Meeting Summary
Snohomish Basin Salmon Recovery Technical Committee
Web Conference
9am – 12pm, October 6, 2020

In attendance:

1. Colin Wahl, Tulalip Tribes
2. Emily Davis, Snoqualmie Watershed Forum/King County
3. Elissa Ostergaard, Snoqualmie Watershed Forum/King County
4. Evan Lewis, King County
5. Daniel Howe, Snohomish County
6. Erin Murray, Puget Sound Partnership
7. Marty Jacobson, WA Dept of Ecology
8. Jim Shannon, Port of Everett/City of Everett
9. Mindy Rowse, NOAA
10. Doug Hennick, Wild Fish Conservancy
11. Carson Moscoso, Snohomish Conservation District
12. Todd Zackey, Tulalip Tribes
13. Cory Zyla, Snoqualmie Watershed Forum/King County
14. Kevin Lee, WDFW
15. Susan O'Neil, ESA
16. Josh Kubo, King County
17. Denise Krownbell, Seattle City Light
18. Lindsey Desmul, WDFW
19. Keith Binkley, SnoPUD
20. Channing Syms, WDFW
21. Mike Rustay, Snohomish County
22. Andy Obst, Snoqualmie Valley Watershed Improvement District
23. Erin Ericson, Snoqualmie Valley Watershed Improvement District
24. Hunter White, ESA

Meeting Summary:

Introductions

Emily initiated introductions, reviewed the agenda.

Gretchen's update – Emily Davis

- Floodplains by design ranked list was released. How many projects are funded depends on funding allocations (typically 35-50m/biennium). KC's Fall City project was ranked #1, SnoCo Community Floodplain solutions focused on the Lower Sky is #6

Hatchery panel update – Colin Wahl

Next month the usual SBSRTC time slot will be a hatchery panel to review hatchery implementation. Colin solicited questions for the hatchery panel to address and gave a week to submit questions via email. Doug Hennick asked who will be on the panel. Colin said that the panel includes Morgan Robinson from NOAA, Mike Haggarty, Mike Crewson, Adrian Spidle, Ken Currens, and WDFW representatives.

Congratulations Mike Rustay! – Selected as SnoCo SWM Public Works Employee Excellence Award for the year!

Langlois Creek Culvert Replacement 50% Designs – Hunter White (ESA) and Andy Obst, Snoqualmie Valley Watershed Improvement District (SVWID)
Hunter White and Andy Obst presented 50% designs for removing a log weir on Langlois creek that is part of a larger series of barrier/culvert removal projects in the proximity funded by CWM. There are 4 culverts downstream and one upstream. Planning to use coarse cobble as a grade control to prevent headcutting to nearby upstream culvert. Final designs to come shortly. Feedback requested in the next couple weeks. Currently waiting on agency comments. Final designs expected by December 2nd.

Snoqualmie River Project Effectiveness Monitoring – Fish and Habitat Observations – Josh Kubo, King County Water and Land Resources Division, Science and Technical Support Section
Project effectiveness monitoring seeks to understand how salmon respond to habitat restoration projects. Josh provided an overview of large capital projects implemented by King County and how they support salmon and their habitat. Projects evaluated include Tolt Pipeline Protection Project and Deer Creek restoration, Sinnema Quaale, Chinook Bend, Lower Tolt, and Upper Carlson. It's a collective, combined analysis (also known as a meta-analysis) of overall project performance, to review juvenile salmonid patterns among projects, habitat use, relative abundance, habitat use, and seasonality.

Questions Josh's analysis asked include: Do these projects improve habitat conditions? Further, are juvenile salmonids responding to the projects?

