

# The Duwamish

## Cleaning Up and Restoring an Urban Waterway

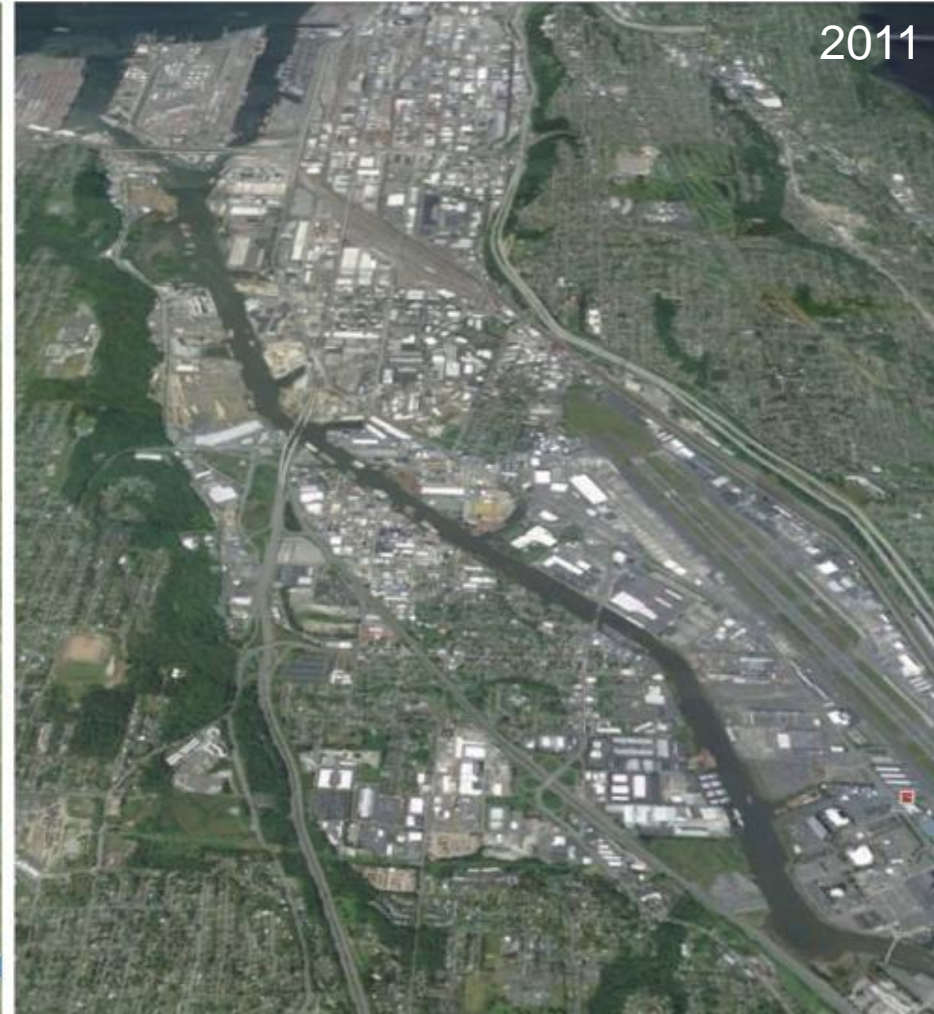


# Lower Duwamish Waterway Cleanup Briefing

- Brief refresh on Lower Duwamish Waterway (LDW) Cleanup
- Update on the current status of clean up activities
- Update on POS commitments and recent cleanup activities
- Motion supporting ongoing and future activities

# History of Lower Duwamish Waterway

Significance to the Region's Economy, Neighborhoods, and Environment



In The Early 1900s, The U.S. Army Corps Of Engineers Straightened 9 Miles Of River Into A 5-mile Industrial Waterway

# Lower Duwamish Today

- Home to 100,000 jobs and 38,000 residents
- Cargo traffic is 7.2 million tons/year, valued at \$7.5 billion
- Home to diverse aquatic and wildlife communities
- Tribal and community interests
- Three primary land uses:
  - 58% – Commercial and industrial
  - 23% – Warehousing
  - 19% – Residential and open space

