon returns 3, 4, and 5 years from now could be greatly reduced.

Puyallup and Nisqually Summary: As noted above, to quantify the impact resulting from the early December floods is difficult at this time; the best information will come from next spring as out-migration of juveniles is able to be assessed. Obvious impacts are the formation of new channels and abandonment of those that existed when fish constructed their redds and spawned, it is likely eggs deposited in existing redds are lost. At the time of the floods, this would include chinook, pink, chum, native char, and some coho. Fortunately, the Puyallup and Nisqually systems did not experience the excessive flows that occurred in the Chehalis Basin.

East Mason and East Kitsap County Watersheds: In east Mason and east Kitsap County watersheds such as Chico Creek, flows were of significant magnitude though the volume was far less than in areas to the South and West. In these streams, high flow may have scoured out chum eggs and early coho. At the same time, spawner surveys after the floods showed good numbers of both species and the recently cleaned gravel might offer better egg-fry survival.

Steelhead: The impacts to steelhead will be borne by rearing juveniles. Generally speaking, we have no meaningful way to evaluate these impacts until the adults return.

Belfair Clam Survey and Storm Damage Inspection: Staff participated in a chilly cooperative clam survey with the Skokomish Tribe on the Little Mission public tidelands, just west of Belfair State Park during a night tide on December 21. A tribal bivalve population survey conducted in May 2007 showed a 94% reduction in Manila clam biomass compared to the 2004 survey. At the time of the 2007 survey, tribal staff noted heavy deposition of silt on the tidelands and found many dead clams buried approximately a foot deep. Manila clams normally live within a few inches of the surface of the substrate. Changes in sediment deposition patterns resulting from recent restoration work at Big Mission Creek were considered a possible source of the silt. In the cooperative survey on December 21, 22 random samples were taken and the number of live and dead legal and sub-legal clams was recorded. Tribal staff also took a number of core samples in an attempt to describe the sediment layering. Clam densities were still below what would be considered a commercial level, but live Manila clams, eastern softshells, and native littlenecks were found. Recently dead Manila clams were noted in almost all samples, and most were in the same size range, buried about 8-12 inches below the surface. The lower end of the surveyed tidelands has become quite "soupy" where tribal staff said the substrate had been more firm and conducive to Manila clam production in the past. A fresh water seep washed over much of the lower tidelands, but it was impossible to tell if this drainage had increased in volume due to recent stormwater run-off or if this was a year-round seep. No live clams were found in the samples taken in the area washed by the seep. Higher on the tidelands the substrate was still soft, but contained a decent blend of sand and pea-gravel mixed with silt. Our staff believes there is a good chance this ground can still support Manila clam production. Tribal staff is considering planting a test plot of clams in this ground, although our staff has encouraged them to wait until the work on Big Mission Creek and Little Mission Creek at Belfair State Park has had a chance to stabilize.

Staff also inspected the December 3 storm damage to Belfair State Park. Big Mission Creek appears to have created a more "natural" estuary, significantly wider than its old rip-rapped channel, while Little Mission Creek appears to have covered much of the tent camping area with a load of silt and gravel. It will be interesting to see how the flooding affected the dense oyster reefs on the Belfair State Park tidelands once daylight low tides allow inspection in the spring. Heavy storm damage is apparent throughout the Belfair area and the lower Hood Canal. It is anticipated that we will find damage to shellfish beds at Rendsland Creek, Eagle Creek and possibly Potlatch State Park. Much of this damage will be a result of creek channel scouring, which washes oysters into deeper water and compacts clam grounds, making them possibly less viable for future clam recruitment.

Pinto Abalone Spawning: On December 4, the WDFW Central Shellfish team conducted another successful pinto abalone spawning event at the NOAA marine fisheries research station in Mukilteo. This was the last effort of the season and was the sixth success (resulting in usable gametes from both males and females) in nine attempts in 2007. Two females and four males, all previously un-spawned this season, produced significant quantities of eggs and sperm resulting in our ability to produce four new families.

A total of 542,000 larvae from these four crosses were competent for settlement on December 11 and were placed in the last four available tanks in our hatchery facility. This latest spawning event brings our total number settled for the 2007 season to 1,358,000 larvae from 12 different families. Post-larvae from earlier spawns this season are developing normally and are clearly visible to the naked eye. Because of space and equipment limitations, no additional spawns will be conducted this year. Broodstock pinto abalone will be wintered at this time by gradually reducing their seawater temperature, decreasing their daily light cycle to winter day lengths, and limiting the quantity of food they receive.

