Snoqualmie Watershed Forum
MEETING SUMMARY
March 21, 2018, 6:30-8:30 pm
Snoqualmie Tribal Administration Building, Snoqualmie

MEMBERS PRESENT:

Cindy Spiry	Snoqualmie Tribe, Chair
Jim Ribail	City of Carnation Councilmember
Jason Walker	City of Duvall Councilmember
Brian Bodenbach	SVGA Citizen Representative
Kathy Lambert	King County Councilmember
Chris LaPointe	Stewardship Partners, Non-profit Organization Representative
Ryan Miller	Tulalip Tribes Representative
Charles Kellogg	Citizen Representative
Becky Chaney	Citizen Representative
Peggy Shepard	City of Snoqualmie Councilmember

Other Attendees: Matt Baerwalde and Joseph Old Elk, Snoqualmie Tribe; Jamie Burrell, City of North Bend; John Velimesis; Nat Scholz, NOAA; Andy Obst, Snoqualmie Valley Watershed Improvement District; Jessica Lange, Sound Salmon Solutions; Karen Chang, U.S. Forest Service, Janne Kaje, Richard Martin, and Eric Beach, King County; Perry Falcone, Elissa Ostergaard, Beth leDoux, and Laura West, Forum Staff

MEETING PROCEEDINGS

I. Introductions, Updates and Announcements

Cindy Spiry, Forum Chair, welcomed everyone to the meeting and led off introductions. Elissa Ostergaard, Salmon Recovery Manager, welcomed Charlie Kellogg and Jim Ribail and thanked them for their participation on the Forum.

Brian Bodenbach suggested a correction to the January 17, 2018 meeting minutes. In the discussion of the Chinook Yearling Pilot Study results, Brian had commented that a Washington Department of Fish & Wildlife (WDFW) biologist informed him of a study on the Snoqualmie 205 project (widening Snoqualmie Falls) that showed there would be an impact on salmon spawning. Brian later learned that the WDFW biologist was citing other sources, not specific to the Snoqualmie project.

> *ACTION:* The Forum approved the minutes from the January 17, 2018 meeting with Brian Bodenbach's correction.

Update on WDFW Snoqualmie Wildlife Area Management Plan – Comment Period: Perry Falcone, Forum Project Coordinator, represents the Forum on the Advisory Committee, which is guiding the development of the plan. The draft plan will be available for public review from March 28-April 27. WDFW is interested in fish recovery and habitat improvements and is also looking to better manage land for recreational user groups. WDFW staff might present on the plan at a future Forum meeting.

Update on King County Initiatives: Janne Kaje, King County Regional Partnerships Unit Supervisor, oversees the watershed groups and the basin stewards, and he is the point person for King County questions. King County Executive Dow Constantine has prioritized the Clean Water and Healthy Habitat initiative during his last term as King County Executive and it serves as an umbrella for a few other initiatives, including:

- Land Conservation Initiative (LCI): An effort to conserve the remaining gaps in open space lands, trail corridors, and agricultural land throughout the county. As part of the planning process, the LCI team met with individual cities to learn about their priorities. The finance mechanism for the initiative hasn't been fully developed, but it is an ambitious goal for the next 20-30 years. Many of the target acquisitions and projects are located in the Snoqualmie Valley.
- Culverts: The Executive is launching a fish barrier passage program and he wants to work closely with partners, the state, and tribes. The work program is currently being developed.
- One Million Trees: A goal to plant one million trees throughout King County by 2020, working with partners. By the end of 2020, there would also be a 30 year plan for restoring tree canopy throughout King County. There is concurrent work being done to plant trees as a carbon offset to King County's own carbon footprint.
- Conservation Futures Tax Grant Round: As part of this program, King County is pursuing easements on a number of properties in the Snoqualmie Watershed, for both agricultural and restoration purposes.

