

DRAFT KNRAMP Toward a Natural Asset Management Plan for Kitsap County Workshop Summary

Date: 02/02/24

Attendees: Steve Todd (Suquamish Tribe), Marla Powers (Port Gamble S'Klallam Tribe), Brittany Gordon (Kitsap County), Kirvie Mesebeluu-Yobech (Kitsap County), Doug Adams (Kitsap County), Jim Rogers (Kitsap County), Mindy Roberts (WA Conservation Action Education Fund), Robinson Low (WA Conservation Action Education Fund), Elizabeth McManus (Ross Strategic), Dana Stefan (Ross Strategic), Casey Hart (Ross Strategic).

Next Steps

- Ross will share the meeting slides and [Mural Link](#) with the Core Team to provide further feedback (*done*).
- Ross will schedule the rest of the 2024 Core Team workshops.
- WCAEF will update the three attributes scoring methods based on the workgroup conversation.

Introduction

Ross Strategic welcomed the Core Team and reviewed the agenda items.

Updated Level of Service (LOS) Scoring across the County: Effects on DLOS Mapping

Robinson Low reviewed DLOS Scoring options, discussing that previous feedback led to a review of management unit scoring and a realization that there had been an overscoring for the existing LOS attributes during the translation of management units from raw data to OCI scores. The scoring translation is being updated to be more reflective and realistic of the current state and newly revised maps. Scoring methods will be distributed to the Core Team along with the old maps for comparison. The Core Team should continue to advise if the updated maps are over-or-underestimated.

Interim DLOS for Pilot Watersheds: Discuss Scoring Methods for Three Attributes

Robinson Low shared scoring options for three main attributes: fish passage barriers, BIBI, and water quality for shorelines. WCAEF is finalizing this work before the next workshop. The next step is to work on scoring and analyzing data. Updates can be provided in future workshops. The Core Team discussed the following attributes:

Fish Passage Barriers

Robinson presented current methodology of scoring fish passage barriers and discussed missing elements that may need more refinement for improving scoring and accuracy. Either a “stringent scoring option” or a “most stringent scoring option” could be used to score fish passage barriers. The Core Team provided observations:

Complexities with the fish passage barrier attribute include:

- It is difficult to decide whether to include a 100% passable category and Core Team members expressed discomfort mixing a 100% passable option with scoring when trying to move low percentages to 100% passable. A 100% passable score covers a wide range of barriers and does not mean every fish will pass. A passage not considered 100% passable may have little impacts while a passage considered 100% passable may have more issues posed separately such as

problems caused by wood or sediment transport. For example, the Chico Creek Bridge and Simington are rated as 100% passable but the reality for fish is different.

- Habitat changes, such as from beavers, affect fish passage from one year to the next. Culverts can become barriers when they are undersized but passable.
- Downstream barriers have a cumulative impact for higher reach streams.
- The WDFW data base affects what is considered passable.

Ideas how to improve the fish passage barrier attribute:

- **Further investigate the classification system** because it is currently unclear how often fish passage is assessed.
- **Consider barrier density and note overall crossing structures** within management units or use other comparison methods for comparing percent passable (e.g. stream length in an assessment unit). Percentage rankings could be cumulative of fish passage barriers on a stream.
- **Use an incremental scoring option.** Scoring option 1 (stringent scoring) allows incrementally tracking changes over time and moving to the next better category.
- **Monitor and rank 100% barriers in a separate category on a case-by-case basis.** The County could consider percent passable rates on a case-by-case basis, especially with a Public Works partnership, to prioritize filling current LOS and DLOS gaps. There could be a very high (true 100% passable) then high (current 100% passable where there may be impacts) increments in very low, low, and medium. Input could be mapped and checked with the WDFW database.
- **Consider barrier replacement in past 10 years.** Design guides came out in 2013 that may make areas more passable long term. The Suquamish Tribe is currently assessing crossings that have not been assessed for greater than 10 years, and crossings that have never been assessed.
- **Discuss the frequency to refresh the data for the Overall Condition Index Score (OCI).** Investing resources in refreshing data could be worthwhile in understanding percent passable rates. It is beneficial to do field verification to make plan for action and choosing priorities (e.g. someone doing regular barrier maintenance could provide condition scoring).
- **Track total number and frequency of crossings over time** not as a part of fish passage scoring itself, regardless of the percent passable.
- **Use a floodplain model to consider other habitat characteristics.** Currently there are not attributes to capture stream complexity, channel incision, or connection. Fish passage serves as a surrogate for habitat condition.
- **Prioritize expanding KNRAMP to a county level** by maintaining a running fish passage barrier count. Consider ability for fish passage to reach a management unit and within the management unit, how to address fish passage (consider watershed scale vs. management unit scale).

