

## Priority Pressures

### *Process Summary*

In 2015, Snohomish-Stillaguamish Local Integrating Organization (Sno-Stillly LIO) Committee members identified high and very high priority pressures that interact with the six very high priority Vital Signs (Chinook salmon, estuaries, floodplains, freshwater quality, land cover and development, and summer stream flows) in the Snohomish and Stillaguamish watersheds. The LIO initially used Scott Redman's regional pressure assessment, and refined it with input from Implementation Committee (IC) members.

Last month, IC members were asked to review the regional pressure taxonomy with their organizations and provide feedback on:

1. Pressure stressors (symptoms of degradation) and their sources (human activities) that were preliminarily identified in 2015
2. Draft pressure stressors and sources based on Scott Redman's regional pressure assessment for the additional Vital Signs/components that were identified as high priority in 2016

The regional pressure assessment was evaluated to determine where local changes should be made, or where it makes sense to adopt the regional assessments. Comments from IC members were presented at the June 16 LIO IC meeting for discussion and comment/response resolution, resulting in a consensus decision to present the attached matrix to the LIO Executive Committee for review and a decision on June 30.

### *Clarification of Prioritization Decisions*

The IC members emphasized that problem statements and ongoing conceptual modeling can be used to further refine the relationships between pressures and Vital Signs/components. The pressure/component interaction matrix was also checked against the LIO's 2016 Near-term Action proposals to ensure local priorities are represented by the interactions.

Where possible, the IC would like to focus the Ecosystem Recovery Plan on cross-cutting opportunities, particularly on pressures that impact multiple Vital Signs/components for maximum impact.

### Snohomish-Stillaguamish LIO Priority Pressures

"Very High" and "High" Pressures		Interaction of Pressures With Highly Ranked Components and Vital Signs									
Stressors (Symptoms of Degradation)	Sources (Human Activities)	2016 Additional High Priority Vital Signs/Components (pressures based on Scott Redman's regional pressure assessment with IC input)				2015 High Priority Vital Signs (pressures based on Scott Redman's regional pressure assessment with IC input)					
		Shoreline Armoring	Marine Water Quality	Shellfish Beds	Toxics in Fish	Estuaries	Chinook Salmon	Land Development & Land Cover	Floodplains	Summer Stream Flows	Freshwater Quality
<b>A1. Conversion of land cover for residential, commercial, and industrial use</b>	<b>Development:</b> Housing and Urban Areas, Commercial and Industrial Areas, Tourism and Recreation Areas	VH	H	VH	H	H	H	VH	VH	VH	
<b>A2. Conversion of land cover for natural resource production</b>	<b>*Agriculture and Aquaculture:</b> Annual and Perennial Non-Timber Crops, Wood and Pulp Plantations, Livestock Farming and Ranching			H		VH	VH	VH	VH	VH	
<b>A3. Conversion of land cover for transportation and utilities</b>	<b>**Transportation and Service Corridors:</b> Roads and Railroads, Utility and Service Lines, Shipping Lanes and Dredged Waterways	H	H	H	H	H	H	H	H	H	
<b>C. Shoreline hardening</b>	<b>Natural System Modification:</b> Freshwater Levees, Floodgates and Tidegates; Marine Levees, Floodgates and Tidegates; Freshwater Shoreline Infrastructure; Marine Shoreline Infrastructure	VH		VH		VH	VH		VH	H	
<b>I. Derelict fishing gear</b>	<b>Biological Resource Use:</b> Fishing and Harvesting Aquatic Resources					H	H				
<b>M2. Other (not in-channel) structural barriers to water, sediment, debris flows</b>	<b>Natural System Modification:</b> Freshwater Levees, Floodgates and Tidegates; Marine Levees, Floodgates and Tidegates; Freshwater Shoreline Infrastructure; Marine Shoreline Infrastructure	VH		VH		VH	VH	VH	VH	VH	VH
<b>N. Animal harvest</b>	<b>Biological Resource Use:</b> Hunting and Collecting Terrestrial Animals, Fishing and Harvesting Aquatic Resources			H			H				
<b>R2. Displacement by non-native species</b>	<b>Biological Resource Use:</b> Hunting and Collecting Terrestrial Animals, Fishing and Harvesting Aquatic Resources			H			H				
<b>S1. Spread of disease and parasites to native species</b>	<b>Pollution:</b> Domestic & Municipal Wastewater to Sewer, Domestic & Municipal Wastewater to Onsite Sewage Systems, Runoff from Residential and Commercial Lands, Agricultural & Forestry Effluents, Garbage and Solid Waste		H	VH	VH		H				
<b>T1. Air pollution from mobile sources</b>	<b>**Transportation and Service Corridors:</b> Roads and Railroads, Shipping Lanes and Dredged Waterways		H		H						
<b>T2. Air pollution from stationary sources</b>			H		H						
<b>U1. Point source, persistent toxic chemicals in aquatic systems</b>	<b>Pollution:</b> Domestic and Municipal Wastewater to Sewer, Industrial Wastewater		H	H	VH	H	H		H		H
<b>U2. Non-point source, persistent toxic chemicals in aquatic systems</b>	<b>Pollution:</b> Domestic and Commercial Wastewater to Onsite Sewage Systems, Runoff from residential and commercial lands, Industrial Runoff, Agriculture and Forestry Effluents, Garbage and Solid Waste, Air-borne Pollutants		VH	VH	VH	VH	VH		VH		VH
<b>V1. Point-source, non-persistent toxic chemicals in aquatic systems</b>	<b>Pollution:</b> Domestic and Municipal Wastewater to Sewer, Industrial Wastewater		VH		VH						
<b>V2. Non-point source, non-persistent toxic chemicals in aquatic systems</b>	<b>Pollution:</b> Domestic and Commercial Wastewater to Onsite Sewage Systems, Runoff from residential and commercial lands		VH	VH	VH	VH	VH		VH		VH
<b>W. Large spills</b>	<b>Pollution:</b> Oil Spills		VH	VH	VH	VH		VH			VH
<b>X1. Point-source conventional water pollutants</b>	<b>Pollution:</b> Domestic and Municipal Wastewater to Sewer, Industrial Wastewater		H	VH	H						
<b>X2. Non-point source conventional water pollutants</b>	<b>Pollution:</b> Domestic and Commercial Wastewater to Onsite Sewage Systems, Runoff from residential and commercial lands, Industrial Runoff, Agriculture and Forestry Effluents, Garbage and Solid Waste, Air-borne Pollutants		VH	VH	VH	VH	H		VH		VH
<b>Y. Harmful algal blooms</b>			H	H	H						
<b>BB. Sea level rise</b>	<b>Pollution:</b> Air-Borne Pollutants	VH	H	H	H	H			H		
<b>CC. Changing ocean condition</b>	<b>Pollution:</b> Air-Borne Pollutants		H	H	H	H	H				

\*left off finfish and shellfish aquaculture  
 \*\*left off flight paths

VH Very High  
H High