

# WRIA 9 Watershed Ecosystem Forum Meeting Summary

Renton City Hall

February 9, 2017, 4:10 – 6:20 p.m.

<b>Members/Jurisdictional Staff Alternates Present</b>		
1.	Councilmember (CM) Bill Peloza, Meeting Chair	City of Auburn
2.	Brian Anderson	The Boeing Co.
3.	Al Barrie	Mid-Sound Fisheries Enhancement Group (MSFEG)
4.	CM Kathryn Campbell	City of SeaTac
5.	CM Bob Edgar	City of Burien
6.	Matt Goehring	WA Department of Natural Resources (WA DNR)
7.	CM Lisa Herbold	City of Seattle
8.	Tom Malphrus	Covington Water District
9.	Wendy McDermott	American Rivers
10.	CM Erika Morgan	City of Black Diamond
11.	Joan Nolan	WA Department of Ecology
12.	Tyler Patterson	Tacoma Public Utilities
13.	CM Dana Ralph	City of Kent
14.	James Rasmussen	Green/Duwamish Watershed Alliance
15.	Brandy Reed	King Conservation District
16.	Loren Reinhold	City of Des Moines
17.	CM Dennis Robertson	City of Tukwila
18.	Chris Searcy	City of Enumclaw
19.	Ron Straka	City of Renton
<b>Other Alternates Present</b>		
20.	Maiya Andrews	City of Burien
21.	Mike Mactutis	City of Kent
22.	Kathy Minsch	City of Seattle
<b>Other Attendees</b>		
23.	Jeanette Dorner	MSFEG
24.	Kollin Higgins	King County
25.	Leah Kintner	Puget Sound Partnership
26.	Jonathon Loos	American Rivers
27.	Joe Miles	WA DNR
28.	Jessica Olmstead	WA DNR
29.	Mike Perfetti	City of Tukwila
30.	Larry Reymann	Environmental Science Center
31.	Tracy Stanton	Urban Waters Federal Partnership
32.	Linda Grob	WRIA 9 Administrative Coordinator
33.	Elissa Ostergaard	WRIA 9 Planning & Stewardship Coordinator
34.	Doug Osterman	WRIA 9 Salmon Recovery Manager

Meeting Chair Bill Peloza opened the Watershed Ecosystem Forum (WEF) meeting, and asked everyone to introduce themselves.

## 1. Public Comment

Joan Nolan announced that Ecology has two public meetings coming up and all are welcome to attend. 1) March 15, 2017, 1:00 to 4:00 p.m., Tukwila Community Center, is for interested parties to learn what is going on with toxics, sediment remedies and fish tissue on the Duwamish River and the Pollutant Loading

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Assessment (PLA). 2) March 17, 9:30 a.m.-12:30 p.m., Covington City Hall, will discuss the Soos Creek TMDL study that has been going on since 2009. Later in 2017 the final draft TMDL will be coming out.

Larry Reymann, Environmental Science Center (ESC), promoted the Seaside Soiree coming up for school kids at the Normandy Park Cove on March 4. Part of the ESC mission is to enhance curiosity and imagination with after-school science education for young school children in public housing.

Kathryn Campbell reported she and James Rasmussen went to Olympia to testify on SB 5501 and HB 1663, which add a smidgen of tax on purchases of toxic substances. The proposed tax would increase the fund that was supposed to pay for environmental cleanup, but has been borrowed from and reduced. She said we only had 90 seconds each to speak because a climate denier invited by Senator Ericksen was allowed to speak for an hour.

Doug Osterman, Salmon Recovery Manager, reported that the Green/Duwamish Watershed workshop is coming up on February 27, with a focus on collaborating.

## 2. Approval of Meeting Summary

<p><i>The Watershed Ecosystem Forum unanimously approved the meeting summary for the November 10, 2016 meeting.</i></p>
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## 3. WRIA 9 2017-2018 State Legislative Priorities and 2017 Congressional Priorities

Doug Osterman said he has packets available with the Legislative Priorities and project fact sheets, and requested people let him know if they are going to Olympia. He noted that the Cities of Des Moines and Kent have pretty significant projects included in the packet.

