

SITTs Comments – Snohomish Stillaguamish LIO Response

*First Elements Comments by Strategic Initiative Transition Teams November 20, 2015*

Section	SITTs Comment	LIO Response
Section 1: Overview	Good definition of area, issues, strategies and existing programs and recovery efforts with lots of local data. The introduction provides a good regional context and background information, including subjects of emphasis. Overall description of the process is more detailed than necessary. Some reviewers requested more specifics on projects or programs. Clarify that a focus on freshwater quality with little attention on shellfish and marine water quality is appropriate.	We clarified that shellfish and marine water quality would be integrated later into the 5-year plan.
	Include a table on page 8 to describe the 21 vital signs arranged under one of six categories of ecosystem health. Table could have two headings: ecosystem health and vital signs.	We have included this table.
	Also consider including a map of LIO area, labelling important locations.	We will not include a map at this time but will likely add that in later drafts.
	Consider clarifying and expanding on what local jurisdictions are doing to address stormwater within the LIO.	This is beyond the scope of our LIO for this effort.
	Also consider including all information from the November presentation in the written plan.	We have added information that was included in the November presentation.
	In Figure 1, water quality should be linked to land conversion. This is an important consideration for addressing and quantifying the damage associated with land conversion.	We linked water quality to land conversion.
	Provide information about salmon populations that are unique to the LIO. Clarify if sea run/resident cutthroat trout should be included in the salmonid species that use the Snohomish River watershed.	We added language about the local salmon populations, and clarified that cutthroat are in the Snohomish Basin.
	Consider introducing the challenges and tradeoffs presented by high value restoration opportunities and agricultural preservation that are overarching issues within the LIO. Suggest adding data on historical estuary acreage lost, which should be available in the implementation strategy. Although estuary acreage loss would be covered in more detail in the estuary vital sign, consider including it at a broad level in the introduction.	We referenced Paul Cereghino's accelerating delta restoration document, which has the most current treatment of challenges and tradeoffs. We modified the document to include estuary targets, current and desired future conditions for both basins.
Section 2. Priority	Reviewers appreciated the description of committee member	The local solicitation was meant to mirror the regional

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<p>Vital Signs and Pressures Priority vital signs.</p>	<p>reasoning behind the selection of priority vital signs, as well as the summary in Table 2. The process was well thought out to carefully consider NTA funding criteria in the selection of priority vital signs. Six vital signs represents a meaningful prioritization. Describe how the listed criteria developed for the NTA solicitation (e.g. supports a broad geography) was evaluated to support the selection of priority vital signs. Documentation of that decision-making process is important.</p>	<p>one. Our LIO is a good representation of the regional diversity (ecological, political, etc.) found in Puget Sound so having our local NTA solicitation reflect the regional one made sense. We did call out the regional significance of our local estuary restoration efforts in meeting the regional estuary target for the sound.</p>
	<p>Identify which LIO priority pressure list was used in this criterion (one developed on June 30 or an earlier version).</p>	<p>We used the PSPA list (defined by our LIO area) and refined it with best professional judgment, assessments of salmon pressures and previous evaluations from other known sources.</p>
	<p>Document how the Puget Sound Pressure Assessment combined with SITT Comments—Snohomish-Stillaguamish LIO 2 the NTA criteria to inform the voting process (other than in educating voter).</p>	<p>The voting was based on the evidence mentioned above, as well as knowing what direct links there were between pressures, stressors and vital signs.</p>
	<p>Clarify how the relative condition of vital signs was determined.</p>	<p>We determined that all of these vital signs were impaired by best professional judgment. The drought made it easy to declare summer low flows a problem this year, and estuaries, floodplains and Chinook have extensive evidence of impairment from salmon recovery efforts. The shellfish and PIC efforts, along with TMDL reports, supported freshwater quality impairment and land development and cover was supported by multiple lines of evidence.</p>
	<p>Consider providing information on how the plan fits with Puget Sound goals and how important local recovery is to regional targets. For example, describe how many of the Puget Sound total estuaries are contained in the LIO, and how much estuary restoration is feasible locally as compared to regional targets.</p>	<p>We expanded the discussion on this to make the link between local estuary efforts and regional targets.</p>
	<p>Priority pressures. Breakdown of top five pressures for each priority vital sign is very informative. Given that certain pressures are impacting multiple priority vital signs, consider prioritizing the priority pressures.</p>	<p>We did note that not all Tier 1 pressures have the same intensity per vital sign and that some had impacts on multiple vital signs. We can revisit this and consider ranking the Tier 1 pressures to account for</p>

