

WRIA 8 Salmon Recovery Council Meeting Notes

Department of Ecology Northwest Regional Office

July 16, 2015 3:05-5:23 p.m.

Members/Jurisdictional Staff Alternates Present		
#	Name	Affiliation
1.	Councilmember (CM) Larry Phillips, Chair	King County
2.	CM Andy Rheume, Vice-Chair	City of Bothell
3.	CM Jay Arnold	City of Kirkland
4.	CM Eileen Barber	City of Issaquah
5.	Mayor Bruce Bassett	City of Mercer Island
6.	Dick Bonewits	Cedar River Council
7.	CM Diane Buckshnis	City of Edmonds
8.	Don Davidson	Long Live the Kings
9.	CM Bruce Dodds	City of Clyde Hill
10.	Dave Garland	WA Dept. of Ecology (Ecology)
11.	CM Don Gerend	City of Sammamish
12.	Mike Grady	NOAA Fisheries
13.	Noel Gilbrough	Mid-Sound Fisheries Enhancement Group
14.	Mike Mactutis	City of Kent
15.	Peggy Marcus	U.S. Army Corps of Engineers
16.	Kathy Minsch	City of Seattle
17.	CM Hank Myers	City of Redmond
18.	CM Dana Parnello	City of Maple Valley
19.	CM Mark Phillips	City of Lake Forest Park
20.	Stewart Reinbold	WA Dept. of Fish & Wildlife
21.	CM Carl Scandella	Town of Yarrow Point
22.	Gary Schulz	WA Assoc. of Sewer & Water Districts
23.	Gary Smith	Trout Unlimited/Water Tenders
24.	CM Jesse Solomon	City of Shoreline
25.	CM John Stokes	City of Bellevue
26.	CM Allen Van Ness	City of Kenmore
27.	CM Paula Waters	City of Woodinville
Additional Alternates Present		
28.	Joan Nolan	Ecology
29.	Terry Lavender	Citizen
Others Present		
30.	Judy Blanco	Forterra
31.	Lauren Burgeson	King County
32.	Julie Crittenden	City of Seattle
33.	Uki Dele	City of Shoreline
34.	Lisa LaBrache	King County
35.	Jen McIntyre	Washington State University, Puyallup
36.	Kit Paulsen	City of Bellevue
37.	Jerallyn Roetemeyer	City of Redmond
38.	Stacey Rush	City of Kirkland
39.	Ron Straka	City of Renton
40.	Jean White	King County
41.	Bruce Wulkan	Puget Sound Partnership
42.	Linda Grob	WRIA 8 Team
43.	Jason Mulvihill-Kuntz	WRIA 8 Team
44.	Scott Stolnack	WRIA 8 Team

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45.	Jason Wilkinson	WRIA 8 Team
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Chair Larry Phillips opened the meeting, inviting all attendees to introduce themselves. He announced he will be retiring December 31, 2015, and thanked everyone who has been involved over the years working on salmon. CM Phillips said the structure of the Salmon Recovery Council (SRC) works very well and it's been wonderful to work on it over the years.

1. Public Comment

There was no public comment.

2. Approval of Meeting Notes for May 21, 2015

The Salmon Recovery Council unanimously approved the meeting notes for the May 21, 2015 meeting with typo corrections.

3. Updates & Announcements

General Announcements:

Jason Mulvihill-Kuntz (Jason MK), Watershed Coordinator, asked people to please review the Updates & Announcements handout, and highlighted the following topics:

- **2015 WRIA 8 Cooperative Watershed Management (CWM) Grants** were approved on Monday, July 13, at the Flood Control District Board of Supervisors meeting.
- **WRIA 8 Legislative/Budget Priorities:** In what was the longest legislative session ever, WRIA 8 did relatively well considering the bleak budget outlook, though not all our priorities were funded. Jason MK said he heard one-on-one, elected-to-elected communications with legislators were particularly successful and thanked all SRC members who communicated WRIA 8 priorities with legislators. Budget items of note:
 - Wayne Golf Course acquisition: Received \$1 million in funding.
 - Puget Sound Acquisition and Restoration (PSAR) grant program:
 - The proposed restriction on land acquisitions was removed, but there will be a legislative review, with a report due by the end of 2016.
 - Received \$37 million in funding, maintaining past biennial grant program and capacity funding amounts for WRIA 8.
 - Floodplains by Design grant program: Received \$35.5 million, including \$5 million for the King County (KC)/Seattle Public Utilities (SPU) Cedar River Corridor Plan project.
 - Pacific Coastal Salmon Recovery funding: Received \$16.5 million, potentially reducing the 2016 Salmon Recovering Funding Board (SRFB) grant allocation.
 - Lead Entity program: Received \$907,000, but didn't get the additional money requested.
 - Puget Sound Partnership (PSP): Received \$600,000 to support updates to salmon recovery plans and advance monitoring and adaptive management.

