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# Portland Harbor 2013 Source Control Update

Environmental Law Education Center

May 3, 2013

Presented by:

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DEQ Portland Harbor Stormwater Coordinator

# Portland Harbor 2013 Update

## Presentation Outline

- Portland Harbor Background
- Source Control Status
- Completed Source Control Actions by Pathway
- Challenges
- Upstream Work
- Source Control Summary Report



Portland Harbor  
River Miles  
2-12

RM 2

RM 12

# Portland Harbor Background

- ~10 mile stretch of the Willamette River
- Heavily industrialized for past 100+ years
- Many types of industries:
  - ship repair & maintenance
  - pesticide manufacturing
  - wood treating
  - bulk petroleum storage
  - manufactured gas plant





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# Recreational and commercial boats both use the Willamette River

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# Portland Harbor Superfund Site bank fishing

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# Portland Harbor Background

## National Priorities List – Portland Harbor listing

- DEQ working on sites along Willamette River since late-1980s
- 1997 - DEQ/EPA joint sediment study
  - Highly elevated levels of metals, PAHs, PCBs, & pesticides outside of facilities already under investigation.
  - Significant levels of the same contaminants detected throughout the Harbor.
- July 2000 Site proposed for listing on National Priorities List ( NPL) or Superfund
- December 2000 listing is final



