Agenda Item Summary

BACKGROUND

Spring Chinook Salmon:
Over the past twenty years, upriver spring Chinook stocks have been managed under a series of agreements among the fisheries managers. From 1986 to 1995, spring Chinook fisheries operated under a Columbia River Fish Management Plan (CRFMP) that defined upper limits for incidental-mortality of upriver spring Chinook populations. The CRFMP set an upper limit of 5-7 percent for the Treaty fishery (Native Americans with treaty fishing rights) and less than 5 percent for non-Treaty fisheries. After the expiration of the CRFMP in 1995 through 2007, spring Chinook fisheries, except for the 2000 season, operated under a series of interim court-approved agreements negotiated under *U.S. v Oregon*. During this period, the allowable incidental-mortality in Treaty fisheries has ranged from 5.0 percent-8.5 percent and non-Treaty fisheries from 0.5 percent-3.0 percent.

In May 2008 the *U.S. v Oregon* parties signed a ten-year management agreement that sets new limits on the allowable level of incidental-mortality of upriver spring Chinook in non-Treaty and Treaty fisheries and legally obligates the parties to manage fisheries so that non-Treaty and Treaty harvest is approximately equal (catch balancing). The ESA limits, approved by the NOAA Fisheries in its Biological Opinion for the fisheries, vary based on the combined run sizes of all upriver spring Chinook populations and the run size of ESA-listed spring Chinook. For non-Treaty fisheries, these limits currently range from a low of 0.5 percent when the upriver run is less than 33,000 fish to a high of 2.7 percent when the upriver run is greater than 488,000 fish.

In December 2008, the Oregon Fish and Wildlife Commission (Commission) adopted near-term objectives and strategies for managing spring Chinook fisheries in the main-stem Columbia River. The Commission also adopted a framework for the long-term management of these fisheries. These management policies were based on the recommendations of a work group comprised of six members of the Oregon and Washington Fish and Wildlife Commissions, who worked with a number of advisors from the recreational and commercial fishing communities and from conservation groups. The policies are summarized in Attachment 2.

White Sturgeon- Columbia River:
White sturgeon abundance in the lower Columbia River collapsed at the end of the 19th century due to over fishing. The population began to rebound after 1950 when maximum size limits were adopted to protect brood-stock size white sturgeon. Since 1950 the population has increased significantly. The lower Columbia River white sturgeon population is currently considered healthy, although recent declines in the abundance of legal-sized fish and in catch rates of sub-legal-sized

fish, and observations of pinniped predation throughout the lower river have raised some concerns about current status.

During the 1980's, coincident with reductions in salmon harvest opportunity, recreational fishing effort for and total harvest of white sturgeon increased significantly. Coincidently, the abundance of legal-sized white sturgeon declined to levels of concern. Oregon and Washington responded with several regulation changes including size and bag-limit changes and elimination of commercial target fisheries.

In 1985 the states jointly launched a tagging program to estimate annual abundance in the Columbia River downstream from Bonneville Dam. This program has served as a basis for fisheries management decisions during the past 24 years. Since 1989, fisheries have been managed for optimum sustainable yield (OSY). OSY requires that fisheries be managed to allow sufficient recruitment of fish to the brood-stock population on a sustained basis. Under this fishery management regime, the population of legal-sized sturgeon increased to healthy levels by 1995.

In 1996, the Oregon and Washington Fish and Wildlife Commissions adopted a three-year management accord for 1997-1999. The accord specified sturgeon management objectives for the states, including total allowable harvest and allocation between sport and commercial fisheries. Specifically, it was intended to:

- Increase the population consistent with OSY.
- Provide year-round recreational fishing opportunity.
- Provide a viable commercial fishery.
- Stabilize harvest of sturgeon outside of the Columbia River.
- Conservatively manage green sturgeon

Since 1999, three more accords have been put in place to guide the management of white and green sturgeon. The last of these, approved by the Oregon and Washington Fish and Wildlife Commissions in 2005, expired at the end of 2008, but was extended for one more year, through 2009. (Attachment 3)

White Sturgeon- Willamette River:
For many years, fishery managers have known that an area of the Columbia River just downstream from Bonneville Dam has been a major spawning area for white sturgeon in the lower Columbia River. This area is relatively unique in that operations at Bonneville Dam provide the water velocities and hydraulic complexity white sturgeon require for successful spawning. However, managers have also acknowledged that it is likely that sturgeon spawn elsewhere in the lower Columbia, although efforts to document spawning in other areas have been unsuccessful.

