

# Black Sand Beach Slag Removal Project

Upper Columbia River  
Stevens County, WA

Presented by the



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# **Black Sand Beach - Overview**

- **Located approximately 3 miles south of the U.S. Canadian border**
- **Southeastern bank of Upper Columbia River**
- **Approximately 1 acre beach area**
- **Popular site for recreation use**
- **“Black Sand” largely consists of slag material from the Trail smelter**

# Site Location



# Aerial View



# Upstream Beach Area



# Downstream Beach Area



# Rock Outcrop/Middle Beach



# High Water Conditions





# What We Will Share Tonight

- **Why Teck and Ecology are taking action at the Black Sand Beach**
- **What specific activities will take place**
- **How the public may influence this process**
- **The next steps that will occur**

# Removal of Slag at Black Sand Beach is Important

- Slag contains hazardous substances (heavy metals) that can harm the health of the river and aquatic organisms
- Large slag deposit --actively eroding
- State-owned land, readily accessible with heavy recreational use

# Ecology Selected This Beach for Specific Reasons

- **State-led initiative, endorsed by legislature**
- **Remove slag material before further erosion occurs -- protect the river**
- **Provide a cleaner beach for public use**
- **Ongoing EPA study will take many years to complete before reaching cleanup decision**

# Teck's and Ecology's Roles in the Project

- Teck offered to conduct the work and pay for all costs of slag removal and clean fill placement
- A voluntary agreement was reached between Teck and Ecology to conduct what is called an *interim action*
- Ecology oversees Teck's work on the project
- Teck's work on Black Sand Beach is separate from EPA's RI/FS in the Upper Columbia River; it is not a "final" cleanup action

# **Phase 1 – Project Planning and Coordination**

## **Major Phase 1 Elements:**

- **Develop Work Plan**
- **Prepare Engineering Designs**
- **State Environmental Policy Act (SEPA) Checklist**
- **Cultural Resource Planning and Archaeological Survey**
- **Prepare Joint Aquatic Resources Permit Application – submit to Army Corps of Engineers**

# Phase 2 - Doing the Work

- **Teck selects construction contractor**
- **Remove slag-impacted beach sediment and haul by truck to Trail, B.C. for recycling (~5000 cu yd)**
- **Replace and regrade the beach using clean fill material (layered fill design)**
- **Return access road to original condition**