# Portland Harbor Agencies' Roles

Portland Harbor Memorandum of Agreement

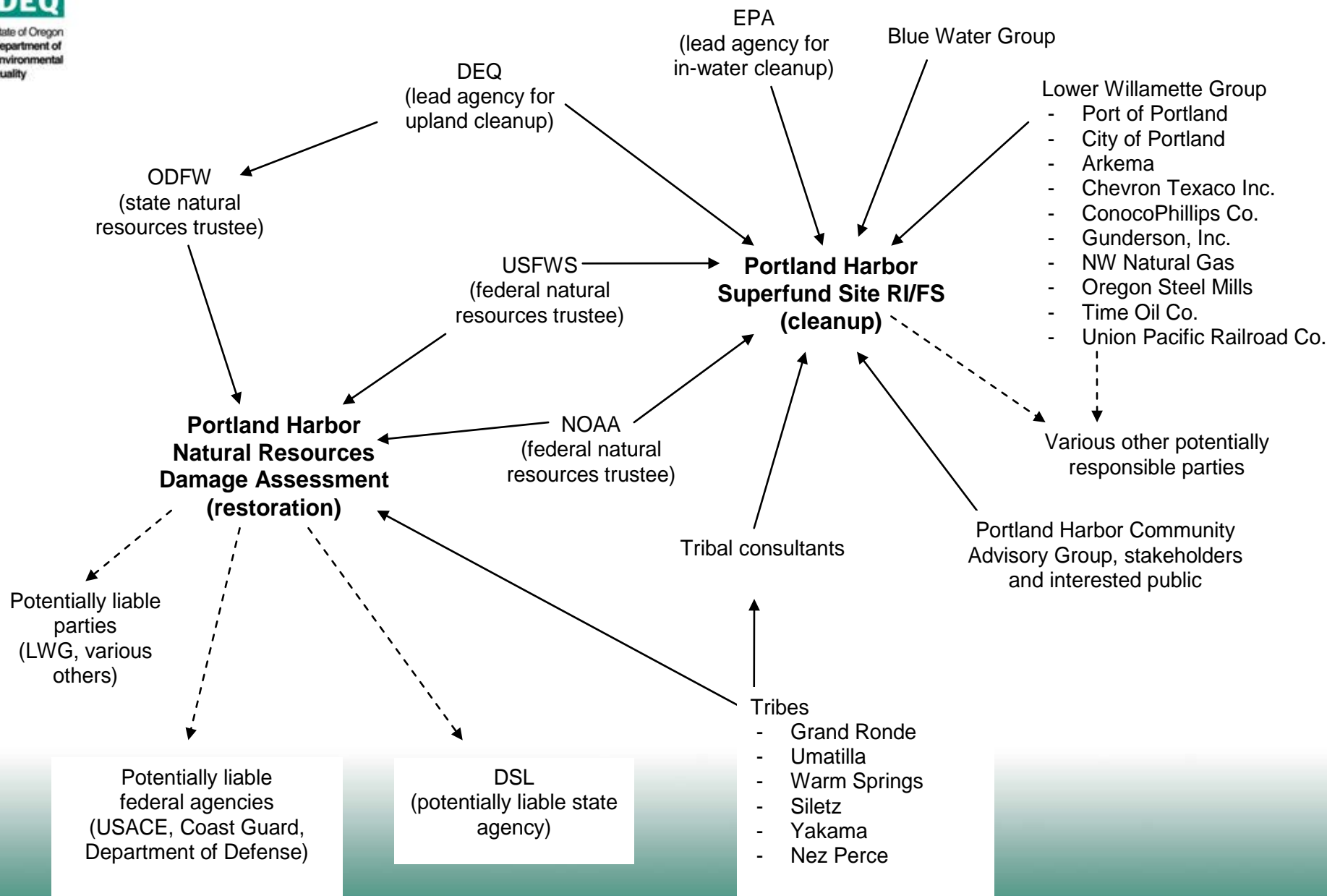
Signed February 2001

- **Identifies roles & responsibilities of EPA & DEQ**
  - EPA Lead Agency overseeing in-water work
  - DEQ Lead Agency overseeing upland source control
- **Establishes inter-governmental project team**
  - EPA, DEQ, 6 tribal governments, & 3 Natural Resources Trust agencies

# Key players in the Portland Harbor Superfund Site Cleanup and Natural Resources Damage Assessment



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# Upland Source Control

## Objectives of Upland Source Control

- Prevent sediment recontamination from uncontrolled upland sources