*Source: Puget Sound Regional Council*



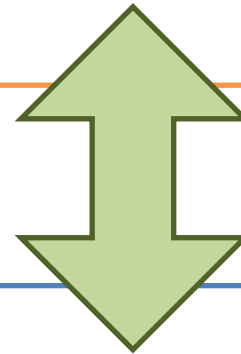
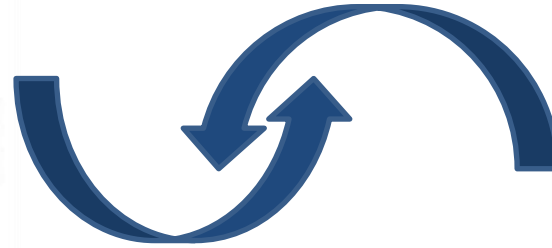
**Economic Engine For King County**

# Lower Duwamish Waterway Superfund Site



EPA Diagram Of The 3 Part Approach To Cleanup

Regulatory Agencies



Lower Duwamish Waterway Group (LDWG)



City of Seattle



King County



**BOEING**

- **Sampling**
- **Studies**
- **Plans**
- **Analyses**

## LDW Roles and Responsibilities

# Record of Decision and Technology Assignments

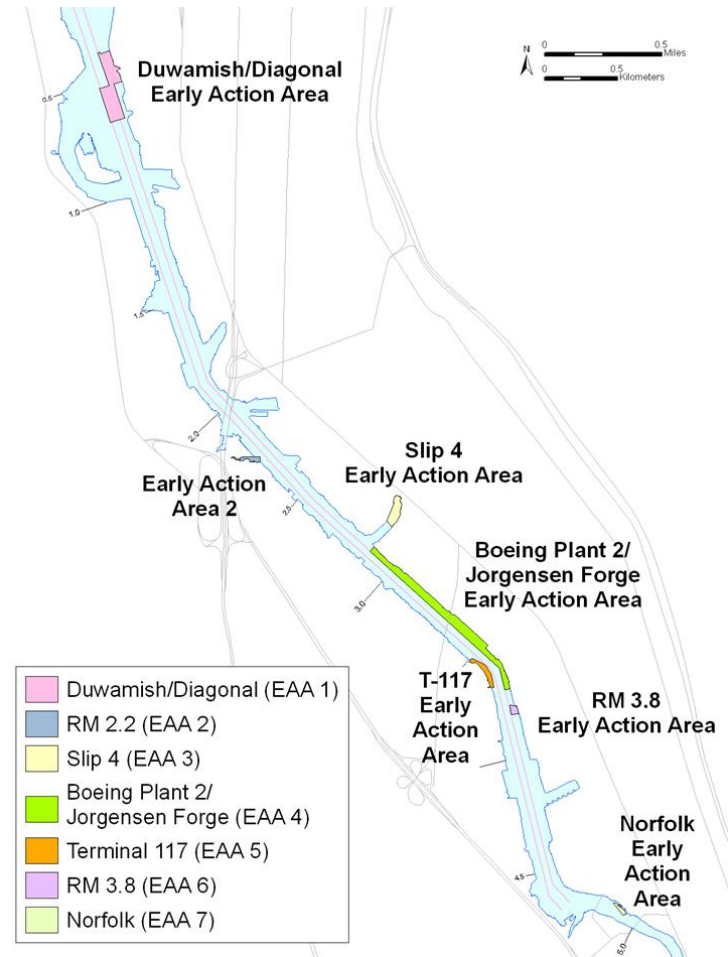
- 177 acres of active cleanup
  - 105 acres Dredged
  - ~960,000 cubic yards removed
- 235 acres Monitored Natural Recovery
- EPA Estimated cost- \$348M



Technology Assignments Complicated and Dynamic

# Lower Duwamish Waterway - Early Action Sites

- Lower Duwamish Working Group (LDWG) developed strategy to target known cleanup areas to expedite cleanup
- Five Early Action sites all completed by LDWG
- Completion of LDWG Early Actions predicted to reduce Polychlorinated biphenyls (PCB) sediment concentrations by ~50%