  Discussion: Matt Baerwalde asked if agricultural acquisitions would go into the Farmland Preservation Program and what the process is for those acquisitions. Janne said new easements have similar strong protections to those under the old bond, but in the new process, the agricultural and habitat teams will meet to identify potential restoration projects. Becky Chaney asked if there was any information on what types of trees are being planted where for the One Million Trees initiative. Janne explained that the trees are counted across multiple programs, including some that this group funds and some that the Parks division manages.

Client Satisfaction Survey: The annual client service provider survey was emailed out today. The results will be discussed at the May Forum meeting.

Outreach and Communications Staff: Elissa updated the Forum on funding scenarios for this position. The other two salmon recovery teams at King County don't have capacity in their budgets to hire a part time outreach person at this time. For a King County position to be permanent, it needs to be at least 0.5 FTE. King County is currently budgeting for the 2019-2020 biennium and Elissa suggested the Forum wait to see if there are other needs in the division for an outreach position that could be shared.

Cooperative Watershed Management (CWM) Grants: Beth leDoux, Forum Technical Coordinator, informed the Forum that 19 grant proposals were submitted, totaling $1,319,490, with $898,790 in funding to allocate. Final applications are due April 3. The ranking committee, made up of members from ILA jurisdictions, will review the proposals in late April, for Forum approval in May, followed by Flood Control District approval. The proposals include several capital projects, three monitoring projects, and two education projects. Beth highlighted that the acquisitions for the Tolt-San Souci construction project are complete and the project is ready to move forward with restoration. Beth reminded the Forum that $60,000 in funding has been set aside for the screw trap monitoring project in Duvall with the Tulalip Tribes, which counts as part of the 10% of CWM funds designated for monitoring. The final grant applications will be accessible for review before the presentations at the May Forum meeting.

Salmon Recovery Funding Board (SRFB) / Puget Sound Acquisition and Restoration (PSAR) Grants: This grant round is managed by our Lead Entity partners in the Snohomish Basin, and Beth is on the ranking committee. 17 applications were submitted for a total of $8.2M, and there is approximately $2.4M of funding available to allocate. There is a possibility to choose up to three projects for competition for the PSAR large capital program funding, but these projects can't be on both lists.

II. Public Comment

No public comment.

III. Urban Runoff Syndrome in Coho

Nat Scholz, lead for the toxicology lab at NOAA's Northwest Fisheries Science Center, presented to the Forum on urban coho pre-spawn mortality studies that his team is conducting in partnership with Washington Stormwater Center. Although the Snoqualmie Basin is more rural, the basin produces 25% of Puget Sound's coho. Nat explained that non-point pollution sources are the leading threat to coastal ecosystem health and his team has been studying this problem since 2001, when scientists discovered that 60-90% of returning coho were dying shortly after returning to fresh water. As more and more land is converted to impervious surfaces, it changes the way stormwater moves through the system and the volume of runoff increases. It's estimated there are several thousand chemicals in stormwater runoff and we have only identified a few hundred of them, including metals, petroleum compounds, pharmaceuticals, caffeine, and homeowner compounds. Aging stormwater infrastructure and combined sewer overflows (CSOs) allow for these contaminants to enter our waterways untreated. The pre-spawn mortality phenomenon is hitting coho especially hard, because coho prefer small lowland streams where urban pressures are the greatest. Nat's team has shown that stormwater runoff is the cause of this pre-spawn mortality, by exposing coho to highway runoff collected from storms in controlled settings and seeing 100% lethal results. Chum are not as susceptible. Nat's team is also testing green infrastructure solutions to filter and clean the water. Soil column and bioretention methods for infiltrating the stormwater have removed the toxicity completely. Now Nat's team is running chemical analyses on each individual chemical found in road runoff to identify the most problematic ones (e.g., windshield wiper fluid, crank case oil, tires, etc.). Nat's team performed an in depth geospatial survey and created a map to predict spawner mortality, which showed that interstates and arterials had the highest impact on mortality, corresponding with a high volume of vehicles. Looking forward, one goal is to predict where currently healthy populations of coho might soon be impacted by stormwater runoff. This research helps species besides coho, as coho can tell us whether our management strategies are working for the watershed as a whole.