- Control upland sources posing unacceptable risk to in-water receptors

# Source Control Priorities

- High Priority – move directly to source control measures
- Medium Priority – complete source control evaluation & do source control measures, if warranted
- Low Priority – complete source control evaluation, but source control measures not likely

# Milestone Reports

- March 2006
- June 2006
- December 2006
- July 2007
- January 2008
- September 2008
- April 2009
- December 2009
- September 2010
- May 2011
- January 2012
- January 2013

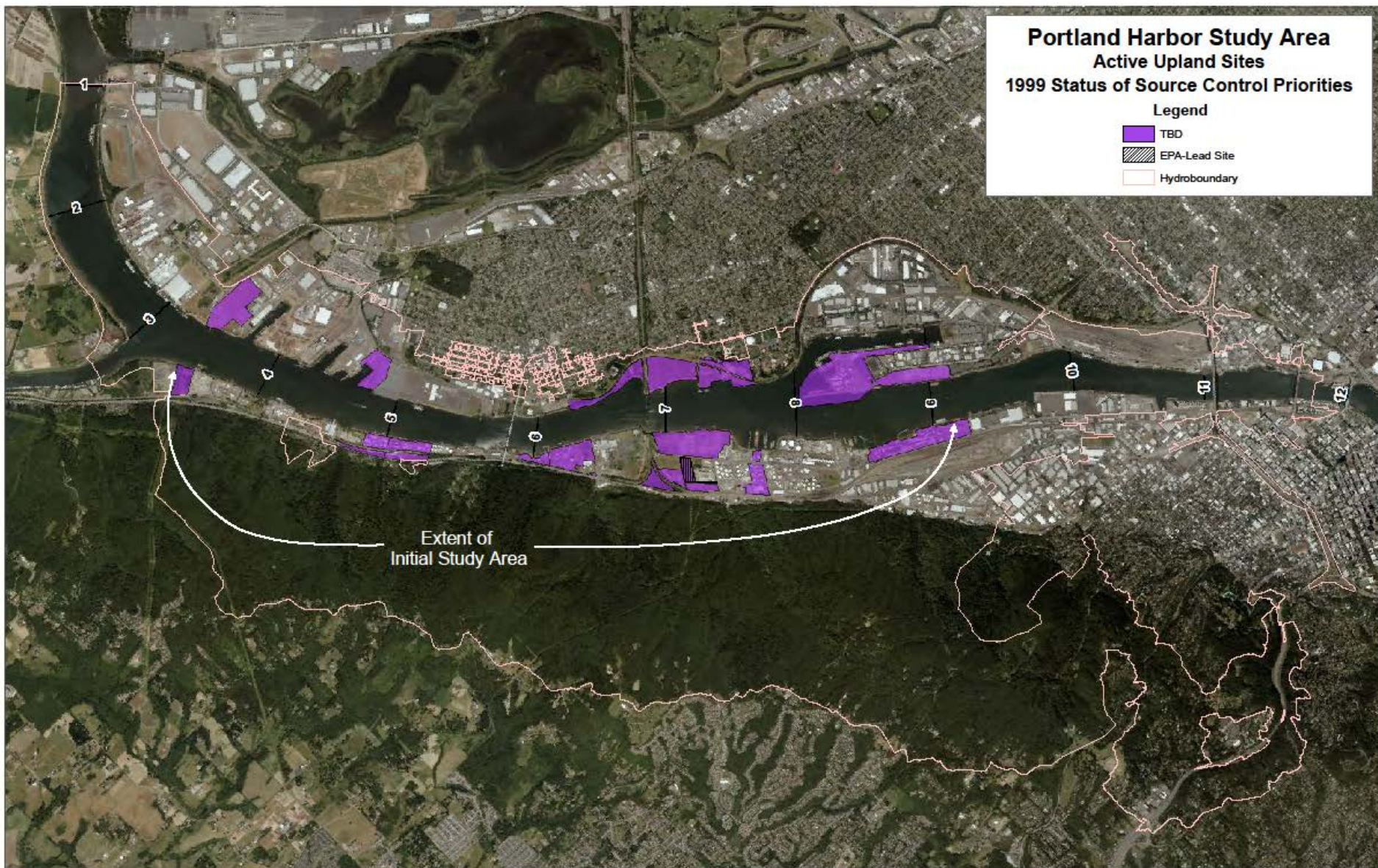
<http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm>



