

**SKOOKUM EDFRO PHASE 3
COMMUNITY WORKSHOP #2: SUMMARY NOTES**

The Skookum Edfro Phase 3 Community Workshop #2 (Workshop) was held in person at the Acme Presbyterian Church on June 14, 2023. The workshop was hosted by Lummi Nation, facilitated by consultants from Triangle Associates, and featured presentations by project team members from Lummi Nation and Herrera Environmental Consultants.

The goal of the workshop was to share preliminary project design concepts with community members, answer questions, and gather feedback to inform the design alternatives. The meeting focused on strengths and weaknesses of each of the three preliminary design concepts and project next steps.

Workshop Objectives included:

- Receive an update on the project's current status and next steps, including how design concepts emerged from the design ideas that participants shared at the first stakeholder workshop.
- Have an opportunity to ask questions about and provide input on design concepts.
- Understand how workshop input will inform the preferred design alternative selection/advancement.
- Build relationships with project leads, project team, other stakeholders, and community members.

Project team members and staff support titles and affiliations:

- Alex Levell, *Project Manager/Geomorphologist*, Lummi Nation
- Kelley Turner, *Watershed Restoration Program Manager*, Lummi Nation
- Ian Mostrenko, *Herrera Team Project Engineer*, Herrera Environmental Consultants
- Brian Scott, *Herrera Team Project Manager*, Herrera Environmental Consultants
- Melanie del Rosario, *Community Outreach Lead*, Triangle Associates
- Kate Galambos, *Community Outreach Support*, Triangle Associates

Eight stakeholders participated in the workshop:

1. *John Lamonte, lives on Saxon Rd.*
2. *Bill Finkbonner, ran the Skookum hatchery for many years*
3. *Tom Chance, Skookum hatchery staff*
4. *Grace Spann, Whatcom County Public Works*
5. *Rod Lamb, Whatcom County Parks and Recreation*
6. *Heidi Nelson, lives on Saxon Rd.*
7. *Russell Pfeiffer Hoyt, lives on Saxon Rd.*
8. *Jason Benson, Bakke Farms*

Project Overview (slides 2-10)

Lummi Nation staff, Alex Levell, reviewed project goals and updates. Highlights include:

- Project goals include balancing habitat complexity with flood risk reduction and reducing the risk for massive die-off events like that of the 2021 event by creating cool pools for holding salmon.
- Lummi Nation recently received additional funding from Northwest Indian Fisheries Commission and Washington Department of Wildlife to support this project and others.

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- CLOMR/LOMR process review:
 - Skookum Edfro Phase 3 is in the FEMA floodway, meaning that currently, there can be no-rise in the 100-year floodplain.
 - FEMA is now regulating Fish Enhancement Structures in the floodway the same as development, regardless of habitat benefits.
 - A conditional letter of map revision (CLOMR) and letter of map revision (LOMR) following construction is an alternative to allow rise in the floodway from our engineered log jam (ELJ) structures.
 - It is beneficial to this project's habitat objective success to create some rise in the floodway, as long as there are no impacts to structures and there is support from landowners. This necessitates the CLOMR/LOMR process.
 - The CLOMR process will require landowner and community buy-in and can take up to 18 months for authorization, but FEMA personnel recently indicated the process should be closer to 6 months with close communication between the project sponsors, engineers, and FEMA reviewers.

Lummi Nation staff, Kelley Turner, reviewed Integration with Phase 1 Adaptive Management. Highlights include:

- The Phase 1 Reach Adaptive Management Project will address a partial fish barrier during low flows just upriver of a deep holding pool that contributed in part to the large chinook die off in 2021.
- Herrera found that due to channel migration in the southern channel around the island, salmon are unable to migrate upstream in the northern channel during low flows to reach the hatchery outfall.
- The focus of this outreach effort is on the downstream Phase 3 project reach; however, the project team will keep you informed on the progress of the Phase 1 Adaptive Management project as it is just upstream.

Outreach consultant, Melanie del Rosario reviewed outreach efforts to date. Highlights include:

- Early outreach to nearby landowners to share information about the project, a presentation to the Acme Van Zandt Subzone in January of 2022, and an initial community workshop hosted by Lummi Nation on November 15th, 2022. In 2023, we've updated our project webpage and hosted one-on-one conversations with stakeholders.

Design Concepts Overview (slides 11-23)

Ian & Brian of Herrera

- At our last meeting we heard the historical perspective from workshop participants which influenced our understanding of existing conditions and the draft design concepts we are about to share.
- Project goal = Balancing habitat complexity with flood risk

Question (Russell): Did you survey that pool for temp?

- Response (Alex): Lummi Nation has data, but it would be a couple years old.

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- Our habitat goals for the Phase 3 reach are to 1) create approximately 23 deep pools with approximately 15 of those created by ELJs, and 2) construct approximately 38 stable ELJs. We aim to leverage Skookum Creek's cold water to keep those pools cold. We found a low density of wood structures won't work to achieve the habitat goals. To achieve the habitat goal, we need to have at least a moderate amount of stable large wood.
- The three design concepts differ in their degree of redundancy of ELJs. With more ELJs incorporated into the project, the risk of not achieving the habitat goals is reduced. The project will be more resilient to the effects of climate change if there is a high degree of redundancy because events like floods and extreme heat will become more prevalent.
- The left bank (owned by Whatcom Land Trust) presents an opportunity for channel migration because there are no structures at risk of flooding or channel migration.