Discussion

Brian Bodenbach asked how long some of the green infrastructure methods will be operational. The City of Carnation is looking at using green infrastructure soil tubes when they replace the downtown streets, but Brian is worried they might clog relatively quickly. Nat replied that they have run stormwater samples across 3-4 years through the same tubes and haven't seen a drop in performance. Nat acknowledged there are a lot of questions of how to scale these technologies to a watershed scale and he suggested the City of Carnation use the Department of Ecology's resources for widely accepted technologies, as his team is still in the testing phase. Peggy Shepard commented that deciduous trees can cause problems for stormwater and asked if there have been any studies comparing trees to see the impact on stormwater. Nat said his team hasn't looked at different plants because the soil retention alone was effective enough in their studies. Jon Velimesis commented that Carnation's proposed technologies follow Ecology's manual, which has kept up with improving technologies. Elissa Ostergaard said that the Snoqualmie Forum is submitting a grant proposal to partner with the Tulalip Tribes, Snohomish Conservation District and others to survey coho in the Snoqualmie Basin to see if this issue is present. Brian suggested looking in Patterson Creek for the study. Nat added that his team is developing a story map with a citizen science component where the public can input data, and they hope it will be available by Summer 2018.

IV. Fish, Farm, Flood Update

Richard Martin, Fish Farm Flood (FFF) 2.0 coordinator at King County, provided an update on the process to the Forum. The original FFF effort, which was finished in June 2017, included a suite of 42 recommended actions to be employed within three years. Among those actions were the creation of regulatory, riparian buffer, and agricultural strategic plan task forces. Another key next step was to create an Implementation Committee with agricultural, fish, and flood interests represented. Jason Walker, Daryl Williams, and Cindy Spiry have all been asked to represent fish interests on the Implementation Committee. Kollin Higgins will be their King County staff liaison. The committee launched in January and the next meeting is on April 25th.

Eric Beach, Regulatory/Permitting Specialist at King County, is leading the FFF 2.0 Regulatory Task Force. He said that Elissa Ostergaard, Matt Baerwalde, and Daryl Williams are on the task force and the group has met twice. Drainage and flood control are a few of the priorities. The task force will wrap up their work by December 2019, and likely outcomes include a suite of proposed ordinance modifications for the King County Council to review, as well as updated agreements at the state level.

Beth leDoux told the group that she is the project manager for the Buffer Task Force (BTF). This task force will have an internal technical team looking at where and how large buffers should be planted and the ecological and agricultural impacts. The technical team includes Kollin Higgins, Josh Kubo, Ted Sullivan, Eric Beach, Patrice Barrentine, and others. Invitations to the larger task force will be distributed in April, with a kick off meeting later this spring. The technical team will work over the summer. Deliverables for 2018 include a summary of the best available science on buffers and an agricultural issues paper. A map will be developed in 2019. Beth clarified that the BTF is only to look at agricultural lands in the Agricultural Production District (APD). Janne Kaje added that a goal of this work is to look at how we can make gains on riparian habitat while minimizing impacts to farming communities. Kathy Lambert asked if the 100 foot tree standard will be used. Kathy is concerned that increased shade results in less farmable land. Beth replied that they would be looking for literature on buffers in low gradient areas and looking at trade-offs between different trees and shrubs. The task force will also be running shade forecasting models and looking at the best ways to plant trees in buffers. Elissa noted that participation in these task forces and in FFF 2.0 is a significant work program item for the Snoqualmie staff team in 2018-2019.