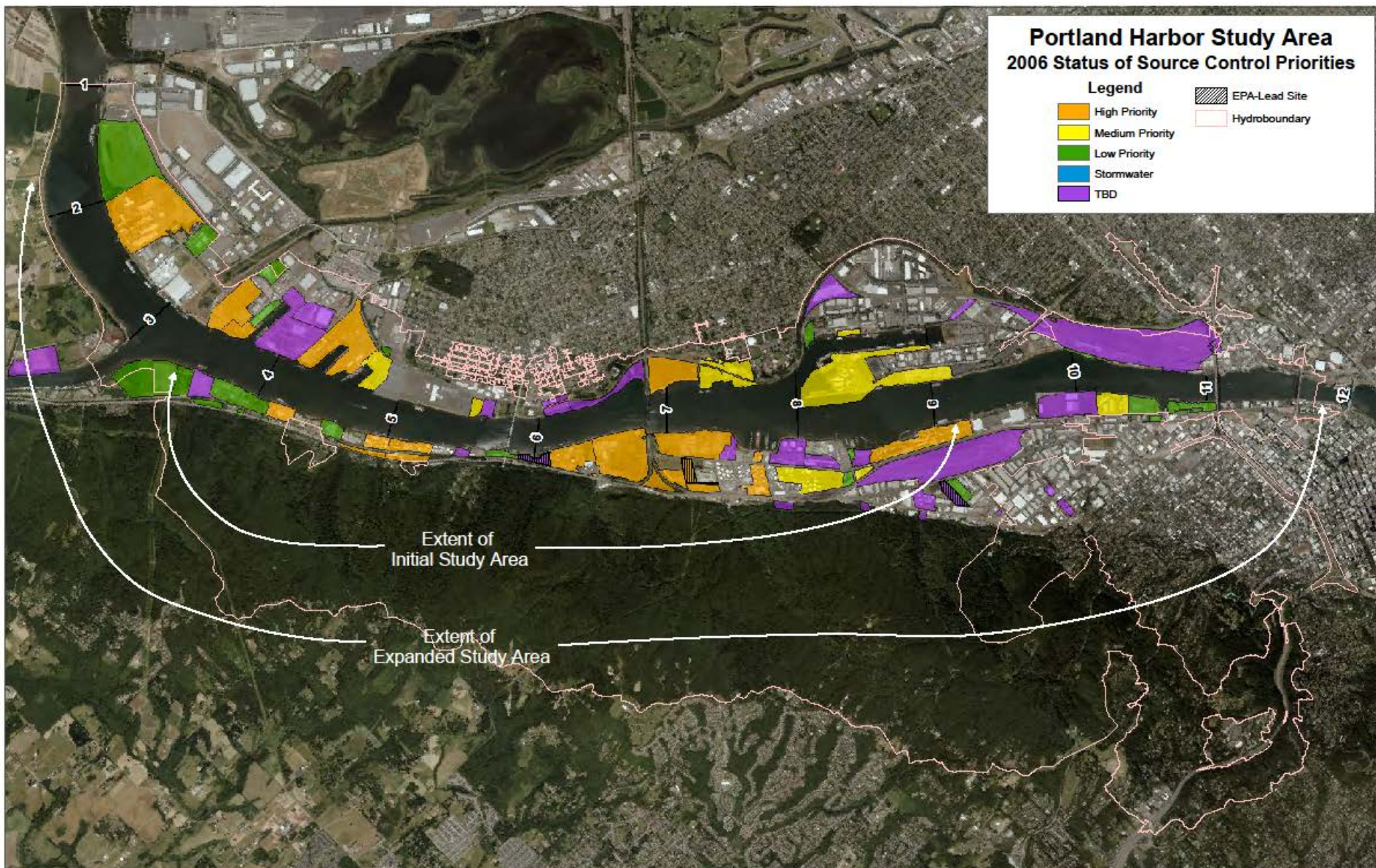
# Focus of Upland Source Control

- Implement effective Source Control Measures at all High Priority sites by PH ROD (mid-2015)
- Complete Source Control Evaluations at all Medium & Low Priority sites by 2013
- Stormwater as a sole pathway or in combination with other pathways. Guidance implemented in 2009. Completion by 2014 or ROD.

