

Northwest Region Cleanup Program

Zidell Waterfront Property Cleanup

2012
Portland



Background

- Ironworks shipyard before WWII
- Building, repair and salvage of Victory Ships during WWII
- Purchased by Zidell in 1946: 336 ships dismantled over 30 years – scrap sold, waste used as site fill
- 32 acres upland + 12 acres in-water sediment

Site Contaminants

Groundwater, Upland Soil, Riverbed Sediment

- Metals (Zn, Ni, As, Pb, Hg, Cd, Cr, Cu...)
- Chemicals –petroleum hydrocarbons, PAHs, PCBs, Butyltins (from marine paint)
- Asbestos
- Cleanup levels established in the ROD for PCBs, PAHs, Metals in upland soils and riverbed sediments (add TBT)

Regulatory Milestones

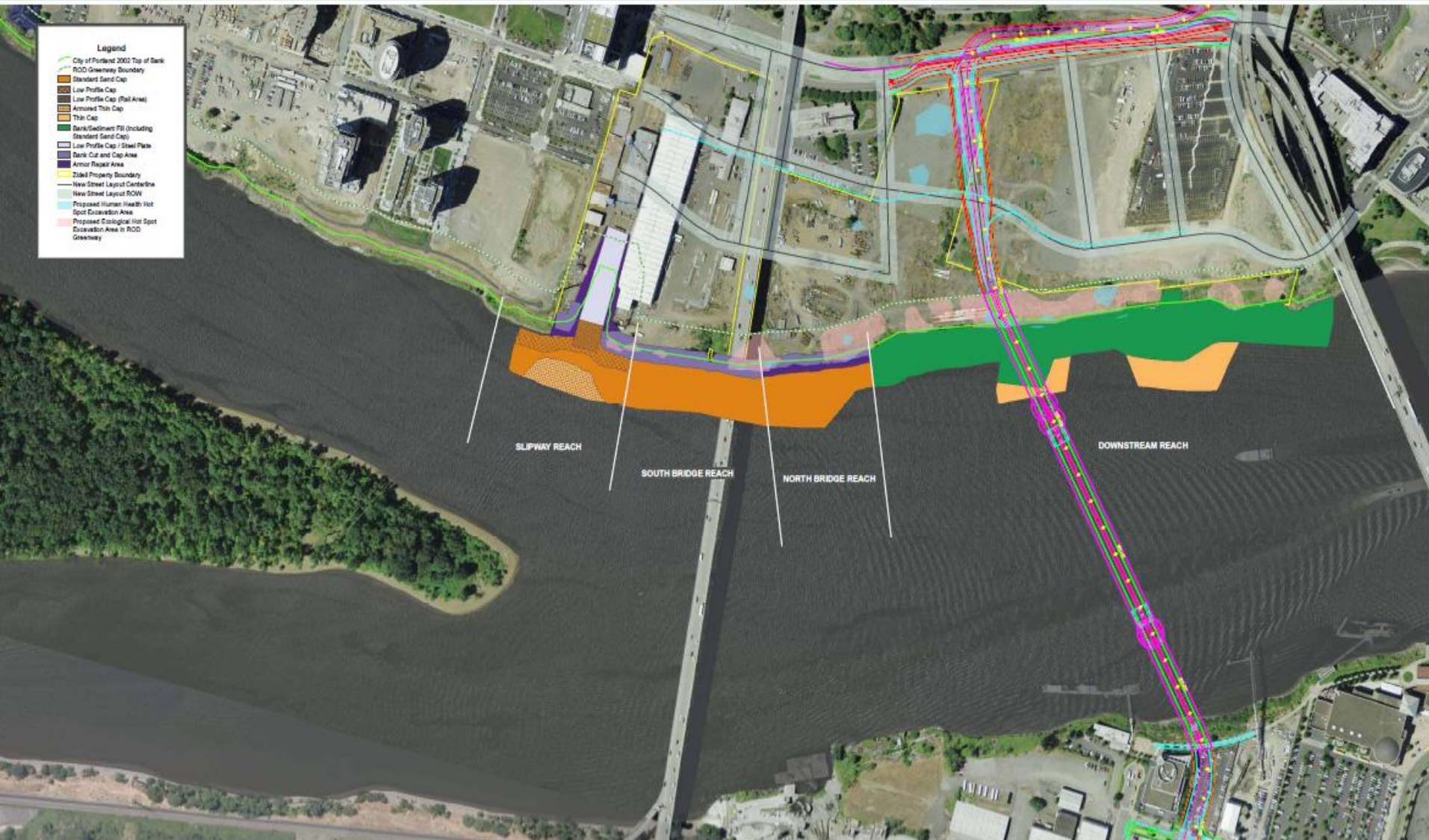
- 1987 - DEQ/EPA joint site assessment
- 1995 - V. Agreement with DEQ for the RI/FS
- 2003 - Remedial Investigation Complete
- 2005 - Record of Decision
 - Upland soils: hot spot removal/relocation/capping
 - In-water sediment: limited dredging and capping
 - Groundwater: no remedial action – based on monitoring and modeling
- 2006 – Consent Decree and EES

2009: Sediment Cap Design Approval

- August 2009 - draft design approved by DEQ
- Meetings with other agencies
 - Federal: ACE, NMFS, EPA, Tribes
 - State: DSL, ODFW, DOJ
 - Local: City of Portland, TriMet, PDC
- December 2009 - Joint Permit Application submitted to ACE and DSL
- ACE 404/DEQ 401's issued June 2011
 - 7 acres habitat gravel for ESA mitigation offset

Zidell South Waterfront Property Initial Remedial Design

ZRZ Realty Company □ Portland, Oregon



Summer 2010: Upland Remedial Action

- DEQ approvals (incl. 1200-C), and COP permit
- 5,000 yards human health hot spot soil removal
- 12,000 cubic yards ecological health hot spot relocation – 5,000 cubic yards to TriMet ramp
- Stormwater infiltration gallery constructed to replace outfalls
- 14 Monitoring wells decommissioned - OWRD
- Asbestos abatement project – all workers certified, air monitoring, bulk ACM disposal

July 1 – Oct. 31 2011 Remedy Construction Sediment Cap and Shoreline (16 acres)

- 2200 pilings removed (cut using hydraulic saws)
- 40,000 yards soil removed/relocated
- 200K cubic yards of sand cap and armoring
 - 2-18 feet of sand cap
 - 1-3 feet of rock armoring
- Dredging and Reactive Core Mat w/AC in Slipway Reach
- Habitat Gravel
- Bio-engineered vegetated shoreline: Phase I







































































What's Next?

- Winter 2012
 - Construction Completion Report
 - Baseline Survey: Bathymetry and Shoreline
- Spring/Summer 2012
 - Phase II Bank Vegetation: 15,000 plants and trees
 - Greenway Soil Cap
 - OMMP for in-water remedy
 - MNR for PCBs in Sediment, and long term monitoring
- Institutional Controls – Buoys, RNA with USCG, SMP
- Certificate of Completion late 2012/early 2013