

**WRIA 8 Salmon Recovery Council
Meeting Notes
Bellevue City Hall
November 17, 2011**

Members Present

Dr. Don Davidson, Chair (Mayor, Bellevue); Joan McBride, Vice-Chair (Mayor, Kirkland); Elaine Barber (Friends of the Issaquah Salmon Hatchery); Tor Bell (Mountains to Sound Greenway Trust); Susan Boundy-Sanders (Councilmember, Woodinville); Joan Burlingame (Rock Creek Representative, Cedar River Council); Denise DiSanto (WA Dept. of Ecology [DOE]); Bruce Dodds (Councilmember, Clyde Hill); Peter Donaldson (Friends of the Cedar River Watershed); Ted Frantz (Councilmember, Hunts Point); Ava Frisinger (Mayor, Issaquah); Mike Grady (Councilmember, Mercer Island); Lisa Jensen (Councilmember, Newcastle); Kirk Lakey (WA Department of Fish and Wildlife [WDFW]); Bart Masterson (Councilmember, Mill Creek); (Mike O'Brien (Councilmember, Seattle); Tom Odell (Councilmember, Sammamish); Larry Phillips (Councilmember, King County); Chris Roberts (Councilmember, Shoreline); Jessica Saavedra (King Conservation District); Carl Scandella (Councilmember, Yarrow Point); Gary Smith (Water Tenders/Trout Unlimited); Cleve Steward (Sustainable Fisheries Foundation); Frank Urabeck (Citizen).

Alternates Present

Chris Coffin (DOE).

Others Present

Hans Berge (King County); Shane Cherry (WA State Department of Transportation [WSDOT]); Diana Forman (Portage Bay Coalition for Clean Water); Roy George (Alderwood Water District); Darren Greve (King County); Frank Leonetti (Snohomish County); Mike Lisitza (NOAA Fisheries Service); Frances Lucero (King County); Michelle Meade (WSDOT); Kathy Minsch (Seattle); Noxious Weeds Staff (King County); Sarah Ogier (King County); Susan O'Neil (Puget Sound Partnership); Stacey Rush (Kirkland); Ron Straka (Renton); Linda Grob (WRIA 8 Team); Jason Mulvihill-Kuntz (WRIA 8 Team); Scott Stolnack (WRIA 8 Team); Jean White (WRIA 8 Team).

Introductions

Dr. Don Davidson opened the meeting and invited attendees to introduce themselves.

Public Comment

There was no public comment

Approval of Meeting Notes for September 15, 2011

The Salmon Recovery Council unanimously approved the meeting notes for the September 15, 2011 meeting.

Updates & Announcements

Jean White, Watershed Coordinator, briefly went over several announcements and committee reports per the handout, highlighting in particular the WRIA 8 Salmon Tour, which was very successful, with 35 people in attendance. The tour's starting point and first presentation was at the Ballard Locks, where attendees heard that the locks and its 100-year-old equipment could fail at any time because it is not earthquake safe. She explained that the criteria for funding fresh water locks nationally are based on the tonnage of ships through the locks, which doesn't work for our locks. The Ballard Locks are the busiest fresh water lock in the country, but in the Ship Canal the commercial boats come through the locks empty. Jean said we asked our congressional staff to ask the lock safety and funding questions for us. The locks may need to move from the environmental category to the safety category.

Discussion:

- joan burlingame said she was told that if the locks fail, Lake Washington and Lake Sammamish would become saltwater, which would be hard to remove the saltwater.
- Tom Odell reported that the locks at a dam in Montana were made out of wood, and when they failed the Madison River looked like spring runoff in October. If our locks go we won't have a lot of time to react.
- Carl Scandella said if the locks fail, it could endanger both floating bridges.

WRIA 8 Letter on Williams Pipeline Proposal to Cross Cedar River at Rainbow Bend

Jean White reported that Williams Pipeline is working with Puget Sound Energy to put in a new gas pipeline to expand delivery to south Seattle. Their preferred alternative is the Rainbow Bend site on the Cedar River. Rainbow Bend is our biggest opportunity to do restoration on the Cedar River. The Rainbow Bend restoration project is ten years in the making, with \$12 million in federal, state, and local grants raised so far, and in 2013 King County is proposing to remove the levee. Williams will be going for their Federal Energy Regulatory Committee (FERC) permit in 2012, with construction to begin in July 2012. Jean explained that Williams plans to do a deep bore under the river below the scour line, but that the pipeline would be more shallow on the Rainbow Bend floodplain and likely above the scour line. She said King County and the WRIA 8 Team were unaware of the public meetings that Williams says occurred, and she would like to write a letter from WRIA 8 with our concerns about the proposed pipeline.