Jason MK said he will write a WRIA 8 thank you letter and send around as a template for cities to use.

- **Salmon Counts at the Locks:** This year's runs are starting slowly and are anticipated to be low. We are seeing roughly half the normal run for Chinook and one-tenth for sockeye as of July 7, but historically only 2% of the Chinook and 8% of the sockeye are through the Locks by then.
- **2015 KC Conservations Futures Tax (CFT) Citizens Committee Recommendations:** Terry Lavender, CFT Citizen's Committee Chair, reported that 51 overall applications were submitted for \$9.76 million in CFT funds and \$7.75 million in KC Parks Levy Funds (KCPL). Of those submittals, the

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committee recommended 47 projects for funding to the County Executive. She briefly went over the recommended projects in WRIA 8, including:

- Wayne Golf Course – Back Nine (\$800,000 CFT recommended);
- Issaquah Creek Waterways (\$500,000 CFT);
- Pfingst – Animal Acres Park (Lake Forest Park, \$300,000 CFT);
- May Creek – Fawcett Property (Renton, \$450,000 CFT);
- Little Bear Creek (\$57,500 CFT);
- Thornton Creek Natural Area (\$225,000 CFT);
- Bear Creek Waterways (\$800,000 CFT/KCPL);
- Cold Creek Natural Area (\$275,000 CFT/KCPL);
- Issaquah Creek Conservation (\$375,000 CFT/KCPL); and
- Taylor Mountain Forest Addition (\$60,000 KCPL).

Discussion:

- Larry Phillips praised the work of the CFT Citizens Committee over the last 20 years, especially Terry's involvement.
- Don Gerend asked why the Emerald Necklace Addition (Snoqualmie Watershed) didn't get funding, which he called disappointing. Terry Lavender explained that several projects didn't get funding. The Citizens Committee felt it wasn't critical to fund this project now, and she hopes it gets funding in the future.

4. Proposed WRIA 8 Ten-Year Plan Update Scope of Work, Schedule and Budget

Jason MK said the proposed scope of work and schedule document has been vetted with the Implementation Committee (IC). He said we have a great three-volume Salmon Conservation Plan, and there is no need to revamp the whole thing. Rather, the proposed approach will be to develop an addendum to the current Plan. The update to the plan will include the following proposed sections:

- Background: recovery context, current conditions, historical context.
- Geographically explicit recovery goals: fish, habitat.
- Geographically explicit current status/viability assessment and priority pressures: key indicators, objectives.
- Recovery strategies: results change, explicit hypotheses.
- Implementation schedule: habitat protection and restoration actions (led by Jason Wilkinson, Actions & Funding Coordinator), programmatic priorities (Polly Freeman, Communications Coordinator), cost estimates.
- Adaptive management process: (Scott Stolnack, Technical Coordinator) trigger points, organization structure, link to other efforts and plans.

Jason MK said we can't do all this work with our small 3.5 staff team, so we will be asking for help from your jurisdictional staff. The proposed plan update budget of \$33,800 shows consultant funding and staff assigned to which task. Key tasks/steps in the update process include:

- Watershed Summit: early 2016, to celebrate ten years of the WRIA 8 Plan, and next update.
- Updated Implementation Progress Report: end of 2015.
- Technical Forum: Scott Stolnack will convene in November 2015 to look at all the technical information.
- WRIA 8 Plan Update: complete by September 2016; approval by December 2016.