BIBI:

Robinson discussed that it is unclear how far back BIBI scores are aggregated. Due to missing elements, BIBI could be approached via two options:

1. Aggregate to the watershed with concrete time stamps of data.
2. Aggregate upstream, looking at the health of the sampling system upstream.

The Core Team provided observations on the two attributes:

- Aggregating an area into one watershed score loses meaningful reach or tributary level granularity. It is important to see how areas respond physically and biologically to stream restoration in terms of macroinvertebrate health. Projects take place on a reach scale.
- Some little streams do not have sampling stations to produce a BIBI score. The overall score for a stream could remove these streams rather than adding them as a 0 score.
- Core Team members prefer Option 2.

Shoreline Water Quality (Shellfish Growing Areas)

Robinson discussed that there are missing elements and two options to properly reflect the attribute:

1. Option 1- simple and clear
2. Option 2 -slightly more detail

The Core Team provided observations on the two attributes:

- Option two is beneficial because it provides more nuance. A small section of a low or very low (red) condition shown in the attribute map does not justify the entire area being lumped into that condition rating. A percentage basis could be used. A mixture of all high (green) and all low would bring the overall condition back to medium (yellow).
- WCAEF attempted simplification with the maps. WCAEF could expand to be more conditional by including five rather than three categories.
- Management units could cause decreasing/poor health effects of shellfish growing areas to transfer onto neighboring management units.
- Core Team members prefer Option 1.

Working Towards DLOS in the Pilot Watersheds: Policies, Programs, and Projects

Dana Stefan facilitated an initial discussion on identifying opportunities to work towards or preserve DLOS based on the updated pilot watershed maps. The Core Team identified types of projects, policies, and programs that could be considered in the Pilot watersheds. The Core Team is encouraged to continue to input their ideas into [Mural](#) after the workshop. Core Team members discussed their [Mural](#) contributions:

Big Beef Creek Watershed:

RESTORATION

If there was one thing you could do to restore the state of the streams and forests in the pilot watersheds, what would that be?

What type of efforts would make that possible?

Fish passage barrier removal for private and public barriers	Plant trees and vegetation	Improve stormwater management for roads and private development	Manage OSS
Education - As a private property homeowner how can I improve my property. A doc that informs on what flora will provide the biggest benefit	Buy lands adjacent to streams when opportunity presents	Remove Lake Symington dam	Remove lower barriers first
Prioritize barriers that are 100% blocking	Restore UW hatchery property in Big Beef	Work with WDFW toward alternative for fish weir on Big Beef	Update or incorporate existing watershed recovery plans?
	Synchronize priority projects through Shore Friendly program		Consider Big Beef causeway restoration
		More riparian and floodplain restoration needed in urban Chico areas- acquisition may be needed.	

PRESERVATION

If there was one thing you could do to preserve the state of the streams and forests in the pilot watersheds, what would that be?

What type of efforts would make that possible?

Protect mature forest on public (County, State, Federal) land	Limit development on sites less than 5 acres	Limit OSS	
Preserve headwater riparian areas to allow beavers to expand headwater wetlands	Land Use Designations for Preservation of Riparian Areas (not just forest)	Education and outreach	Better headwater protection on logging lands
	Add Big Beef headwater area to DNR Stavis NRCA	More acquisition where homes are close to creek and where headwaters are being altered	Incentivize retention of large trees and snags
Use of Open Space programs at the County, tax breaks?			

