

WRIA 9 Implementation Technical Committee
Meeting Summary – May 16th, 9:00 am – 11:30am
King Street Center, 6th Floor- King/Chinook Rooms

Attendees: Kerry Bauman, King County; Katie Beaver, King County; Karen Bergeron, WRIA 9; Sophie Chiang, King County; Jeanette Dorner, Midsound Fisheries; Larry Fisher, WDFW; Chris Gregersen, King County; Matt Goehring, WRIA 9; Kollin Higgins, King County; Amber Moore, PSP; Joan Nolan, Ecology; Tyler Patterson, City of Tacoma; Mike Perfetti, City of Tukwila; Scott Pozarycki, USACE; Jen Rice, King County; Dennis Robertson, City of Tukwila; Laura West, King County

WRIA 9/NOAA “H” Integration- Laura West and Dennis Robertson

Laura briefed the group on the status of “H” integration (hatchery, harvest, habitat, and hydro) issues. She has participated in meetings between management and NOAA, and gave an overview of follow up from the DEIS comment letter that WRIA 9 drafted, the WRIA 9 management team meeting with NOAA, and the “H” integration discussion that was discussed at the May forum meeting. Laura discussed the following points:

- Follow up on the DEIS comment letter
 - Comment period on draft Environmental Impact Statement last fall for 10 salmon and steelhead hatchery programs in the Green-Duwamish watershed.
 - When WRIA 9 found out about the comment period, it was almost over and we successfully requested the comment period be extended through mid-January.
 - WRIA 9 hired Gino Lucchetti, who used to work in the King County Science Section to review the DEIS and the 10 Hatchery and Genetic Management Plans (HGMPs). Gino drafted comments, which we circulated for review among the WRIA 9 Leadership Team. In our concerns, we highlighted that continual and increased interbreeding of natural origin and hatchery origin fish over generations degrades genetic diversity and productivity and that interactions among juvenile hatchery and wild chinook, through mis-timed hatchery releases, leads to habitat and nutrient competition and negatively affects productivity. We also highlighted the goal of establishing a spring run of naturally spawning Chinook above HHD.
 - King County DNR director Christie True reached out to some of the leadership team members, expressing concern over the letter, and asking them if they understood what it meant. Because they didn’t know the full reasoning behind King County’s concerns, but wanted to be supportive, the WRIA 9 leadership team decided to submit a request to NOAA to re-open the comment period and delayed sending the comments Gino drafted.
 - NOAA declined to re-open the comment period.
 - The WEF discussed this series of events at the February meeting, with King County WLRD director Josh Baldi there to represent the Executive’s office.

- The WEF voted to send a new letter to NOAA, briefly laying out the WEF's concerns with the DEIS and HGMPs and ask them to convene a meeting with the WEF, local government representatives, and tribal government representatives.
- On March 13, the letter was sent, laying out some of the issues WRIA 9 saw with the DEIS/HGMPs, requesting an initial meeting between the WRIA 9 MC and NOAA, and then suggesting a further meeting between all entities to formulate an integrated approach to salmon management in the watershed.
- That initial meeting was scheduled for May 1
- Management team meeting with NOAA
 - Allyson Purcell (Hatchery and inland fisheries branch chief, who is in charge of reviewing the HGMPs) and Jennifer Quan (Central Puget Sound branch chief) from NOAA attended, as well as Stacy Vynne (Salmon Recovery Manager) from Puget Sound Partnership
 - In March and April, Dennis, Marlla, and Bill had done a lot of research, especially on the subject of H-integration, and realized that it was likely the HGMPs would get approved, but this was an opportunity to advocate for H-integration in the watershed.
 - I'm guessing you all know what H integration is, but to summarize, it is the coordinated actions between harvest, hatchery, hydro, and habitat sectors, working together to achieve self-sustaining, harvestable salmon runs, land use development, increased water supply, and flood risk reduction
 - WRIA 9 proposed an H-integration pilot program in the Green-Duwamish watershed and asked NOAA to condition the approval of the HGMPs on participation from all H-sectors
 - WRIA 9 seeks NOAA's help to bring the co-managers (Tribes and WDFW) and Army Corps of Engineers to the table for H-integration discussions
 - Specifically, WRIA 9 would like to discuss hatchery management with Director of Fisheries at WDFW and Tribes, dam management and water release timing with the USACE, KC, and Tacoma Water, and the importance of Chinook as prey for Orcas with the Governor's office
 - Marlla highlighted some of the science showing:
 - hatchery fish have contributed to the decline of wild populations
 - the Middle Green is at full rearing capacity
 - Due to low flows in the rearing season, juveniles can't access many of the tributaries that are full of nutrients and provide good habitat.
 - High flows in the spawning season contribute to redd scouring
 - King county has agricultural policies in the middle green that limit increasing habitat
 - Partial barrier of downstream fish passage at Black River Pump Station (ineffective air pump method) and outdated upstream fish ladder
 - Barrier of downstream fish passage at Howard Hanson Dam (USACE in charge of building)
 - Some hatchery fish are released unclipped and externally unmarked above the monitoring station right above the Soos Creek Hatchery, making them unidentifiable amongst the native origin fish.
 - Marlla quoted from NOAA's own documents where they suggest decisions on hatchery reprogramming should be based on the needs of wild fish rather than maximizing near term output.
 - The team noted plans laid out in many of NOAA's earlier documents from 2006 that lay out plans to implement H-integration, but that haven't occurred

