

SBSRTC 1/5/20 notes

Introductions

Agenda review

Break out rooms

Updates –

- Emily - SBSRTC survey – will resend, take some time for feedback if you can.
- Gretchen – SRFB grand round is open. NOI to apply are due tomorrow. 3 in the hopper. Alternates from last round will also be included if they want to participate – let Gretchen know. Full proposals due at the end of feb. Virtual site visits in march. Forum met in December. Terry and Jim miller retired. Need new leadership at the forum – next meeting march 4th. Governor released his capital budget incl \$40 million for state salmon funding, which is more than normal. Unclear what that means. May have some more money. PSAR funding is at 50 mil – includes fall city project. FBD is at 70 mil – includes skykomish floodplain planning. Letters sent to governor and legislature to support salmon funding. Plan update – hiatus over the holiday. Will be picking it up in 2021.
- Doug Hennick asked if everyone can attend srfb site visits – Gretchen said maybe. Needs to think about the details.
- Elissa updated everyone on the Coho stormwater surveys, haven't found any pre spawn mortalities. Tulalip has found 2.
- Mike Rustay update – target update – Brett Shattuck has taken a first cut at the floodplain connectivity targets and do an initial screen to get a first stab at what an acreage number might look like.
- Heather Khan – Pilchuck TMDL was submitted to EPA on December 30th! Congrats!
- **Send out meeting minutes and website where sbsrtc meeting materials are.**
- Stephanie Celt – DNR – getting a draft of the DNR salmon plan ready to deliver to commissioner Franz. Demonstrates DNR's role in salmon recovery.

Langlois creek weir removal final designs – Brian Taylor (ESA) and Andy Obst (SVWID)

- Removal of weir is part of a package project to remove 4 culverts.
- Log weir is toward the upstream end of the project area
- Planned for 2022 depending on grants
- 15ft long log, 18 in diameter. Vertical drop of 0.79ft.
- Installed to raise grade and slow flows through upstream culvert.
- Plans are to regrade the bed and install a “coarse band” of larger erosion resistant substrate at the weir location to prevent head cutting to the upstream culvert.
- Includes dewatering – intend to have a clear thalweg through the reach
- Questions –
 - Colin wahl – What about LWD? Push to get final designs to the grant proposal to FBRB. Didn't include wood in designs, but can and plan to.
 - Emily Davis – what about freshwater mussels? – could be incorporated into dewatering plans. Dewatering also focuses on lamprey. Some best practices floating around. Andy assisted on dewatering for an adap project in the area and mussels and lots of lamprey were found. Kollin Higgins clarified that there are multiple mussel species in the area.

- Pete Verhey – WDFW – what is the stream/river mile? – not sure, between 1 and 2. Pete is wondering because that might be in the middle of a WDFW index reach.

2020 year in review –

- See online document

Lamprey in the Puget Sound – Monica Blanchard wdfw, Laura Heironimus wdfw, Miranda Plumb USFWS

- Assessment done in 2011 to see how populations of lamprey are faring. They were ranked throughout the extent of western rivers from the coast from Mexico to Canada.
- Puget sound had very little information, and could not rank them. Still 10 years later, there isn't enough data to understand lamprey conditions.
- USFWS hoping to assess Puget sound lamprey populations soon
- Lamprey evolved 90 million years before trees!
- About 40 species worldwide; 14 in the US. Some species climb rock walls to reach above anadromous barriers
- 3 species in the Puget sound – Pacific, western river, and western brook lamprey (resident, non-parasitic). Know very little about them.
- Lamprey habitat – very dependent on sediment – Depend on gravels for spawning, and need particularly fine sediments to spend years as juveniles filter feeding.
- Distribution goes from Mexico to Russia. Data lacking in Puget sound.
- Benefits - Burrowing and filter feeding adds organic material to upper level of sediment, reduces hardness, and has benefits to lower food web species like macro invertebrates, Lamprey provide marine derived nutrients – like salmon, but also above anadromous barriers. Prey buffering – other species will target lamprey over salmon if available.
- Threats – lack of awareness, stream and floodplain degradation, dewatering and flow management, climate change, passage barriers, also PR problems
- Conservation actions – restoration, water quality, flow management, passage project, surveys and data collection
- A lot of priority restoration actions for salmon overlap with lamprey needs (channel complexity, Increased edge and channel habitat, restored processes, and removal of barriers).
- Salmon passage and lamprey passage can be different – angular structures are bad for lamprey, which climb surfaces. Need rounded edges or ramps/wetted walls.
- Fish screening is important for lamprey, and tricky, requiring small perforations and proper orientation/angles.
- Restoration work – in water work requires lamprey concerns particularly for dewatering – difficult to find, but in fine sediments.
- Alternative dewatering options – electrofishing, fine mesh nets
- See best management guidelines for conservation and projects.
- Pacific lamprey conservation initiative – created in 2008 in response to an effort to list 4 lamprey species in 2003. 2004 assessment determined that listing was not warranted due to insufficient information and no defined listed entity (distinct population segment).
- Regional management units – ongoing collaborations across organizations with local biologists and managers to share information and resources and update regional implementation plans (RIPs) annually.

