

US Army Corps of Engineers

Portland District

Bradford Island CERCLA* Site

Project Update September 2007

> Mark Dasso Project Manager

* Comprehensive Environmental Response, Compensation and Liability Act



US Army Corps

of Engineers

PROJECT GOALS Reduce or Eliminate Potential Risks

Near term

- Remove the worst PCB-impacted sediments from the river
- Long term
 - Identify sources of contamination
 - Investigate nature and extent of contamination
 - Complete human health and environmental risk assessments
 - Recommend clean-up remedies
 - Implement clean-up remedies



STAKEHOLDER INVOLVEMENT

 Technical Advisory Group (TAG) OR Department of Environmental Quality US Fish & Wildlife Service **National Marine Fisheries Service** Corps of Engineers (Seattle, Portland) Tribal (Umatilla, Yakama, Nez Perce, Grand Rhonde, Warm Springs and Cowlitz) **Bonneville Power Administration Columbia River Inter-Tribal Fish Commission**



STAKEHOLDER INVOLVEMENT

- Community Involvement Committee (CIC); Volunteer Members
 - City of Cascade Locks
 - City of North Bonneville
 - Skamania County
 - Columbia Riverkeeper
 - Lower Columbia River Estuary Partnership
 - Nez Perce Tribe
 - Columbia River Gorge National Scenic Area





Portland District

HISTORY

BRADFORD ISLAND

Robbins Island

1st Powerhouse

Bradford Island

Cascade Island

Spillway

BRZ

2nd Powerhouse



Bradford Island Project Area







Bradford Island landfill and shoreline area (looking east)



Electrical equipment removed in 2002



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NEXT STEPS

Sediment removal (near term)
Detailed investigation (long term)



SEDIMENT REMOVAL

Sediment removal goals \diamond Removes 94% of the PCB Very effective at risk reduction Compatible with future in-water remedial actions ♦ May achieve adequate protection levels without further action (conservative factors used in design) Can be done using standard methods Least cost (approx 50% less than any other alternative)



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2007 PCB SEDIMENT REMOVAL

Approximate Waterlin

Notes: 1. Base map provided by USACE. 2. Mean pool elevation is approximately

The shallow lagoon has been excluded from the southern removal action area.

Sediment samples have not been

collected from this area. Additional samples may be collected from this are prior to the removal design, and if

warranted, this area may be incomporated into the southern remo-

74 feet MSL

Red shading indicates PCB hot spots targeted for 2007 removal action.

Bradford Island

Estimated volume: 462 cubic yards

COLD Area

Legend

Eastern Hot Go

Arocior 1254 Sediment Sample Locations with Arocior Concentration (µg/kg (Locations with more than 1 Arocior value represent duplicates) Bathymetric Contours

60 (Feet MSL)

------ Debris Pile

----- Hot Spot Area

DRAFT FOR USACE REVIEW

INCOMENDATION CONTRACTOR

BONNEMILIE DAN PORTENY Removal Action Area

CADEL OCK



SEDIMENT REMOVAL

 Diver Assisted Suction of Bottom Sediments Working from clean areas Move cobbles to remove sediments underneath O Return Water Settlement thru 24 tanks, settling basin and filter fabric Sand Filter (removes remaining particulates) Activated Carbon Filter (removes dissolved PCBs) Final Placement (Disposal) Sampled and characterized for transport and disposal Trucked to appropriate facility





DETAILED INVESTIGATION

 2007 – Complete Work Plan (September 2007) 2008 – Complete sampling ♦ Upland sampling ♦ In-water sampling • 2009 – Risk assessment ○ 2009 – Record of decision (ROD) ○ 2010 – Design of clean-up (remedial) actions 2011 – Implement actions