The presence of large sturgeon in the area just downstream from Willamette Falls raised the question of whether the hydraulic conditions in this area were suitable for successful sturgeon spawning. In mid-May 2009, Oregon Department of Fish and Wildlife staff conducted a brief pilot study to determine if the area downstream from Willamette Falls supports successful sturgeon spawning. An effort was made to collect sturgeon eggs in a quarter-mile area just downstream from the Falls. Sampling was designed to coincide with peak spawning. Staff placed ten rectangular mats made up of nylon air-filter material on the river bottom. These mats have been successfully used elsewhere to collect sturgeon eggs, which are adhesive and stick to the substrate. The mats were set in place on May 18 and checked three days later.

Although sampling occurred over a brief period, half of the mats contained sturgeon eggs. In all, 22 eggs were collected, of which 21 were viable. The viable eggs were found to be in various stages of development, ranging from 4 hours to 30 hours old. This indicated that spawning in the area had at least occurred on May 19 and 20.

On January 8, 2010, the Oregon Fish and Wildlife Commission approved R&E funding in 2010 for a more comprehensive survey of potential white sturgeon spawning areas downstream from Willamette Falls.

Fishing from Atop The Oregon City Wall

Fishing from the Oregon City Wall (Wall), an area on the east bank of the Willamette River downstream from Willamette Falls near the old Oregon City Bridge is popular and provides opportunity to access white sturgeon in the deep hole at the base of the Wall. The area sits atop a bluff approximately 45 feet above river level. Fish caught at the Wall are commonly hoisted to the top of the bluff and those that cannot be legally retained are often thrown back in the river. Because the top of the bluff is approximately 45 feet above river level, this practice has raised concerns about the subsequent mortality of fish caught and released in this way, especially of over-sized sturgeon whose large body mass and weight may make them more vulnerable to internal injuries when hoisted up the Wall and/or upon impact with the water when subsequently thrown back into the river.

The sidewalk at the top of the Wall is not owned by the Oregon Department of Fish and Wildlife, so the Department cannot restrict or otherwise regulate access to the area as long as bank fishing along this stretch of the river is allowed. To date, the Department has worked closely with the Fish and Wildlife Division of Oregon State Police to educate the public about and enforce existing regulations concerning the proper treatment and handling of fish. The Department has also explored options to (1) provide alternatives for landing and releasing fish from the top of the Wall and (2) provide bank fishing access at the base of the

Wall at or near river level. However, these have proven infeasible for a variety of liability and cost-related reasons.

PUBLIC INVOLVEMENT

- November 5, 2009- Public Meeting in Vancouver, WA.
- November 10, 2009- Public Meeting in Astoria, OR.
- November 18, 2009- Meeting with the Columbia River Recreational Fisheries Advisory Group in Clackamas, OR.
- November 19, 2009- Meeting with the Columbia River Commercial Fisheries Advisory Group in Ranier, OR.
- December 15, 2009- Meeting with the Salmon for All in Astoria, OR.
- December 16, 2009- Meeting Northwest Sport-fishing Industry Association in Clackamas, OR.
- December 17, 2009- Meeting of the Columbia River Compact and Joint State Hearing, Longview, WA.
- January 12, 2010- Public Meeting in Oregon City, OR.

ISSUE 1 **MANAGEMENT OF SPRING CHINOOK NON-TREATY FISHERIES IN THE MAIN-STEM COLUMBIA RIVER**

ANALYSIS

Until 2002, non-Treaty commercial and recreational fisheries objectives for upriver spring Chinook in the main-stem Columbia River were set annually by the Columbia River Compact and in Joint State hearings. From the late 1970s through late 1980s, the fisheries only occurred in February and March and targeted Willamette spring Chinook. In many years, a large proportion (71 percent) of the allowable catch of upriver spring Chinook in the main-stem Columbia River occurred in the commercial fishery as a result of efforts to access the allowable commercial catch of Willamette spring Chinook. However, during the early 1990s, non-Treaty fisheries in the main-stem Columbia River were managed so that catches of upriver spring Chinook in main-stem Columbia recreational and commercial fisheries were comparable.