**Early Actions Reduce PCB Concentration By 50%**

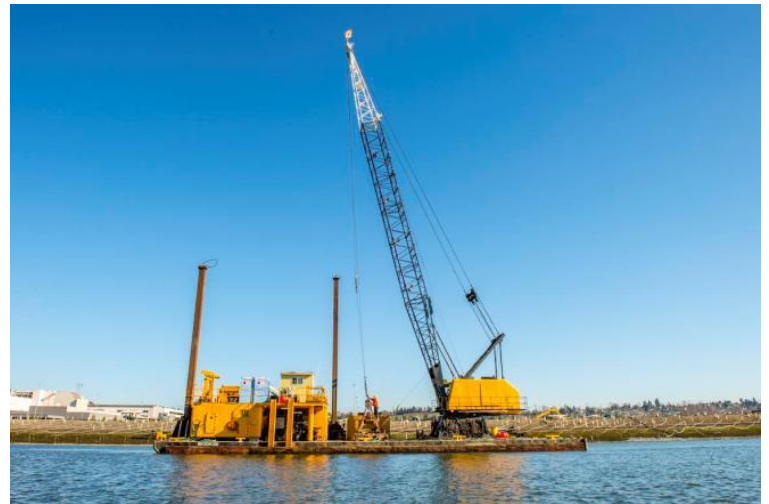


# Status of Early Actions

- \$150M invested in cleanup of 29 acres

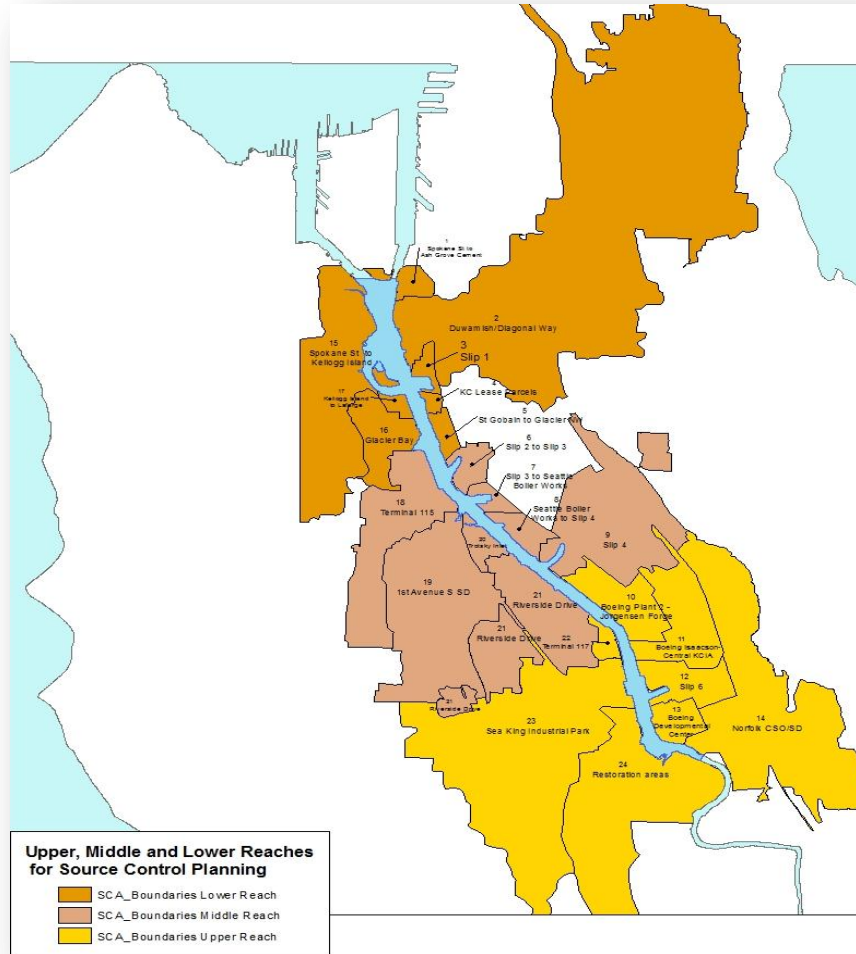
## Completed

- ✓ Duwamish/Diagonal sedimentation remediation (King County)
- ✓ Norfolk CSO sediment remediation (King County)
- ✓ Slip 4 remediation (City of Seattle)
- ✓ **T117 (Port of Seattle/City of Seattle)**
- ✓ Boeing Plant 2 (Boeing)
- ✓ Jorgensen Forge (Jorgensen)



**Early Actions Reduce PCB Concentration By 50%**

# Source Control



Source Control Required Before Cleanup Can Begin

# Port Recent Source Control Activities

- Terminal 108 bank stabilization pilot
- Storm line cleanouts on LDW Port Properties
- Ecology provided \$3M to Port to perform



**Port Actively Involved in Source Control**

# Environmental Justice


## Fishing for the Safest Seafood from the Lower Duwamish River? Eat Salmon.

The main way people are exposed to chemicals in the river is through eating fish. Don't eat resident fish, shellfish, or crab that live year-round in the river. Salmon are the healthiest choice because they spend a short time in the river.