Discussion:

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- Larry Phillips asked for clarification that the plan update budget isn't new funding, but within the WRIA 8 budget. Jason MK said that is correct, it is in our budget.
- Don Davidson said we will be responsible for plan update deadlines set by NOAA Fisheries, but in the meantime WRIA 8 is going to lead the way.
- Don Gerend said we started the Kokanee Work Group based on citizen input, and though we don't have a fishery yet, he encouraged the SRC not to forget kokanee.
- Noel Gilbrough asked if the plan update will include steelhead, also an endangered fish. Jason MK said those are good questions (regarding kokanee and steelhead), but WRIA 8's primary focus is Chinook and that is what the update will focus on for now, acknowledging the important kokanee recovery work. He said WRIA 8 is tracking the steelhead recovery effort, but based on the technical information provided to date he doesn't think WRIA 8 will be an important area for steelhead recovery.
- Mike Grady reported there have been many discussions on this topic around the dinner table, because of his wife's work on steelhead. He anticipated WRIA 8 will be brought into this process, but without clear information on how steelhead will impact us he thinks the team should proceed with the plan update proposal.
- Andy Rheume said he hoped we will have some sort of mapping project with this update. Jason MK explained it is intended to be part of the plan update.
- Andy Rheume asked if there is more interconnectivity with Puget Sound Partnership's (PSP) update of their plan this time. Jason MK said our plan update is part of their plan update. We are at the Puget Sound Salmon Recovery Council table, and we need to do our plan update for ourselves rather than wait for the region to act.
- John Stokes said he really liked how the plan update scope of work document was laid out.
- Gary Smith announced that Trout Unlimited just came out with the State of the Trout Report, and will release its State of the Steelhead Report in December 2015. Jason MK asked if the State of the Trout is online. Gary said it is, and will send the link.
- Mark Phillips said the challenge is to build on the previous plan. He said the budget and scope of work look good, and the Watershed Summit sounds exciting.
- Diane Buckshnis asked if the SRC will be updated at every meeting. Jason MK said that's the plan. We may also look to see if there is value in creating a work group of interested SRC, Technical Committee (TC) and IC members.
- Gary Schulz asked if the plan update will include a section with successes, failures, and challenges. Jason MK said those are good things to consider including.
- Dana Parnello said he thinks the scope of work for the plan update is great, but he said he doesn't see any businesses around the table. Jason MK noted the Boeing is a member. CM Parnello said he's thinking of Bartell's/retail organizations that could pull products off their shelves that are having an impact on our streams. He suggested that maybe the Communications Coordinator could work on that. Jason MK said he would like to talk to CM Parnello more about it, and we could also convene the Membership Committee to figure out how to include more businesses on the SRC.
- John Stokes said he has been impressed by the Cedar River Corridor Plan Advisory Group, which has businesses involved which provides a different perspective.
- Mike Grady commented that automobile manufacturers would be someone to include. If we can affect the supply chain, it will have impact globally and locally.
- Larry Phillips asked where temperatures fall into the plan update. Jason MK said we are definitely looking at in stream flows. CM Phillips commented that WRIA 9 is having lots of pre-spawn mortality of salmon coming back and dying in the watershed. If you've looked at the Sammamish River, you see conditions are pretty grim, and he said he thinks the future is here now.

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- Dick Bonewits said we are facing a diminished snow pack in the mountains and instream flow in rivers and tributaries. Future planning should have something in it that at least considers water banking, and maybe building storage up in the upper watershed. We need water in the system for anything to improve, and the increasing temperature of the water is a killer.
- Mike Grady explained we have 50-year habitat conservation plans (HCP) with Tacoma Water on the Green and SPU on the Cedar, and we can provide input to you and merge the information forward. He said temperatures are a big problem now.
- Kathy Minsch said SPU monitors temperatures everyday through the HCP.

The Salmon Recovery Council by head nod approved the Ten-Year Plan Update Scope of Work and Schedule.

5. Approve 2016-2025 Interlocal Agreement and Memorandum of Understanding

Jason MK said we have been working on the renewed interlocal agreement (ILA) for a year, including feedback from the SRC and individual ILA partners. The next steps are to clean up the final draft document, distribute the final ILA to jurisdictions for approval, with signatures due by the end of December. He reported he has presented to 25 of the 28 partner city/county councils.

The Salmon Recovery Council unanimously approved the 2016-2025 Interlocal Agreement and Memorandum of Understanding.