Doug reported that he made connections at last year's Go Green conference with members of the business community, some of whom (Filson and PureBlue) financially supported and/or attended our nearshore boat tour. PureBlue is spearheading a business community roundtable to get a focused group of business people more involved in recognizing that Puget Sound is a huge asset for their businesses, and exploring ideas they can make to contribute to salmon recovery. Doug would participate and present an overview of WRIA 9.

Discussion:

- Kathryn Campbell said she was interested in working on a subcommittee to market the idea of eco-tourism as something for tourists to do when in the area, including watching and helping the whales and other things that thrive here. She is going to talk about it with the head of the tourist authority tomorrow, and she requested people let her know if they are interested in the subcommittee. Doug Osterman said if the business community roundtable comes to fruition, he will add that information to the discussion.
- Kathy Minsch asked if the roundtable would be for all of Puget Sound or just WRIA 9. Doug explained that the plan is to host the roundtable at Salty's at Alki and limit it to 40 participants. PureBlue wants to create a water center site, possibly in the Duwamish corridor, and is looking to host an innovation technology discussion about linking universities to the watershed. The topic starts with WRIA 9 and may eventually expand to Puget Sound.

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## 4. Restructuring the South Central Action Area Caucus Local Integrating Organization

Dennis Robertson, Management Committee (MC) Chair, said there is no hierarchical structure directing salmon recovery. Puget Sound Partnership (PSP) has four different boards, including the Ecosystem Coordination Board providing some technical direction and the regional Puget Sound Salmon Recovery Council for policy direction. The feds and the state have their organizations and at bottom are the WRIAs. The organization in the middle is the Lead Integrating Organization (LIO), which is supposed to bring WRIAs and other nonprofits and agencies together. He said we are part of the South Central LIO which is where all the economic activity is but is unfortunately too large to function well. County Deputy Executive Fred Jarrett is proposing to disband the LIO and push the functions down to the WRIA-level, which means WRIA 9 taking on more responsibility. CM Robertson reported that he looked at the WRIA 9 Interlocal Agreement (ILA), and came up with crazy idea to write a two paragraph purpose statement. The MC is working on that now, and will take it to the next WEF meeting. All the elected officials are volunteers in WRIA 9, we have a lot on our plates, and we want to understand our legal responsibility.

Bill Peloza said while we look into the effect this restructuring will have on WRIA 9, CM Robertson and Doug Osterman will stay focused and attend all PSP meetings.

## 5. Salmon Recovery Funding Board Funding Allocation

Doug Osterman reported that funding allocations for shellfish, habitat and Puget Sound are declining. The Salmon Recovery Funding Board (SRFB) are looking at new criteria that would divert Pacific Coast Salmon Recovery Fund (PCSRF) funds from Puget Sound to the Lower Columbia. The criteria boil down to the size of the watershed and stream miles, which means Lower Columbia will get 5-10% more in Salmon Recovery Funding Board (SRFB) funds and Puget Sound will get 5-10% less. Doug said WRIA 9 is already the lowest funded watershed with a major river and native Chinook salmon population. Karen Bergeron, Habitat Projects Coordinator, is currently working with \$200,000/year in SRFB money, and if they reduce the amount will go down to \$120,000-\$150,000/year.

Dennis Robertson said we keep going to all these meetings and groups just to get money, and at some point it doesn't make sense to do that for such a little bit of money. We are also not spending enough money to actually do the things we need to do, but we are doing very well compared to other WRIAs who don't have ILAs, and operate on only the \$60,000 Lead Entity grant.

## 6. Habitat Plan Update: Developing Habitat Goals

Elissa Ostergaard, Planning and Stewardship Coordinator, reported that this group decided last year that for Salmon Habitat Plan (Plan) update we would do a minor update to the 2013 Monitoring and Adaptive Management Plan, update the project list and scientific foundation, and add habitat goals and targets. Habitat goals tell us what we have now and what we need, and are the basis for deciding on actions, estimating costs and realistic funding requests, maximizing the cost benefits of projects, measuring and reporting progress over time, and tracking how our actions affect Chinook Viable Salmonid Population (VSP) parameters. Habitat goals are also not required by law.

