#### Portland Harbor Cleanup and Restoration Overview

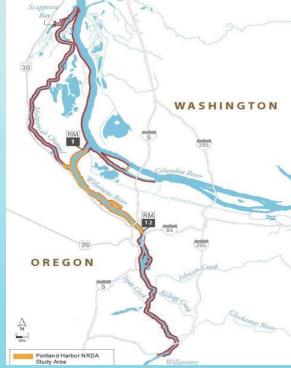
- The EPA and Oregon Department of Environmental Quality oversee the cleanup efforts of the Portland Harbor.
- The Portland Harbor Trustee Council oversees the restoration of the Natural Resource Damages.
- The Trustee Council consists of:
  - 5 Tribes
    - ➢ Grand Ronde
    - ➢ Nez Perce
    - ➤ Siletz
    - ➤ Umatilla
    - ➤ Warm Springs
  - NOAA
  - Oregon Department of Fish and Wildlife
  - US Department of the Interior

#### Portland Harbor Natural Resource Damage Assessment Overview

- Since the Trustee Council was formed in 2002, they have been actively studying and researching potentially injured natural resources within the Portland Harbor.
- During their research, they identified the following list of potentially injured natural resources.
- Fish
  - Salmon
  - Lamprey
  - Sturgeon
- Birds
  - Bald Eagle
  - Osprey
- Mammals
  - Minks
- Water
- Sediments
- Soils
- Invertebrates

#### **Restoration Planning**

- The Trustee Council has been planning and coordinating restoration efforts since 2007
- Their geographic priories are:
  - 1<sup>st</sup> Priority:
    Superfund Study Area
  - 2<sup>nd</sup> Priority:
    Broader Focus Area



### **Current Efforts Underway**

- There are currently 3 approved restoration projects within the Priority One (Superfund) site.
  - Alder Creek
  - Linnton Mill
  - PGE Harbortown Wetlands
- There is currently one approved restoration project within the Priority Two (Broader Focus) area.
  - Rinearson

### **Rinearson Natural Area Project** A Public-Private Portland Harbor NRD Restoration Project

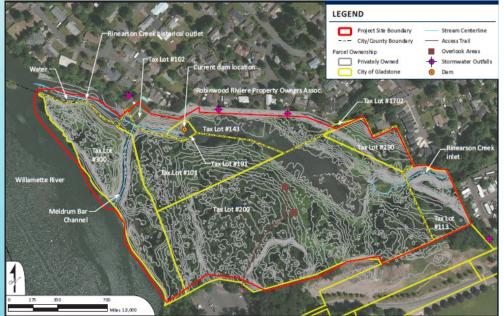
Partner	Role
Columbia Restoration Group	Project Owner / Developer
The City of Gladstone	Landowner
Robinwood Riviere Property Owners	Landowner
Association	
Private Homeowner	Landowner
Waterways Consulting, Inc.	Project Designer/Monitoring
The Wetlands Group	Environmental Consultant and
	Construction Contractor