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		both breadth of vital signs impacted and severity of impacts on any one vital sign
	Some pressures, such as housing and urban areas, impact multiple priority vital signs. Clarify why freshwater levees are not included as a pressure under Chinook and floodplain vital signs.	The process of coming up with only five Tier 1 pressures was a challenge. Staff agrees that freshwater levees belongs on the list, but our LIO list is based on the best professional judgment of the LIO Committee members.
	Decision-making process. Good explanation of how tier 1 and tier 2 pressure lists were developed, though some reviewers requested clarification on how pressures were decided and further refined. Criteria for selecting local NTAs was very good. Reviews recommended that clarity could be improved in the section by developing a cohesive introduction to the three sub-sections (vital signs, pressures, and process).	We expanded some of the language to better describe these elements (pressures, stressors, and vital signs).
	Clarify how the LIO Implementation Committee voting process and other pressure assessment data aligned with the Puget Sound Pressure Assessment	There was strong alignment with the voting results and the PSPA. The salmon recovery plan pressure evaluations (informal assessments) and the changes in low flow conditions reflect some minor differences between PSPA and the voting results.
	Describe if any high priority pressures from the PSPA were not reflected in the chosen vital signs or if low priority pressures from the PSPA were selected as vital signs. In either case, describe the LIO rationale for inclusion or exclusion.	All of the high priority pressures from the PSPA were included.
Section 3. Local Ecosystem Recovery Approaches Priority vital signs.	In general, figure presentations were excellent. Reviewers appreciated the work in rebuilding the models. • Shellfish beds. Reviewers noted that little attention is paid to marine water quality and shellfish.	Shellfish and Marine Water Quality will be included in the next iteration of the 5-year plan.
	• Chinook salmon. Good recognition of the importance of riparian buffers, and in identifying natal Chinook populations within the LIO that tie directly to regional vital sign. Consider including a brief summary of recent trends in populations.	We added some language that describes the recent trends in local salmon populations.
	Many of the salmon recovery efforts are likely being drawn directly from recovery plans. Clarify if priority nearshore restoration projects (e.g., barrier embayments, shoreline	Both the Snohomish and Stillaguamish Recovery plans incorporate both river delta and nearshore priorities including direct support restoration and protection

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	armoring) are identified within these plans besides PSNERP and estuaries-related projects. Clarify if the decision that other nearshore projects would not be a high priority for the next two to five years was intentional.	nearshore forms (embayments, pocket estuaries, feeder bluffs, bluff backed beaches, etc) as well as threats to them (armoring, bulkheads, etc).
	Strengthen the narrative to provide a clearer picture of the comprehensive salmon recovery approach underway, as reflected in the schematic. In schematic, consider connecting monitoring and adaptive management to habitat protection (it is currently unconnected to any pathway). This connection is critical to ensuring ongoing impacts do not undermine investments in recovery (e.g., regulations and policy meeting no net loss mandates).	The salmon recovery approach is extensive and detailed, and has been well described in the original plans and supporting documents. We have referenced these where appropriate.
	Schematic should show a relationship to the eelgrass vital sign even if it is not a prioritized vital sign for the next five years. Given that estuaries and water quality are two critical pathways to eelgrass benefits, it is possible eelgrass will benefit from the identified local approaches in these areas and further support salmon recovery	We referenced the Eelgrass vital sign, which will be directly addressed in later iterations of the 5-year plan.
	<ul style="list-style-type: none"> <li>• Estuaries. Good detail in describing recovery approaches and how LIO work can contribute to regional strategy. Recognition of and planning for climate change is critical to ensuring estuary restoration investments are not undermined by future sea level rise.</li> </ul>	We have referenced the fact that lower elevation habitats (emergent wetlands) have the greatest vulnerability to sea level rise that that we need to focus on other higher elevation river delta habitats like scrub-shrub and tidal forests, if we are going to have river deltas that are resilient to sea level rise. This requires setting levees even further back than is currently proposed in some cases.
	Clarify the additional possible gains in the future, now that the salmon recovery plan estuary target for Snohomish has been met. Provide information on the total acres of estuary and the percent needing restoration.	We provided estuary targets for both basins. We are still far from historical acres in both basins so we need to verify that meeting the target is still meaningful in the face of climate change.
	Identify issues that prevent restoration as well as strategies for overcoming those issues.	Paul Cereghino’s accelerating delta restoration is the latest document, interviewing local experts in each basin, as to the most significant barriers to delta restoration.