- A summary of Puget Sound Partnership response at the meeting with Stacy Vynne
 - PSP is negotiating new lead entity scopes of work and there is an opportunity to build in time/capacity to have these discussions
 - PSP is also having similar conversations at the regional and state level, realizing they aren't seeing enough progress through the sole lens of habitat. They've begun discussions on hatcheries.
 - Stacy thinks it's likely more hatcheries will be proposed from the prey working group that came out of the Governor's orca task force executive order and it is critical to have these conversations before that recommendation is finalized
- NOAA's response
 - Nothing said so far that the WRIA's proposal does not go against the direction NOAA wants to go in
 - NOAA is currently involved in the 10 year harvest allocations (international pacific salmon treaty) with the US and Canada, which then lead into the north of falcon process for divvying up Washington allocations between tribes, commercial and sports fishermen
 - Under a lot of pressure from Congress to get through the HGMP review process (they've had a backlog since the early 2000s). Allyson's team is working hard to get through these.
 - Allyson's team looks at the questions of whether the proposed hatcheries prevent Chinook recovery and whether hatchery fish should be allowed above the Soos creek facility.
 - NOAA has also seen a lot of turnovers/retirements and many of the incoming younger biologists aren't familiar with all of the local partner organizations and the history. It will take time to catch everyone up.
 - They are negotiating with the USACE to release the biological opinion for HDD. NOAA informed USACE that the continued existence of the dam without a downstream fish passage will prevent Chinook recovery. Downstream passage has been listed as a Reasonable and Prudent Alternative (RPA). They are currently negotiating a timeline for the construction and any interim measures, such as changes to flow levels, and funding for habitat. Jennifer suggested WRIA 9 schedule a meeting with ACE ASAP to provide our input on flows and the urgency of the downstream passage.
 - Jennifer and Allyson will discuss WRIA 9's proposal with their higher ups and think about how to manage this with limited capacity.
 - They suggested WRIA 9 meet with WDFW Fisheries and Habitat Directors Ron Warren and Jeff Davis. NOAA is having similar conversations with the state, but echoing of priorities would be helpful.
 - They suggested we get in touch with the Governor's office and the tribes as well and look into Senator Carlyle's draft legislation last year on salmon recovery that didn't pass and think about other routes for legislative support
 - Stacy (PSP) offered to help set up these meetings
- Other developments
 - Doug did have an initial call with Stacy Vynne, Amber Moore from PSP and Ron Warren, Jeff Davis and Erik Neatherlin (science director) at WDFW last Thursday, right before the WEF, which he indicated to me was positive, but he left for vacation right after that, so I haven't heard more
- Forum "H" integration discussion

- At the WEF meeting last week, Dennis recapped these discussions to the Forum and asked for the Forum's approval to continue investigating the potential of this pilot program by initiating further conversations with the relevant players
- Stewart Reinbold (habitat at WDFW) expressed concern that it is a complicated issues involving multiple legal authorities. Stewart suggested inviting the hatcheries team from WDFW to present at a future WEF meeting, which others agreed was a good idea.
- Noel Gilbrough acknowledged that WDFW is between a rock and a hard place, with pressure from the Muckleshoots to increase fish numbers and evidence that hatchery fish do have an impact on restoring natural Chinook. He also brought up the economic impact of fishing and the added pressure on the system from orcas
- WEF did approve continued investigation into the potential pilot program
- Next steps:
 - Set up further meetings with WDFW, ACE, Muckleshoots, NOAA, KCFCD, Tacoma Water

Kollin added that after the DEIS comment letter, there was a new harvest plan draft that was released. The Muckleshoots were pushing for strong shifts in the escapement levels for when they can harvest Chinook, so that the return level that they can start harvest could be lower so they can fish more frequently. No process set up for others to participate in the harvest plan initially. NOAA did provide comments regarding these proposals. The draft plan was released in April, but we're not sure how NOAA responded to the tribe's proposal regarding on harvesting at lower adult return levels.