Sarah Ogier, King County, said the county as project sponsor is very concerned with a pipeline at this site. If the river shifts and scours out a built pipeline it would be a safety hazard. King County would like to work with Williams to find another site, or if not, have them build the pipeline differently.

Discussion:

- Mike Grady inquired if Williams did an EIS for the pipeline project. Scott Stolnack, Technical Coordinator, responded that the EIS is apparently the next step after the FERC permit.
- Don Davidson commented that the whole intent is to get the river to meander at the site. Puget Sound Energy is based in Bellevue just across the street from City Hall, and perhaps we could talk to them.
- Ted Frantz asked how Williams decided on the pipeline routing. Sarah Ogier explained that they don't have an easement on our property. They probably saw it on the map, and thought it was available open space. She said it would be impossible to recoup what we've spent on this property. We want to do our project.
- Tom Odell remarked that Williams plan to go through and install a pipeline in a floodplain where the river is supposed to meander got his attention. He said he could provide the business card of a pipeline inspector who has appeared before Sammamish City Council on a volunteer basis, and might be able to help.
- Chris Roberts asked which we hope will happen with the pipeline project: Williams digging deeper, or moving off the property. Jean White said moving off the property.
- Mike Grady inquired if King County has become party to the FERC request. Sarah Ogier said not yet.

The Salmon Recovery Council unanimously approved writing a letter regarding the Williams pipeline proposal to cross the Cedar River at Rainbow Bend.

Jean White reported that the draft letter will be sent out for review next week.

520 Bridge Impacts to Salmon & Mitigation Plans

Shane Cherry, WSDOT Mitigation Lead, reported that WDOT has spent the last five years identifying the environmental impacts of replacing the 520 Bridge and how to mitigate for them. He said the WRIA 8 Chinook Salmon Plan was a critical document for us in this work, and through a screening process WDOT identified ten mitigation sites, which are now being reviewed for approval by regulatory groups. The JARPA has been through two rounds of comments, and we are about to submit the final version. The

Natural Resources Technical Working Group (TWG) held ten meetings last summer to ensure we got to the level of detail we needed to identify project-related impacts to natural resources, identify avoidance measures, provide feedback on potential mitigation sites, and provide input on mitigation planning, design and implementation. Members of the TWG included Army Corps of Engineers, Environmental Protection Agency (EPA), Coast Guard, NOAA Fisheries, US Fish and Wildlife (USFWS), WDFW, DOE, Seattle Departments of Planning and Development and Parks and Recreation, Muckleshoots, and the University of Washington (UW).

Michelle Meade, WSDOT Biologist, reported that we have been conducting ESA Steering Group (SG) meetings since spring 2008 for the Endangered Species Act (ESA) portion of the mitigation work. Members include key staff from WSDOT, FHWA, NOAA Fisheries, and USFWS. The SG provided a forum for early coordination between WSDOT and the other agencies to establish an analytical framework, identify important challenges, and develop a level of trust. The identified project impacts to Chinook are: stormwater; pile driving (over 2,000 piles); in-water work; and overwater and in-water structures. To limit stormwater impacts, there will be a reduction in impervious surfaces, enhanced water quality treatment facilities, and high efficiency street sweeping on the floating bridge. Pile driving goals will be tested, including evaluating pile driving noise effects in the lake, identifying the best methods for minimizing noise during construction, and validating noise modeling based on empirical data. For in-water work the project area is divided into eight work zones based on salmon use, and various activities in the zones will be examined to see which activities may or may not affect salmon. Overwater impacts that will be analyzed are shading and altered migratory behavior, and for in-water impacts, predator habitat and pilings/columns will be analyzed.

Shane Cherry said the 520 Bridge location is a critical area for outmigrating juvenile salmon. If the project has a negative effect on salmon going out, we need to go upstream and invest in habitat to improve fish numbers. We need to make our impacts as small as possible during construction, and try to align our mitigation to meet these impacts. He went over the aquatic mitigation sites which were selected: Magnuson Park, Seward Park, Taylor Creek, South Lake Washington (DNR shoreline property at Boeing), Elliott Bridge Reach on the Cedar River, the East Approach to the 520 Bridge, and the lower 3,000 feet of Bear Creek. These sites were selected because they are big enough, ecologically effective, on available public property, free of hazardous materials, and were without cultural resources.