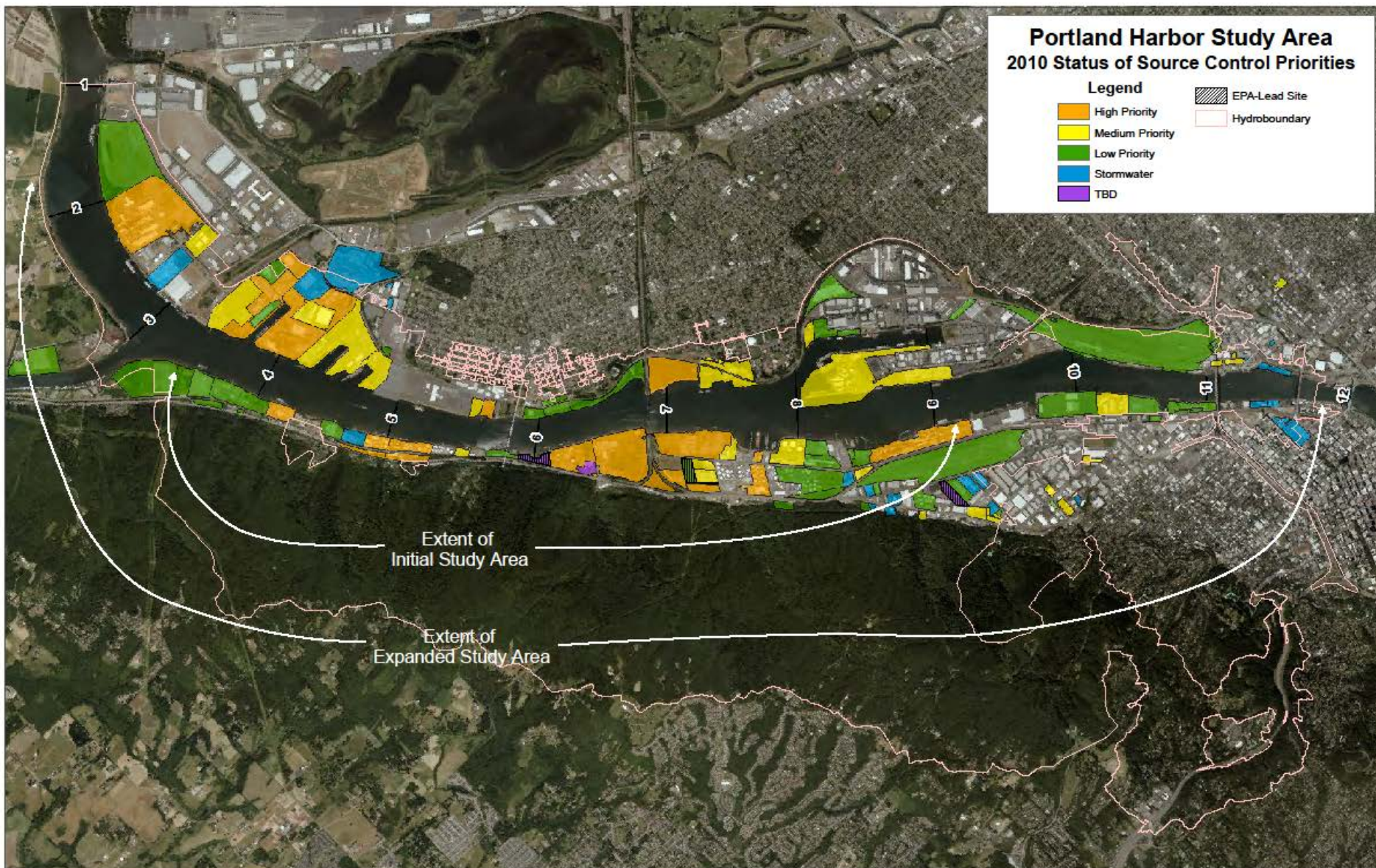
# Upland Source Control 1999



# Upland Source Control 2006



# Upland Source Control 2010





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# Upland Source Control Status

## Contaminant Transport Pathways

- Soil and bank erosion
- Groundwater
- Stormwater

# Soil & Bank Erosion Completed Source Control Actions

- BP Arco
- MarCom
- Willamette Cove
- McCormick & Baxter
- Triangle Park
- Port of Portland T4
- SFI, Inc
- Arkema
- ACF Industries
- Linnton Plywood
- Marine Finance



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# Marcom – Sandblast Grit Removal





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# ARCO/BP Riverbank Source Control