Dennis added that there has been recent NOAA discussion about managing Puget Sound watersheds as a whole, which may allow certain watersheds to be managed as urban watersheds and become hatchery driven. Will increased hatchery outputs actually result in more fish? In essence, can we let this population go and let it be entirely driven by hatchery outputs? Kollin discussed work that shows large numbers of hatchery fish may have a swamping effect and reduce or stall the growth rate of wild juveniles. Some of this is older work from Tom Nelson, specifically in the Green River, while there is newer work out (not published yet) from Correigh Greene (NOAA) and Eric Beamer showing the same issues from a combination of watersheds (Nisqually, Snohomish, Stilly and Skagit).

Kollin mentioned that the Hatchery Science Review Group (HSRG) was put together in the early 2000s to provide scientific information and recommendations for Puget Sound hatcheries. Soos Creek hatchery has rarely met these recommendations. For example, the proportion of hatchery fish spawning in the wild is recommended to be 30% or less, which is almost never met and we're often at 60% or 70% hatchery fish instead. We want 30% so that the natural fish genetics are at least driving a portion of the population. The question comes down to what does NOAA consider as recovery? Currently recovery criteria are broken out by regions, and not all of Puget Sound. The Green is in the South Sound Region, which requires that the spring run in the White recover, and one of the four populations recover (Nisqually, Puyallup, Green, Lake Wa). That said, it does not allow further degradation within any of the remaining three populations. If the co-managers wanted to do manage all populations at a Puget Sound level, they would have to re-write the federal guidelines for what recovery goals are.

The WEF will be moving forward with these discussions. Kollin gave some background, in that we as a group have been focused on habitat. We haven't discussed the other 3 H's since around 2007, which

was the last time that this conversation was going on. From a technical side, we need to keep everyone else aware of the 4 H's and that we need to work together with all of the pieces.

Scott followed up regarding interim measures that the USACE could do while they are working on completing fish passage at Howard Hanson. As for interim measures, what suggestions would WRIA 9 have for things that USACE could do in the interim? Kollin suggested that we have more discussion, as there are several issues (mentioned in the white paper, Joe Anderson's work) like redd scour and rearing flows. Dennis mentioned that the forum could put together a recommendation letter for interim measures. Several members brought up that much of the measures regarding flows are accounted for through the HCP and bi-weekly meetings with various resource managers about how water will be used. The meeting is open to all.

Scott clarified that the HCP does not govern what the corps does, it's for Tacoma Water. Army Corps flood storage and fish management nexus with NOAA are included in the BIOP. The HCP has no authority over the corps, the BIOP manages their actions. There is some confusion as some of these documents have been written and used in joint projects and actual management has shifted over time as some of what was previously written was not workable in reality.

Scott quickly briefed the group on how the corps and Tacoma manage water at HDD. They begin storing water at the end of February, with the goal of having full pool by June 1st. They hold the water for Tacoma water, flow augmentation, and fish conservation authority (storing 20,000 acre feet) for maintaining minimum flows (110 cfs at the Palmer gage). A bi-weekly meeting occurs with the co-managers to make recommendations to the corps for how to use, store, and manage water. The group expressed the desire to have Scott present more detail on this information in the future.

Water storage in the spring takes a percentage of inflows to maintain somewhat natural flows downstream. Flow augmentation downstream is done in the spring to prevent steelhead redd dewatering. Then the goal throughout the rest of the summer is to maintain instream flows, followed by fall Chinook spawning water augmentation in the fall. This comes to a total of about 40,000 acre feet between that and Tacoma water. If we were to add flow augmentation for something like side channel connection in the spring, that water would have to come from somewhere where it is already allocated. So there would need to be more discussion about the tradeoffs of different approaches. Currently about 20,000 acre feet go to Tacoma, 10k of that donated back for fish as part of an agreement associated with the Additional Water Storage Project. Once fish passage is provided, this 10k would no longer be donated back to fish. This ultimately comes out to about 80% of the storage water in the basin going to fish. Tyler mentioned that if the instream flows are not met, some of Tacoma's share must go back to the fish. The Army Corps can change their storage and discharge regime, but they would need the stakeholders (Tribe, WDFW, KC, WRIA 9) to all agree on what the change should be during the bi-weekly flow meetings.

