

MAFAC Task Force

Potential Basin-Wide Scenarios – Lower Columbia River / Willamette Regional Meeting (January 23, 2020)

Meeting Notes (*italics* = a la carte menu; roman = meeting notes)

- Goal of all these scenarios would be to achieve the high-range goals. Some might achieve them sooner than others or might have higher certainty of achieving them.
- The biological strategies below focus on the strategies/actions during the early portion (e.g., first 25-years) of scenario implementation.

Theme	Continue existing level of effort (note wording change from template)	Moderately increase effort in all threats (Note wording change from template b/c original overemphasized habitat compared to other threats)	Frontload Maximum Effort in All Threats
<b>Description</b>	<i>Continues efforts similar to current levels on all fronts in the near term. Identifies benchmarks. Results evaluated relative to benchmarks after a certain time period and if benchmarks not met, additional actions are triggered.</i>	<i>Moderately increases efforts in the near term in all threats. Identifies benchmarks. Results evaluated relative to benchmarks after a certain time period and if benchmarks not met, additional actions are triggered.</i>	<i>Maximum effort in near term on all fronts directed toward achieving goals as soon as possible.</i>
<b>Biological Strategies</b>	<b>Hydro:</b> <i>Enhanced measures to improve system survival (in river &amp; latent) within the (large-scale) limitations of current system configuration (experimental spill program, etc.)</i>	<b>Hydro:</b> <i>Enhanced measures to improve system survival (in river &amp; latent) within the (large-scale) limitations of current system configuration (experimental spill program, etc.)</i>	<b>Hydro:</b> <i>Targeted restoration of normative river conditions and function (dam breaching, natural hydrograph, flooding, temperature).</i>
	<p><b>Trib habitat:</b> <i>Continue current level of investment to implement small-scale restoration and protection prioritized based on a basic understanding of limiting factors. Where possible, protect and restore priority areas selected based on best available science to a high level of function.</i></p> <p><b>1/23/20 notes:</b> A lot of the commitments that were made during planning have not been fully realized. We are barely investing at 15-20% in terms of need just to get to recovery. There has been a lot of activity. Absent this work, we would have continued to decline. Have opened up 100s of miles of habitat through forest practices (culverts), etc.</p>	<p><b>Trib habitat:</b> <i>Substantially enhanced resources and large-scale, process-based restoration and protection of habitat function sufficient to demonstrably and significantly improve abundance and productivity at population scale.</i></p> <p><b>1/23/20 notes:</b> Imagine if we invested more. Where would get to? We can't wait to deal with Walmarts and floodplains as they continue to be developed now leading to further declines. Oregon adoption of shoreline protections would be a significant step. Funding burden can't all be on hydro mitigation. Land use decisions become increasingly important.</p>	<p><b>Trib habitat:</b> <i>Substantially enhanced resources and large-scale, process-based restoration and protection of habitat function sufficient to demonstrably and significantly improve abundance and productivity at population scale (watershed scale, land use processes).</i></p> <p><b>1/23/20 notes:</b> The piece that we haven't stepped up on is the landscape level. You can't get there with small scale projects of x acres here and there. Need far better integration of recovery needs with land use planning – better use of the landscape relative to the needs of the fish. Large scale reconnection of floodplain. Better water planning. Need to address low flow and temperature challenges – WA has WIRA plans but</p>