From 1995 through 2000, non-Treaty commercial and recreational fisheries in the main-stem Columbia River were either closed or minimal due to generally poor returns of ESA-listed Snake River spring and summer Chinook, upper Columbia River spring Chinook and Willamette spring Chinook. From 2001 to 2007, fisheries occurred, but were constrained by an upper limit on allowable incidental-mortality of ESA-listed upriver spring Chinook of 2 percent. In 2008, the upper limit on allowable incidental-mortality of ESA-listed upriver spring Chinook was increased to 2.7 percent under a sliding-scale harvest schedule in the "2008-2017 *U.S. v Oregon* Management Agreement". However, because the 2008 and 2009 run-sizes of upriver spring Chinook were less than 200,000, incidental mortality in non-Treaty fisheries was limited to 1.9 percent.

In 2008 and 2009, the proportion of marked fish in the catch of non-Treaty fisheries exceeded that contemplated in the "2008-2017 *U.S. v Oregon* Management Agreement". As a result, non-Treaty fisheries in the past two years have harvested substantially more upriver spring Chinook than Treaty fisheries. This catch imbalance prompted *U.S. v Oregon* parties to negotiate changes in the Management Agreement that establish a management guideline for non-Treaty fisheries that approximates the anticipated catch in Treaty fisheries in each year and commits Oregon and Washington to plan non-Treaty fisheries in 2010, 2011 and 2012 using a run-size forecast buffer of at least 30 percent (i.e. non-Treaty fisheries will be planned based on a run size that is no more than 70 percent of the upriver forecast made by the *US v. Oregon* Technical Advisory Committee (TAC).

At their discretion, the states could buffer the run-size forecast by more than 30 percent, depending on the level of confidence fisheries managers have in the forecast. In 2010, a buffer larger than 30 percent, possibly as high as 45 percent, may be appropriate because:

1. In four of the last six years, TAC has over-forecasted run sizes by an average of 45 percent.
2. The return of jacks in 2009 was over four-times larger than in any previous year, placing it well outside the range of jack returns used in previous forecasting efforts.
3. The 2010 run-size forecast for upriver spring Chinook is 470,000 fish, the largest prediction ever.

For 2009 and beyond, the Oregon and Washington Fish and Wildlife Commissions could not agree on how to allocate the allowable incidental-mortality of ESA-listed upriver spring Chinook (ESA impacts) between the sport and commercial fisheries. In 2009, fisheries management staff used the Oregon Commission guidance to determine the sport fishery share of allowable impacts and the Washington Commission guidance to determine the commercial fishery share of allowable impacts. As a result of the differences in guidance, 5 percent of the impacts remained unallocated.

Although "parking" 5 percent of the impacts reduced the harvestable number of fish in 2009, it will likely not be the case in 2010. This is because, at current mark rates, the management guideline agreed upon under the "2008-2017 *U.S. v Oregon* Management Agreement" will constrain allowable harvest to levels below that which would have otherwise occurred if the fisheries were managed solely based on ESA impacts.

OPTIONS

1. Reaffirm the policy guidance adopted in December 2008 as described in Attachment 2, including endorsement of the approach used in 2009 by Oregon and Washington staff to allocate allowable ESA impacts,

given the disparate policy guidance by their respective Commissions.

2. Modify the policy guidance.

STAFF RECOMMENDATION Option 1

ISSUE 2 **ADOPTION OF A ONE-YEAR WHITE STURGEON MANAGEMENT ACCORD FOR 2010**

ANALYSIS

In recent years, the OSY objective of increasing the legal-sized population size has not been met. In fact, mark-recapture data indicates the abundance of legal-sized white sturgeon in the lower Columbia River in 2008 has declined by approximately 25 percent from levels that were relatively stable between 1998 and 2007. In addition, although catch rate data from the recreational fishery indicates the relative abundance of over-size fish remains fairly steady, there has been a declining trend for sub-legal fish since 2005. Declining trends in the abundance of sub-legal and legal-sized white sturgeon, combined with recent observations of pinniped predation throughout the lower river have raised some concern about the long-term stability of the population.