Grant Results- Karen Bergeron

Karen presented the CWM funding proposal that was approved at the May 10th forum meeting. Approval at the forum meeting was for CWM, SRFB, and PSAR (project list 2019-2020, and PSAR large cap).

- For the CWM small projects fund/revegetation grant round, we had 250k available and luckily had 5 applicants requesting about \$50k each. The following grants were awarded:
 - Mid Sound Fisheries Enhancement Group, Student Stewards Program- \$50,000
 - City of Tukwila, Green the Green Shoreline Revegetation Phase II- \$50,000
 - Green River Coalition, Middle Soos Creek Habitat Improvement Project- \$50,000
 - Earth Corps- Tukwila community Center Shoreline Restoration, \$50,000
 - Forterra- Green River Riparian Improvement Project, \$49,000
- For the high priority project implementation, three projects are being recommended for funding
 - McSorley Creek Shoreline and Pocket Estuary Restoration Project
 - Lowman Beach Shoreline Restoration Final Design
 - Downy Farmstead construction: Phase 2
- For the CWM education/stewardship funds, we have two applicants:
 - Environmental Science Center- \$30,000
 - Beach Naturalist Program (Seattle Aquarium)- \$21,000
- For the CWM monitoring and technical assistance funds (\$120k), here's the breakdown decided on by the ITC and approved by the forum:
 - Green River smolt trap (WDFW), \$40,000
 - Pre- and Post- project fish monitoring (King County), \$30,000
 - Sediment contamination in restored Duwamish River habitats (King County), \$35,000
 - Forage fish sampling (Vashon Nature Center), \$15,000
- For the CWM technical assistance:
 - WRIA 9 capital project implementation, \$141,300
 - WRIA 9 salmon habitat plan outreach and education, \$34,131
- Salmon Recover Funding Board (SRFB) and Puget Sound Acquisition and Restoration (PSAR)
 - McSorley Creek, (PSAR) \$240,000
 - Lowman Beach, (SRFB) \$295,895 and (PSAR) \$154,105
 - Green River Riparian Reveg, (PSAR) \$500,000
 - Maury Island Aquatic Reserve Acquisition 3, (PSAR) \$280,855

Marine Shoreline Project Update- Kollin Higgins

Kollin gave a presentation that he did at the Salish Sea Conference about the second phase of the marine shoreline monitoring and compliance project. This project was done based off recommendations from the WRIA 9 Salmon Habitat Plan, status and trends report, and results from the 2012-2013 pilot project which found new armor, many repairs, and low permit compliance. The following are some key takeaways of the presentation:

- The pilot project (2012-2013) found highest number of changes and lowest compliance in unincorporated King County. Higher compliance rates found in other jurisdictions, but these often had low numbers of total changes.
- Phase 2 of the project is looking at trends since 2013, as well as effects of pilot project outreach.
- 2016 data showed 147 changes in shoreline condition since 2013. Changes include armoring, boat ramps, buildings, clearing, docks, landslides, stairs, and other miscellaneous changes.
- Results from 2016 are similar to 2012/2013. Most changes occurred in unincorporated KC.
- When you look at changes per mile by jurisdiction, Burien has the highest number of changes.
- The highest type of change by year was associated with armoring, both major and minor repairs.
- A large percentage of armoring repairs had no apparent effect on shoreline condition
- Compliance rates were highest for major armoring repair and homes, and generally below 40% for all other changes (often lower)
- Burien and Seattle had the highest permit compliance rates
- Mean compliance rates have increased slightly since the pilot study
- Overall still seeing a net loss of unarmored shoreline (increase in armor), if not counting Seahurst Phase 2.

The project is continuing this year, with the last survey being completed last week with KC environmental lab's Sound Guardian. Kollin is still compiling compliance data for HPA's, and outreach will be done to different communities. The project ends December 2018.

