

**Green/Duwamish and Central Puget Sound Watershed (WRIA 9)
Implementation Technical Committee
February 16, 2022 | 9:15 am – 11:15 am**

Join Zoom Meeting:

<https://us02web.zoom.us/j/89069145463?pwd=SUhLOHhTVEs2VlhleTFML0x4V3J2UT09>

Meeting ID: 890 6914 5463

Passcode: salmon

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|-------|---|---|
| 9:15 | Welcome <ul style="list-style-type: none">• Introductions• Agenda review | Iris Kemp, WRIA 9 |
| 9:20 | Management Recommendations for Riparian Ecosystems
<i>Presentation with slides followed by Q&A</i> <ul style="list-style-type: none">• WDFW’s Riparian Ecosystems Volume 2 draws on best available science to create management recommendations for riparian buffers. | Mary Huff, George Wilhere, Tim Quinn, and Tom O’Brien, WDFW |
| 10:30 | Fish Passage Restoration Program: barrier prioritization
<i>Presentation with slides followed by Q&A</i> <ul style="list-style-type: none">• Update on progress made since last WRIA 9 ITC presentation in March 2021.• The Fish Passage Restoration Program’s work includes a comprehensive inventory of county-owned sites that are potential barriers to upstream habitat and a prioritization process to determine which barrier remedies would achieve best results for salmon to inform planning for future fish passage projects. | Evan Lewis, King County |
| 11:00 | Round Robin Updates – RE-IMAGINED
<i>Slide deck activity followed by open-floor conversation</i> <ul style="list-style-type: none">• Pre-meeting prep (5 minutes) – Please find a slide deck with instructions on slide 1 at this link: https://tinyurl.com/Feb-ITC. Use a slide to include relevant updates from your jurisdiction, project, or team. Feel free to make the slide your own with photos or maps of project sites.• During the meeting, we’ll have time to review each other’s slides and add questions or comments. | All |
| 11:15 | Adjourn | |

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

Participant list:

Alexandra Doty, Chris Gregersen, Cleo Neculae, Darric Lowery, Evan Lewis, George Wilhere, Halley Kimball, Iris Kemp, Jared McDonald, Joe Farah, Josh Hopkins, Katherine Lynch, Katie Beaver, Kerry Bauman, Kollin Higgins, Mary Huff, Matt Goehring, Mike Perfetti, Nikolas Novotny, Rowena Valencia-Gica, Sarah Heerhartz, Suzanna Smith, Tim Quinn

Round-table Updates and Reminders

- Re-Green the Green and Monitoring and Research grant opportunities are open! Visit our [“Funding Opportunities” webpage](#) for more information and please distribute widely throughout your network. **Proposals are due March 4.**
- Read through our **WRIA 9 ITC February round robin** slides at this link: https://docs.google.com/presentation/d/1k1RTHInbXZSzZR9eulr61e_TSChuZVZDvRDI4Kox6rQ/edit?usp=sharing. Includes relevant updates from WRIA 9 staff, King County, Puget Sound Partnership, Ecology, King Conservation District, City of Tukwila, City of Seattle, City of Kent, and Mid Sound Fisheries Enhancement Group.
- Please welcome Josh Hopkins, Surface Water Project Manager/Habitat Project Manager at City of Tukwila to the group!

Management Recommendations for Riparian Ecosystems ([slide deck here](#))

WDFW’s [Riparian Ecosystems Volume 1](#) reviews and synthesizes best available science on riparian areas and watersheds, addressing three general questions: What is currently known about the key ecological functions of riparian areas? How do riparian areas and watersheds affect the freshwater habitats of fish and wildlife? How do human activities affect the capacity of riparian areas and watersheds to provide habitat for fish and wildlife in rivers and streams? [Riparian Ecosystems Volume 2](#) provides policy recommendations which reflect WDFW’s mission and legislative mandate, based on the science. This information is intended to provide guidance to protect and – where possible – restore healthy, intact, and fully functioning riparian ecosystems, which are fundamental for clean water, healthy salmon populations, and climate resilient watersheds.

Mary, George, and Tim summarized the key scientific findings related to riparian ecosystems: the areas they encompass on the landscape, the use of 200-year-old Site Potential Tree Height (SPTH) for determining the width of the Riparian Management Zone, the pollution removal function, and the importance of protecting the Channel Migration Zone. They also reviewed WDFW’s policy-based recommendations for how to use these findings for riparian area protection and restoration. Within the context of wise watershed management, preserve, protect, and – where possible – restore the full extent of the riparian ecosystem. Focus on all five riparian functions and do as much as you can wherever you can. Start from the edge of the stream and work outwards. Focus on what can be done, not what can’t be done.

Additional questions or follow-ups? Contact Mary at mary.huff@dfw.wa.gov and Tom at thomas.obrien@dfw.wa.gov.

