

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



## WRIA 9 Implementation Technical Committee Meeting May 17, 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**

9:45 **Status & Trends: Lower Green/Duwamish Aquatic Habitat Survey Report**  
*Presentation followed by group discussion*

Iris Kemp  
WRIA 9

This report describes results from the 2022 instream habitat and large wood (LW) survey of the lower Green River and Duwamish River conducted by Kleinschmidt Associates. It is the second in a series of surveys planned every five years to monitor habitat changes over time. This analysis was undertaken in support of the WRIA 9 2023 Status & Trends report.

10:25 **Lower Green River Corridor Flood Hazard Management Plan PEIS**  
*Presentation followed by group discussion and whiteboarding*

Matt Goehring  
WRIA 9

The King County Flood Control District is considering developing a Lower Green River Corridor Flood Hazard Management Plan that would guide future investments to reduce flood risks over the next 30-50 years. To inform the plan, a [draft programmatic environmental impact statement \(PEIS\)](#) evaluating three different approaches to reducing flood risks was prepared, and it is available for review and comment. A final PEIS could be issued by mid-2024 and would identify a preferred alternative. The Board could direct preparation of a Flood Hazard Management Plan after the final PEIS is issued. Matt will give a high-level overview of the alternatives, followed by group discussion facilitated with a whiteboarding option.

**Pre-meeting prep:** please review the attached slides and visit <https://www.lowergreensepa.org/draft-peis> for more detail on each alternative.

11:15 **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/1\\_fkg\\_A\\_1oIP\\_KsJbk9uZM8HrssPqthXngn\\_Hu38XltE/edit?usp=sharing](https://docs.google.com/presentation/d/1_fkg_A_1oIP_KsJbk9uZM8HrssPqthXngn_Hu38XltE/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 add and edit slides. You can also email updates directly to [ikemp@kingcounty.gov](mailto:ikemp@kingcounty.gov).

11:30 **Adjourn**

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

**Participant list:**

Alicia Kellogg, Chapin Pier, Cleo Neculae, Debbie Meisinger, Elizabeth Mackey, Erik Rigaux, Heidi Watters, Iris Kemp, Jenn Stebbings, Julian Douglas, Kelley Govan, Kollin Higgins, Marc Marcantonio, Matt Goehring, Matt Knox, Mike Perfetti, Natane Moore, Nikolas Novotny, Patty Robinson, Rowena Valencia-Gica, Sherry Edquid

**Round-table Updates and Reminders**

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

[https://docs.google.com/presentation/d/1\\_fkg\\_A\\_1oIP\\_KsJbk9uZM8HrssPgthXngn\\_Hu38XItE/edit?usp=sharing](https://docs.google.com/presentation/d/1_fkg_A_1oIP_KsJbk9uZM8HrssPgthXngn_Hu38XItE/edit?usp=sharing). Includes updates from WRIA 9 Team, Duwamish Basin Steward, City of Kent, Covington Water District, Mid Sound Fisheries Enhancement Group, King Conservation District, DNR, and Puget Sound Partnership.

**Status & Trends: Lower Green/Duwamish Aquatic Habitat Survey Report** ([slides at this link](#))

Iris summarized Kleinschmidt consultants' Lower Green and Duwamish aquatic habitat survey conducted in September 2022. This report is one component of the WRIA's 5-year status and trends tracking and reporting which enables evaluation of net gain or loss of habitat metrics. Aquatic habitat surveys and metrics link back to a conservation hypothesis in the 2005 Salmon Habitat Plan: Protecting and creating/restoring habitat that provides refuge (particularly side channel, off channels, and tributary access), habitat complexity (particularly pools) for salmonid over a range of flow conditions and at a variety of locations (e.g., mainstem channel edge, river bends and tributary mouths) will enhance habitat quantity and quality and lead to greater juvenile salmon residence time, greater growth and higher survival.

Results for each reach (defined based on differences in channel morphology) are shown in the linked slides and [full report](#). In summary, across the Lower Green and Duwamish, the dominant aquatic habitats were glide and run, followed by pools and riffles. There was one small cascade under the S 212 St bridge. All pools documented in 2022 were scour pools, primarily formed by bedform processes at the outer edge of meanders. The percentage of pools by length documented in 2022 was intermediate between observations in 2003 and 2013. Habitat type categorization is sensitive to flow levels (the 2022 survey was conducted at higher flow than in 2003 but lower flow than in 2013) and observer bias (the 2022 survey team was different than 2013). The consultant believes that differences in meso-habitat delineation across time does not reflect a change in in-river habitat but instead reflects the challenges of these conditions.