Michelle Meade went over the next steps for the bridge replacement and mitigation, which are: submit final mitigation plans to agencies (December 2011); begin construction of floating bridge replacement (spring 2012); complete final design and construction of mitigation (2012-2018); and open the bridge to drivers (2014).

Discussion:

- Carl Scandella inquired how mitigation sites were selected. Shane Cherry said they were selected in collaboration with regulatory agencies.
- Ted Frantz questioned the process for dealing with stormwater from the bridge. Shane Cherry responded that WSDOT will use high efficiency and more frequent sweeping. Stormwater will be routed into an enclosed mixing zone, created by two sets of pontoons with a lagoon in the middle and several smaller lagoons. The water will be diluted by the time it gets out to the lake.
- Gary Smith said he assumes that mitigation money is limited, and that these ten mitigation sites exhaust the available funds. Shane Cherry clarified there is no set mitigation budget. The goal of the mitigation planning process is to focus on addressing ecological impacts.
- Carl Scandella asked if transporting the pontoons from where they were constructed causes problems for salmon. Shane Cherry said we looked at that and found transport does not a significant impact for Chinook, but is more of a problem for boaters.
- Eileen Barber inquired if any testing was done on the impacts to adult salmon and migrating juveniles. Shane said the noise effects of pile driving is more likely to affect adults than juveniles, because the

migration corridor is far enough away from the pile driving. He reported that we did a fish tracking study of 120 juvenile fish. Based on what we learned, WDOT changed a number of supports for the new bridge to minimize attraction of predators. Eileen commented that we won't know the impacts for out-migrating juveniles for four years. Shane said our findings were that the bridge did have an effect on some of the juveniles, with some swimming back and forth a bit at the bridge before swimming through, while others went right through.

- Cleve Steward asked WSDOT was addressing the Lake Point site at the north end of the lake in Kenmore. Shane Cherry responded that Lake Point is not part of our mitigation program and proposed actions. Cleve noted that Lake Point is at the mouth of Sammamish River, and he suggested WSDOT may want to consider it as a mitigation site. Shane said he would share that message, and added we have some ideas for that site. The process to include it would involve going back to the state and saying this is what we want to change in our mitigation plan. Cleve commented that the new bridge is going to contribute to traffic volume at the north end of the lake, the number of people who will move there, and add to the cumulative impacts, and he asked how that was addressed. Shane responded that we didn't do a cumulative impacts study. Quantifiable mitigation is set by quantifiable impacts.
- Jean White asked if the mitigation sites are confirmed or proposed at this time. Shane Cherry explained that we've proposed these sites, which have gone through two rounds of review. We will be doing mitigation on sites that are owned by other parties (Seattle, the state), and have a written agreement with Redmond. We are still in negotiations with other property owners. We have commitments, but permitting is not done.
- Tom Odell asked if the impacts on other species, such as steelhead, were also studied. Shane Cherry said we took into consideration multiple species. The impacts were ESA focused on endangered species, and we considered habitat in relation to Chinook and other species. Councilmember Odell said he was curious about how much WSDOT is spending on mitigation. Shane explained that the answer is a complicated matter, because the money is not just being spent on the mitigation sites. The fish piece costs tens of millions of dollars.

ESA Review of 520 Bridge

SRC member Mike Grady, Transportation Branch Chief, NOAA Fisheries, reported that NOAA gets involved anytime an agency takes actions that could harm an endangered species. He provided a handout from the NOAA Fisheries Stormwater Quality Performance Standards that states: there can be no net increase in annual loading of stormwater pollutants; and pollutant concentrations for copper and zinc must be below the biological effects thresholds. He said there is a lot of science on the effects of copper and zinc on salmon. Our job with the ESA review of the bridge was to focus on the science and point out issues of concern.

Councilmember Grady commented that when NOAA works on stormwater impacts we don't consider NPDES permit requirements, because it's not a NOAA document and not based on best available science, and our job is to focus on science. He said pile driving is also a huge deal for NOAA, because it acts like huge bells clanging around in the water, which can eventually kill fish. We looked into how can we attenuate that sound to limit the impact to salmon. The solution we came up with is to vibrate the piles quietly into the substrate, and then bang on them with a hammer at the end. Overwater structures are also an issue due to predation, with bass and pike marrow waiting around under the structures to grab salmon when they come through. Our goal was to find the type of pile or structure that would be less pleasing for predators.