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	<p>The November presentation mentioned that the LIO contains two estuaries (Snohomish and Stillaguamish) with the greatest opportunity toward meeting the Puget Sound estuary vital sign target. Provide additional details about approaches that will move the needle toward meeting the estuary vital sign target (7,380 quality acres restored by 2020).</p>	<p>We referenced the significance of our acres and note that these local efforts are key to meeting the estuary vital sign targets. We have numerous estuary projects in the pipeline but acknowledge that more stewardship is needed to provide opportunities for future restoration efforts.</p>
	<p>Add emphasis regarding the conflict/tradeoffs between estuary restoration and farmland preservation goals, and the need for win-win multi-benefit projects that are critical for success. The potential to reach the regional estuary target is largely dependent on success in the Snohomish-Stillaguamish and Skagit basins. Many of the available opportunities on public lands have already been implemented.</p>	<p>Paul Cereghino’s accelerating delta restoration is the latest document, interviewing local experts in each basin, as to the most significant barriers to delta restoration.</p>
	<p>Schematic and narrative should clearly convey the critical steps of land acquisition and levee setback/breaching that are needed to restore tidal inundation. While many of the important intermediate steps are reflected, acquisition and levee setback are ultimately critical to achieving this target. Also consider adding that advancing the estuary target is believed to provide benefits to eelgrass, as seen in the Nisqually and Skokomish deltas.</p>	<p>Paul Cereghino’s accelerating delta restoration is the latest document, interviewing local experts in each basin, as to the most significant barriers to delta restoration. In addition, we now have referenced the importance of these efforts to the Eelgrass target.</p>
	<p>Consider strengthening the approach narrative by drawing from the estuary implementation strategy. This strategy was developed largely around issues surrounding the Snohomish Stillaguamish watersheds. Consider including a discussion of important barriers and action sequencing.</p>	<p>We heavily referenced the Estuary Implementation Strategy (IS) and members of our team were part of the development of that strategy. Since our local estuaries and LIO area strongly reflect the Estuary IS because of our local diversity, there is a strong fit between our local efforts and those of the region as we have urban, small watersheds and large river deltas within our LIO boundary.</p>
	<ul style="list-style-type: none"> <li>• Floodplains. Good detail provided in the recovery approaches. In the schematic, work to eliminate approaches that are not connected to a pathway toward pressure reduction or vital sign recovery. Identify current barriers that need to be overcome to restore floodplains (e.g., land acquisition, potential buyouts),</li> </ul>	<p>Agreed. We will need to modify this schematic during later drafts of the 5-year plan.</p>