# ARCO/BP Seawall & Groundwater Source Control



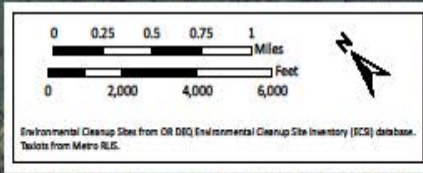
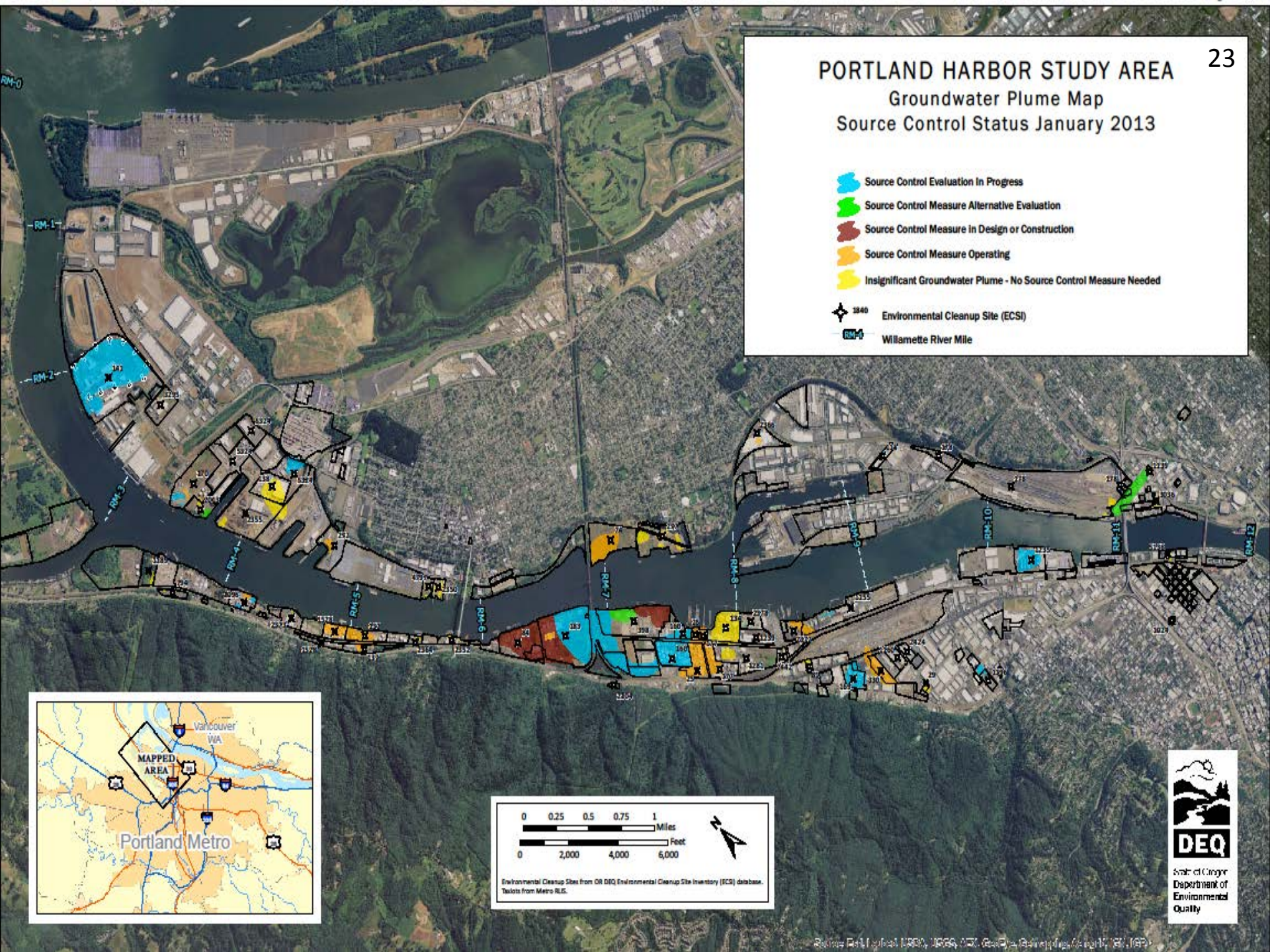


# PORTLAND HARBOR STUDY AREA

## Groundwater Plume Map

### Source Control Status January 2013

- Source Control Evaluation In Progress
  - Source Control Measure Alternative Evaluation
  - Source Control Measure in Design or Construction
  - Source Control Measure Operating
  - Insignificant Groundwater Plume - No Source Control Measure Needed
- 
- ✱ 3840 Environmental Cleanup Site (ECSI)
  - Willamette River Mile





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# Completed Groundwater Source Control Actions

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- McCormick & Baxter
- Mt. Hood Chemical
- Gunderson
- Willbridge Terminals
- Kinder Morgan –  
Linnton
- Exxon/Mobil
- Arkema
- Arco/BP
- In Process
- Time Oil
- Port of  
Portland T4
- Gasco



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# Kinder Morgan Linnton Groundwater Source Control