Fish & Wildlife Sea Lion Hazing: WDFW and ODFW began hazing sea lions in the six-mile area of the Columbia River, between Marker 85 and Bonneville Dam, on Tuesday December 12. The focus for the coming few weeks will be on deterring Steller sea lions from preying on large white sturgeon. Despite their huge size, Steller sea lions responded well last year to a barrage of rubber bullets, seal bombs, and cracker shells. Since the Steller sea lion is an ESA-listed species, only non-lethal deterrence methods will be used to control them. Non-lethal deterrence will also be used later on this winter to discourage California sea lions from preying on salmon and steelhead runs. However, the smaller California sea lions have not been as responsive to non-lethal methods, so an application has been submitted under Section 120 of the Marine Mammal Protection Act, requesting that the state agencies be allowed to lethally remove certain individual California sea lions that are having a significant impact on federally protected salmonid stocks.

Mt. St. Helens Wildlife Area - Stabilization Project Completed: The Lower Columbia Regional Fish Enhancement Group (LCRFEG) recently completed work on a riparian enhancement project intended to reduce erosion of elk winter range on the mudflow, improve fish habitat, and decrease sediment movement in the Toutle River system. Biologists working for the Cowlitz Tribe secured funding for the project through a \$40,000 grant from the Washington Department of Ecology. Habitat biologists and technical specialists from WDFW's Habitat Program also engaged in the design of the project.

Mt. St. Helens Monument Elk Hunts Proposed: Regional Wildlife Program staff met with U.S. Forest Service representatives to further discuss proposed elk hunts in three areas of the Mt. St. Helens National Volcanic Monument. The three new hunt areas – Pumice Plains, Mt. Whittier, and Upper Smith Creek have been identified and approved by the Fish and Wildlife Commission and endorsed by the Forest Service.

Klickitat Wildlife Area Addition: WDFW has completed the purchase of a 516-acre addition to the Klickitat Wildlife Area. The property, located southwest of Goldendale, provides quality steppe habitat and includes riparian habitat along Swale Creek. Protection of this property's native plant communities in proximity to the Department of Natural Resources' Columbia Hills Natural Area Preserve will help in recovery of endangered and threatened species, including the peregrine and prairie falcon, golden eagles, and the federally listed steelhead trout in Swale Creek. The Washington Wildlife and Recreation Program funded this acquisition under the Critical Habitat category.

Cedar Creek Coho: Recent reports from various media sources have suggested that progress in re-building natural coho from Cedar Creek (a tributary of the North Fork of the Lewis River) has been impeded by harvest of those fish, particularly in the Columbia River commercial gillnet fishery. The reports suggest that the natural coho return to Cedar Creek rebounded to 16,000 in 2002, was expected to climb to 30,000 in 2003, but only totaled 6,100 due to excessive harvest by the Columbia River commercial fishery. This information is not consistent with the monitoring data or the management of the Columbia River commercial fishery

WDFW operates a weir in lower Cedar Creek to monitor the coho abundance and has estimated the natural adult returns since 1999. The actual returns of unmarked (natural produced) coho to Cedar Creek are much lower than those numbers reported to the media. Adult spawning returns have ranged from 144 in 1999 to 2,355 in 2005. These coho are produced naturally in a small watershed and do reflect positive progress in re-building, much of which can be attributed to habitat improvements and harvest reductions beginning in the 1990s.

Since 2006, ocean and Columbia River coho fisheries have been managed within harvest impact limits established under the Endangered Species Act. WDFW has and continues to work with NOAA, ODFW, and the Lower Columbia Fish Recovery Board to ensure harvest strategies are consistent with recovery of the 25 natural coho populations in the lower Columbia basin, including Cedar Creek. The Columbia River commercial fishery harvest of coho has ranged from 7% to 21% during 1999-2006.

Public Goal:

Ensure sustainable fish and wildlife opportunities for social and economic benefit

Columbia River Smelt Fisheries: Columbia River smelt (eulachon) fisheries are co-managed by Washington and Oregon, under the Joint State Eulachon Management Plan of 2001. Fishery recommendations have been separated into three separate levels depending on run size expectations. Staff from Marine Resources, Intergovernmental Resource Management, Region 5 Fish Program, and ODFW Columbia River Coordination Section, concluded that returns in 2008 would be low (similar to or lower than the last three years), and recommended that conservative Level 1 fisheries be set for the forthcoming January 1-

March 31 season. On December 13, the Compact adopted mainstem fisheries consistent with Level 1 (establishing two 9-hour commercial fishing periods per week). Washington adopted one 16-hour recreational and two 9-hour commercial fishing periods per week in the Cowlitz River. Fisheries in other tributaries are closed, consistent with Level 1 of the Plan. While the Cowlitz Indian Tribe has petitioned NOAA Fisheries to list the eulachon of Washington as threatened or endangered, they have publicly recognized that the Level 1 fisheries will provide the state agencies with data to assess the run. The managers will consider any changes to the seasons in the mainstem and tributaries in mid- February, based on the assessment of the run by the joint staff.

