

WRIA 9 Implementation Technical Committee

October 18, 2017 – 9:00 am to 11:00 am

Tukwila Community Center – Meeting Room B

Attendees: Bryan Anderson, Boeing; Kerry Bauman, King County; Katie Beaver, King County; Karen Bergeron, WRIA 9; David Casey, City of Maple Valley; Sophie Chiang, King County; Jenee Colton, King County; Larry Fisher, WDFW; Matt Goering, King County; Chris Gregersen, King County; Josh Kahan, King County; Matt Knox, City of Kent; Katherine Lynch, City of Seattle; Kathy Minsch, City of Seattle; Joan Nolan, Ecology; Jessica Olmstead, DNR; Tyler Patterson, City of Tacoma; Mike Perfetti, City of Tukwila; Jen Rice, King County; Kaitlin Schnell, USACE; Beth Tan, City of Renton; Stacy Vynne, PSP

Recap

Currently, the ITC is moving forward with the strategic assessment piece that will serve as the foundational framework for the habitat plan update. Included in that, this meeting will cover finalizing the Chinook/fish use paper, as well as move forward with the contaminant paper.

Chinook Productivity and Habitat Use – Kollin Higgins

Kollin presented the most recent version of the Chinook productivity and habitat use white paper. This document is an addendum to strategic assessment, not rewriting the assessment, and highlights what has changed since the original document. As of now, ~12 ITC members have reviewed the document, which is much appreciated. Kollin also noted that MIT is interested in review the final draft. The document has gone through 2 reviews, and this version is the final. Regarding any comments on this draft, we would like a quick turnaround because we're hoping the forum can adopt this at the next meeting on November 9th. Because of this, **comments will be due by October 31st**. Along with this, the climate and temperature papers will be presented as technical recommendations, so we are hoping the forum can approve all three of these papers as addendums to the strategic assessment at the meeting. We're hoping to get the contaminants paper adopted at the first meeting of 2018.

Kollin addressed the following minor issues and changes with the document:

- King County manual suggests not capitalizing Chinook, but ITC agreed to continue with capital "C". We have used this format for the WRIA, and WRIA 8 has as well. Jeanette mentioned that the IFC uses capital "C" also.
- Paper has also been reorganized in various ways; more clearly labeled in the headers, as well as taking some of the more dense portions of text and broken them into bullets.
- Will be adding a new map of spawning locations. Graphics is finalizing this and it should be ready today.
- Also, Kollin added info about potential habitat above Howard Hanson dam to help us advocate for fish passage.

- The survival and otolith section was expanded a fair amount to include the recent 2016 data.
- Added sections regarding the upper green and Duwamish, also softened some things to clarify a few points (e.g. “may” rather than “would”).

Kollin then moved on to these larger issues regarding the document that we would like ITC input on:

- Regarding the VSP parameters that are part of the recovery criteria from NOAA, we never have had a metric to measure spatial structure. It was suggested in strategic assessment to do this by measuring the number of spawning patches occupied by Chinook. This wasn’t done, however, because we do not have the data to do so (redds recorded as frequency in index reaches not individual points). What GIS point data exists is infrequent. Kollin suggests not perusing this for now- it’s still in the strategic assessment as a recommendation, but for now hold off on this. ITC recognized the importance of this, and noted that other WRIA’s work with the co-managers to get this data- we should query WDFW/Muckleshoots to see again about the possibility of getting this data.
- Tyler suggesting adding distribution of parr as a potential metric. This would add emphasis for the need of off channel habitats throughout the basin. Potential to utilize minnow trapping to create a robust sampling design and reduce costs.
- Kollin noted the sensitivity regarding the middle Green and agricultural lands. He presented the text from the report but recognizes that this is a sensitive issue, and asked if we should be more pointed regarding this topic or support assisting finding agriculture lands elsewhere to compensate? ITC realizes this is an important topic that we need forum backing for, but Matt suggested this was a better topic for a policy subcommittee to work on with the forum. Josh detailed the 3 projects that we will need to work with Ag to achieve, specifically Horath which would require ~20 acres of farmland. Karen and Kollin mentioned that as part of the update we will be looking at more areas for future projects as well. Jeanette mentioned that we might consider adding reference to similar issues in other watersheds and looking for ways to design projects that are multi benefit, and the group suggested adding multi-benefit into the last sentence. Also keep in mind that this is an issue in the lower green as well with the lower green APD, which has many of the same issues (though the projects identified there are currently listed as lower priorities). Stacy mentioned that Leah Kintner is the point person for ag at PSP and would be able to help draft some language for this.
- Regarding the Duwamish subsection on project prioritization, how should we proceed and should we do anything differently than what we currently are? Assuming everything moves smoothly with the superfund, they won’t be finished with the cleanup until 2030. This plan goes through 2028, so they would still be digging in the Duwamish after we did projects there. The suggestion here is if we want to do projects here, we may want to spend more money on contamination issues and feasibility before jumping in with full design. This section is pointing to focusing more on acquisition for now rather than full restoration. The group brought up the question on whether or not the superfund limits the ability to do a restoration project, and it was clarified that it is possible to do a non “early action” project but it would take coordination during the design and permitting process.

