

**Green/Duwamish and Central Puget Sound Watershed (WRIA 9)
Implementation Technical Committee**

November 17, 2021 | 9:30 am – 11:30 am

Agenda and Meeting Summary

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Meeting ID: 549 620 831

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9:30	Welcome <ul style="list-style-type: none">• Introductions• Agenda Review	Iris Kemp, WRIA 9
9:40	Harbor Island Dock Removal <ul style="list-style-type: none">• Learn about dock removal in the Duwamish.	Theresa Thurlow, King County Engineering
10:05	Water Quality Benefits Evaluation <ul style="list-style-type: none">• Preliminary results from Lower Green Chinook PIT tagging in 2021	Tim Clark & Norah Kates, King County Science Section
10:45	Grant Timelines/RFPs <ul style="list-style-type: none">• Review target grant timelines and draft RFPs for Regreen the Green and Monitoring & Research grant rounds.	Suzanna Smith, WRIA 9
11:20	Round Robin Updates <ul style="list-style-type: none">• Construction Projects updates?• New topic requests for future ITC meetings? Known future topics include:<ul style="list-style-type: none">WDFW Riparian Buffer recommendationsNew project recruitment/updates	All
11:30	Adjourn	

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

Participant list:

- Iris Kemp
- Matt Goehring
- Suzanna Smith
- Kollin Higgins
- Mike Perfetti
- Cleo Neculae
- Katherine Lynch
- Nikolas Novotny
- Meara Heubach
- Katie Beaver
- Matt Knox
- Alexandra Doty
- Josh Kahan
- Kerry Bauman

Harbor Island Dock Demolition Project

Theresa Thurlow, King County Engineering

Link to recording [HERE](#); contact Iris (ikemp@kingcounty.gov) for access if needed.

In 2003, Solid Waste Division (SWD) purchased 12 acres at the mouth of the Duwamish to develop a plan for a solid-waste transfer yard to handle truck-to-rail and truck-to-barge transfers of solid waste in preparation for a potential future with no landfill room. The property is on the southwest edge of Harbor Island, along the east side of the West Waterway and near the head of the Duwamish. It includes three lots, formerly owned by Pendleton Flour Mills, listed as an Environmental Critical Area (soil and groundwater contamination has been remediated by soil removal and capping, periodic inspection and groundwater monitoring are required), Liquefiable Soils Area, and Shoreline Habitat Buffer.

Demolition of the dock came about because SWD is leasing 4 acres of the property from Department of Natural Resources (DNR) to get access to the aquatic side, which is needed for future waste transfer plans. The lease requires SWD to keep and maintain the property and improvements in good order and safe condition. SWD cannot renew the lease unless they remove or repair the dock by August 2022. The dock is currently in poor condition, with 1800 creosote piles to be removed.

SWD decided to renew the lease and comply with requirements, holding onto the property for potential long-haul use. Phase 1 of planning included identifying risks/requirements for moving forward. Factors that affect cost and timeline include: 1) EPA requiring environmental restoration or remediation of the sediment substrate due to previous contamination, 2) negotiating a special agreement with DNR for construction activity on the leased site, 3) Muckleshoot and Suquamish Tribes requiring compensation due to the impact to their fishing season, 4) EPA and Ecology require sediment testing prior to and after debris removal, 5) in-water work can only occur during safe fish passage windows (July 16-Feb 15) and will also be limited at certain times to allow tribal fishing, and 6) permitting. One additional complication is that SWD is leasing out a portion of the property to a transportation company that works out of the building on the property and needs to maintain an access to and from the dock area. Another structure on the property, Warehouse E, is leased out to film studios. Demolition plans must take these into consideration.

The final design was completed in July 2021 with all permits secured August 2021. SWD released an RFP August/September 2021 for this project. The contract was awarded to Pacific Pile Marine for roughly \$3.6M. The contractor is expected to perform dock demolition, remove the creosote-treated pilings and debris without disturbing the sediment cap, and install a sand cap and/or shoreline stabilization at the demolition site. The current schedule estimates project completion in early 2023; DNR is willing to accommodate the shift in lease deadline given the clear progress towards demolishing the dock.

Environmental compliance discussions are ongoing. Twenty stakeholders were involved in negotiations to get this project off the ground; it took a full-time staffperson two years to work through the permitting and negotiations process.

There are currently no plans to rebuild the dock in future. SWD has not yet decided but will be considering the best use of the property for the future. There are currently no plans for additional shoreline work to the north of the dock. Waste Treatment Division is doing some work as part of their NRDA response. This dock demolition is not being done under NRDA; it is strictly under DNR lease requirements. The NRDA response is still being negotiated. SWD's site hasn't been shown to have contributed to what they're looking at with NRDA. Part of SWD's agreement includes sampling during pile removal to determine what is under the sediment cap. There is a cap on the majority of the site that was put in prior to the purchase.