Concept 1 Overview

- High density of ELJs assuming a conservative estimate for the percent of effective ELJs that will meet the criteria within the current main channel. In other words, assuming fewer of the ELJs "activate" and create the ideal habitat, install more ELJs to account for the lower efficacy.
 - 19 small ELJs
 - 25 medium ELJs
 - 22 large ELJs
- **Question (Bill):** Will this create spawning or just holding habitat?
 - Response (Ian): Both, but generally this reach is seen as a migration corridor; however, we want to make sure there are plenty of rest stops along this "highway" to the hatchery and to spawning grounds upstream of the hatchery.
- **Comment (Brian):** We are considering resiliency; we want to give the river the "upper hand" to adapt faster to climate change
 - Use gravel from ELJ and side channel construction to cover the rip rap along Saxon Road on right bank and plant on top of rip rap = more aesthetic and better riparian habitat
- **Comment (Heidi):** Glad to hear the rip rap is staying and that habitat can still be improved.
- **Question (Bill):** Can the log jams get too big and block the river?
 - Response (Ian): Historically, yes, logs could block the river. Now, we don't have massive old growth trees that could create that kind of blockage.

Concept 2 Overview

- Moderate density large woody material ELJs assuming a likely estimate of the percent of effective ELJs will meet the criteria within the current main channel. In other words, assuming a higher efficacy rate than concept one, while only slightly reducing the number of woody structures.
 - 18 small ELJs
 - 22 medium ELJs
 - 14 large ELJs

Concept 3 Overview

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- Moderate to high density of smaller ELJs assuming a reasonable estimate of the percent of effective ELJs will meet the criteria assuming moderate bank erosion on the left bank to create a more complex channel (slight meandering).
 - In other words, placing very large (50-100' wide) ELJs strategically along the right bank along Saxon Road to encourage erosion of the left bank, paired with some channel regrading on the Whatcom Land Trust property floodplain to give the river a jump start at this process.
 - 20 small ELJs
 - 30 medium ELJs
 - 10 large ELJs
 - 4 very large ELJs
- Mostly trying to erode the left bank with structure on the right bank along Saxon Road to create a side channel through the Whatcom Land Trust property following a historic channel bed.
- This concept would provide refuge for juvenile fish during times of very high flow and could eventually become spawning habitat.
- Based on feedback from last time, we incorporated very large wood in this concept.

General Q & A

- **Question (Bill):** Would the side channel be spawning habitat?
 - Response (Ian): More of a high flow refuge for rearing juvenile.
- **Question (John):** What is the timeline? How much will this all cost?
 - Response (Project Team): 2026 construction start for Phase 3, 2025 for Phase 1 Adaptive Management. Between \$1-10 million, hard to say at this point.
- **Comment (Russell):** Good ideas, I like rip rap present but still improving habitat. Good to protect habitat during low flow.
- **Comment (Ian):** Some hesitation about the idea of creating an additional channel (concept 3). Rather, this concept would greatly encourage the likelihood of additional channels along the left bank floodplain.
- **Comment (Russell):** We need to get cold water into the river. I would like another site visit with more specifics and I recommend Jason participate in a site visit on his property too.
- **Question (Jason):** What is happening beyond the bridge?
 - Response (Brian): Project boundary will only extend 0.2 mile downstream of bridge because of flood risk.
- **Comment (Tom):** This project is really valuable for hatchery stock as they rely on good holding habitat.
- **Question (Bill):** Which design will provide the best spawning habitat?
 - Response (Ian): Concept 3 (best), concept 2 (good), concept 1 (less good, still good)
- **Comment (Russell):** I've always thought of this reach as a transit zone rather than spawning habitat.
- **Comment (Russell):** If all designs are functional, choose the more aesthetic one.
- **Comment (Heidi):** I am comfortable with some bank erosion.
- **Question (Ian):** Jason, do you have concerns downstream?
 - Response (Jason): No concern about project besides construction disturbance.
- **Comment (Alex):** Construction schedule:
 - July 1-Aug. (sometimes extended to September)

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- Don't work Sundays, it is unusual to work weekends at all.
- Noise variance
- Permit for holding zones, replanting, etc.
- Response (Grace, Whatcom County): There will be a full permitting process through WDFW, state shoreline act etc.
- Response (Ian): There will be multiple staging areas to reduce travel and disturbance.
- Response (Kelley): If landowners are interested in additional habitat improvements (planting, noxious weed control), let us know.

Tom Chance of Lummi Nation Skookum Hatchery shared details of a large-scale groundwater recharge project at the Lummi Nation hatchery. Russell shared well data with Tom.

Follow-up

- Russel Pfeiffer-Hoyt would like another site visit once the alternatives are drafted in order to see in more detail where the structures would be placed.
- Jason Benson is also interested in a site visit.
- Lummi Nation will post the presentation slides to the project website.

How to Stay Informed

- The best way is to sign up for the listserv to receive updates via email.
- Visit/bookmark the project webpage – <https://www.lummi-nsn.gov/s/skookum>
- Contact us! We welcome feedback and dialogue from the community. Contact information: outreach@triangleassociates.com