A total of 1,301 pieces of wood (individual pieces + pieces in jam) were documented over the survey. Of the 48 observed jams, 41 were artificially placed. Small jams were most common. Compared to survey data from 2003 and 2013, individual wood density in the Lower Green has declined over time but number of jams has increased over time. Contributing factors that could impact wood presence and density in the watershed include the large channel-spanning log jam near highway 18 (Auburn) limiting natural recruitment of wood from the Middle Green, wood supplementation as part of mitigation activities for Howard Hanson Dam, and wood installations as part of restoration projects.

ITC members discussed the challenges of observer bias and the need to consider updated/improved collection methods and/or metrics to reflect this component of cumulative habitat conditions more accurately over time.

Further questions or comments? Contact Iris ([ikemp@kingcounty.gov](mailto:ikemp@kingcounty.gov)) and Kollin ([kollin.higgins@kingcounty.gov](mailto:kollin.higgins@kingcounty.gov)).

**Lower Green River Corridor Flood Hazard Management Plan PEIS** ([slides at this link](#))

Matt summarized the recent history of Lower Green River Flood Hazard Management Plan scoping and process, WRIA 9's comments in earlier stages of the process, and the alternatives put forth in the current draft PEIS. The comment period for the draft PEIS is open until June 19. Summary slides are attached and at the link above.

The draft PEIS is at this link: [http://kingcountyfloodcontrol.org/wp-content/uploads/2023/04/LGR-FldHazMP-Draft-PEIS\\_Vol-I\\_ForTranslation\\_04-04-2023\\_Tracked.pdf](http://kingcountyfloodcontrol.org/wp-content/uploads/2023/04/LGR-FldHazMP-Draft-PEIS_Vol-I_ForTranslation_04-04-2023_Tracked.pdf)

The draft PEIS appendices (which include the maps mentioned during the meeting) are at this link: [http://kingcountyfloodcontrol.org/wp-content/uploads/2023/03/LGR-FldHazMP-Draft-PEIS\\_Vol-II\\_ForPrint.pdf](http://kingcountyfloodcontrol.org/wp-content/uploads/2023/03/LGR-FldHazMP-Draft-PEIS_Vol-II_ForPrint.pdf)

ITC members discussed and captured comments via whiteboarding shown on the next few pages.

Further questions or comments? Contact Matt at [mgoehring@kingcounty.gov](mailto:mgoehring@kingcounty.gov).

## Step 1: Alternatives Discussion

15 minutes

What questions, comments, or concerns do you have about each of the proposed alternatives? As we discuss, capture notes here.

### Project by Project Approach

no corridor-wide approach  
 minimize flood impacts on adjacent lands  
 may benefit communities & environment  
 \$370M - \$780M over 50 yrs  
 190-270 ac / 16-24 structures impacted  
 \$330k - \$490k impacts to indust/comm  
 Potentially achieves 2 habitat 10-year targets

### Systematic Multibenefit Approach

corridor plan  
 + acquisition & levee setback  
 + multibenefits  
 \$390M - \$830M over 50 yrs  
 180-280 ac / 16-24 structures impacted  
 \$330k - \$490k impacts to indust/comm  
 Potentially achieves 3 habitat 10-year targets

### Enhanced Multibenefit Approach

corridor plan  
 ++ acquisition & levee setback  
 ++ multibenefits  
 \$560M - \$1.1B over 50 yrs  
 270-410 ac / 63-95 structures impacted  
 \$23.2M - \$34.8M impacts to indust/comm  
 Potentially achieves 6 habitat 10-year targets  
 Likely to significantly advance salmon recovery goals

You can double-click on these sticky notes to type into them! or add your own by using the create tab (like we did at the start of the meeting)



Impacts to industry and commerce should be minimized as they will likely just transfer their impacts elsewhere.



TMDL may not be achievable without meeting reveg goals...



If we are spending about \$1 billion dollars to provide passage at HHD there should be a matching investment in the lower river.

Why would Alt 3 have more impacts to AG at 500 yr flows compared to Alt 2 and Alt1?

How does this alternative compare to the Alt 4 the WRIA generated in 2019?

The only alternative that makes significant progress towards off-channel habitat creation

Why is reveg only partially achievable? What are the limitations?

If this alternative is chosen, will future planning only look at projects that can be done under this framework? Is this all or nothing?