V. Flood Safety Projects and Habitat

Matt Baerwalde, Snoqualmie Tribe Water Quality Manager, presented on flood safety projects and habitat. Matt showed different historical methods of preventing floods with levees and revetments, using cars, rocks, trees, etc. He noted that we typically see rock banks along the Snoqualmie River today, sometimes covered in vegetation. Matt explained that this type of bank armoring eliminates edge habitat that fish rely on. Edge habitat is the slackwater margin along mainstem rivers, and different species and life history stages of fish need different types of edge habitat. The Snohomish River Basin Salmon Habitat Plan states that edge habitat along 90% or more of the mainstem is necessary to achieve full benefits for fish. Currently, around 45% of the Snoqualmie River has armored banks. Armoring affects water speeds upstream and downstream of the armoring, creating faster water with more energy, which can actually exacerbate the problem it is trying to solve. Removing armoring, setting back levees away from the channel, and incorporating woody debris are ways to increase edge habitat. There are places where it makes sense to prioritize flood safety, such as near cities and infrastructure, but there are opportunities in the basin to restore edge habitat. Part of Matt's job is to review projects and work with agencies in the basin. The Rivers and Floodplain Management Section at King County is the agency

responsible for maintaining flood facilities and coordinating management along mainstem rivers. Matt has noticed that the King County Rivers group often submits project proposals for replacing failing rock wall revetments with similar rock material. Some of these proposals are in locations with little infrastructure that needs protecting. The Army Corps of Engineers' permitting process is faster for projects that aren't changing much in scope. Matt hopes that some of these failing revetments can be replaced with more natural options that increase edge habitat, even if it means the permit process takes longer. Most of the Snoqualmie River has a very slow rate of channel migration due to geological conditions. Matt sees this as a low risk opportunity to let natural processes happen and he hopes groups in the basin can collaboratively work together to reach the goal of 90% natural banks on the Snoqualmie River.

Discussion:

Peggy Shepard commented that the City of Snoqualmie is considering bank hardening near Sandy Cove. Matt suggested that the project be looked at with a larger reach perspective. Kathy Lambert expressed concern over a woody debris project and the use of very large logs near Fall City. Charlie Kellogg asked if there are ways to protect banks artificially with stumps that mimic natural edge habitat. Matt replied that these can be useful in some cases, but there are more opportunities to remove bank armoring and naturally let trees fall in, using modeling to help. Elissa Ostergaard added that the King County Rivers and Floodplain Management group will likely be presenting to the Forum at the May meeting.

VI. Forum Business

Snohomish Basin Salmon Recovery Forum Representation: Elissa announced that the Snohomish Basin Salmon Recovery Forum, the Lead Entity for salmon recovery in the Snohomish Basin, agreed to add a voting seat on their Forum for a Snoqualmie Watershed Forum representative. In the past, Snoqualmie Basin jurisdictions have each had a seat, but most don't attend. There are five meetings a year, on Thursday mornings from 9am-12pm in the town of Snohomish. At the January Snoqualmie Watershed Forum meeting, Henry Sladek volunteered to be the primary representative and Jason Walker volunteered to be the alternaten. Elissa usually attends, if a 2nd alternate Forum member is needed.

> *ACTION:* The Forum approved Henry Sladek and Jason Walker to represent the Snoqualmie Watershed Forum at the Snohomish Basin Salmon Recovery Forum meetings.

2018 Meeting Topics: Elissa walked through a proposed list of meeting topics for the remaining 2018 Forum meetings. Elissa welcomes suggestions for additional meeting topic ideas. Jim Ribail and Kathy Lambert both expressed interest in having the King County Rivers and Floodplain Management group present at the May meeting. Becky Chaney expressed interest in the Hirst Law topic proposed for the May meeting. Kathy suggested on-site septic systems as a future meeting topic and is in favor of inviting Nat Scholz back to update the Forum on future stormwater research.

VII. Closing

Kathy Lambert announced the development of a King County app that identifies and geolocates noxious weeds by taking a picture. Cindy Spiry mentioned the Snoqualmie Tribe is also working on this.

Next Meeting: Wednesday, May 16, 2018, Preston Community Center, 6:30-9:00p.m.