No reshaping of the shoreline is planned through this project. Vegetation work is not currently a high priority, but SWD will consider what can be done for the site. Kollin suggested ecological improvements that could be done through SWD, ERES, or other creative solutions. Funding for this work would have to come from outside SWD.

Water Quality Benefits Evaluation

Tim Clark & Norah Kates, King County Science Section

Link to recording [HERE](#); contact Iris (ikemp@kingcounty.gov) for access if needed.

The [Water Quality Benefits Evaluation \(WQBE\)](#) will provide wastewater and stormwater managers with a set of tools that will help integrate science into their decision making. WQBE seeks to place water quality improvements, e.g., pollutant load reduction, in context of ecological and human health outcomes for a number of priority endpoints including edible fish, swimming beaches, shellfish beds, Southern Resident killer whales, and Chinook salmon.

Traditionally the effectiveness of water quality actions has been evaluated based on pollutant reduction. WQBE goals include putting potential water quality improvements in context of potential outcomes and providing a transparent and compelling way to identify and communicate which factors would be most important to address. Improving water quality protects our ability to eat fish and shellfish, go swimming, recover Chinook salmon and Southern Resident orcas. The WQBE involves building individual causal models for linking different aspects of the landscape to environmental endpoints like these.

One of the ongoing model efforts focuses on Green-Duwamish natural-origin Chinook salmon. This model is intended to identify how water quality improvements, such as toxicant load reduction, could impact juvenile and adult natural-origin Chinook salmon survivorship in context of habitat needs. The process includes identifying key constraining life stages and building an annotated conceptual model that defines key factors within those life stages.

Model development included a lot of structured interviews with local governments, tribes, state and federal agencies to build an expert understanding of the system, limiting factors, and bottlenecks in terms of life stages. The next step narrowed focus to specific geographies and time periods and factors present in those time periods. Iterative conversations resulted in mutual respect and understanding across the system. Models were developed for specific geographic areas (Duwamish Estuary, Middle and Lower Green River) based on contributions from experts working in those areas and toxicant experts.

The life stages identified as limiting early on were juvenile rearing, marine maturation and survival, and – while it's not currently a limiting life stage – there are concerns around temperature and flow changes

with climate change that could impact adult migration and spawning. The endpoint for juvenile rearing capacity submodels for Middle and Lower Green is “How many fry can successfully rear in the Middle/Lower Green?” (i.e., parr outmigrant capacity) and considers flows, rearing habitat conditions, toxics, disease, and temperature. The endpoints for the Duwamish submodel are “How many fry can successfully rear in the Duwamish?” and “How many parr can successfully migrate through the Duwamish?” (i.e., estuary fry rearing capacity and estuary parr capacity). This submodel includes high flow impacts, toxic burden, disease, prey availability, and predation pressure – these and their influencing factors are also interconnected. For example, estuary contamination influences toxic burden and prey availability; toxic burden is connected to disease and directly to estuary fry rearing capacity. No submodel was developed for the Upper Green; it is considered a binary switch of “Can salmon access it?”. Access above the dam would provide important rearing habitat.

The team built a model for the marine life stage, which includes limiting factors associated with changes in food supply due to climate change and habitat degradation/loss, predation due to increase in predators and declines in other prey fish, and toxicants and disease. Freshwater spawner success is not currently a limiting life stage but could become limiting with climate change and increasing Green-Duwamish rearing capacity.

One of the next steps is building high-level narrative summaries (fact sheets) in early 2022 to communicate to wastewater and stormwater managers. The big-picture story will include these points:

- 1) Rearing habitat is constrained. There is not enough rearing habitat in the freshwater system. High flows and insufficient habitat can force juveniles downstream. Water quality is less of a concern in the Middle and Lower Green.
- 2) Juveniles that move downstream face poor conditions in the estuary due to a lack of habitat and exposure to toxics. Both water quality and habitat are high concerns in the Duwamish.
- 3) Marine survival is a major concern for all Chinook salmon runs due to changes in the food web and harbor seal predation (toxics and disease are believed to play a role too). There is a lot of uncertainty around what types of actions might affect this limiting life stage.
- 4) While not currently a major limiting factor, high water temperatures and more frequent high flows could endanger spawning and incubation success.

Kollin recommended fact sheets and/or context for utility managers that include coho and describe more directly how stormwater and wastewater actions impact salmon. Coho aren't ESA-listed with recovery plans in place, but coho are more directly linked to water quality issues and are also a component of Southern Resident orca diets. Clark will consider incorporating call-out boxes on the fact sheets to highlight coho's connection to water quality.

