Habitat Enhancement Program

Linking Navigation Dredging to Ecosystem Restoration

CEER 2014

Michael Cho, M&N
Agenda

1. Port Metro Vancouver and the Habitat Enhancement Program (HEP)

2. The Fraser River

3. Linking Navigation Dredging to Habitat Enhancement
1. PORT METRO VANCOUVER

- Non shareholder, financially self-sufficient corporation established by the Government of Canada
- Accountable to federal Minister of Transportation
- Offices in Vancouver and Beijing
• Canada’s largest Gateway to the Asia-Pacific Region
• Connects Canadians with trading partners in more than 160 economies
• Handles more than $505 million of cargo daily on average

STRATEGICALLY POSITIONED

Source: National Geographic
PMV focuses on long-term economic, social and environmental performance so that future generations will enjoy the benefits of trade, improved quality of life, and a healthy and vibrant ecosystem.
STEWARDSHIP OF LAND & WATER

• Co-ordinated project environmental review
• Marine mammal monitoring and stewardship
• Habitat creation and enhancement
PORT METRO VANCOUVER'S HABITAT ENHANCEMENT PROGRAM

- Creating and improving fish & wildlife habitat in advance of port development projects
- Used to off-set the impacts of port development projects on existing habitat
HABITAT ENHANCEMENT PROGRAM
PROPOSED/ACTIVE PROJECTS

- Musqueam Foreshore Tidal Marsh Project
- Point Grey Tidal Marsh Project
- South Arm Jetty Tidal Marsh Project
- McDonald Tidal Marsh Project
- Glenrose Reach Tidal Marsh Project
- Steveston Island Tidal Marsh Project
- Westham Island/Canoe Pass Tidal Marsh Project
- Salt Marsh Restoration Projects
2. The Fraser River
• Total river sediment discharge ~12 Million m³/yr
• Navigation dredging ~2.5 Million m³ /yr
• Ocean disposal ~1 Million m³ /yr
• River channelization and dredging occur for navigation and flood control

• Sediment is directed away from Sturgeon Bank
• Sturgeon Bank is considered to be in ‘sediment deficit’
• ‘Sand Island’ was created in 1980
3. Linking Navigation Dredging to Habitat Enhancement
COASTAL ENGINEERING ANALYSIS

- Marsh with design wave conditions: 50-year wave, NW Direction, and 2.4m GD (HHWLT)
SOUTH ARM JETTY TIDAL MARSH PROJECT
CURRENT STATE – LOW WATER

Fraser River

Sturgeon Bank
SOUTH ARM JETTY TIDAL MARSH PROJECT
PROPOSED CONCEPT – LOW WATER
• The proposed South Arm Jetty Tidal Marsh Project allows for the beneficial reuse of over 300,000 m³ of dredgeate from the Fraser River

• 40+ hectares of new fish rearing marsh is proposed to be created as a result of this project
Questions/Discussion