**Of the type of efforts mentioned, what is already being done in the watershed?
What could be done more of or what untapped opportunities should we consider?**

Kitsap Shore Friendly	UW Property was purchased by Forterra I believe	Prioritize Conservation Futures funding to implement annual natural asset priorities	Work with schools, "salmon in the classroom"	Commissioners engaging with DNR on harvests	Look at acquisition of agricultural wetlands in upper Big Beef		
Adopt a riparian zone for BIBI sample area expansions	Education of OSS, ensure maintenance	Great Peninsula Conservancy priority work (throughout County)	IMW study treatments	Stewardship Plans with tribes for DNR transfer lands	More monitoring	Take advantage of WSU estension Stream Stewerds and Salmon Docent programs for sampling and monitoring	
New fish passage barrier removal outreach similar to Kitsap Shore Friendly	Develop a Tree Bank	Kitsap Conservation District riparian work (throughout County)	Stormwater Parks (SSWM)				
Fold all Parks, Streets, and development projects into this restoration when affecting this area	Consult SSWM on "appropriate tree" county code updates from the 2019-2024 Muni stomwater permit	Hood Canal Salmon Enhancement Group?	Coordinate with SSWM on GSI, tree canopy, retrofit requirements				

Discussion highlights and explanations included:

- Regarding restoration:
 - It is unclear if WDFW has private culverts in the data base that would drastically change management units or how streams are measured.
 - A lot of roads don't have curbs.
 - Rain gardens versus ditches may have different improvements on stormwater.
 - Conduct public outreach to prevent improper stormwater drainage.
 - Start a county wide program to not pose harm and improve onsite septic systems.
 - Continue to plant trees.
- Beneficial preservation actions include: supersizing education programs (e.g. Salmon in the Classroom, the Rotary); adopt a spot (a person adapts a riparian spot for sampling); a WSU stream program (have sampling and monitoring on stream sections); develop a tree bank; identify riparian planting zones (e.g. if one tree falls four are planted); ensure areas adjacent to development contribute to restoration.
- Many would like to plant trees/vegetation but are not educated what to plant. An online document would be beneficial to allow homeowners to match their goals with proper plants/vegetation (e.g. trees without leaves to clean up, trees without sap to plant by a driveway, vegetation to stabilize a steep slope).

Chico Creek Watershed:

RESTORATION

If there was one thing you could do to restore the state of the streams and forests in the pilot watersheds, what would that be?

What type of efforts would make that possible?

Prioritize and remove fish passage barriers.	Collaborate with Parks, SSWM on revegetating high-priority County-owned lands	Provide more lateral space for riparian/ floodplain restoration. Only possible in many stretches with CEs or acquisitions	US Navy Railroad barrier on Dickerson is a huge priority
Consider bridges on Chico/ that are not barriers but confine channel		Beavers	And beaver habitat
	Urban heat island programs that incentivize tree cover within UGA (Kitsap subbasin)	Collaborate with Public Works on road projects that could include stormwater controls and fish passage barrier correction	Collaborate with DOH, PIC program on OSS
			Remove streambank armoring and move away at-risk structures

PRESERVATION

If there was one thing you could do to preserve the state of the streams and forests in the pilot watersheds, what would that be?

What type of efforts would make that possible?

Conservation Futures Program - funding	Protect mature forest on public (County, State, Federal) land	Start LT program to invest in acquiring end CEs in riparian/ floodplain corridor	
Acquire a larger conservation easement through Golf Course reach of Chico to allow beavers to establish	Outreach needed on beaver benefits-landowners are removing dams.	Need stronger enforcement for people removing beaver dams	Further incentivize urban forestry and urban tree retention.
Outreach and education	Restore headwater wetlands	Need to preserve beaver habitat badly-streamflow issues in Chico	Conservation easement on DNR land? (Navy did this on Hood Canal)
Prevent large toilet facilities (beyond residential) from existing development			

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Of the type of efforts mentioned, what is already being done in the watershed?

What could be done more of or what untapped opportunities should we consider?

Remaining riparian and floodplain corridors in lower watershed are in public hands and poised for meaningful restoration investments	Kitsap Conservation District - riparian projects in next few years	Great Peninsula Conservancy priority work (throughout County)	Develop an urban forestry program	Significant protections already in part of upper watershed	Commissioners engaging with DNR on harvests	Conservation easements and purchases from Ueland Tree Farm	
West Sound salmon plan updates	Work with the Navy on all RR barriers	Kitsap CD has done lots of backyard habitat projects in watershed	Incorporate/ update existing watershed recovery plans	Significant stretches of middle stream corridor are developed and could be target for LT acquisition/CE to open up for future restoration	Kitsap County doing Beaver education		

Discussion highlights and input included:

- Continue education and outreach and increase it where it is valuable.
- Lots of areas are making progress. Protection in upper Chico Creek is very important (e.g. Rhododendron Preserve, Eulin Tree Farm, working forests). There is significant potential for fish passage and restoration projects in the lower and middle parts of the watershed.
- Protection/restoration is more challenging in the middle part of the Chico Creek Watershed where there is decade old residential development in a significant riparian corridor. The floodplain is

disconnected. The Suquamish Tribe worked with others to put together a watershed restoration plan ten years ago, highlighting areas not in current protective status.