	<p>Storm water runoff and toxics in these are significant issues.</p> <p><u>Fall Chinook</u> Chinook are in receiving reaches rather than contributing reaches from a watershed process perspective. Takes a ton more work to have a measurable effect.</p> <p>Floodplain habitat important for fall chinook so land use has a disproportionate impact on fall chinook. Can we really hope to recover fall chinook if they live at interface between developed and undeveloped lands?</p> <p>Hasn't been a lot of directed habitat work because they occur in lower watershed where there is a lot of people and ag land.</p> <p>Low flows and flooding have had large impacts. Watershed process improvements needed. More expensive to work in these areas. Much of the work to date has been in the upper parts of the basins that benefit coho and steelhead.</p> <p>For fall chinook, it has been "relatively easy" to replace with hatcheries.</p> <p>IMWs have been focused on smaller watersheds. Habitat conditions are flat lined at a low level in WA coast strata. Better conditions in cascade strata – may be stable or increasing – generally better trends.</p> <p>Local blockage removals that benefit coho and steelhead (culverts) don't benefit chinook.</p>	<p>It is always easier to prevent rather than restore – we need to do smart planning now to address sprawl etc. We are not going to recover fish if we keep losing more than we are fixing. People on the ground are now capacity limited to implement habitat measures– if there were more funds available there it would have to include capacity and capital for projects.</p> <p>The current WA strategy involves leveraging habitat and hatchery work in specific areas.</p> <p>Additional resources are needed for coordination and opportunities for leveraging.</p> <p>Additional resources are needed for design and project development – funds are currently being dedicated to construction where they are limited.</p> <p>Lack of status and trends monitoring (provides guidance for future effectiveness, proof of benefits to support continued funding).</p>	<p>have not been fully capitalized. (moving to lower in the subbasin water sources, more water storage in the upper basin. Beaver reintroduction has potential).</p> <p>General watershed restoration, cold water refuges. Concentrated work is specific areas Not just moving walmarts but not building more. Buying/retiring property in floodplain. Restore more natural hydrology</p>
	<p><b>Estuary habitat:</b> <i>Protection and small-scale restoration prioritized based on a basic understanding of limiting habitats. Where possible, protect and restore priority areas selected based on best available science to a high level of function.</i></p>	<p><b>Estuary habitat:</b> <i>Substantially enhanced resources and large-scale, process-based restoration and protection of habitat function sufficient to demonstrably and significantly improve survival.</i></p>	<p><b>Estuary habitat:</b> <i>Substantially enhanced resources and large-scale, process-based restoration and protection of habitat function sufficient to demonstrably and significantly improve survival.</i></p>

	<p><b>1/23/20 notes:</b>          We have plucked the low hanging fruit in the opportunistic world.          Funding is now going down.          Big question in the public mind on what we are getting from the investments to date.          What is left is big expensive projects          Public vs private ownership. There is still some public opportunity but will run out of them to do.          Protecting vs restoring – land use planning.          Armored vs natural shores.</p>	<p><b>1/23/20 notes:</b>          Broaden the funding base and allow for more diverse applications (not just salmon) - there are a lot more opportunities. Riparian planting, stormwater management, toxics, reconfigure to reduce impervious surfaces.          Accountability (numbers, acres) sometimes gets in the way of larger projects with less certainty or an ability to quantify benefits (willingness to accept more risk). – applies to tribs as well.</p>	<p><b>1/23/20 notes:</b>          A lot of similarity with trib habitat.          Climate, toxics have not generally been addressed.          Working in metro area and Longview to buy out properties, reconfigure land use code, properties behind dikes. Cities making investments to move industrial parks.          Restore more natural hydrology          See 1999 management plan</p>
	<p><b>Blocked areas:</b> Resident fish substitution in areas of the historical anadromous distribution which are currently not currently accessible.</p> <p><b>1/23/20 notes:</b>          LCR - Restore effective adult and juvenile passage consistent with high levels of self-sustaining natural abundance and production in historical ranges. This is the current baseline. This is where we are at now in Lewis and Cowlitz basins. (Not in Willamette).</p>	<p><b>Blocked areas:</b> Limited adult releases in currently blocked historical production areas to provide fishing opportunities and assess natural production potential of current habitats. Experimental reintroduction with interim hatchery supplementation concurrent with evaluation of passage potential.</p>	<p><b>Blocked areas:</b>          Restore effective adult and juvenile passage consistent with high levels of self-sustaining natural abundance and production in historical ranges.</p> <p><b>1/23/20 notes:</b>          Dam decommissioning when licensing comes up again (changing energy world etc. with increased reliance on renewables.)</p>
	<p><b>Predation:</b> <i>Nonlethal measures designed to discourage predation by key predators in focal problem areas. Lethal but limited removal of problem animals of key predators in specific areas or as part of redistribution efforts.</i></p>	<p><b>Predation:</b> <i>Nonlethal measures designed to discourage predation by key predators in focal problem areas. Lethal but limited removal of problem animals of key predators in specific areas or as part of redistribution efforts.</i></p>	<p><b>Predation:</b> <i>Predator removals which substantially reduce numbers and corresponding predation impacts.</i></p>
	<p><b>Hatchery:</b> <i>Continue to limit release numbers, strategically implement mitigation and supplementation programs, and incremental</i></p>	<p><b>Hatchery:</b> <i>Continue to limit release numbers, strategically implement mitigation and supplementation programs, and incremental</i></p>	<p><b>Hatchery:</b> <i>Curtail hatchery production except for critical conservation or reintroduction purposes.</i></p>