6. Stormwater Effects on Salmon Recovery Part 2: Mitigating Effects of Stormwater Runoff on Salmonids

Jen McIntyre, Washington State University, Puyallup, noted that part 1 of the presentation focused on highway stormwater runoff, but urban stormwater runoff is also acutely toxic. Coho pre-spawn mortality (PSM) is widespread and recurrent in urban creeks, affecting 60-84% in Longfellow Creek (2003-2012), and 63% in Des Moines Creek (2004). Zebrafish, used as model fish in studies, suffered a variety of sublethal effects of runoff on developing fish: inability/delay to hatch, developmental delays, smaller eyes, fluid swelling around the head, and deformed jaws and hearts.

Jen reported that the WSU Puyallup Facility looked to green stormwater infrastructure for a solution. To test the biological effectiveness of bioretention, large soil columns were filled with 2" mulch, 24" bioretention soil (60% sand/40% compost) and 12" gravel aggregate. Some columns had plants, some didn't. Testers brought in urban runoff from Seattle to Puyallup, mixed it together, and conducted four tests of the runoff: untreated, soil column, soil plus plants, and lab control. Tests were run to determine juvenile coho survival, mayfly survival, daphnid survival and reproduction, and zebrafish survival and sublethal effects. Results showed that in unfiltered runoff all coho died in less than 12 hours, but with bioretention there was 100% coho survival and no sick fish. Treated runoff abolished the lethal response for invertebrates (mayflies, etc.), and the presence of plants had no added benefits. Daphnid reproductive impairment occurred at day five, but improved by day seven. Zebrafish embryos also suffered no sub-lethal toxicity with treated runoff, with only slightly inflated air bladders, and almost normal eye size.

Jen said WSU has also been working on molecular tools, measuring how much of a gene is being transcribed, and how much protein is being translated, using antibody staining. Testing showed that runoff alters genetic cardiac and detox messages, and identified the heart as a target for road runoff contaminants. She said there is still a little bit of the enzyme remaining, but induction of detox enzyme

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in skin and heart of zebrafish is eliminated. Bioretention treatment also reduced PAHs to detection limits.

Jen said we worked with the Suquamish Tribe at their Grover's Creek Hatchery to determine if bioretention can prevent coho PSM. We constructed portable bioretention in 55 gallon drums, collected coho and stormwater runoff across two seasons, and ran five test of clean well water (control), untreated runoff, and treated runoff on adult coho. At four hours 50% were dead in untreated stormwater, and at 24 hours all were dead. In the control and treated stormwater 100% were alive at 24 hours. She said a pilot test was also done on coho embryos, fertilization through hatching, with episodic exposure, 24 hour recirculation, and regular photographing and sampling. In unfiltered runoff the trend was towards smaller eyes and cardiovascular abnormalities. Hatching was reduced by episodic exposure to 100% runoff but recovered with filtration, and surviving embryos were significantly smaller.

Jen said in summary, soil bioretention can prevent acute toxicity of highway runoff in invertebrates, developing fish, and juvenile and adult salmon. Possible solutions for cleaning up stormwater runoff are green stormwater infrastructure and non-point pollution source controls. She noted that source control street sweeping is not very effective, unless done weekly. Legislation passed in Washington and Californian in 2010 reduced copper in brake pads, but it is not being passed nationally. There is a long list of things consumers can do to improve conditions (pick up pet poop; practice natural yard care; use rain barrels, rain gardens, porous surfaces to keep water in your yards; etc.). But most important is to support and implement LID, and support legislation to control contaminant sources.

Discussion:

- Carl Scandella asked if there is a sense of the background mortality from stormwater runoff. Jen McIntyre said background mortality is less than 1%.
- Hank Myers inquired if the presence of plants makes a difference over the long term. Jen said hopefully, and we have a longer term study of that going on now. Plants make take up metals through their roots, etc.
- Jesse Solomon asked whether exposed salmon might just die a bit later than the study timing. Jen said they may be exposed, but their body may be able to deal with the exposure, and it may not be an effect.
- Carl Scandella asked if the stormwater treatment built with the recently completed SR 520 bridge construction is effective. Mike Grady replied that a lot of the stormwater that lands in our parking lot at Sand Point comes from the 520 bridge. NOAA has consulted with WSDOT using this research, which is the best study out there.
- Don Davidson asked if anyone is looking at what impacts light rail might have in a wetland, because it must have a huge impact. Most of what we have left on the east side is wetlands
- Gary Smith said with the 520 bridge construction, WSDOT is expanding 520 out to Bear Creek, and has put in an Ecology embankment with composting medium on the shoulder as a way to get filtering into a narrow system. Systems are impacted by road conditions, and plants have prevented water from getting into the system. He said he doesn't think WSDOT is monitoring this or considering other maintenance problems. Jen McIntyre responded that maintenance is a really big deal. We've been talking to WSDOT about a new runoff study, but most of their people who had been working on it no longer work there.
- Hank Myers asked what kind of stormwater management system Highway 520 has. Carl Scandella explained it is a two-part pond system. Jen said even holding the runoff helps a lot and will help reducing the toxicity.