- Working with landowners on easements over several generations would be a long-term gain.
- Work with willing sellers to re-gain areas and buy space to do more meaningful restoration via conservation banks.
- Beavers play a significant role in protecting water quantity and quality, providing complexity to habitats, and helping with climate resilience. Chico Creek is probably nearing carrying beaver capacity for beavers due to the amount of habitat and local landowner culture. A focus should be to create or protect beaver habitat, such as adding conservation easements (e.g. through the golf course or railroad/navy culverts that likely won't allow beaver residence). Local landowners remove beaver dams due to their fish passage concerns. Some navy crossings and bridges are not considered barriers but still impact habitat.

Core Team Updates

Kitsap County Update: Jim Rogers provided an update on the Kitsap County Comprehensive Plan (The Plan). The update of the Plan is to be completed by the end of 2024. It contains goals, strategies, and policies related to KNRAMP including:

- Environment chapter (Goal 1 – Ecosystems and Habitat; Goal 2 – Natural resources as an asset: *note Goal 2 puts Strategies into place and starts to focus on KNRAMP implementation*)
- Climate Change chapter (Goal 11 – Habitat; Goal 16 – Tree Canopy)
- Parks chapter (Goal 5 – Environmental Compatibility)

The Plan also includes the following related to KNRAMP:

- An Environmental Impact Statement that attempts to predict habitat impact based on land use alternatives and growth patterns up as far as 2044.
- Implementation and land use development regulations.
- A six-and-twenty-year Capital Facilities Plan to determine how to serve a growing population.

While KNRAMP is unfinished, Kitsap County staff hope to be able to integrate KNRAMP into the Plan to be able to use it sooner rather than later. Core Team members are encouraged to provide further comments through the Kitsap County inbox. County staff clarified:

- KNRAMP will help improve all County areas but tree canopy retention and replacement regulations in KNRAMP related sections of the proposed Comprehensive Plan are focused on urban areas. A Tree Draft Code was released in December with several alternatives for tree replacement and retention. There is a separate proposal to expand riparian buffers.

The Core Team can offer public comment and read more about the Comprehensive Plan Update through the following link: [Comprehensive Plan Update \(kitsap.gov\)](https://www.kitsap.gov/Comprehensive-Plan-Update).

Suquamish Tribe Update:

- As a reminder, three projects have synergies with KNRAMP:
 - Significant progress was made over the past year-and-a-half on a fish passage barrier assessment to fill East Kitsap watershed data gaps. Two-hundred and fifty to three hundred barriers were assessed, many for the first time. The Suquamish are also looking at county/city crossings. The crossings will not be assessed if they have been assessed in the last 10 years.

- Prioritization is being developed to provide the most biological benefit and determine where to go first looking at West Sound Partners for Ecosystem Recovery. Many are looking to work with County on floodplain assessment.
- A separate contract on a riparian assessment is being developed that uses the latest lidar to sense shade and large woody debris (LWD) requirements. The Suquamish continue to do forage fish monitoring along East Kitsap, coordinating with the State.

Port Gamble S’Klallam Tribe Update:

- The Tribe will review the Comprehensive Plan update, including to ensure tree canopy and on-site septic regulations are incorporated. The Tribe is working on talking points for a government-to-government Comprehensive Plan update.
- The Tribe is asking the County to use best available science for critical area ordinance to move to net gain at a policy level, rather than no net loss to strengthen protection of ecosystems. These big topics need incremental improvements because of the time required to make change.
- The Tribe is working with a grant manager (who made improvements to the Hood Canal Bridge) on a new grant to collaborate with agencies on uses of the Hood Canal Bridge.
- The Tribe is working on Port Gamble Bay restoration.
- The Tribe is working on a fisheries letter.

2024 Milestones and Next Steps

2024 Milestones and Next Steps

Brittany Gordon provided an overview of 2024 major milestones (see milestone slide). The Next Core Team workshop is planned for April and will discuss Implementation Plan updates and revisit DLOS for the pilot watersheds. Ross will work to schedule the rest of the 2024 workshops.