# Protective Measures Will be Used

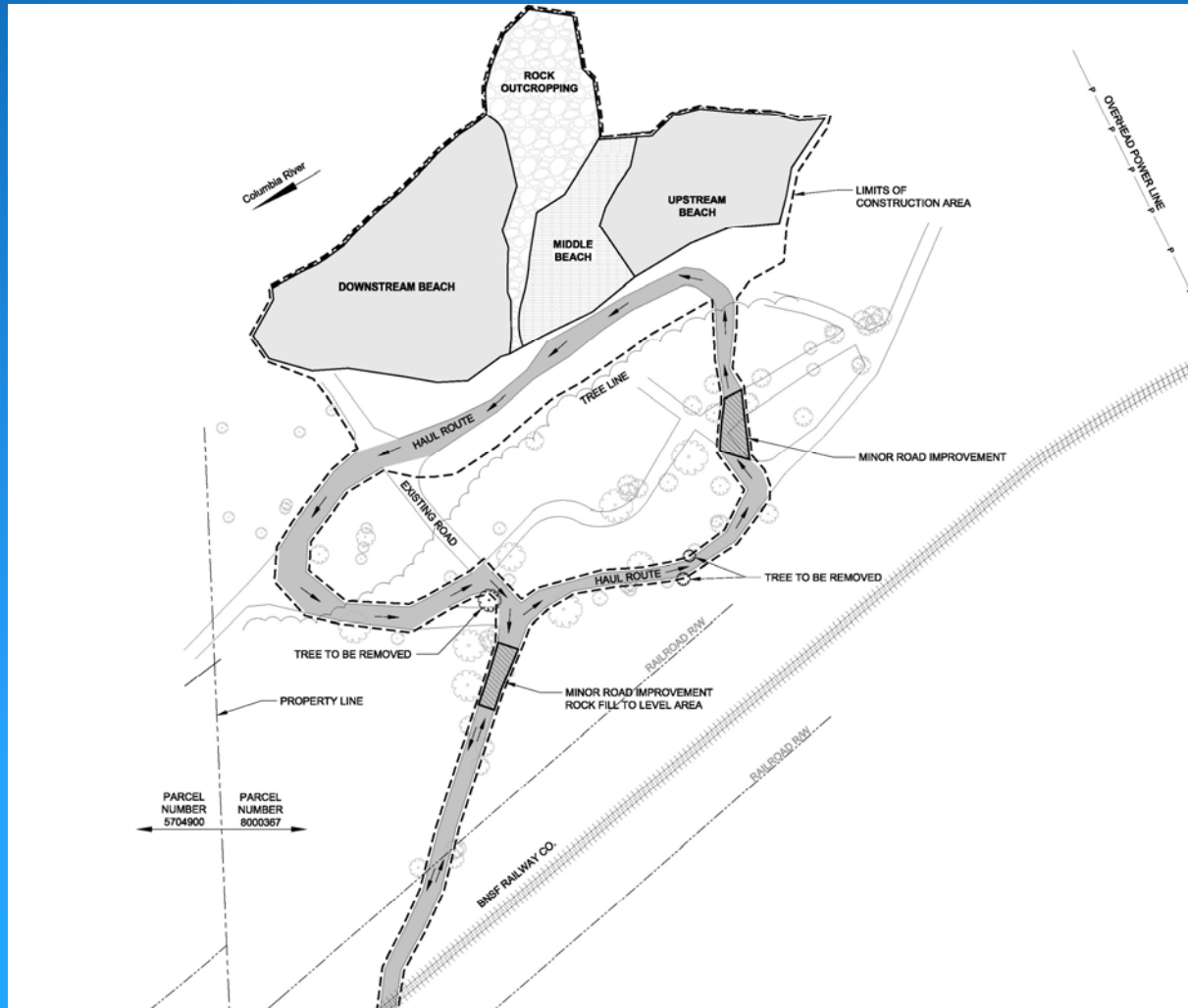
## Best Management Practices

- Erosion and sediment control measures
- Controlling and monitoring dust
- Monitoring turbidity in the river