Matt asked Clark to expand on the relative magnitude of importance discussions around predation in the Duwamish and the link to nutrient controls in Duwamish. Clark: there are lots of unknowns, uncertainties around predation in the Duwamish. We have more speculation, anecdotal evidence of bird predation, etc. than data. We don't know how big of an issue this is or whether/how predation pressure is influenced by lack of habitat, contaminated/sick fish, etc. This process didn't dive into nitrogen impacts on the food web or marine survival due to high uncertainty.

Cleo recommended that fact sheets clearly make the linkages and connections across the system – factors in the Middle Green can impact the Lower Green, etc.

- **Review deadline: December 15, Water Quality Benefits Evaluation (WQBE) draft report**

The attached document contains the draft annotated conceptual model for natural-origin Chinook in the Green-Duwamish. Once finalized, the model will be used to communicate key limiting factors to water quality managers. We want them to understand how their management actions may connect with key

factors influencing Chinook populations. The qualitative depiction of the system may be developed into a computational model, such as a Bayesian network, in the future, but that is not presently scoped.

For salmon recovery managers and ecologists, the conceptual model may not contain new information; the model seeks to represent the existing knowledge and uncertainty in the system to those less familiar with Chinook populations in the watershed.

As you review the model, please consider if and how the story that is being told can inform and affect water quality management. Does the story make sense? Is it correct?

Please reach out to Clark (timothy.clark@kingcounty.gov, 206-477-1306) with edits, comments, or questions by December 15.

Grant Timelines/RFPs

Suzanna Smith, WRIA 9

Link to recording [HERE](#); contact Iris (ikemp@kingcounty.gov) for access if needed.

Anticipated CWM grant round timeline:

- March 4, 2022 – Applications due via Smartsheet
- March 7-April 12 – Initial review and screening of projects by WRIA 9 staff
- April 20, 2022 – Project list review and decision to recommend for approval by the WRIA 9 ITC
- May 12, 2022 – Final project list decision for approval by the WRIA 9 WEF
- May 16, 2022 – Project sponsors notified of status for funding
- July-November 2022 – Flood Control District makes a funding decision on the final project list. Following FCD meeting, project sponsors will be contacted by King County for contracting. Funding is available after approval and following a signed contract agreement.

Note that this timeline does not align exactly with the funding timelines used in other WRIAs.

Regreen the Green

Anticipated Regreen the Green funding available is \$500k with a \$7.5k minimum grant award. Maximum award is \$90k for new planting projects and \$40k for maintenance projects. The following types of projects are encouraged:

- Revegetation project planning and development
- Site preparation, stewardship, and maintenance of restoration sites, including invasive weed control and watering
- Planting native trees and shrubs, with an emphasis on growing/enhancing shade producing tree canopy and habitat

The Regreen the Green grant RFP has undergone a few updates and revisions:

- The review team developed a Project Detail Form for faster and more consistent evaluation across applications.
- Sponsors are required to upload their information as an application prerequisite and to update the revegetation tracker for major project milestones.
- New mapping requirements to encourage familiarity with the mapping tool and comparisons across projects.
- The review criteria have changed slightly from last year to encourage more precise scoring around sun-shade maps. Certainty of success includes landowner buy-in, site preparation and

maintenance planning, and costs. Community support remains a scored criterion, but the scoring element around social and environmental justice was removed. There is still a requirement that the project include community support and environmental justice.

Monitoring and Research

Monitoring and Research grant RFPs have not changed substantially since last year. We are soliciting proposals that address Enhanced Effectiveness Monitoring and Validation Monitoring, and Ongoing Research and Data Gaps. This grant includes meeting and reporting requirements to the WRIA 9 ITC and/or Watershed Ecosystem Forum. There is up to \$280k available that is expected to fund multiple projects. This total comes from allocation of up to 10% of CWM funding reduced by known status and trends requirements (shoreline armoring study and smolt trap contribution).

There are two pathways for Monitoring and Research grants: addressing data gaps or performing monitoring. Sponsors are responsible for justifying how their project addresses a critical data gap; if there's something you think we need to be exploring to help inform our management and investment decisions, you are encouraged to propose it. Monitoring proposals are scored according to tiers listed in the WRIA 9 [Monitoring and Adaptive Management Plan](#). Scoring for social and environmental justice was moved from "Community Support" criteria into "All Proposals" criteria.

The ITC recommended considering how to broaden the distribution of this RFP. Please use your networks and spread the word as widely as possible. Also, if ITC members have specific ideas of proposals that would be beneficial for the WRIA, please discuss with WRIA 9 staff so we can help make connections and encourage proposals that address those priorities.