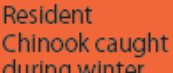


Chum  SAFE TO EAT  
Coho  2-3 MEALS  
Pink  per week  
Sockeye 

OR

Chinook (King)  LIMIT  
1 MEAL  
per week

OR

Blackmouth  Resident Chinook caught during winter  
CAUTION  
2 MEALS  
per month

### DO NOT EAT RESIDENT FISH, SHELLFISH, or CRAB

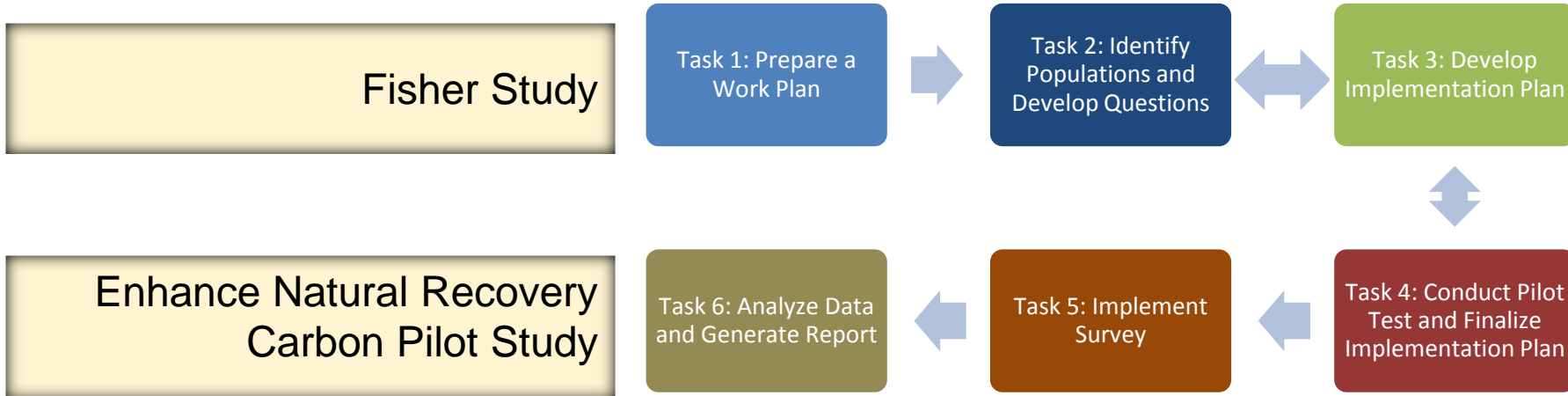
Especially WOMEN who are or may become PREGNANT, NURSING MOTHERS, and CHILDREN. They have chemicals that can harm the growth and brain development of babies and children.



For more information call 1-877-485-7316 [www.doh.wa.gov/fish](http://www.doh.wa.gov/fish)

Community Health Concerns To Be Addressed Before, During And After Implementation

# LDW Studies by LDWG Underway



Progress Continues on Critical Path items

# Community Involvement Actions

- Duwamish River 101 boat tour
- Duwamish Alive! restoration event at Terminal 107
- Duwamish Revealed art celebration / River Festival
- Ongoing community outreach and communications



Port Committed to Community Involvement

# Other Port of Seattle Actions

- Reducing health impacts to communities in the Duwamish corridor by reducing diesel particulate emissions through Northwest Ports Clean Air Strategy
- Created, restored and enhanced over 30 acres of habitat in the Lower Duwamish Elliott Bay
- Lower Duwamish River Habitat Restoration Plan include 70 additional acres

**Port committed to reducing its environmental footprint**

# Next Steps

- Complete Fisher and Carbon Amendment Studies
- Monitor early action cleanups
- Support upland source control work through State and Local programs
- Continue working with EPA and LDWG on community outreach
- Working with EPA to determine next steps to move to cleanup



**Work Continues**