

Strategies for Pressure Reduction

Process Summary

In the May 5 and June 16 Implementation Committee (IC) meetings, the group developed conceptual models examining the technical, social, political, and legacy reasons why some of the priority pressures continue to affect the high priority Vital Signs and components in the Snohomish and Stillaguamish watersheds. As a part of those conceptual models, ongoing and potential future actions and strategies were identified. Definitions of these terms related to the Ecosystem Recovery Plan are as follows:

- An **action** is focused on delivery of a specific outcome or output associated with a desired result. Actions include capital projects (e.g., restoration and acquisition), program development or implementation, education, research, etc.
- A **strategy** is a bundle of actions that, when combined, are intended to achieve a common goal. Strategies are intended to mitigate pressures or their underlying conditions and root causes, restore ecosystems or species populations (components/Vital Signs), or provide capacity to achieve goals. Strategies include one or more actions (e.g., capital projects, programs) and are designed to achieve specific outcomes, objectives, and goals. They are usually developed on a long-term time horizon, with associated actions addressing nearer-term objectives.

Following the June 16 IC meeting, IC members were asked to review the resulting list of strategies with their organizations and provide feedback and prioritization based on the following criteria:

- **Potential Impact** – the degree to which the strategy (if implemented) will lead to desired changes in the LIO, via pressure reduction and/or component/Vital Sign improvement
- **Feasibility** – the degree to which the LIO could implement the strategy within likely time, financial, technical, and other constraints
- **Readiness for Implementation** – the degree to which the social and/or political context is ripe for successful implementation of the strategy

Comments from IC members were compiled and scores were averaged. The feedback and prioritization data were discussed by the IC via a WebEx meeting on June 27, resulting in a consensus decision to present the attached list of strategies to the Executive Committee for review and a decision on June 30. These recommendations are intended to support the first round of actions associated with the 2016 Action Agenda and associated Near Term Action (NTA) funding. More strategy recommendations are expected to emerge in future rounds of strategic planning as successes from current work are realized and other pressures are addressed.

Clarifications of Strategy List

The IC members emphasized that the Sno-Stilly LIO should:

- Maximize strategies that provide cross-cutting opportunities to improve multiple Vital Signs/ components
- Consolidate strategies where possible and/or necessary
- Ensure the strategies are inclusive of all Sno-Stilly LIO members' Near Term Actions (NTAs) from 2016
- Prioritize strategies that allow for the greatest impact in the ecosystem; this emphasis resulted in the IC weighting their scores for the "Potential Impact" criteria greater than the "Feasibility" and "Readiness for Implementation" criteria during strategy prioritization discussion
- Include strategies that were ranked lower for feasibility but higher for potential impact in order to highlight where regional assistance may be necessary in addition to the LIO's expected contributions to ecosystem recovery
- Understand that this ranking is for a broad planning-level approach, and strategy ranking will likely become more targeted when addressed to a project-level assessment

Next Steps for Strategies

The strategies will be used to develop **results chains** to describe the logic supporting the LIO's ecosystem recovery strategies. Results chains show theories of change and describe how actions are expected to lead to desired outcomes. They are useful to provide structure for monitoring and assessing progress toward recovery, or for making adaptive management decisions where needed. All of the LIO's 2016 NTAs need to be represented on the results chains developed from these priority strategies, and the results chains will also be used to identify how future local NTAs for the Action Agenda align with regional priorities. Puget Sound Partnership may also use these results chains to inform future regional Implementation Strategies.

Snohomish-Stillaguamish LIO Priority Strategies for Pressure Reduction

1. Develop and implement nearshore protection actions to prohibit new shoreline armoring including educating homeowners on ecological services and risks; strengthening the permit requirements for single-family residences; improving enforcement (capacity and consistency); and improving regulatory consistency and alignment.

Strategy Features

Protection (nearshore)

Improves multiple Vital Signs/
components

Covers some Sno-Stilly LIO members'
NTAs from 2016

2. Develop and implement nearshore restoration to reduce shoreline armoring including mapping high priority opportunities; educating homeowners on ecological services and erosion risks; developing and implementing softshore protection techniques; and, where possible, removing, relocating, or redesigning infrastructure (bridges, roads, and utilities) that requires shoreline hardening.

Strategy Features

Restoration (nearshore)

Improves multiple Vital Signs/
components

Includes actions ranked lower for
feasibility but higher for impact to
highlight needed regional assistance

3. Develop and implement freshwater and estuarine protection to prohibit new armoring and levees including updating regulations to incorporate salmon recovery; improving regulatory consistency and alignment; educating homeowners on ecological services and risks; and providing outreach around the benefit of floodplain ecosystems.

Strategy Features

Protection (freshwater and estuarine)

Improves multiple Vital Signs/
components

Reduces multiple related pressures

4. Develop and implement freshwater and estuarine restoration to reduce armoring and levees including mapping restoration opportunities; educating homeowners on ecological services and risks; providing agricultural incentives in the riparian zone; and, where possible, removing, relocating, or redesigning infrastructure (bridges, roads, and utilities) that requires shoreline hardening.

Strategy Features

Restoration (freshwater and estuarine)

Improves multiple Vital Signs/ components

Reduces multiple related pressures

Covers large number of Sno-Stilly LIO members' NTAs from 2016

5. Develop integrated planning for multi-benefits across land uses (agriculture, flood risk, and habitat), to include future projections (e.g., climate change and growth) and resiliency planning.

Strategy Features

Integrated planning for multi-benefits

Improves multiple Vital Signs/ components

Reduces multiple related pressures

Covers multiple Sno-Stilly LIO members' NTAs from 2016

6. Develop an integrated funding strategy for large capital levee projects.

Strategy Features

Integrated funding strategy

7. Develop and implement an outreach campaign to change behaviors of residential and commercial/ industrial property owners to improve stormwater management and reduce non-point source pollution.

Strategy Features

Combined outreach campaign

Improves multiple Vital Signs/ components

Reduces multiple related pressures

Covers multiple Sno-Stilly LIO members' NTAs from 2016

8. Retrofit legacy stormwater systems for better treatment and infiltration.

Strategy Features

Stormwater retrofit

Improves multiple Vital Signs/
components

Reduces multiple related pressures

9. Research non-point source contaminants and sources and provide corrective measures.

Strategy Features

Source assessment/PIC program

Improves multiple Vital Signs/
components

Covers some Sno-Stilly LIO members'
NTAs from 2016

10. Provide outreach, technological assistance, incentives, and enforcement for improved on-site sewage system management.

Strategy Features

OSS program

Improves multiple Vital Signs/
components

Covers some Sno-Stilly LIO members'
NTAs from 2016

11. Develop and implement a land cover protection strategy to reduce conversion from development, including a funding, outreach, and assistance package; changes to zoning and designations in the Comprehensive Plan; improved and realigned regulations and associated enforcement capacity, funding, and training; and an outreach campaign to increase demand for dense communities.

Strategy Features

Conversion reduction

Improves multiple Vital Signs/
components

Reduces multiple related pressures

Includes actions ranked lower for
feasibility but higher for impact to
highlight needed regional assistance
