

# GREEN/DUWAMISH AND CENTRAL PUGET SOUND (WRIA 9) IMPLEMENTATION TECHNICAL COMMITTEE



Green / Duwamish & Central Puget Sound

## WRIA 9 Implementation Technical Committee Meeting

July 19, 2023 | 9:30 am – 11:30 am

[Click here to join the meeting](#) or call in (Teams audio only) [+1 425-653-6586,,911155469#](tel:+14256536586)

Meeting ID: 291 061 535 541

Passcode: uafR9e

9:30 **Welcome & Introductions**

9:40 **Round Robin Updates**

*Slide deck activity*

All

- **Pre-meeting prep (5 minutes)** – Please find instructions on slide 1 at this link: <https://docs.google.com/presentation/d/1nU5YcrpMgCo-RFgaOmF4UfFVp4ohFCctEPP9Wa4Abhg/edit?usp=sharing>. Use your slide to include relevant updates from your jurisdiction, project, or team. Slides are pre-filled with names for convenience; please feel free to combine slides. You can also email updates directly to Iris ([ikemp@kingcounty.gov](mailto:ikemp@kingcounty.gov)) for inclusion in the slide deck.

10:15 **NE Auburn Creek – Preferred Project Alternative**

*Presentation followed by Q&A*

The NE Auburn Creek project team will present the preferred alternative for a project to add a new backwater channel off the mainstem and a channel connecting NE Auburn Creek to an existing wetland to provide fish egress. It will increase connectivity to approximately 25,000 feet of existing floodplain tributary channel that is currently inaccessible due to a perched flapgate. The flapgate is creating a source of mortality, and this project will replace it with a fish friendly flapgate further upstream. This project will also expand the riparian buffer along 1,200 feet of the left bank of the Green River. This portion of the river is identified by the Muckleshoot Tribe as having a critical need for riparian shade.

Fauna Nopp and team, (King County, Water & Land Resources Division)

11:30 **Adjourn**

WRIA 9 ITC web page: <http://www.govlink.org/watersheds/9/committees/ImpleTechCmte.aspx>

**Participant list:**

Brandon Duncan, Chris Gregersen, Cleo Neculae, Erik Rigaux, Fauna Nopp, Halley Kimball, Iris Kemp, Janne Kaje, Jenn Stebbings, Joshua Hopkins, Julian Douglas, Kelley Govan, Laird O'Rollins, Matt Goehring, Mike Perfetti, Natane Moore, Rowena Valencia-Gica, Scott Muchard, Todd Hurley

**Round-table Updates and Reminders**

Read through our **WRIA 9 ITC July round robin** slides at this link:

<https://docs.google.com/presentation/d/1nU5YcrpMqCo->

[RFgaOmF4UfVp4ohFCctEPP9Wa4Abhg/edit?usp=sharing](https://docs.google.com/presentation/d/1nU5YcrpMqCo-RFgaOmF4UfVp4ohFCctEPP9Wa4Abhg/edit?usp=sharing). Includes updates from WRIA 9 Team, Covington Water District, City of Kent, King County Science staff and Basin Stewards, DNR, City of Maple Valley, Ecology, WDFW, and Mid Sound Fisheries Enhancement Group.

**NE Auburn Creek – Preferred Project Alternative ([recording at this link](#))**

The NE Auburn Creek Restoration project identified in the WRIA 9 Salmon Habitat Plan (LG-5) is a Lower Green Tier 2 project to improve off-channel habitat, fish accessibility, and riparian buffer. The overall goal of the project is to rehabilitate degraded floodplain in the Lower Green River and restore access to critical rearing and refuge habitat for juvenile salmonids. Project objectives are to

- Replace old flapgate with fish-friendly flapgate
- Restore off-channel rearing & refuge habitat
- Improve riparian buffer along the river
- Preserve access to Horsehead Natural Area and King County agricultural land
- Improve drainage where possible for Horseneck Farms
- Maintain existing flood protection for adjacent lands.

The project site is located in unincorporated King County at river mile 25 between Kent and Auburn. It is a 10-acre project footprint. Currently, there is 30 feet of channel below the flapgate and 175 feet upstream of the flapgate. There is some mature riparian cover near the outlet but about 1200 feet of mainstem riparian buffer that is highly impact, lacking, and eroding. There is a 2-acre wetland inaccessible to fish at most flows and which, when accessible at high flows, poses a stranding and mortality risk. High fish densities are regularly observed below the flapgate and King County Science staff have observed fish trying to get through the flapgate, suggesting that they would use this habitat if it were available. This project is a rare opportunity in the Lower Green to provide valuable rearing and flood refuge habitat.

*The project team presented three alternatives under consideration and recommended Alternative 2 as the preferred alternative.*

All proposed alternatives would replace the existing flapgate with a fish-friendly alternative placed as far landward as possible, include wetland enhancement, provide an egress channel from wetland to prevent fish stranding, move farm road landward to provide enhanced buffer, and improve drainage of adjacent farmland.