## Traffic Control Measures

- Safety flaggers where needed

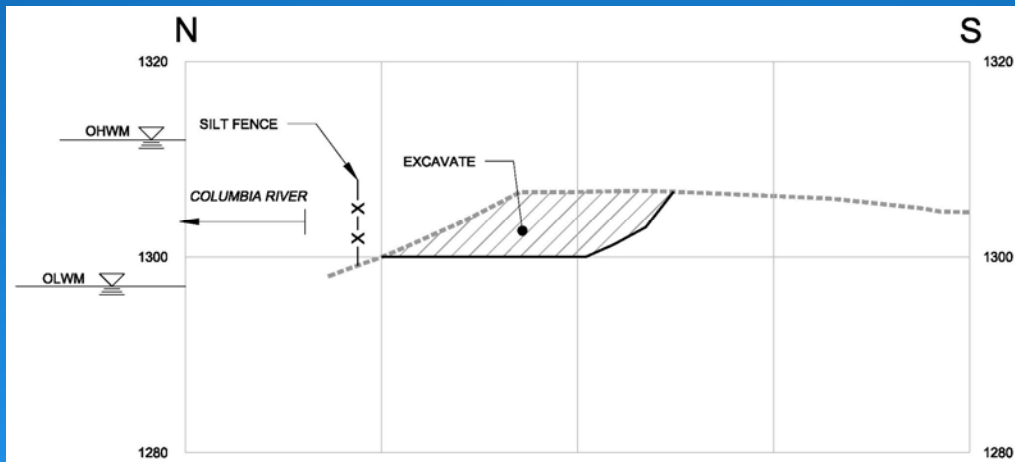
# How Slag Will Be Removed



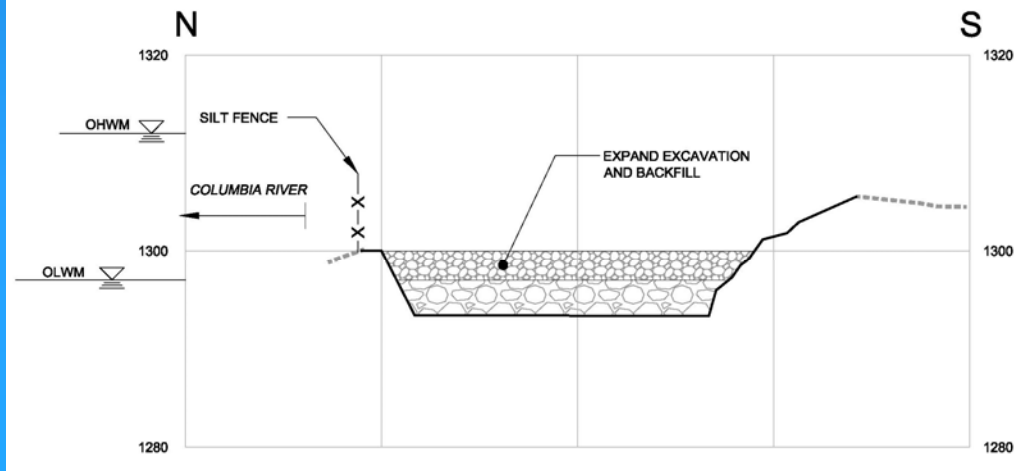


# How the Beach Will Be Replaced

Step 1

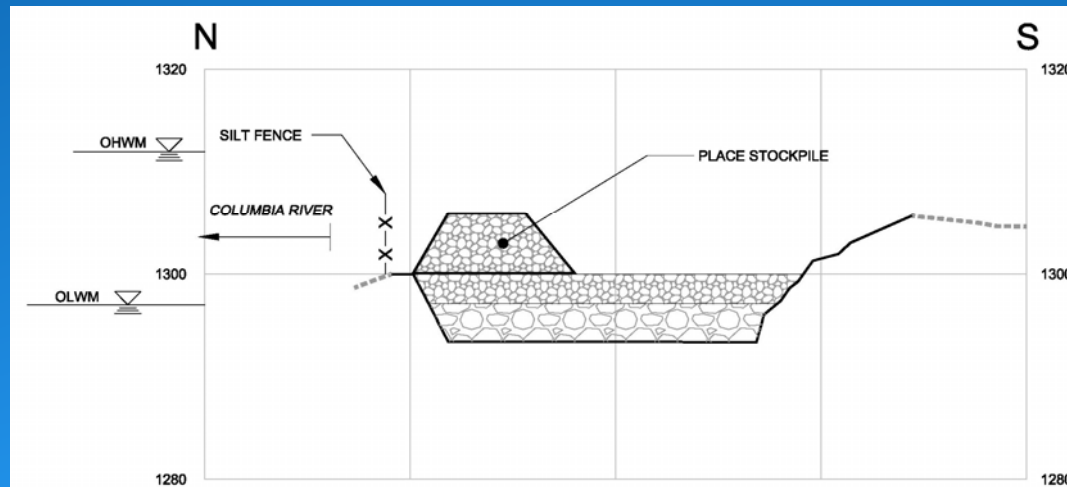


Step 2

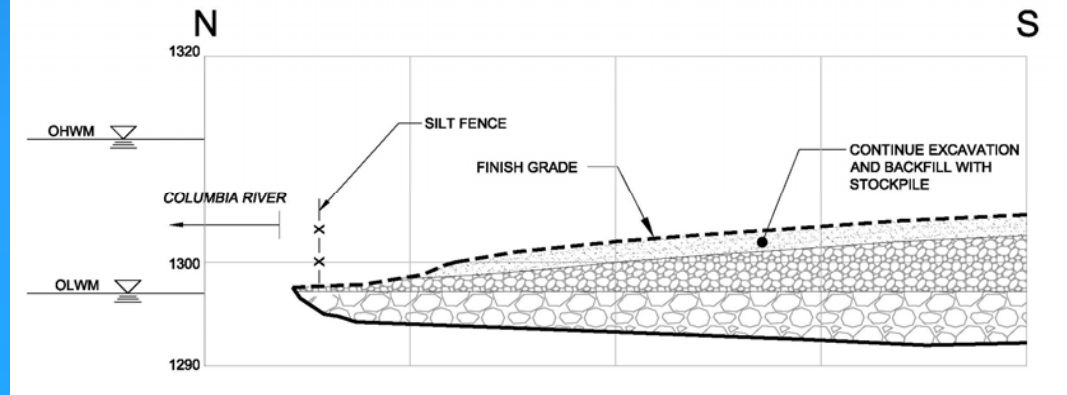


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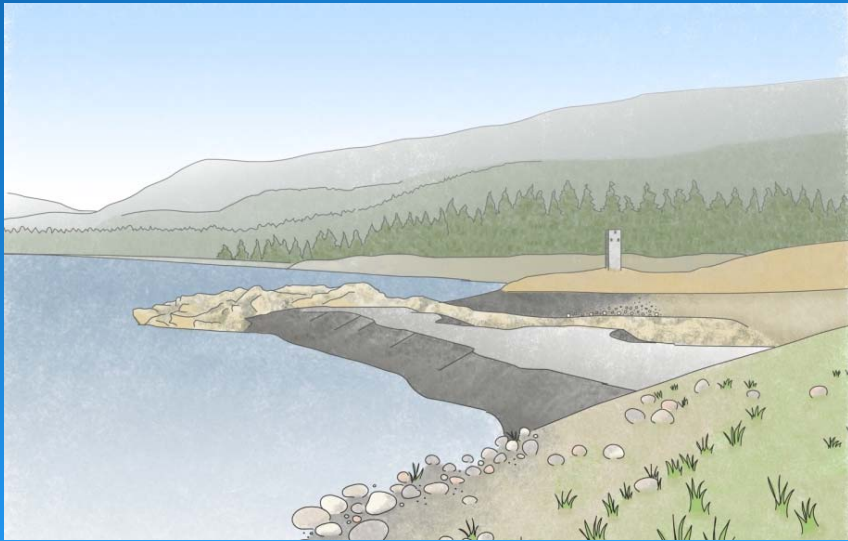
Step 3



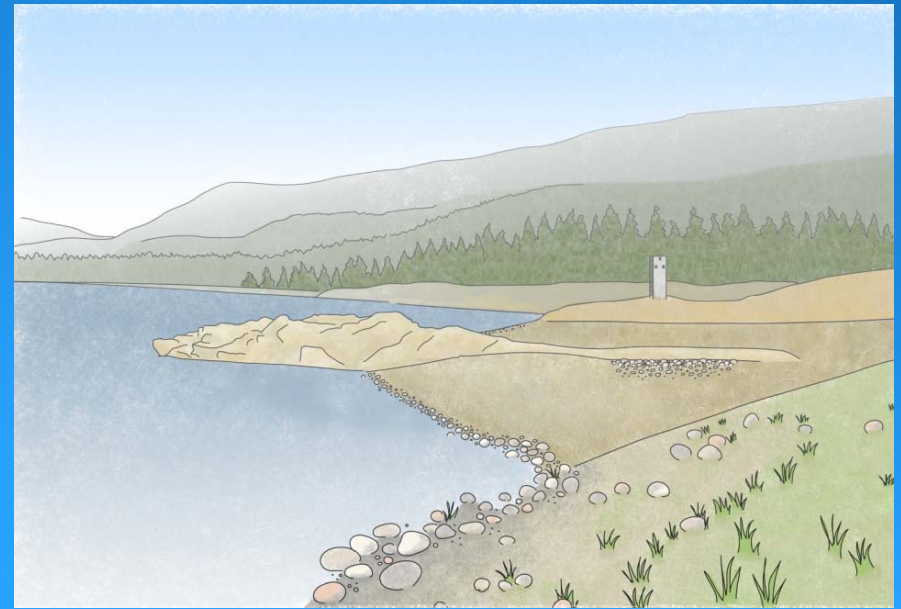
Step 4



# WILL THE BEACH LOOK DIFFERENT?



**Before**



**After**

Artist Depictions – Before and After  
(Courtesy of URS)

# Addressing Erosion or Recontamination

- **Teck will monitor the beach for up to 5 years and document any notable changes**
- **If erosion occurs, assume it to be part of natural, ongoing river processes in the floodplain**
- **Sampling and analysis of beach sediment may occur if recontamination concerns arise**

# What Happens Next?

- **Comment period ends February 5, 2010**
- **Ecology reviews and responds to public comment**
- **Modify design as appropriate (90% design)**