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	<p>strategies for overcoming those issues and current efforts underway.</p>	
	<p>Consider organizing by two overarching pathways: protect intact floodplains and restore degraded floodplains. Work backwards from these pathways, as some of the pressure reductions pathways presented are not entirely clear. Consider ways to integrate the SITT Comments—Snohomish-Stillaguamish LIO 4 importance of sequencing within the schematic and narrative. Provide information on the amount of floodplain needing restoration.</p>	<p>This is the format of the Stillaguamish Salmon Recovery Plan as there are four results chains (freshwater protection, marine protection and floodplain restoration). It has been useful in that plan to divide these up that way. Given the more general nature of the LIO results chains and schematics, it did not seem to make sense to do this here. We can revisit that decision.</p>
	<ul style="list-style-type: none"> <li>• Land development and cover. Good recognition of the need to focus future development away from hydrologically important areas. A focus on the importance of riparian cover as an indicator of healthy ecosystem is a good future approach. Provide additional detail in the description of proposed recovery approaches, including current and future approaches. Include the following: (1) LIO plans to measure progress, (2) Primary barriers to success, (3) Plans to reduce future open space conversion, (4) Effectiveness of current critical areas ordinances, SMPs and comprehensive plans in preventing loss of forested land, (5) Amount of development still occurring outside of UGAs, and barriers and gaps that need to be address to reduce this development.</li> </ul>	<p>This is beyond the capacity of our LIO to address. We acknowledge the importance of evaluating these approaches but are not in a position to take these on at this time.</p>
	<p>Provide clarity on how the desired results in the schematic are connected to approaches. In several cases, they seem to be disconnected. For example, “land protection through acquisition” is in line with stormwater BMPs. Clarify if the only high priority projects in the 4- year work plans are floodplain projects, as seems to be shown in the schematic. Generally, shoreline armoring and stormwater BMPs are not associated with the land cover and development vital signs. These are approaches that reflect a reactive approach to undo the adverse impacts of land development, but also a proactive approach to prevent additional loss or land conversion. It is</p>	<p>There are a variety of high priority projects in the 4- year work plan, beyond just Floodplain protection and restoration. Agreed. We will revisit the linkages between land development and shoreline armoring. We will likely remove those linkages as shoreline armoring (freshwater and marine) have their own pressures (shoreline infrastructure) so they are best linked with those pressures and how they stress chinook and estuary vital signs.</p>

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	unclear how these types of approaches would contribute to measurable progress in the land development and cover vital sign, and may be better aligned within water quality and Chinook vital signs.	
	Consider describing in the stormwater strategic initiative narrative how land development and cover cross cut to stormwater. Consider adding a stormwater planning component to help address development that is focused on cities/UGAs. In addition, LID practices (prevention) are as important as BMPs (treatment).	We can describe how they link up. We would need an outside effort to do a robust planning effort to direct development by one of our urban partners.
	<ul style="list-style-type: none"> <li>Eelgrass. Clarify why eelgrass was not selected as a priority vital sign, given that the Snohomish estuary contains some of the largest eelgrass beds in Puget Sound. Clarify whether protection of existing intact eelgrass beds is a priority for the LIO.</li> </ul>	Eelgrass will be selected and incorporated along with the remaining twelve vital signs that were not selected.
	<ul style="list-style-type: none"> <li>Summer stream flows. Identify what approaches are proposed to address summer flows in 5- year plans.</li> </ul>	This is a very new concern, brought about by the recent drought. We are in the process of developing new approaches, based on areas with more of a history with drought conditions.
	<ul style="list-style-type: none"> <li>Marine water quality. Reviewers noted that little attention is paid to marine water quality and shellfish.</li> </ul>	We will incorporate both of these in later iterations of the 5-year plan.
	<ul style="list-style-type: none"> <li>Freshwater quality. Description of the problem was comprehensive, and schematic was cogent. The target should be linked to a vital sign indicator. A target of “reduction in impaired waters” will likely not illustrate meaningful change in actual water quality in Puget Sound or the local ecosystem.</li> </ul>	We agree, but that is currently the target for freshwater quality. We can link it to floodplains.
	Consider including the percentage of rivers and streams with TMDLs or 303(d) impairments for specific parameters to help identify goals for improvement. Consider development and community planning as components of water quality protection, because where a community develops is as important as how it develops.	This is beyond the scope of our LIO at this time.
	Consider including a better description of the link between hydrology and BIBI to strengthen the narrative. Future	We can add linkages between hydrology, freshwater quality and macro-invertebrate diversity and