In July 2008, the department began work on a conservation plan for white sturgeon in the Columbia River downstream from Bonneville Dam. The plan is being developed under the Oregon Native Fish Conservation Policy because this population has "high public interest or economic or other impact on the local community." Although the intent was to complete the planning effort in late 2009, the unique and unprecedented challenge of defining minimum viable status for the population and modeling how various threats potentially affect viability forced us to extend the timeframe into 2010. Staff recently completed initial population viability modeling and plans to solicit scientific peer review of the work through the conservation planning process.

Development of the conservation plan will provide an opportunity to base future fisheries management on well-defined and publicly-vetted conservation and management priorities. The plan will also identify significant threats to the population and establish an analytical framework for forecasting and evaluating population trends under various levels and sources of mortality, including fisheries. Because of its importance to setting the context for fisheries management, Oregon and Washington fisheries managers have agreed that completing the plan prior to adopting a multi-year "White Sturgeon Management Accord" is essential.

The following policies and objectives for white sturgeon contained in the current Management Accord would be carried forward to a one-year Accord:

Policies:

- Provide regulatory protection to safeguard the current brood-stock population and ensure adequate recruitment of brood-stock sturgeon in subsequent years.
- Manage for optimal sustainable yield (OSY), by regulating the combined sport and commercial harvest rate for the legal sized population.
- Maintain concurrent Washington and Oregon regulations in the Columbia River.
- Maintain viable and diverse recreational and commercial fishing opportunities.
- Manage the harvest of sturgeon in fisheries outside the main-stem lower Columbia River consistent with lower Columbia River sturgeon conservation and management needs.
- Limit incidental impacts of other species needing conservation protection during fisheries directed at white sturgeon.

Objectives:

- Manage white sturgeon for an annual combined sport and commercial harvest that provides for population growth towards OSY.
- Allocate the harvestable number of white sturgeon in the Columbia River downstream from Bonneville Dam 20 percent to commercial fisheries and 80 percent to recreational fisheries.
- Regulate the recreational fishery consistent with the following objectives:
  - Minimize emergency in-season action.
  - Balance catch between the estuary and non-estuary fisheries and maintain a diverse array of sturgeon fishing opportunity.
  - Maintain fishery monitoring and management capabilities.
  - Reduce fishing-related mortality of "oversize" sturgeon.
- Regulate the commercial fishery to optimize economic value and spread harvest opportunity throughout the year.

In addition, the Accord would continue to call for the management of green sturgeon consistent with its recent listing under the Endangered Species Act and for the management of sturgeon harvest in ocean and coastal fisheries consistent with conservation and management needs of Columbia River sturgeon.

Although it is unlikely that recent declines in population abundance threaten the viability of white sturgeon populations, a reduction in the harvest guideline is warranted to keep exploitation rates within sustainable levels and ensure the future stability of the population. This is especially true given the uncertain effects of recent increases in pinniped predation on the population. Completion of the conservation plan will inform us as to what the harvest guideline should be in the long term (beyond 2010). However, for 2010 a 35 percent reduction in the

current guideline, expansion of the closure period in the sanctuary downstream from Bonneville Dam to include August, and establishment of a separate harvest guideline for the Willamette recreation fishery are being discussed with Washington. These discussions are appropriate for the following reasons:

1. Current abundance of legal size fish is approximately 25 percent less than the previous ten years.
2. Catch rates in the recreational fishery of sublegal-sized fish have declined by over 40 percent.
3. Recent reductions in the abundance of sub-legal white sturgeon will likely reduce near-term recruitment to legal size by 5-10 percent and prevent us from achieving our management objective of growing the legal size population over time.
4. Changes in the age composition of legal-size fish as the numbers of younger fish decline will result in over-harvesting older legal-size fish.
5. Over three-quarters of the white sturgeon eaten by sea lions in the area immediately downstream of Bonneville Dam are sub-legal or legal size fish that are currently or will soon be subject to harvest in sport and commercial fisheries.
6. Recent increases in Willamette River recreational sturgeon catches have raised concerns in Washington regarding equitable access to the Columbia River share of sturgeon above the Wauna Power Lines.