Councilmember Grady reported that the Montlake area interchanges were the most contentious, with two bridge crossing of the cut, causing some condemnation of structures, and impacting noise and cultural areas. NOAA has reviewed the stormwater impacts of the ferry terminals. Source control is the best way to get pollution off the floating area of the bridge, but we can't make everyone drive over the bridge in electric cars. The next best thing is the turbo sweepers. He added that the new 520 Bridge will have a

bike and pedestrian lane, and the old Museum of History and Industry (MOHAI) site will turn into a stormwater treatment facility.

Mike Lisitza, Lead Biologist, NOAA, explained that there will be catch basins on the bridge directing stormwater into the bridge pontoon. WSDOT was originally proposing to turbo sweep at the highrise to MOHAI, which didn't make sense. He said we are working on the details on the MOHAI stormwater facility and sweeping, and will have a monitoring program with UW right at MOHAI.

Discussion:

- Ted Frantz asked how often the sweeping will occur. Mike Lisitza said once or twice a month.
- Don Davidson commented that Sound Transit's light rail is going right through the bridge area, and he asked what mitigation they are doing. Mike Grady replied that they are going so deep it won't matter. Mayor Davidson then asked about the wheel shavings, and Councilmember Grady said he would check on that.
- Tom Odell suggested turbo sweeping the I-90 Bridge at the same time. Mike Grady replied that he's thought about that and also sweeping Colman Dock.
- Ted Frantz inquired how much stormwater sweeping gets rid of. Mike Lisitza responded that he was not sure, and said the bridge will give us a lot of that information. Shane Cherry added that frequency and rain patterns are also factors.
- Carl Scandella asked about other minerals besides copper and zinc. Mike Grady explained that NOAA did a lot of work on urban streams in the fall, right when the rains started, and found a lot of fish dying before they'd spawned. He said we found a whole array of studies, and he has information he could send.

Fish In/Fish Out Monitoring Update

Hans Berge, Senior Ecologist, King County, reported that the WRIA 8 Plan strongly endorses monitoring using the Viable Salmonid Population (VSP) parameters: Abundance, Productivity, Distribution, and Diversity. These parameters help identify goals and objectives, and measure the effectiveness of plan implementation. The three components of the WRIA 8 monitoring program are: spawner surveys, fry/smolt trapping, and PIT-tag monitoring. Spawner surveys provide estimates of: escapement and redd (salmon nest) counts (the abundance parameter); total eggs and prespawning mortality (productivity); relative use of stream and rivers in core, satellite, and episodic area (distribution); and age structure and hatchery/natural origin (diversity). Fry/smolt trapping provides estimates of: juveniles (abundance); egg to smolt survival (productivity); relative comparison of Bear Creek versus the Cedar (distribution); and fry versus smolt numbers and migration timing (diversity). Pit-tag monitoring provides estimates of: migration survival (productivity); relative use and importance of migration areas (distribution); and migration times to the ocean (diversity).

Hans explained that spawning surveyors (a mix of state, county, and tribal staff) use the following methods to gather timing (diversity) and abundance information: live counts (once per week in all Chinook-bearing streams to differentiate species); carcass sampling; and redd identification and location (two to three times per week). Redd density, an issue for restoration projects, is then calculated using GPS. To gather information on biological characteristics (diversity) surveyors count hatchery fish on the spawning ground, which involves checking for adipose fins (95% removed at the hatchery) and scanning code-wire PIT-tags (the size of a grain of rice, inserted at the hatchery). He noted that any hatchery fish found other than in Issaquah Creek is a stray. Methods for gathering productivity data, include: calculating pre-spawning mortality (egg retention) by looking at rings in the carcasses to gauge the age of the female; calculating potential egg deposition (number of redds times fecundity) based on age information; estimating the number of migrants (scoop and rotary screw traps at the mouth of the Cedar and in Bear Creek); evaluating PIT-tagging at the screw trap; and counting returning adults.