Discussion

- Kollin – can you speak to the alignment/disconnect between Volume 2 and the constraints/responsibilities we have to balance through the Growth Management Act (GMA), legislative bills, etc.?
 - [Volume 2](#) offers high-level recommendations but can feel disconnected from on-the-ground implementation guidance. Presentations like these intend to help fill the gap. The high-level guidance is consistent with GMA; GMA is not WDFW's mandate and statute to implement. See Volume 2 for additional discussion on the relationship of this document to GMA.
- Kerry – do you have recommendations for how to include below-ground considerations (soil, mycorrhizal communities, etc.) as well as above-ground considerations in riparian planting?
 - [Volume 1](#) includes discussion on the nutrient cycling piece of the riparian ecosystem – an important process that occurs in areas that have relatively high surface or groundwater areas relative to their surrounding environment. Current information is not sufficient to get to the specific recommendation stage, but a general good approach when there is high uncertainty is to attempt to emulate historical conditions and get back to the historical composition structure of ecosystems.
- Matt – WRIA 9 has a very developed watershed and riparian restoration efforts are constrained. Many times what is possible in terms of riparian revegetation projects is only 25-50 foot buffer. This is less than the recommendation but better than nothing. Does Volume 1 address the continuum of benefits with respect to buffer width below the full SPTH? Even in constrained areas there is incremental benefit.
 - Volume 1 discusses in terms of FEMAT curves, which show that most ecological functions are concentrated closer to the streambank and diminish as you move away – so the first 25 feet of buffer provides more benefit than the next 25 feet and so on. FEMAT curves and SPTH are also discussed on page 17 of Volume 2.
- Kollin – given the limits of the [SPTH map tool](#), what happens if historical information on tree species in our area don't match with tree recommendations of the map tool? WRIA 9 would love to see more cedar and spruce data. Also recommend clearly listing the caveats/limitations associated with this tool.
 - The publicly available data used to create the map tool only included three tree species. There may be potential for future updates. It's not realistic to expect local governments to have variable buffer widths based on polygon SPTH. Average tree height is likely the most practical application, although basing buffer width on average tree height means giving up value in places with trees that are higher than average. Many factors go into these types of decisions. We are working on a FAQ document and potentially more local guidance; there is great need and interest in more tools for on-the-ground implementation.

Fish Passage Restoration Program: barrier prioritization ([slide deck here](#))

The [Fish Passage Restoration Program](#)'s work includes a comprehensive inventory of county-owned sites that are potential barriers to upstream habitat and a prioritization process to determine which barrier remedies would achieve best results for salmon to inform planning for future fish passage projects. The Program's goal: over the next 30 years, restore salmon access to at least two-thirds of the habitat currently blocked by county barriers.

Evan reviewed the current barrier inventory and prioritization and discussed next steps. A comprehensive field inventory completed in spring 2021 found 900+ county assets that are barriers to fish passage on streams with potential salmon habitat. Initial prioritization for county barriers – evaluated based on habitat quantity, stream connectivity, habitat quality, and Chinook or Kokanee benefits – was completed in December 2021. The evaluation and prioritization process showed that over half (60%) of the total possible habitat gain could be achieved by remedying only 50 barriers. It would take less than 300 barrier remedies to approach 90% of the total possible habitat gain. WRIA 9 includes 13 of the top 50 priority scores for county barriers. Next steps include continued development of barrier remedy targets and approaches, filling in gaps in the stream network for unmapped streams and natural barriers, scoring updates roughly every two years, and working with partners to expand prioritization beyond county barriers.

Additional questions or follow-ups? Contact Evan at evlewis@kingcounty.gov.

Discussion

- Mike – what were the boundaries in which you were able to ascertain Chinook usage? Is the criteria different for juvenile Chinook passage than for coho and other species? Are there cases where you plan retrofits?
 - There is a discrepancy between previous standards/permitted structures and the current design standards for new structures – when we put a new structure in, it must accommodate all species and life stages. There are examples in the inventory that were past retrofits based on the standards in place at the time. There are retrofitted culverts that come out as passable based on assessment criteria that would not meet current design criteria.
 - Kollin provided polygon data; the approach was based on observed fish presence and using the floodplain as a gradient. If a site was in the floodplain it was considered Chinook potential habitat. For coastal shoreline, the coastal floodplain was the boundary for a gradient. If more data become available, could refine in future iterations.
- Nik – the cost estimates included have not been updated to recent inflation – does that change your calculations?
 - A key part of the next steps is developing cost to assess gain:cost. Gain and cost are not necessarily correlated. As we develop our sequencing, we do want to escalate costs to meet inflation. The first step is looking at the cost of remedying

barriers that score 50 or higher in evaluation; since fewer than 100 barriers meet that criterion, they are high priority. Remedies, cost, sequencing, etc. for barriers with mid-range scores will be more difficult and likely other filters will be applied to help make decisions.

- Katherine – how will the county invest in these costs?
 - At a broad level, through grants and taxes, county funds to leverage grants, etc. For example, Parks levy funding will support remedies of 6 barriers associated with completion of the East Lake Sammamish Trail by 2024. And Parks levy funds are match for a FBRB grant supporting remedy of two barriers on Ravensdale Creek (just downstream of the WSDOT SR169 barrier remedy) which will be completed next summer. <https://wsdot.wa.gov/construction-planning/search-projects/sr-169-ravensdale-creek-fish-passage>