Alternative 1 would setback the flapgate to property line and regrade channel downstream to mainstem, plus add a wetland egress channel. This alternative would provide better access to habitat during flood flows but not other flows. The cost range for this alternative (base + 40% contingency) is \$5.5M - \$7.5M.

Alternative 2 would create a backwater channel. This alternative would provide safe egress to the mainstream channel from the outfall of a new fish-passable flapgate as well as off-channel habitat. The cost range for this alternative (base + 40% contingency) is \$9.5M - \$13M.

Alternative 3 would create a flow-through side channel. This alternative would create an engineered side channel and provide an off-channel location for outfall of a new fish-passable flapgate as well as off-channel habitat. The cost range for this alternative (base + 40% contingency) is \$10.5M - \$14.5M.

There is a potential variant that could be applied to any of the alternatives currently under assessment for feasibility. If determined feasible, the road could be relocated to allow more room for the project and relieve the need to protect the road from channel migration. This variant would likely require mitigation for wetland impacts and zero-rise implications have not yet been assessed.

This project is within the 100-year floodplain; King County requirements mean that rise beyond 0.0049 ft exceeds the allowable limit. Alternatives 1 and 2 are within the allowable limit. Alternative 3 would produce a rise of 0.0837 ft which exceeds the allowable limit.

Alternative 1 is lowest risk but provides only reliable downstream passage. Alternative 3 is highest risk and not likely to meet zero-rise requirements. Alternative 2 provides the best fish passage of the three alternatives, is highest-risk for beaver impacts, and scores middle-of-the-road on all other risk metrics. Alternative 2 has the best cost-benefit score in terms of ecological lift vs. cost.

#### Q&A:

- What triggers the need for a DNR Aquatic Lease Authorization (ALA)?
  - Most projects have existing levee/revetment which already have ALA – it's required when working in ordinary high water (OHW). This project work is within OHW but does not already have ALA as there is no existing levee/revetment. A couple other King County projects (Teufel, Chinook Wind) have gone through this potentially time-consuming process.
  - **Next-step:** Natane Moore (DNR) and the project team will connect to discuss.
- Have there been any temperature studies in NE Auburn Creek and surrounding mainstem waters? Those data could strengthen a SRFB/PSAR funding application.
  - The team is discussing data collection prior to SRFB/PSAR submissions.
- How is the USACE ERP program related and what would USACE's potential role be on the project?
  - Partnering with USACE typically involves partnering on either design & construction or construction alone. Our preference would be partnering on

construction; that's where funds are most-needed at this stage of the project. Typically the partnership would be a 65/35 cost-share, so it could be a good avenue to pursue if there are issues meeting construction cost and if the project meets USACE requirements.

- Mike asked whether Gilliam Creek fish passage (a similar project in City of Tukwila with cost estimates close to \$20M for preferred alternative) would be eligible for ERP program. **Next-step:** Matt will follow-up with Mike on what was included in USACE reauthorization of project list.
- Rowena reports that City of Kent is open to selling their property associated with the project site to King County or supporting road easement for this project.
- Expected wetland impacts from the road relocation? What is the road used for?
  - There would be some direct wetland impacts moving the road to the southern property boundary. The road provides access for tenant farmers using the King County agricultural lands at the site. It's also used for public to access Horsehead Natural Area north of the farm.
- Expected impacts to water quality of shifting agricultural use closer to stream?
  - Water quality testing hasn't shown anything in the restoration area that would be concerning or potentially adversely impact fish. There would be a landswap between parks land and agricultural land but the area in question is already being farmed – the landswap would simply make the current use official.
- If Alternative 2 can't be funded, is there an Alternative 1B that lowers the stream channel for more access?
  - Scaling back towards Alternative 1 would be considered if funding becomes an issue, though we haven't heard resistance yet about trying to get funding for Alternative 2. If we don't have a good idea about funding strategy over the next year we would switch gears. Lowering the stream channel would be difficult under the site constraints – creating an artificial gradient could result in headcutting and erosion on the neighboring property, with potential to impact the next upstream culvert which would then create a new fish barrier.
- Is the flapgate setback the same distance in all alternatives?
  - Roughly yes – the flapgate will be pushed as far upstream as feasible. If the road is moved back to the property line the flapgate can be pushed back further. We hope to put as much habitat riverside as possible.
- Are there other gate types besides flapgates under consideration?
  - We will be looking into and considering any options that might be an improvement as we move forward with the preferred alternative.
  - **Next-step:** continued conversations between Mike Perfetti (City of Tukwila) and project team to share information and lessons learned on similar flapgate replacement projects. City of Tukwila is considering a muted self-regulated tide gate for the Gilliam Creek project, based off the Tolt River pipeline model.

Further questions? Contact Fauna Nopp at [fauna.nopp@kingcounty.gov](mailto:fauna.nopp@kingcounty.gov).