Strait LIO: Drift Cell and Shoreline Conservation and Restoration Results Chain

A

CHINOOK IMPLEMENTATION STRATEGY: Improve regional support for habitat protection

2018-0748 North Sequim Bay Drift Cell Conservation

2018-0325 Dungeness Feeder Bluff Conservation

Help Me: Incentives (Technical and Economic)

Make Me: Regulatory and Enforcement

Drift Cell and Shoreline Conservation and Restoration

CONSERVATION MEASURES TO PRESERVE HABITAT-FORMING PROCESSES

Low bank shoreline dynamics measured and characterized

Landowners engaged and feel invested in process

Bluff erosion rates and/or key processes estimated and projected

Parcels prioritized

Conservation strategies developed in partnership with landowners

2018-0545 Twin Rivers Acquisition

Conservation strategies implemented including purchase of properties & conservation easements

SHORELINE ARMORING IMPLEMENTATION STRATEGY: Design approaches for soft shore replacement.

Implement high priority assessment, protection and restoration projects along the Strait of Juan de Fuca

RESTORATION MEASURES TO IMPROVE HABITAT FORMING PROCESSES

Parcels prioritized

Landowners of key barriers to proper drift cell function are identified and engaged

2018-0168 Priority Landowner Outreach and Pilot Project Implementation for Multiple Benefits on the Dungeness River Delta

Landowners are willing to participate in corrective actions to improve drift cell function

Landowners committed or property acquired for restoration

Stakeholder meetings held & preferred alternative selected

2018-0512 Jefferson County Parks Shoreline Armor Removal

2018-0170 Point Wilson Shoreline Restoration Planning and

Tsunami and coastal flooding shoreline protection in urban areas is considered

INTERMEDIATE RESULTS

Community/political support for restoration increased

Permission for restoration secured

Funding for restoration secured

Most appropriate "tools in the toolbox" are used to conserve and/or restore the specific shoreline in question

2018-0638 Discovery Bay Shoreline Armor Removal

Project design completed & permitting complete

IMPLEMENT RESTORATION

Re-connected, re-routed streams

Fill removed

Beach armoring removed

Creosote pilings removed

Fish barriers removed

Existing development removed from harms way along shorelines

Process restored or mimicked (i.e. nourishment)

Legacy infrastructure removed (PA Harbor, landfill)

Derelict infrastructure removed

Next restoration priority re-evaluated & lessons learned are determined and applied

Protected and/or improved drift cell function along marine shorelines

Roads and Railroad grades have less effect

Sequenced Source effects are reduced

Commerical and industrial areas (including Ports) effects are minimized

Barriers

Funding

Lack of reliable and sufficient funding for local actions that contribute to regional recovery

Capacity

Limited staff capacity to implement actions

Limited Lead Entity, MRC, and Strait ERN LIO coordination capacity

Data Gaps

Assessments

Parcel by parcel analyses completed

Outdated Limiting Factors Analyses

SHORELINE ARMORING IMPLEMENTATION STRATEGY: Long term strategic planning

Reduced Stressor Effects

Shoreline hardening

2016-1236 Beach Lake Acquisition and Restoration

15-1051 R Sequim Bay Shoreline Restoration Dawley Phase

Conversion of land cover for residential, commercial, and industrial use

13-1068 R Ediz Hook Beach Restoration: Phase 3

Shading of shallow water habitat

Culverts and other fish passage barriers

Species disturbance - marine

Other structural barriers to water, sediment, debris flows

Strait Tier A Ecosystem Components

Drift Cells

Salmonids

Vegetated Land Cover

Estuaries and Embayment's

Puget Sound Vital Signs

Shoreline Armoring VS — 18 Goals

Chinook VS — 12 Goals

14 Goals

Estuaries VS — 2 Goals

Strait Tier A HWB Component

Shellfish and Finfish Harvest

Shellfish Beds VS — 4 Goals

Chinook VS (applies here also)

Strait Tier B HWB Components

Good Governance

Sense of Place and Sound

Good Governance VS

Sense of Place VS

Sound Stewardship VS

Note: See the results chain for the "Enhance Ongoing Implementation of Local Shoreline, Land Use, and Riparian Management Protection, Restoration and Incentive Programs and Plans" Local Strategy for regulatory protection measures.

Note: Economic vitality (job creation and preservation) needs to be factored into the Vital Signs for human wellbeing.

Note: Protection of property and human life from tsunami and coastal flooding events needs to be factored into the Vital Signs for human wellbeing.

Note: Tier B Components and Vital Signs are included here to simply illustrate the cascading benefits to Components in lower tiers (i.e., Tier B, C, and D).

Other Results Chains working in concert with this Local Strategy to achieve results

- H - Enhance Ongoing Implementation of Local Shoreline and Land Use Management, Protectionn, and Incentive Programs and Plans
- I - Implement Climate Change Adaption and Mitigation Strategies for the North Olympic Peninsula
- J - Implement Local Stormwater Management and Pollutant Source Control Programs using a Watershed Management Approach
- M - Enhance Local Communication, Education, Behavior Change and Public Involvement Programs
- L - Enhance Support for Oil Spill Prevention, Preparedness, and Response
- D - Improve Local Riparian Corridor Management and Instream Habitat
- B - Estuary Conservation and Restoration (Rivers, Streams, Pocket Estuaries)

CHINOOK IMPLEMENTATION STRATEGY: Improve Regional Technical Support

CHINOOK IMPLEMENTATION STRATEGY: Integrate Salmon Recovery and Resource Industry

CHINOOK IMPLEMENTATION STRATEGY: Regional H Integration