	<i>hatchery reforms to control impacts/risks in key natural production areas.</i>	<i>hatchery reforms to control impacts/risks in key natural production areas.</i>	
	<b>Harvest:</b> <i>Abundance-based management to optimize and share harvest consistent with the needs of spawning escapement and weak stock limitations.</i>	<b>Harvest:</b> <del>Curtail or eliminate directed fisheries and limit incidental impacts to de minimis levels which do not impede recovery.</del>  <b>1/23/20 notes:</b> Are we maximizing opportunities to further reduce harvests or to reconfigure to limit risks or to help recover populations? Need to do a better job to intercept hatchery fish.	<b>Harvest:</b> <del>Close or severely limit all harvest to maximize natural spawning escapement. (Interim measure to restore natural diversity, distribution &amp; productivity.)</del>
<b>Benchmarks</b>	<i>For all strategies: Identify benchmarks. After 15-25 years, evaluate results relative to benchmarks. If not met, additional actions are triggered.</i>	<i>For all strategies: Identify benchmarks. After 15-25 years, evaluate results relative to benchmarks. If not met, additional actions are triggered.</i>	<i>For all strategies: Identify benchmarks. After 15-25 years, evaluate results relative to benchmarks. If not met, evaluate needed changes in strategies.</i>
<b>SCE&amp;E Considerations and Strategies</b>	<ul style="list-style-type: none"> <li>• <i>All H approach.</i></li> <li>• <i>Closest to status quo SCE&amp;E.</i></li> <li>• <i>By making some more radical decisions contingent on not meeting benchmarks, provides time for more public buy in and planning for addressing SCE&amp;E impacts of those actions.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>All H approach.</i></li> <li>• <i>Would require substantially increased funding for enhanced efforts.</i></li> <li>• <i>Habitat efforts could have implications for private landowners and public lands management; could also create jobs.</i></li> <li>• <i>By making some decisions contingent on benchmarks, provides time for more public/political buy in and planning for addressing SCE&amp;E impacts of those actions.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>All H approach.</i></li> <li>• <i>Costly: Would require drastically increased funding for enhanced efforts.</i></li> <li>• <i>Habitat efforts could have implications for private landowners and public lands management; could also create jobs.</i></li> <li>• <i>Do not have public consensus at this point.</i></li> <li>• <i>Disruptive to power and navigation sectors and to fishery interests.</i></li> <li>• <i>Current mitigation funds for habitat and hatchery production would likely be substantially reduced.</i></li> </ul> <p><b>1/23/20 notes:</b> Involves considerations of water supply, Sharing the recovery burden (e.g. proportionate contribution to the level of impact) Equity in low income, bearing the brunt, lack of voice</p>
<b>Critical Uncertainties/Research Needs</b>			

<b>Regional Considerations</b>			
<b>Innovation &amp; experimental management</b>			
<b>Strategic choices, sequencing considerations, early successes, stock specificity</b>			
<b>Climate/population considerations</b>	<i>Protect and restore stocks and populations regardless of their vulnerability to possible climate change effects.</i>	<i>Prioritize protection and restoration efforts for stocks and populations which are least vulnerable to climate.</i>	<i>Maximum improvement effort for stocks and populations which are least vulnerable to climate and/or actions most likely to improve climate resilience. Restore access to currently-blocked areas which are least vulnerable or most resilient to effects of climate change.</i>