- Lamprey technical workgroup – tagging, genetics and EDNA, passage, restoration, contaminants, ocean phase, other lampreys, outreach, artificial propagation. Large inclusive group that values information from different areas of expertise. Data clearinghouse online (link)
- Considerations for conservation actions – specific passage and screening requirements, different life stages and life histories, consider salvage and construction impacts.

Questions –

- Doug Hennick – Do lamprey return to the ocean after spawning, and can they be aged? Christina chimes in. Lamprey don't have bones and otoliths don't calcify. Lamprey have a statolith, which is analogous to an otolith. Do not see yearly patterns in statolith. Age to length doesn't match either. Aging lamprey is an area of research.
- Kollin Higgins – King county has lamprey data in general "lamprey" category. Small streams have very high numbers of larval lamprey. Is there something we should be doing with this data? Monica Blanchard – Erin Butts runs the distribution map. Would be very interested in data. DFW could work with crews to better ID individuals. ADAP projects are the source of a lot of this data.
- Heather Kahn, ecology – 1) Wondered if you would provide some examples about what types of projects are eligible for the funding through the Initiative? 2) Would you please send a link on how we register the webinars or provide information on how we get to the webinars? Link to register for webinars:
(https://www.fws.gov/pacificlamprey/Documents/Lamprey%20Info%20Exchange_2021/2021%20Lamprey%20Info%20Exchange%20Webinar%20Series%20Flyer_FINAL3.pdf)
- Matt Baerwalde, Snoqualmie – In the map it looked like the Skagit population is classified as imperiled--any theories as to causes for that in the Skagit but not other North Sound basins? Monica – there is more data in the Skagit, but not other watersheds, so they can run the model and rank the watershed.
- Keith and Snohomish PUD has data for the Sultan R (from the trap), so does the Tulalip tribes. Tulalip sometimes catches 10-20 lamprey per night in the Snoqualmie trap.
- Maryanne at WFC has some data for lamprey as well. What happens to data when its turned in. Monica – do not have a centralized database for the data yet, so they have to query each project.
- Kollin Higgins – have you compared defishing methods to salmonids and how much more it costs to dewater so slowly for lamprey? More expensive.
- John Klochak - John Klochak King County Rivers to Everyone : I can attest to dewatering being challenging, from Trinity River work. One interesting note- and I wonder if the presenters might comment- I completed a central CA coast study with USFWS colleagues and lamprey gurus to assess lamprey presence- in independent drainages we found a correlation between presence and watershed/stream size- e.g., found none in great habitat in small streams. I wonder if this will be true in Puget Sound? (not applicable to the Snoqualmie, but to smaller streams draining directly into the sound) – Miranda plumb – No, we haven't looked at this that we are aware of. Christina doesn't know either. Theorized to be olfactory signal from rivers, but not from small streams that were independent drainages.
- Monica Blanchard asked everyone to share how they are interested and how they would like to participate in lamprey work in the future. (restoration, monitoring, passage/screening)
- Shared lamprey video.

- Kollin Higgins: how much do juveniles use non-natal habitat for rearing? Yes – drainage areas. Move a lot and occupy lots of low laying floodplain habitat.