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- Noel Gilbrough asked how we develop building codes so a development is invisible to Ebright Creek, such as green roofs, pervious surfaces, etc. There are no codes to allow you to do that, and cities should think about how their codes can support this work.
- Don Gerend explained we are monitoring development in Ebright Creek, which right now is in good shape. He said he was confident we can get the regulations to control runoff on Ebright and other creeks. He said he would like to test the water coming out of the detention pond. Jen reported she had a friend studying frogs in detention ponds, and they had pictures of frog embryos that looked just like our fish embryos.
- Mark Phillips asked why PSM is seen so much in just coho, and if there are plans to look at other species. Jen McIntyre explained that we are starting a study this fall to look at other species, and will expose Chinook, coho and chum to runoff.
- Dana Parnello said this presentation is a success story because some solutions were found. He asked if she was involved in any way in qualifying the alternatives for brake pads. Jen said no, we aren't involved in that.
- Jesse Salomon said he was confused as a policy maker on how we go back to our cities for funding for these kinds of bioretention solutions. We have progressive staff in Shoreline, and our NPDES permits are all taken care of, but we are also doing a massive detention pond. He said we need help or guidance, and maybe more information in future meetings.
- Dick Bonewits asked how we get this message out to the public and leverage the conversation. There is still a group of science deniers out there, and we need outreach to developers as well.
- Mike Grady said he comes at this from a different perspective. He's been applying the science that Nat Scholz, NOAA Fisheries, and Jen McIntyre came up with on runoff, which is the best science out there. None of the state agencies have incorporated the latest science into their regulations. He said he doesn't care if it just affects coho, this is the latest science, and it might be worth it to take a group down to Puyallup to look at what they are doing. Dissolved metals take out the brain, enzymes take out the heart. Elon Musk builds the best electric car on the planet; now we just need him to build the best tire on the planet. Mike reported he has written a grant for NOAA's shoreline restoration project at Sand Point, and is going to work with Nat and Jen to get rid of our riprap.
- Jen McIntyre said she gave a webinar this morning and we do outreach to municipalities. The webinar is recorded and is available on the Washington Stormwater Center website: <http://www.wastormwatercenter.org/>.

7. Success Story: Lower Mapes Creek Restoration Project on Lake Washington

Julie Crittenden, SPU, reported that the Lower Mapes Creek project, which was constructed last summer, is on south Lake Washington in the southeast corner of Seattle in the Rainier Beach neighborhood. A number of research studies discovered juvenile chinook spend up to five months on the shorelines, and there are not many creek mouths left on the lake. Seattle has been creating a number of "rest stops" on Lake Washington to improve juvenile Chinook habitat.

Julie said the project brought Mapes Creek to the surface. The creek formerly ran through a pipe, and this area was historic lake bed and is very low. She said SPU partnered with a combined sewer overflow project to daylight the stream. SPU put in a pedestrian bridge, walkway, replanted the riparian buffer, and created a daylighted stream channel. They maintained most of the existing trees, new plantings look great, and they have been watering regularly. Julie said she started working on the project in 2002. The total cost was \$2.5 million, with \$1.35 for construction. \$524,000 in grant funds was received through WRIA 8, and SPU contributed \$2 million. SPU will be doing visual fish surveys for three years, and are already seeing juvenile Chinook using the creek.

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Discussion:

- Larry Phillips asked if SPU is monitoring for water quality. Julie Crittenden explained they don't expect Chinook to spawn here, so they are not monitoring for water quality. There are not a lot of outfalls into Mapes Creek, so it's actually pretty healthy.
- Gary Smith inquired if she was monitoring for public use because it's obviously a park. Julie said plants are all fenced. Neighbors are thrilled about the project, and they are getting a lot of interest from grade and middle school teachers.

Next Meeting:

The next SRC meeting is September 17, 2015, 3:00-5:15 p.m., at Ecology's Northwest Regional Office in Bellevue.