If we are spending about \$1 billion dollars to provide passage at HHD there should be a matching investment in the lower river.

TMDL may not be achievable without meeting reveg goals...



This option clearly provides the most benefit for salmon so the one that is most appealing to me.

What is community engagement process? Public, landowners...  
 - there was an intent to send landowners in the floodplain a notice & FCD held 2 public meetings. Would expect addl engagement once alternative is selected

Considerations around timeline for plan development & implementation

Considerations around alignment with King County's Flood Plan & Timeline

Across all alternatives - what timelines are we operating under?  
 - the total plan is 30-50 yrs. No specific timelines in draft PEIS

Impacts to indust/comm - are those associated with buying properties? impacts to ops?  
 - acquisition

Consider & comment - systematic approach that benefits ag doesn't actually have consistent levee containment. What level of protection does commercial vs. housing get? (this was a Q that came up in SWIF too - Auburn residential)

Acquisitions are challenging without a strong policy and \$\$ readily available and a condemnation policy needs to be further developed when negotiations break down with previous willing sellers which is after years of negotiations.

Will FIRO change flood risks/situation? (Would allow water reservoir storage during flood season)

Alternatives seems to build on each other, they are not mutually exclusive. If Alt. 3 is chosen, does that mean that only projects where Alt. 3-type projects can be implemented will be considered in the future?

## Step 2: Group Alignment

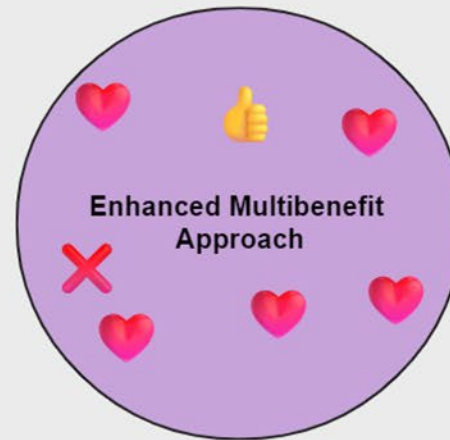
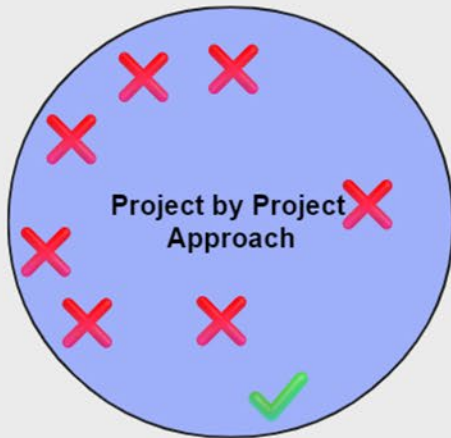
🕒 2 minutes

If you had to choose an alternative at this point, which alternative would you lean towards?  
Vote with reactions.

❤️ strongly endorse this alternative

✅ this alternative would be okay









❌ do not support this alternative






### Step 3: Comments

Given the discussion so far, what statements do you agree/disagree with? Vote with reactions. Add notes with comments if needed.

Statement	Reactions/Comments
<p>The Corridor Plan should align with other regionally significant efforts (e.g., Superfund site cleanup, fish passage at HHD) and consider upstream/downstream impacts.</p>	 <div data-bbox="1486 527 1617 657" style="border: 1px solid black; padding: 2px; font-size: 8px;">                     Not all fish will make it to HHD and the upper Green River but all fish will pass through the lower Green River and Duwamish, twice in their life. This area provides the most benefit to salmon.                 </div> 
<p>The Corridor Plan should clearly define an interdisciplinary stakeholder engagement process to identify interests, opportunities, and tradeoffs associated with potential projects at a reach scale.</p>	 
<p>Of the alternatives, Alternative 3 (Enhanced Multibenefit Approach) is most aligned with the FCD's commitment to integrated floodplain management and multibenefit projects.</p>	 <div data-bbox="1486 950 1617 1079" style="border: 1px solid black; padding: 2px; font-size: 8px;">                     Unsure what FCD commitment actually is                 </div> 
<p>Alternative 3 (Enhanced Multibenefit Approach) will result in the most benefit to salmon and salmon habitat.</p>	 

 strongly agree

 somewhat agree

 disagree

## Are there any other core statements we should consider?

Not all fish will make it to HHD and the upper Green River but all fish will pass through the lower Green River and Duwamish, twice in their life. This area provides the most benefit to salmon.