Kokanee Replacement Program: WDFW and the tribes have started to implement a plan to restore anadromous fish passage above a barrier in the middle fork of the Nooksack River. Once passage is achieved, the water supply to Lake Whatcom will be contaminated with fish pathogens and, thus, prevent transfer of the current disease-free kokanee eggs to other watersheds in the state. In an effort to maintain WDFW's kokanee program (an estimated \$20 million in economic activity annually), regional kokanee broodstock collection programs are being developed. This fall, Regions 1,2,3,4, and 6 are using regional pilot egg take programs to assess the potential of meeting the kokanee program egg take needs. To date, a total of 1,521,325 kokanee eggs have been collected at the regional facilities.

Priest Rapids Hatchery (PRH) Broodstock Update: As of November 28, PRH staff have collected approximately 5.15 million upriver bright fall chinook eggs, or 90% of the 5.75 million goal needed for Grant Co. PUD's mitigation production. A month ago, only about 38% of the goal had been collected and hatchery staff and GCPUD were concerned that the low Columbia River fall chinook run would prevent us from meeting the base production level. A late surge of females (722) from November 1-14 made all the difference. Even with only 90% of the egg take goal, PRH staff will be able to meet the smolt production goal of 100,000 pounds. without growing the fish outside of the bio-specification. However, it is clear that we will not collect any of the additional 1.96 million eggs we normally collect for Corps of Engineers John Day Dam mitigation.

December Razor Clam Opener Over 16,000 digger trips were made during the December 21-23 recreational razor clam opener on coastal beaches. The predicted poor weather did not materialize for the first two days and the relatively calm conditions allowed most diggers to dig their 15-clam limit, some in just 15 or 20 minutes. However, the heavy rain and strong winds that finally arrived on Sunday (December 23) resulted in reduced digging success at Twin Harbors – the only beach open this last day of the opener.

Funding Goal

Ensure effective use of current and future financial resources in order to meet the needs of Washington State's fish and wildlife resource for the benefit of the public

Department of Natural Resources (DNR) Land Exchange: WDFW staff met with DNR staff to discuss the overall progress on the land exchange between DNR and WDFW. While appraisal reports should be complete by the middle of January, internal reviews have already begun on the reports received so far. WDFW will be coordinating the National Environmental Policy Act (NEPA) and Section 7 process as well as working on a potential Memorandum of Understanding (MOU), to address the cultural resource issues associated with the exchange.

Competence Goal

Implement processes that produce sound and professional decisions, cultivate public involvement and build public confidence and agency credibility

Online Winter Crab Catch Record Reporting: To better serve the public and reduce waste, WDFW set up a website for crabbers to report their catch online. In September 2007, we offered crabbers the option of reporting their summer catch online. The Licensing Division, working closely with its vendor, Outdoor Central, had the winter reporting website up and functioning properly on December 31, 2007, two days ahead of schedule.

CPAP Update: Capital and Facilities Management is fully engaged in the implementation of the CPAP Report. Several Standard Operating Procedures have been drafted and are undergoing internal review. A contract with Bluewater Project Management is pending for the creation of a master schedule to facilitate the development, maintenance, and monitoring of all projects. Tero Consulting is prepared to begin the design document for the implementation of Web Works, a system designed for work order and asset management. An inter-agency contract is being developed with General Administration for a Project Manager position.

WDFW Officers Help with Flood Efforts: Region 5 Officers assisted Lewis County with search and rescue during flooding. A number of rescues were accomplished with residents being plucked off of porches and car tops. After initial rescue efforts, the priority shifted to providing aid to flood victims. Officers assisted by manning aid distribution centers and by delivering aid and supplies to outlying areas in our patrol vehicles. WDFW vehicles were the first to arrive at a number of isolated residences with supplies of fresh water and critical supplies. Our Officers were also assisting by responding to Sheriff's Office calls for service as most deputies were working double shifts. The Detachment 4 (Lewis County) office was flooded as well, even though it is on the second floor of an office building. Officers provided the #13 Jet Sled to assist the Mason County Sheriff's Office. Officers operated the vessel and provided transportation from the Union side of Hood Canal to the north and east shores of Hood Canal. National Guardsmen packed hundreds of pounds of food and water to the desperate and stranded homeowners in that area. Our Montesano Captain led a group of four Region 6 boats and Officers from Thurston County into Lewis County. They slowly made their way over dangerously flooded roads into Chehalis, launched their boat, and were dispatched to a flooded home, evacuating two people and their dog. Numerous others were contacted, but declined evacuation. Next they made their way up the South Fork of the Chehalis River to the devastated Boistfort Valley and checked for people needing evacuation. Also, they towed their jet boat over very muddy, flooded roads to the Ludenhaus Road area where they assisted the local fire department with welfare checks on local residents. The Deputy Chief assisted Pacific County law enforcement with the aftermath of the mini-typhoon – 119 mph winds were clocked at his house. There was lots of downed timber and many stranded motorists. He also assisted Officers with escorting a woman in labor to a hospital. The local hospital does not usually deliver babies. After getting cut off from Astoria due to a fallen tree across Highway 101, that hospital was the only option.