OPTIONS

Option 1: Delegate authority to the Director to negotiate and adopt a One-Year Sturgeon Management Accord for 2010.

STAFF RECOMMENDATION

Option 1

ISSUE 3 **ESTABLISHMENT OF A WHITE STURGEON SPAWNING SANCTUARY IN THE WILLAMETTE RIVER**

ANALYSIS

Documentation of white sturgeon spawning in the quarter-mile area just downstream from Willamette Falls warrants a precautionary approach that ensures brood-stock gathering and spawning in and adjacent to the area are not subjected to handling and stresses associated with catch and release fisheries. From 2005 to 2009, handling of over-size white sturgeon in the Willamette River recreational fishery between river mile 20 and 26.5 increased from approximately 10 to 400 fish. As much as 50 percent of this catch may occur in the area where white sturgeon spawning was documented in 2009.

Numerous studies indicate when subjected to stress, many fish species have an increased likelihood of reduced spawning success and re-absorption of their eggs. In addition, given the inherent stresses associated with spawning, these fish may be more likely to suffer direct and indirect mortality due to injury and stress from handling in fisheries.

Establishment of a spawning sanctuary for white sturgeon is not unprecedented. In 1996 the main-stem Columbia River from Beacon Rock upstream to Bonneville Dam was designated as a sanctuary where fishing for sturgeon from a boat was restricted during the spawning timeframe (originally closed during May and June, currently closed from May through July). This action was based on research that showed that ripe fish were caught in fisheries conducted in the area and that some fish were handled multiple times. In 2006, the sanctuary was expanded to include bank angling and extended an additional 1.6 miles downstream from Beacon Rock (Navigation Marker 85). Also, in 2006, spawning sanctuaries were established immediately downstream from John Day and McNary dams.

OPTIONS

1. Establish a spawning sanctuary from the base of Willamette Falls downstream to the "I-205 Bridge" by annually closing the area to recreational fishing for white sturgeon from May through July beginning in 2010.

STAFF RECOMMENDATION Option 1

ISSUE 4 CLOSURE OF THE EAST BANK OF THE WILLAMETTE RIVER (AN AREA COMMONLY REFERRED TO AS THE OREGON CITY WALL) TO ANGLING YEAR-ROUND

ANALYSIS

As noted above, efforts by the Oregon Department of Fish and Wildlife to explore and develop options to (1) provide alternatives for landing and releasing fish from the top of the Oregon City Wall (Wall) and (2) provide bank fishing access at the base of the Wall (at or near river level) have proven unsuccessful. Efforts to develop "release chutes" or provide other means at the top of the Wall to enable fish to be released unharmed have been prohibited by liability and maintenance issues. Engineering requirements to build and maintain a fishing platform at the base of the Wall have proven prohibitively costly because of the geology of the area and fluctuating water levels over the course of the year. Current practices that involve hoisting fish up the 45-foot height of the Wall and subsequently returning fish that are not retained back to the river from atop the Wall may pose significant risk to the fish of injury.

White sturgeon are the primary target of anglers frequenting the Wall. As discussed under Issue 2 above, recent trends in white sturgeon abundance are down. Also, as discussed under Issue 3, white sturgeon have recently been observed spawning in the Willamette River in the vicinity of the Wall and the numbers of over-size sturgeon caught and handled in this area has increased significantly. Given that

1. white sturgeon abundance appears to be declining
2. white sturgeon are spawning in the vicinity of the Wall

immediately downstream from Willamette Falls

3. no practical way exists now and in the immediate future to minimize harm to fish caught and released from atop the Wall closing fishing from the Wall is a reasonable precautionary measure. Some of the reduction in bank fishing opportunity caused by the closure may be mitigated by enhanced opportunity on the west bank. Department staff have recently received funding to rehabilitate a nearby dock on the west bank which will provide improved bank-fishing access in the vicinity of the Wall.

OPTIONS Option 1. Close the east bank of the Willamette River (an area commonly referred to as the Oregon City Wall) to angling year-round.

STAFF RECOMMENDATION Option 1