High Priority Capital Projects

WRIA 9 doesn't run an annual competition for this funding; rather, we work to implement the 6-year plan that was developed as part of the Salmon Habitat Plan update process. The project list is generated through sponsor consultations and projected phasing and sequencing based on factors like tier, readiness, likelihood of success, etc. ITC members will review the updated list in December; Letters of Intent are due December 20.

Biennial Project Solicitation via the Proposed Project Form (PPF)

This is an opportunity to update and add projects to the Salmon Habitat Plan and the 6-year CIP, recognizing that the Plan and our funding strategies are not static and are living documents. This call is for two categories of projects: 1) new projects that aren't currently included in the plan and 2) projects that have had significant scope changes that need to be re-evaluated for tiering. If you have a project you think should be re-tiered, please reach out to Kollin to discuss. Criteria for tiering are listed in the Salmon Habitat Plan update as an appendix. Having a Proposed Project Form in place means that projects are eligible for funding, although funding is not guaranteed. This form is not required for projects that fall under a program (e.g., Fish Passage) and is not intended for projects that have naturally evolved as the project progresses (e.g., slight scope changes after project initiation). The PPF deadline was planned for December 20 but expect some flexibility in that date.

RFP Release and Proposal Submittal

RFPs will likely be released in December/January. Proposals can be submitted via Smartsheet. Suzanna will run two tutorial workshops to ensure applicants are comfortable with the submittal process: Wednesday, January 12, 1-2:30 pm and Thursday, February 10, 6-7:30 pm.

- **Review deadline: November 24, Regreen the Green and Monitoring & Research RFPs**

For Regreen the Green grant program materials you'll find the RFP as well as a Project Detail Form, which is a new requirement for project sponsors this year. There is still eligibility for both maintenance and stewardship (up to \$40,000 per project), as well as new projects (up to \$90,000 per project). There is additional clarity on map requirements this year with detailed instructions available on the Project Detail Form. Projects that propose revegetation in areas of critical need according to the Muckleshoot Indian Tribe's riparian sun map will compete well in this program. Secured landowner willingness, high likelihood of success, and a reasonable cost per acre will increase a project's competitiveness. Up to \$500,000 is available to support this program.

The Monitoring and Research grant program is available to support enhanced effectiveness monitoring and validation monitoring, as well as proposal addressing research and data gaps. This program requires a detailed research plan. This grant program aligns with the Monitoring and Adaptive Management Plan (MAMP) (<https://your.kingcounty.gov/dnrp/library/2020/kcr3152/kcr3152.pdf>). Up to \$280,000 is available to support this program.

A reminder: There is no competition for Stewardship, Engagement, and Learning (SEaL) grants this year. The next grant round competition will be 2024.

Thanks to those who have provided edits and comments already! Please get any final edits, comments, or questions to Suzanna (susmith@kingcounty.gov) by next Wednesday, November 24.

- **Review deadline: November 24, Form submittal: December 20 – Proposed Project Form**

WRIA 9 is doing a biennial call for projects to be integrated into the Salmon Habitat Plan and the 6-year CIP. The Salmon Habitat Plan and funding strategy are adaptively managed living processes. This call is for two categories of projects: 1) new projects that aren't currently included in the plan and 2) projects that have had significant scope changes that need to be re-evaluated for tiering. Having a Proposed Project Form in place means that projects are eligible for funding, although funding is not guaranteed. This form is not required for projects that fall under a program (e.g., Fish Passage) and is not intended for projects that have naturally evolved as the project progresses (e.g., slight scope changes after project initiation).

Round Robin/Updates

- Calendar invites for 2022 were distributed; please reserve those times on your calendars.
- The WDFW and Muckleshoot Tribe redd survey preliminary data shows that the Headworks reach (from diversion dam to Kanaskat-Palmer State Park) and the Middle River (from Kanaskat-Palmer State Park to Highway 18) contain the majority of Chinook redds throughout the Green. Total Chinook redds were 1,226 with an escapement estimate of 3,065 Chinook salmon.
 - Kollin – did you get the data at the smaller reach scale as well? Can you provide a more in-depth presentation at a later meeting? We'd like to see results, pretty pictures, and comparisons with previous years if possible.
 - Nik only has the data for one year; will ask for more. Can provide a more in-depth presentation on this year's data. Consider for December/January ITC meetings.
- December ITC meeting: Lower Green River Corridor Plan discussion. We anticipate the scoping period opening in early December, with about a month for public comment.
- Helicopter flight looking upstream at Lones in mid-November: much more of the floodplain is actively engaged. The river is now following several different flow paths. A lot more rearing

habitat available for Chinook!

- The Flood District is undertaking a repair at Starfire at Fort Dent park. They are proposing three alternatives, two of which include some level of habitat restoration. They are at the beginning of the process.
- Loman Beach is underway. Suzanna will take some photos. Potentially a December/January agenda item.