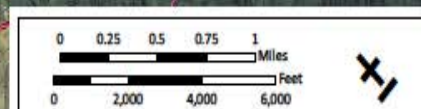
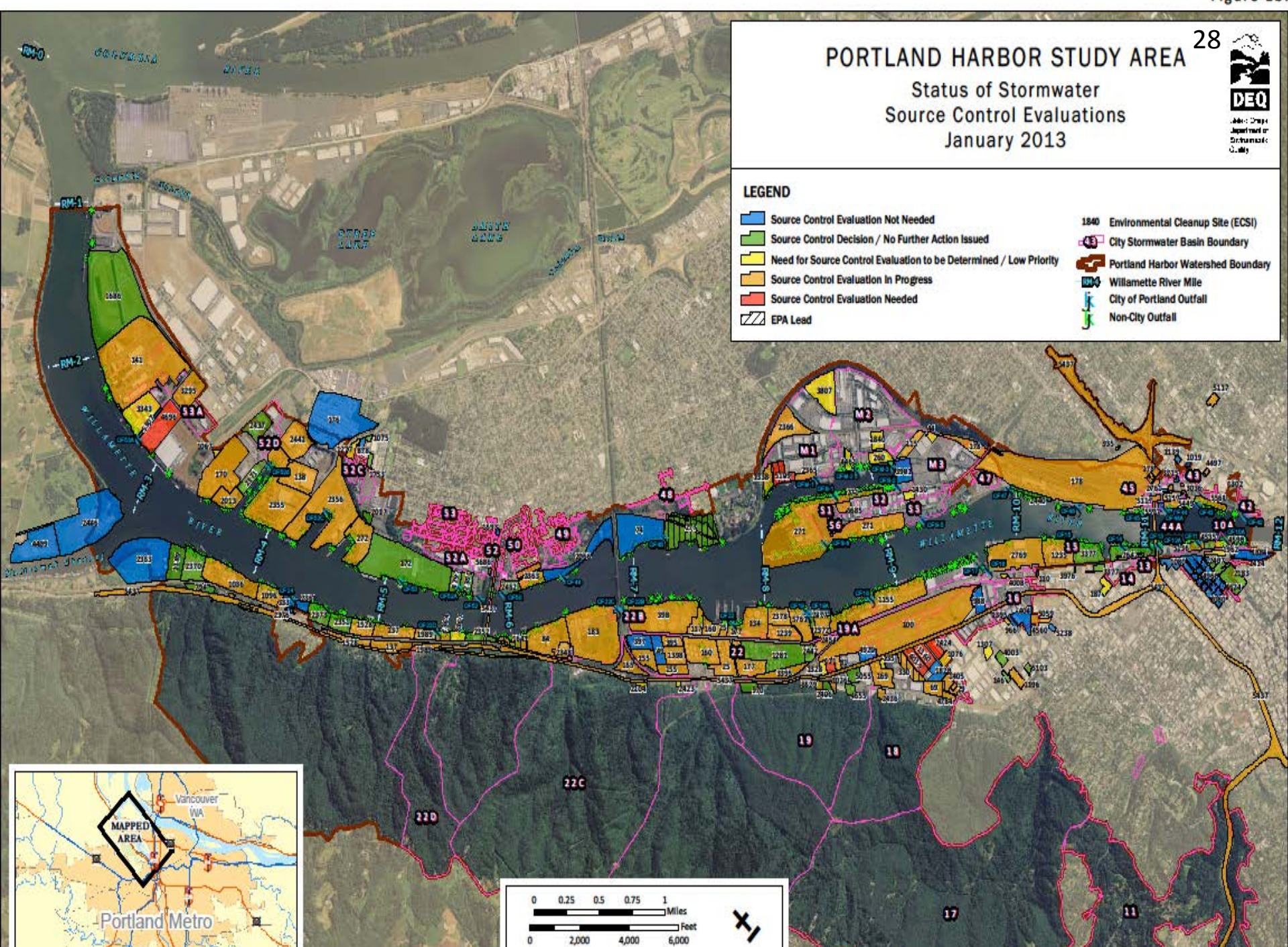


# PORTLAND HARBOR STUDY AREA

Status of Stormwater  
Source Control Evaluations  
January 2013

## LEGEND

- Source Control Evaluation Not Needed
- Source Control Decision / No Further Action Issued
- Need for Source Control Evaluation to be Determined / Low Priority
- Source Control Evaluation In Progress
- Source Control Evaluation Needed
- EPA Lead
- 1840 Environmental Cleanup Site (ECSI)
- City Stormwater Basin Boundary
- Portland Harbor Watershed Boundary
- Willamette River Mile
- City of Portland Outfall
- Non-City Outfall