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	approaches should consider protection-based strategies, especially given land ownership in the upper watershed (private forestry).	abundance (BIBI)
Strategic Initiatives: Habitat	Provides a clear foundation for identifying types of NTAs within larger lines of work. Identifying and prioritizing NTA will be a significant future effort. Information in the Freshwater and Marine sections are quite general. Elaborate on how existing and future approaches are addressing the habitat strategic initiative.	We have discussed the need for a gap analysis on NTAs, as well as sorting them into categories to better illustrate key gaps. We currently have a shortage of both shellfish and stormwater NTAs, relative to habitat NTAs.
	Provide more clarity on the strategic approach to floodplain implementation.	This is well documented in both salmon plans and the floodplain vision documents for our two basins. We can reference those links in future drafts.
	Addressing the spread of knotweed in the freshwater system may require more aggressive and targeted efforts, including access to private property without permission and no longer letting private property owners prevent access for eradication efforts.	We have an extensive effort to deal with Knotweed strategically but admit that the effort is not sufficient to match the scale of the infestation. We are working on building capacity of other organizations besides Snohomish County to help take on this work.
	For future focus areas, address the conversion of forestlands, the enforcement of land use regulations and invasive species (especially knotweed).	We will reference the Snohomish Basin Protection Plan and the tribal regulatory studies, as well as the invasive species sections in our salmon plans.
	Clarify any new directions or gaps to be addressed that were not addressed with previous NTAs. Identify past efforts that were unsuccessful and unlikely to be continued.	We have new NTAs addressing integrated floodplain management, climate change and other new areas. We have had some NTAs that were not successful but this was a result of personnel capacity and not a misalignment of these NTAs. We may see some of these in the future (groundwater, etc.).
Strategic Initiatives: Shellfish	Describe the acres of shellfish bed resource the LIO wants or needs to protect, as well as how many acres need to be improved to reach approved harvest status. If appropriate, recommend adding specific shellfish acreage (number and location) for protection and restoration. DOH documents	This is beyond the capacity of this LIO. We would like to include this in the Shellfish Protection Program is interested in this, but do not have the capacity at this time.

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	(shellfish threatened areas, shellfish acreage by county, shellfish restoration table) are provided to help LIOs estimate potential local shellfish recovery targets.	
	In the future, provide a focus on funding and enforcement. Include sustainable local-source funding strategies that address identified barriers, and plan for sufficient capacity for enforcement. In addition, include a sustainable, long-term and locally-led PIC program that identifies roles and responsibilities.	We have a sustainable PIC program and have funding strategies associated with our salmon recovery plans. We lack the degree of local funding sources available in King County, but have surface water management fees and discretionary funds at the county level. We can reference those in future drafts.
	Consider participating in a regional septic repair lending program. Seek a sustainable cost-share funding source for agricultural best management practice implementation.	We will look into this as our local lending program has been successful. We have Dept. of Commerce and PIC funding that works towards agriculture BMP's.
	To address gaps, explore the role of Marine Recovery Areas to target resources for OSS management.	We have a Marine Stewardship Area in Port Susan Bay, where resources that are impacted by OSS and ag effluents have been identified. We can reference those.
Strategic Initiatives: Stormwater	Issues and high level strategies were well defined. Stormwater results chains showed relationships very clearly. Provide more specifics in the text. It was unclear how much effort would be invested in new and innovative approaches to stormwater permitting versus execution of existing regulations. With the majority of this basin already under Phase I coverage, clarify whether this program is being fully executed. If not, clarify if that is due to Phase II jurisdictions within the basin. Consider accounting for the needs of Phase II jurisdictions in your retrofitting strategy, if not already done.	This is beyond the scope of this LIO to analyze Phase II jurisdictions within the basin, in terms of successful execution of regulations and retrofit strategies.
	Provide a discussion of the hydrologic impacts for stormwater, as opposed to just water quality. Results chains do not reflect the intended outcomes of the NTAs.	We will need to revisit these results chains to document non-water quality impacts.
	Consider providing more specifics on projects or programs, and providing a discussion of status, lessons learned, and successes from NTA implementation.	We have numerous references of the successes and challenges of habitat restoration efforts. We may be able to collect this type of data for other NTAs in the future.