Illegal Importation from Wyoming: While inspecting a local meat cutter, Officers noticed a cow elk from Wyoming had been received and logged on the locker storage form. Upon interviewing the meat locker owner, he stated that he had received two bone-in hindquarters from a local individual. The meat had been processed and already picked up by the hunter. The hunter was later interviewed and admitted to illegally importing the bone-in parts from the Wyoming elk. This same hunter had previously been warned for the unlawful importation of a Wyoming bull elk rack and skull that was not properly cleaned. Wyoming is a state where chronic wasting disease has been identified. The hunter will be cited for violating importation restrictions.

Science Goal:

Promote development and responsible use of sound and objective science to inform decision-making

Dungeness Crab Movement Patterns: Staff met with a shellfish biologist for the Skokomish Tribe to finalize a database of Dungeness crab tag recovery information collected over the past two years in Hood Canal. The information was then mapped using GIS software so that movement patterns of crab in the Canal could be examined. Though analysis is ongoing, preliminary results show that crab moved an average of 74.36 meters per day, and as much as 812.31 meters per day. Males tended to move at a higher daily rate (76.32 m/day) than females (58.50 m/day), but these values are based on uneven sample sizes (210 and 26 individuals, respectively). The average movement rate of crab tagged at sites in southern Hood Canal (Annas Bay, 29.51 m/day and Tahuya, 47.87 m/day) is lower than for crab tagged in the central Canal (Lilliwaup, 83.29 m/day). This is lower still than for crab tagged at the northernmost site (Scenic Beach, 82.47 m/day). These site-specific differences in movement pattern may be indicative of a behavioral response of crab to hypoxic waters in southern Hood Canal and will be the focus of additional analysis.

Pilot Grazing Projects: Department staff and Linda Shibly, of Washington State University, met with the Washington Cattlemen's Association (WCA) regarding the pilot grazing projects. The WCA was presented with a draft of the interim status report on the pilot grazing projects for review. John Pierce, Chief of the Wildlife Science Division and Linda Shibly presented a conceptual proposal for expanding monitoring efforts that included building from the vegetation work already conducted, adding a study with captive deer, and developing a component to address and define ecological integrity per the Fish and Wildlife Commission policy. Additionally, the Memorandum of Understanding (MOU) was updated, extended through December 31, 2009, and signed by WCA President Jim Sizemour.

Mountain Goat Research: Wildlife Research Scientist Cliff Rice presented a summary of mountain goat survey results (based on the new sightability model) and an overview of population models of harvest for mountain goats at a meeting of technical representatives of the Point Elliott Treaty tribes and land management agencies (WDFW, Forest Service, National Park Service). This served to lay the foundation for discussions of the Point Elliott Treaty tribes policy group concerning the management of mountain goats in the treaty area.

Project CAT: Staff had a very successful early winter capture season this year, with 6 cougars captured. Staff recaptured and remarked 2 sub-adult dispersal aged males, 2 adult females, 1 new adult female, and one new adult male with an estimated weight of 170-180

pounds. To date 28 male cougars and 14 females have been captured and marked since Project CAT began in 2001.

Forest Health Conference: Wildlife Forester Doug Kuehn attended the *Forest Health: Identification and Management of Forest Insects and Diseases* conference, where spruce budworm, Douglas fir tussock moth, bark beetles and various root rot pathogens were discussed. The conference concluded with an update on what changes global warming will have on forest health and the increased stress of drought. The good news is that our prescriptions for the Sherman Creek Wildlife Area, as well as recent projects on the Sinlahekin, L.T. Murray and Colockum Wildlife Areas are right on target for dealing with these problems; such preventive projects include addressing overstocked stands, salvaging wood from recent storms to create wider spacing for fire prevention, and the removal of bark beetles from freshly attacked trees before they spread to other trees.