Elissa presented a schematic of the Plan update, which will include writing some technical briefings to update WRIA 9 science (fish habitat use and productivity, water quality, climate change and sea level rise). PSP hired a coach for 40 hours to help us identify our habitat goals. The WRIA 9 Team will have work sessions, the Implementation Technical Team (ITC) will review and make recommendations for WEF consideration and approval, and we will bring goal recommendations to the WEF in August.

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She explained that, per the latest PSP guidance, a goal must: be a formal statement of desired future condition we hope to achieve to contribute to recovery of habitats and Chinook populations; be long-term (50-100 years) and include a timeline; and have interim targets (ten-year goals). PSP wants goals to be S.M.A.R.T. (specific, measurable, achievable, results-oriented, time-bound), and some of our goals can be refined to meet these criteria.

Elissa translated the habitat goals into WRIA 9-speak:

- Long-term goals equal necessary future conditions: science-based estimate necessary to recover Chinook, aspirational, 50-100 years. (Example: 173 new acres of shallow water habitat in Duwamish transition zone.)
- Short-term goals equal targets, benchmarks, interim goals: best we think we can do in next ten years for different habitat types given the opportunities on the ground. (Example: 40 new acres of shallow water habitat in the Duwamish transition zone.)

She explained that we are not reconsidering existing goals except to refine them where needed. The Plan already has Chinook number goals, many habitat types have 50-100 year goals, and a few areas have short-term interim targets (Duwamish Blueprint 2014 and Riparian Revegetation Study 2016). She said we will update interim targets for most areas and gaps identified in 2014-15, such as no floodplain area goals for the Middle Green and Duwamish; large wood only in the Middle Green; etc. As the next steps in the Plan update process the core Monitoring and Adaptive Management Team (Elissa, Kollin Higgins, King County, and Leah Kintner, PSP, and coach Abby Hook) will start developing drafts.

Discussion:

- Dennis Robertson asked if the interim target of 40 acres of shallow water habitat in the transition zone is feasible versus necessary, and what amount specifically is necessary. Elissa Ostergaard explained that it will be some subset of the 50-100 year goals. She said we did make it a bit aspirational to try to get more money. There is not a direct science to developing the goals.

## 7. Habitat Plan Update: Climate Change Impacts on Salmon Technical Briefings

Kollin Higgins, Environmental Scientist, said his presentation is an overview of the technical document being prepared by the ITC. He defined climate change as change in the usual weather of a place and not any particular aspect of the climate. It will be different in different areas, and we are talking about how it will change here. The ITC is addressing climate change now because it was not addressed in the 2005 Plan. He explained salmon have evolved with our current climate, and he is not sure they can keep up. Most changes will impact them negatively, and if we think through the changes, we may be able to help them be more resilient so they can recover.

Kollin directed attention to the fish graphic in the meeting packet. Providing information on salmon life history, he said adult salmon hold in the river before they spawn. When it rains, they move upstream and then they spawn in the gravel, mostly in the Middle Green. Fish pop out of the gravel and rear in the river, then grow up and smolt and go to salt water. The graph also shows the climate change we expect, with the heat in summer having an effect on adults and juveniles at different times of the year. We are also expecting lower summer flows in combination with high temperatures, which affects adults and juveniles in different ways. Flows may scour eggs from the gravel after the Chinook have spawned. Chum are in the river spawning at the same time, and climate change will affect different salmonids differently. Finally, we are expecting a loss of spring snow melt, which will affect juvenile fish as they are rearing and migrating downstream.

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The primary change will be warmer temperatures over time. Fifteen of the last 17 years have been the hottest on record globally, and we are expecting it to get warmer. We will lose most of our snow in WRIA 9, with winters getting rain instead of snow. It will be about the same amount of precipitation with a little more in the winter and a little less in summer. In a future without snow we will have one large peak flow in winter, instead of moderate flows in the winter and moderate flows in the spring as snow melts. He said the Middle Green and parts of the upper watershed will change the most. Joe Anderson's WDFW data show flows above 8,000 cfs causes scouring of gravel and shoot small fish downstream. We get fewer baby fish when we have more days of high flows.