City of Tukwila Green the Green Revegetation Project

Mike presented his recent work on their Green the Green revegetation project that began in 2016. This is an annually funded CIP project that was implemented to provide shade along the river, to improve the riparian corridor (most of which is privately owned in Tukwila), and to improve visual aesthetics of the city. The following are some key points that Mike discussed:

- There are two sites that they are currently working on, both private parcels
- The first site is the 500 LF/17,000 SF JSH properties site located downstream of I-405. This site features a steep blackberry covered area of the shoreline on the left bank of the river. The city has contracted KCD for outreach and design. The current schedule is for site preparation this summer, followed by planting later in the year. Maintenance will continue from 2019 to 2028.
- The second site is the 700 LF/50,000 SF NC Machinery/Harnish Group property located on the RB a short distance upstream of I-405. This project has been funded through WRIA 9/CWM grants, and has a high/medium need on the Green River sun map. The site is mostly blackberry with some knotweed, tansy, reed canary grass, butterfly bush, scotch broom, and English ivy.

The current schedule is for site preparation this summer, followed by planting later in the year. Maintenance will continue from 2019 to 2028.

Round Robin Updates

Chris Gregersen- Chris gave an update on his CWM grant for investigating non-natal tributary use of lower Green tributaries by juvenile Chinook. He just completed the last round of sampling this week, and so far the results have been very promising. Of the 9 streams being sampled, juvenile Chinook have been found in all but one (Johnson creek). Fish captured in the tributaries have on average been larger than those sampled in the mainstem during fish sampling for Lower Russel, which could possibly indicate fish are entering these tributaries earlier in the year and rearing longer and/or experiencing better rearing conditions. Chris has also found fish in some unique areas above flapgates.

Kerry Bauman- Kerry gave an update on the design for the Lower Russel project. They are working on plans for a large excavated backwater for chinook rearing habitat. They are at 90% design right now, on track for 2019/2020 construction. Some design adjustments are occurring based on recent monitoring work, and include discussions of incorporating water inputs to improve habitat conditions.

Mike Perfetti- The city of Tukwila is exploring options with Gilliam creek to create larger area between flap gate and river. Currently examining water quality at the site.

Joan Nolan- The Soos TMDL is taking much longer than we expected. We did find out that stressor ID will be published in October. Another PLA TAC meeting is scheduled for June 6th.

Larry Fisher- Larry recently participated in the Duwamish Gardens site HPA inspection. Overall the vegetation is doing well, and they observed juvenile salmon utilizing the area during an incoming tide.

Kollin Higgins- Chinook winds is kicking off soon, will be meeting next week for design charrette. This is a mitigation reserves project (MRP) located immediately downstream of Duwamish Gardens

Matt Goehring- Today is Matt's first day back after him and his wife having a baby. Matt briefly updated the group on the March workshop. Overall, there was good attendance, really good feedback, and really good participation in the breakout groups. This will be a good jump-off point for strategic subgroups during the plan update.

Jeannette Dorner- Jeannette has finally been able to implement the second planting from the re-green the green grant at Jenkins Creek Park in Covington. Planting is for a spring fed pond that feeds into Jenkins creek. Planting was done as part of Covington's Arbor Day celebration with volunteer help from a local school and Muckleshoot tribal school, as well as interns from Green River Community College. The project has also helped develop relationships in the community. Mid Sound is also working with Katie to identify sites close to schools for participation in sustainability ambassadors program to assist in the planting process from planning to restoration. Jeannette has also been working with the Green River Community College restoration interns to give them hands on experience with restoration. She is the project manager supporting the interns looking for sites and helping with restoration plans and implementations.

Amber Moore- PSP is working with lead entities for PSAR and SRFB. Today there is a workshop for the pre-proposals, and they will be reviewing those today to decide which projects to invite for full proposal. They have received 17 pre proposals for a request of around \$83 million. Puget Sound Day on the Hill is on May 23rd, and so far about 60 people will be participating.

Karen Bergeron- Pre-proposals due for habitat projects by Friday May 25th

Katie Beaver- Katie is currently working on pulling together a partners meeting for all people working on planting in the lower Green sub-basin to help improve coordination among partners and how to better do outreach.

Jen Rice- Jen is currently managing Teufel mitigation project, and they are going to construction this summer. The project features large wood structures containing 85 wood pieces, varying from 3 to 5 long deep and about 350 feet long. Construction will occur during fish window, then this fall they will plant 1000 trees in buffer within the "high" zone on Muckleshoot sun map.

Sophie Chiang- Sophie is working on the new facility on lower Green, though there is not a clear sense on what the project will look like. Right now they are looking into mitigation opportunities for facility, and currently waiting for direction on this.

Jen, Sophie, Kollin- The FCD board of supervisors has passed the motion to start the process of doing a Lower Green River Corridor plan. It is unclear as to what the corridor plan will do. Kerry mentioned that Patty Robinson may be able to come present to us as to what this will be.