Green-Duwamish Contaminants Paper Update- Jenee Colton

Since the last paper, Jenee has been familiarizing herself more with the ITC and working internally to guide the paper and determine the needs of the group. Jenee addressed comments from the last meeting, and from here will be drafting the conclusions and recommendations sections as well as incorporating any new comments.

Jenee presented the following changes that were made since the last draft based on ITC input:

- Created the table listing each contaminant along with acute and chronic effects plus sources
- Map of transport Pathways added
- Add background info on contaminant sources and effects
- Add how differences in residence time of fry/smolt changes exposure
- Add info on prey bioaccumulation and exposure pathways
- Added Kollin's figure regarding residence time for different life stages.
- Added figure with exposure pathways for Chinook uptake of contaminants.
- Add water quality data for middle and upper Green river.
 - ITC asked if we should add 2003 King County Green river water quality assessment. ITC thoughts were that it couldn't hurt, but Jenee mentioned that this data is older so it depends on the scope on this. ITC recommended adding.
- Add current and future contamination related projects on the Green River. Jenee added summaries of Green/Duwamish pollutant loading assessment, Our Green Duwamish, superfund.
- Added map of superfund sediment cleanup actions planned for the LDW cleanup.
- Updated sediment map on early cleanup actions
- Add information on data gaps/uncertainty. Some of this was added throughout, but Jenee also added a new section focused on collective knowledge uncertainty (spatial/data gaps, effect thresholds)

At this point, the discussion, conclusion, and recommendation portions are in progress. Jenee presented the following key points to get ITC feedback as she moves forward with drafting these sections:

- Contamination increases as you move downstream in the basin.
- LDW contaminants impact benthic inverts, which in turn may affect Chinook.
- Contamination is listed from high to low- Mill in Kent and Springbrook>Mill creek in auburn >Jenkins, Newaukum, Covington, Big Soos
- Juvenile Chinook in the Duwamish are exposed to PCBs, PAHs and phthalates in sediments that move up the food web.
- Mercury in water may be an exposure risk for juvenile Chinook.
- Superfund risk assessments did not predict adverse effects but more conservative studies found PCBs, PAHs or other contaminants may be causing health impacts.
- Superfund cleanup will reduce contaminant exposure; there are however recontamination risks until dredging finished (7yrs from start)
- More effects data are needed for Chinook

- Knowledge summary- Jenee added a table with contaminant risk to Chinook in the Duwamish, low to mid, and upper Green. The table shows risk and uncertainty regarding the risk for water, sediment, tissue, return rates, and invertebrate contamination.
 - The ITC generally liked the format of the table, but requested some details/footnotes to clarify the columns. Also clarify that groups that were missing or not listed in the table were due to lack of data.

It was asked if there is a known correlation between higher temperatures and changing toxicity to salmonids. It has been suggested that higher temperatures could increase toxicity of certain contaminants, but Jenee mentioned that the change is likely low and there is not data to accurately quantify this. Kollin will find the reference that mentions higher temperatures increasing toxicity and Jenee will look into this.

Jenee then presented the following draft list of key recommendations she will discuss:

- Avoid habitat restoration work below RM 4.3 to avoid recontamination.
- Conduct desktop analysis of tissue effect thresholds for PCB's, PBDEs, PAHs to develop and validate Chinook-specific values.
- Collect/analyze juvenile Chinook tissue from different life stages and residence times.
 - It was asked if anyone measured contaminants in stomach contents of chinook to see if that's a pathway. Jenee said that we know that ingestion is likely the most important pathway for exposure so this may not be necessary.
- Support studies that examine other effects evidence (juvenile Chinook sediment exposure studies, biomarkers).
 - Bryan mentioned adding in the recommendations section prioritizing future studies to help address some key issues regarding Chinook contamination.

Kollin then summarized the overall purpose of this work. We know that fry migrants rearing in the Duwamish are returning at very low numbers, therefore for some reason or another something is preventing these fish from surviving. This information seeks to help look at the potential contribution of contamination to this problem.

Duwamish River Gauges- Matt Goehring

Funding (Corps and Tukwila) will run out in the next month for the E. Marginal Way and Tukwila Golf Course Duwamish river gauges. Ecology is currently considering funding the discharge gauge at the Tukwila Golf Course. The County has not expressed interest in funding either gauge and it is too late to recommend for 2018 CWA funding. We wanted to open up the conversation to see if any partners rely on the gauge data for any ongoing studies. Joan (ECY) specified that Ecology uses this data for the PLA, and that they are looking into funding this and could potentially fund one of the two gages for 2 years since this data is useful for estimating sediment and chemical loads. The cost is estimated at \$55k to continue with both gauges.

Round robin updates

Chris and Jenee gave a quick update on some recent work. This summer, King County collected largescale suckers and mountain whitefish from Tukwila up to Whitney Bridge in the middle Green. These, along with donated Chinook morts from the WDFW and Muckleshoot screw traps will be analyzed for contaminants including metals, mercury, PCBs, PBDEs, and chlorinated pesticides.