Results indicate that returning adults spawn at slightly different times in the Cedar and Bear. Hans said spawning on the Cedar usually starts in September, peaks in mid-October, and is now almost over. On Bear/Cottage Lake Creek spawning starts in August, peaks in early-October, and ends in late-November. In terms of abundance, escapement numbers are holding the line in the Cedar since the low in 2000, while Bear numbers are down. For the percentage of marked Chinook females on the natural spawning ground, 40% on the Cedar in 2004 was the high year, and in 2010 it was 18%. The marked percentage on Bear/Cottage ranges between 65-80%, and on Issaquah 95%. Marked females on the natural spawning ground have higher pre-spawning mortality than non-marked females: 22.2% of marked salmon are not successfully putting eggs in the gravel, versus 7.7% of wild salmon. CWT (coded wire tag) results show that the majority of marked Chinook stray from Issaquah, but also from the following areas: Kitsap Peninsula, Cowlitz River, Tulalip Bay, Elliott Bay net pen releases, Soos Creek, and UW.

Hans reported that for productivity it is important to look at survival from life stage to life stage and at the full life cycle (redd to redd). Population replacement means any redd to redd ratio greater than 1 to 1. On the Cedar fry are forced out earlier than in Bear, and the fry grow in the lake. In Bear parr survive at a much higher rate than fry. The recovery plan goal for redd to redd productivity is >2.5 , but in 2007 the rate was <1.0 .

Hans listed some of the benefits of WRIA 8's long-term fish in/fish out monitoring: Improved knowledge of species; data used to focus actions in the plan; auditing of restoration projects; pooling resources across jurisdictions for shared benefits; collaboration and training with volunteer groups (Cedar River Naturalists, Salmon Watchers, Water Tenders); observation of in-season problems for salmon; and interaction and educational opportunities with private property owners. He said understanding how projects relate to productivity is essential for species de-listing.

Discussion:

- Carl Scandella asked how far counts go back. Hans Berge responded that some go back to 1964, some to 1983, and this particular project goes back to 1998. The screw trap work started in 1999.
- Carl Scandella inquired if any estimates about trends going up or down can be made based on the gathered information. Hans said we estimate 10% of Chinook make it back to the Locks. Councilmember Scandella commented that he heard Chinook numbers are going down in Puget Sound, but this doesn't show it. Hans Berge explained that after 1994, harvest was reduced.
- Joan Burlingame noted the higher pre-mortality rate in hatchery fish, and she asked if it leads to more mortality if they leave at a greater size. Hans replied no, because we count those as the 7.7%.
- Peter Donaldson asked what causes Cedar fry to leave early. Hans Berge explained that if flows are high, fry leave in December, January, or February. If they are still in the river in March they stay. Bigger is better for survival.
- Frank Urabeck asked how one would access this data, such as the distribution of redds. Hans Berge replied that every five years we write a report, and this is one of those years.

Success Story: WRIA 8 Leads Region in Transfer of Development Rights (TDR)

Darren Greve, TDR Program Manager, King County, said TDR is a growth management and land protection tool that moves development out of rural areas into existing urban areas. Forest landowners can sell their development right to cities so they can build taller buildings and rural resource lands can be protected. WRIA 8 is leading the region in TDRs, with the Cities of Issaquah, Sammamish, and Bellevue as recent partners with King County. Examples are the Issaquah Creek Basin, where development rights were pulled out of the rural area and into downtown Issaquah in 2007, and the City of Sammamish, which allowed development rights to move from outside the city to the town center. Darren said recent TDR developments include King County working with the City of Seattle to renew its agreement, new TDR legislation passing at the state level, and led by The Land Conservancy. Darren concluded by calling the TDR legislation a tool to allow cities to access financing for needed urban areas, and he said he will be working with WRIA 8 to open up TDRs beyond Issaquah, Sammamish, and Bellevue.

Don Davidson commented that Bellevue does TDRs within our own city now, and the new legislation may make us have to do more. Ted Frantz asked if when a TDR occurs does it lower the property value. Darren Greve said it can. Joan Burlingame said she used to be in favor of TDRs, but now doesn't think it is working right. She gave the examples of Ravensdale Ridge, where a conservation easement is not being protected per the agreement, allowing 4-wheel drive vehicle use, and Hancock Ridge, where the public must pay \$75 for access. Darren explained that TDR is a tool to limit the development potential on a property, but isn't a comprehensive tool to address all the uses of a property.

Adjournment

The meeting was adjourned at 5:43 p.m. The next meeting is January 19, 2012, 3:00 to 5:30 p.m., Bellevue City Hall.