## **Project Location**



Area Map

#### Site Map



# **Target Species**















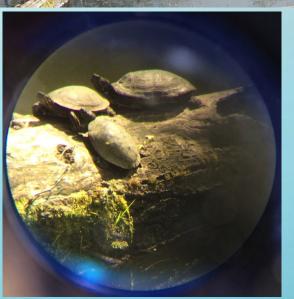
# **Non-Target Species**











## **Pre-Construction Habitat**



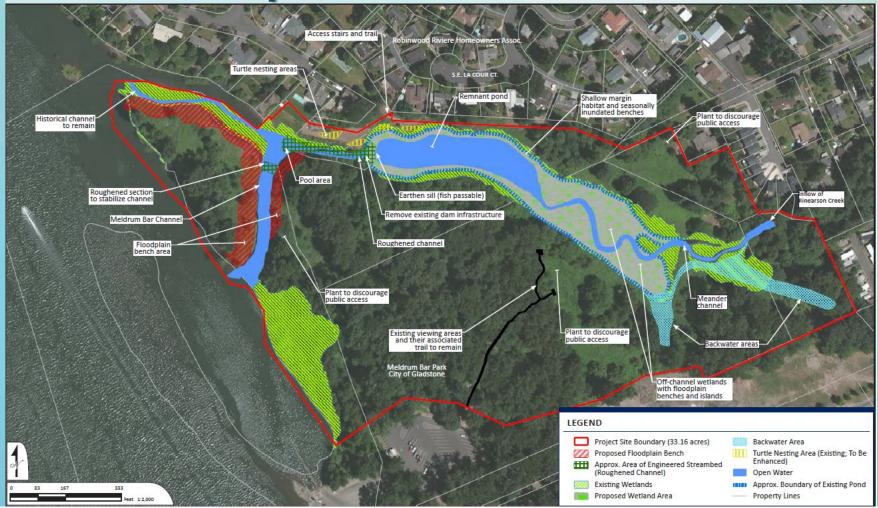
Project Site Boundary - 33.16 acres

- Current Conditions
  - ACM: Slope <11%; Native Vegetation 0.02 acres
  - ACM: Slope <11%; Vegetated Invasive 2.70 acres
  - ACM: Slope <11%; Vegetated Invasive Disconnected 1.35 acres
  - ACM: Slope <11%; With Invasive Understory 2.20 acres
  - ACM: Slope >11%; Vegetated Invasive 1.40 acres
  - Embayment/Cove with Tributary; Disconnected 3.38 acres
  - Recreation Footpath 0.11 acres

- Kiparian; Historic Floodplain; Invasive 4.93 acres
- Riparian; Historic Floodplain; Invasive Understory 10.22 acres
- Riparian; Outside Floodplain; Invasive 0.24 acres
- Riparian; Outside Floodplain; Invasive Understory 0.54 acres
- Side-Channel; Degraded 0.58 acres
- Upland; Historic Floodplain; Invasive Understory 5.12 acres
- Upland, Outside Floodplain; Invasive 0.002 acres
- Upland, Outside Floodplain; Invasive Understory 0.15 acres



## **Completed Restoration**



# Summary of Goals

- Goal 1 Restore typical floodplain structure
  - Grade the Project site to typical floodplain topographic conditions; modify existing dam; establish floodplain benches; restore Rinearson Creek channel
  - Install and retain woody structures, rock and debris habitat piles.
  - Provide fish passage
- Goal 2 Restore native vegetation communities
  - Control invasive vegetation throughout the project site
  - Establish native-dominated vegetation in the PEM, PSS, PFO and upland areas
- Goal 3 Restore typical hydrologic conditions
  - Restore floodplain interaction between Willamette River and areas upstream of the remnant dam
  - Increase area inundated by regularly recurring flood events in the Willamette River
- Goal 4 Improve water quality over existing conditions by improving water temperature, dissolved oxygen, and conductivity in aquatic habitats
- Goal 5- Increase use by fish and wildlife species by improving access and improving habitat quality

### Thank you for this opportunity! **Evan Ocheltree** Columbia Restoration Group Evan@ColumbiaRestorationGroup.com (804) 330-8092 Gary Howard Columbia Restoration Group Gary@ColumbiaRestorationGroup.com (208) 573-4866

## Rinearson Project Photos

### Pre-Restoration Photos – A Reminder of What Once Was



### Pre-Restoration Photos – A Reminder of What Once Was (Cont'd)



### Post Restoration – What is and What Shall Be: The Channel





### Post Restoration – What is and What Shall Be: The Pond (and Beaver Activity)



### Post Restoration – What is and What Shall Be: Moving Up Creek



### Post Restoration – What is and What Shall Be: Moving Up Creek





### Post Restoration – What is and What Shall Be: Looking Back at the Pond



### Post Restoration – What is and What Shall Be: Rinearson Creek Outlet



### Post Restoration – What is and What Shall Be: Rinearson Creek Outlet



### Post Restoration – What is and What Shall Be: Habitat Structures





### What it is now