- **Ecology issues final SEPA determination**

# What Happens Next?

- **Joint Aquatic Resource Permit Application review**
  - Army Corps of Engineers
  - Shorelines – Ecology and Stevens County
  - Hydraulic Project Approval – WA Dept Fish & Wildlife
- **Cultural Resources – Department of Archaeology and Historic Preservation and Tribes**

# Who Can I Talk To?

## Handout Available

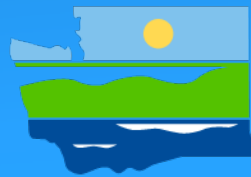
### Department of Ecology

- Chuck Gruenenfelder – Site Manager/questions  
(509) 329-3439 or [chgr461@ecy.wa.gov](mailto:chgr461@ecy.wa.gov)
- Carol Bergin – Public Involvement/mailing list  
(509) 329-3546 or [cabe461@ecy.wa.gov](mailto:cabe461@ecy.wa.gov)

### Teck American Inc.

- Marko Adzic – Project Coordinator/Construction contact  
(509) 892-2585 or [Marko.Adzic@teck.com](mailto:Marko.Adzic@teck.com)
- Dave Godlewski – VP Environmental and Public Affairs  
(509) 892-2584 or [dave.godlewski@teck.com](mailto:dave.godlewski@teck.com)

# Thank You



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