With respect to the first question, habitat improvements are clear in edge, connectivity and habitat formation, channel complexity, floodplain connectivity, low velocity habitat area, increased riparian and floodplain vegetation and tributary connectivity and quality. With respect to the second question, a statistical method called log response ratios were used to measure salmonid responses. Responses/habitat use depend on species, habitat type, fish size, and season. Confluences were important as were seasonal changes in habitat use. Some species may have different habitat requirements: i.e. trout have less preference for low velocity edge habitat. Smaller juvenile chinook tend to prefer bars and backwaters. Larger chinook juveniles were found to use riprapped armored banks, but this may be due to the prevalence of rip rapped armored banks compared to unarmored banks, or the fact that larger juveniles have better swimming ability in these fast-water habitats— not a preference. Overall, Josh concluded that maintaining a diversity of habitats will best support the range of life history types, sizes, and species present.

Q & A
Keith Binkley asked: What is the level of field/monitoring effort needed to calculate low velocity habitat?
Josh answered: This calculation takes considerable effort. It requires field mapping during different flows.

Elissa Ostergaard asked: What can these data say about overall abundance of salmon, or about carrying capacity? Can you use capture rates to determine if there are more salmonids present at projects because they are just redistributing among projects, or because there are actually more salmonids overall?
Josh answered: They collect data at control treatments to observe if abundances change in unrestored areas. Habitat is likely improving population performance. Outmigration trapping efforts are a better way to track total population trends.

Mike Rustay asked: What about expanding these kinds of evaluations basin wide? This kind of analysis could be useful in developing the capacity modeling that is expected shortly.
Josh, and others, agreed with this statement.

King County Fish Passage Restoration Program: Barrier Inventory update – Evan Lewis, King County
King County is working to inventory fish passage barriers, prioritize their removal, develop procedures, identify funding strategies, and provide technical assistance for removal, in order to get the most salmon to the best habitat as quickly as possible! This talk provided a brief overview of the problem and what King County has done so far to rectify it, with a part II of the talk coming later with more specific data.

Evan shared that ~3000 site visits required for a full inventory of barriers within KC jurisdiction; the crew has completed 2200 site visits so far. There are nearly 700 complete or partial barriers in all of KC. The WRIA 7 portion of KC has ~ 800 sites and 500 have been surveyed as of this presentation. There are likely to be about 300-350 barriers in the KC portion of WRIA 7. The crews will be finishing their assessment of the KC portion of WRIA 7 in early 2021. There are different levels of assessment.

Evan reported that his group is drafting a method to prioritize barriers for removal based on relevant spatial data. Factors involved in the prioritization include a coho intrinsic potential model developed with NOAA, connectivity (number and severity of barriers), and upstream habitat quality and quantity including forest cover and impervious area. The method is intended to indicate the relative value of each barrier and develop a scoring and ranking method. Testing is underway for a draft method in 3 pilot basins, including Cherry Creek.

Plan Update Update – Mike Rustay and Gretchen Glaub, Snohomish County; Susan O'Neil, ESA
Update on mainstem target development: Specifically regarding the discussion on how to quantify off channel habitat, Mike reported that he has taken a few steps to collapse off-channel habitat into floodplain habitat, as agreed upon by the SBSRTC in previous meetings. He is talking with Jen Burke of PSP about PSP's floodplain GIS layer. It is binned using C-CAP land cover characterizations into "connected" and "disconnected" categories. Mike has applied our WRIA 7 subbasin strategy group attributes to the layer to assess it for accuracy, and has already found some accuracy issues. He recommends we continue to assess accuracy in the PSP layer to see if it's usable, while also considering using the Tulalip Tribes' Acquisition Strategy (which also bins land cover into connected and disconnected, but likely with more accuracy), focusing on areas of the floodplain where process restoration is possible. Mike posed this question to the group: Without capacity modeling estimates, how do we best set an acreage (or percent) restoration target for floodplain connectivity?
*Update on nearshore target setting—*Susan updated the group on this topic. There was just one target for nearshore in the initial Salmon Plan, and knowing what we know now, we should likely expand on this. Susan hopes to convene a small team, including experts like Paul Schlenger, to develop nearshore targets over the course of 3 meetings in December.

The meeting adjourned at noon.