Large-Scale Shoreline Restoration along the Railroad Corridor of Puget Sound: An Example in Snohomish County Forged by Creating Partnerships

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LARGE-SCALE SHORELINE RESTORATION ALONG THE RAILROAD CORRIDOR OF PUGET SOUND: AN EXAMPLE IN SNOHOMISH COUNTY FORGED BY CREATING PARTNERSHIPS

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Key Team Members

- Dave Lucas, PE, Snohomish County
- Kathy Ketteridge, PE, Anchor QEA
- Paul Schlenger, Confluence Environmental and Snohomish MRC
- Robert Hillmann, City of Everett and Snohomish MRC
Presentation Overview

• Brief Introduction to Restoration Elements
• Description of Existing Conditions
• Project Steps
• Details on Proposed Project
Restoration Project Elements

- Restoration will focus on 4 sites in the 4.5 mile stretch between Mukilteo and Everett
- Beach nourishment at 3 sites
- Howarth Park- armor removal & fill as part of more intensive beach restoration at a park site
Restoration Goals

• Improve habitat for juvenile Chinook salmon & forage fish
• Support salmon recovery efforts
• Expand usable beach area at Howarth Park
• Support the marine food web needed by orcas, seals, birds and others
Snohomish and Lake Washington Watersheds

Snohomish County Nearshore Restoration Project- WRIA 7- Snohomish Watershed

Snohomish & King County Partnership to plan beach nourishment - WRIA 8
Project Area
4.5 miles between Mukilteo and Everett.
Existing Conditions at Howarth Park
Existing Conditions in Project Area
What's Changed?

Modified from Thom et al. (1994)
Overview of Project Steps

- **Site Assessment**
- **Identify Opportunities** (sites and treatments)
- **Stakeholder Input** – Initiating Partnerships
- **Select Preferred Alternative and Prepare Design**
- **Continue to Pursue Partnerships and Funding**
Stakeholder Process

• An inclusive stakeholder process was undertaken

• Multi-jurisdictional project area
  – Including work within BNSF right-of-way

• Many people working on these topics and in general geographic area; wanted project to benefit from broad base of input and support
Stakeholder Process

• 3 meetings convened

  1. Site Assessment, Criteria Development, ID opportunities and constraints
  2. Results of opportunities and constraints analysis
  3. Input on recommended restoration treatments and sites
Key Partnerships

• State and Local Agencies- City of Everett, King County, DOE

• BNSF
  – Established productive and promising dialogue
  – Approval to work with right-of-way

• US Fish and Wildlife Service
  – Puget Sound Coastal Program

• University of Washington
  – Megan Dethier, Armoring Removal Study
Key Partnerships

• USACE

  – Beneficial re-use of dredge material has long been identified as a potential resource in nearshore restoration that has not fully been realized

  – Working toward agreement with USACE to use dredged lower river sediment for future maintenance actions

  – Material is certified as clean and of suitable size
Restoration at Howarth Park Beach

- Remove rip-rap armoring and debris along beach
- Bury rocks under the sand to protect stairway
- Plant beach vegetation at foot of stairway
Artist’s Rendering of Howarth Park Restoration
Beach Nourishment

- 3 nourishment sites
- Placed material will improve habitat for juvenile salmon and forage fish
- Pre-construction monitoring of forage fish habitat is in progress
Project Funding

Northwest Straits Initiative
US EPA
US Fish and Wildlife Service
Salmon Recovery Funding Board
Puget Sound Acquisition and Restoration Fund
Summary of Project Benefits

- Restoration of Howarth Park Beach
- Provides 85% of the 10-year goal for nearshore restoration in the Snohomish Basin
- Sediment nourishment at key locations
- Partnership with multiple govt. agencies for the benefit of salmon recovery
Thank You & Questions

For more information visit
www.snocomrc.org
Project Partners

Snohomish County
Snohomish Marine Resources Committee (MRC)
City of Everett
Port of Everett
WA Department of Ecology
WA Department of Natural Resources
Salmon Recovery Funding Board
US Fish & Wildlife
US EPA
Tulalip Tribes
City of Mukilteo
Burlington Northern Santa Fe
Anchor QEA
US Army Corps of Engineers