Kollin said actions we should be taking to address climate change include: setting back levees and revetments (e.g., Downey Farmstead); reconnecting or recreating floodplain areas to the main river; and improving stormwater controls in developed areas. Stormwater work will be quite expensive because it will be not only a lot of water but the pollution that comes with it. We need to provide salmon with places to get out of the mainstem, especially in the Lower Green. We also have flapgates along the Lower Green (example on Johnson Creek near the Segale development by Southcenter). He did a mitigation/habitat project to restore the tributary and floodplain habitats, but fish can't get there because of the flap gate. He said we are also expecting more intense heavy rains, with a 22% increase in intensity for some events. WDFW looked at how this would affect culverts, which would include increased peak flows and channel width, so we see more things like coho trying to cross a parking lot at the Normandy Park Cove. This is becoming more prevalent because culverts were designed for smaller events, which means we should start building bigger ones now, which costs more. Bigger culverts also benefit people because they prevent flooding.

Kollin reported that increased rain causes more sediment to come down from erosion and landslides. The Howard Hanson Dam (HHD) reservoir acts as sediment trap, and the Middle Green is sediment starved, which is why we currently supplement gravel below the dam so fish have spawning gravel. With road density in the Upper Green, we have plenty of coarse gravel, like the Middle Green, but the amount of fine sediment is not great. It's the same situation on the marine shoreline, which is sediment-starved due to 150 years of shoreline armoring. Smaller tributaries are also likely to get worse, with more fine sediments and stormwater.

With climate change we expect decreased flows in spring/summer, which means less fish access to off-channel habitat. 2015 was nearly the worst year on record for low flows in early summer due to almost no snowmelt. Kollin said low flows disconnect more habitats, resulting in fewer places for fish to feed and grow so they can survive. Complex edge habitat will be gone because the flow area shrinks and isn't near edge vegetation. There will also be more stranding, such as with the dead coho in the oxbow that got stuck in April when the water got warm and lost its oxygen and there wasn't enough flow to escape. Redds are on the edges, and when the water goes down, they are stranded and the eggs won't survive. To counteract this, we need to revegetate riparian areas, buy water rights, restore groundwater recharge areas, and alter forest harvest rotation rates. He said if we let trees grow to 150 years old, we would get twice as much water out of the system than with the normal 40-year rotation. We also need more outreach to people so they control their water consumption.

Kollin noted that salmon are cold-water fish, and the trend is water getting a lot warmer, with many more streams becoming inhospitable. The 2015 Green River conditions graph shows the state standard, above which conditions are not good for fish. Another line shows lethal temperatures; the red line was the worst case scenario from the Ecology model, but the black line shows the actual July 2015 temperatures, which

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were worse and lethal along most of the river. The Muckleshoot Indian Tribe started seeing dead Chinook in the Green in 2015, and WDFW collected carcasses to see if they had successfully spawned. Sixteen percent didn't spawn and that was double what they saw in 2016. He said a long list of sub-lethal effects is connected to higher temperatures, and all are bad from a salmon perspective. Actions include trees, trees, and more trees to shade the river so it doesn't heat up. Per a Chinese proverb, the best time to plant a tree was 20 years ago, and the next best time is today.

For the marine shoreline we have experienced an eight inch sea level rise over the last 100 years, and flooding on the shoreline is already happening. Generally, King Tide events coincided with high wind events. We are expecting roughly a meter of rise in the next 100 years, but if everything goes wrong we could see a five meter rise (paleoclimate pessimistic approach). There are two main causes to sea level rise: thermal expansion (water expands when it gets hot) and melting glaciers (more water in the oceans). A one in 100-year event becomes an every other year event. We will see more damaging storms, an increase in erosion rates, and are expecting to see more people clamoring for bigger bulkheads or adding armoring where there isn't any.

Kollin said there will also be a coastal squeeze on the natural shoreline due to sea level rise, with beach spawning habitat moving inland. When a bank is armored, water goes up the bulkhead (instead of spreading up a gentle slope) and the spawning habitat for small forage fish goes away. In the Duwamish, shallow water habitats will become deeper and some areas will become aquatic. A four foot sea level rise has a lot of businesses underwater, and as a society we have to decide what we want to do: shore up these areas or turn them into aquatic habitat. For the marine shoreline we need to make sure our regulations are strong, and keep up efforts to remove bulkheads. The current rules allow bulkheads to be rebuilt where they are, and we need to move them back and create multi-benefit projects. In conclusion, he said the climate is changing and we have to understand it so we can make timely decisions to create resiliency.

## Discussion:

- Bill Pelozo said he would like to ask for a briefing on smolts sometime in the future to educate us, especially in the Duwamish and transition zone. Kollin Higgins agreed that doing "Fish 101" every so often would be a good thing.
- Bill Pelozo asked if the state didn't recently put in more money in the budget for culverts. Kollin responded that the state is trying to come up with money to fix culverts because of the lawsuit by the tribes. A new board is working on prioritizing culverts for replacement, but there are a lot of culverts on the list and the state doesn't have the money to replace them all. The Governor was asking for \$19 million just for state Department of Transportation culverts. Culverts last 20-50 years and are expensive to put in.
- Doug Osterman, commenting on the stranding issue and low flow action, said it seems like we need to purchase additional lands that are not developed so the river is allowed to move. Kollin said this is not just an issue in the Lower Green but in the Middle Green as well. The synthesis of technical briefs will give us a big list of potential actions the WEF will need to discuss.
- Tyler Patterson asked if the water temperature shown coming out of HHD on the graph is a real temperature. It's shown as cooler than historic earlier in the season and warmer than historic later in the season, heating up by the time it gets to the Green River Gorge. On July 4 water being pulled is colder water, but four miles downriver it's warmer. Kollin said that's a good point, and we may need to talk to the Corps about pulling water from a different place.
- James Rasmussen commented that there is a vehement and opposite side to our climate change presentation that is being listened to very closely by our own state legislature. We have to find holes

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in their arguments. He also noted that we have train lines along the east part of Puget Sound, and he asked when the bluffs fall on the train lines sediment is kept on the line or hauled away. Kollin explained that BNSF can allow it to stay for a week, but they are required by Ecology to haul it away and get rid of it. There has been a lot of communication to find a different way.

- Dennis Robertson said our two-paragraph statement needs to stress that this organization matters. We need to start talking about climate change, what we are really trying to do, how we restructure ourselves, and what we go back and tell our cities.
- Al Barrie said the intertidal zone is typically the transition zone in WRIA 9, from 180<sup>th</sup> to Puget Sound. We not only have to worry about the level of saltwater but temperature. Creatures in the marine environment are being affected more than in fresh waters, and the food supply and predation are affected by temperature and the elevation of sea water.
- Brandy Reed said in relation to low flow and temperature studies, we should highlight the contribution of uplands. She said lots of people want to say there is not a connection between trees and stormwater. It positively affects the hydrologic cycle to have evergreen trees in the watershed, and forestry is your friend for habitat.
- Erika Morgan said Black Diamond Springs is an area of snowmelt and cold water, and may have something to do with the cold Green River Gorge. Palmer-Coke & Cole has applied for a gravel mining permit for 320 acres near Black Diamond, which may have a tremendous effect on cold water coming into the river. Kollin responded that is a known recharge area that provides cold water to the river.

## 8. Public Comment

Bill Peloza asked people to fill out and leave the survey about changing the WEF meeting time.

Jeanette Dorner, the new Executive Director of Mid Sound Fisheries Enhancement Group (MSFEG), said we talked to legislators on Tuesday, and of importance to us is the Wild Futures Initiative. Funding is critical to FEGs, and if it doesn't go forward we will have difficulty staying in business. There is a tremendous amount of concern because the fishing lobby is saying do not increase fees, and legislators are hearing more from them and not about the importance of salmon.

Brian Anderson reported that we created a habitat walkway for our people in Boeing, put up some signage, and were certified as a wildlife refuge.

## 9. Wrap Up/Next Steps

The next WEF meeting is May 11, 2017, Renton City Hall.