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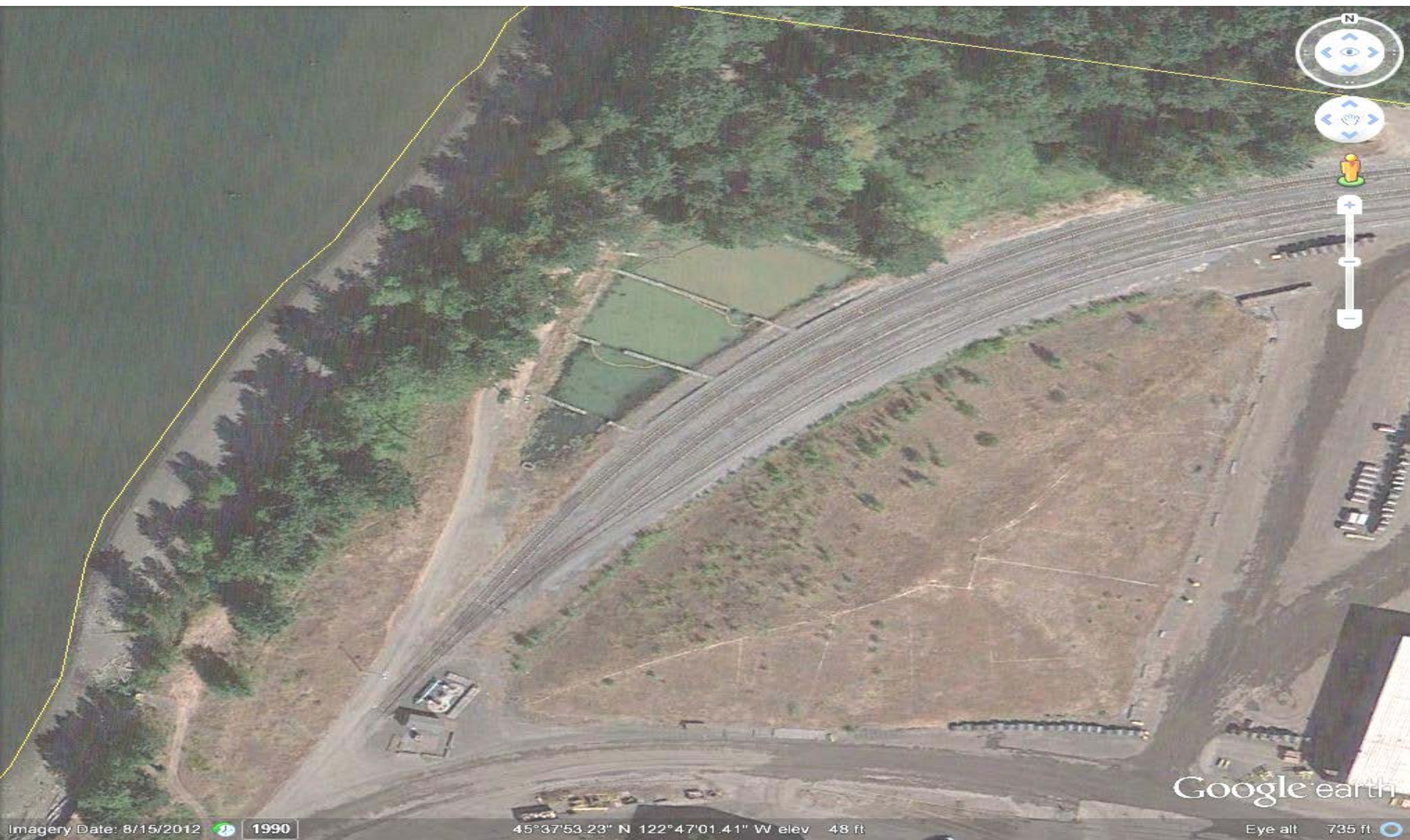
# Completed Stormwater Source Control Actions

- PacifiCorps – Albina Substations
- Westinghouse (Former)
- UPRR - Albina Yard
- Northwest Pipe
- Port of Portland T4 & T1
- Arkema
- Schnitzer Steel
- Oregon Steel Mills
- Consolidated Metco
- Sulzer Pump
- Chevron Asphalt
- Glacier Northwest
- Calbag Metals
- Gunderson
- Columbia American Plating
- General Electric
- Galvanizers
- Penske Truck
- Greenway recycling
- SFI, Inc
- ACF Industries



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# Evraz Oregon Steel Mills Stormwater Treatment System





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# Schnitzer Steel Stormwater Source Control





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# Calbag Metals Stormwater Source Control

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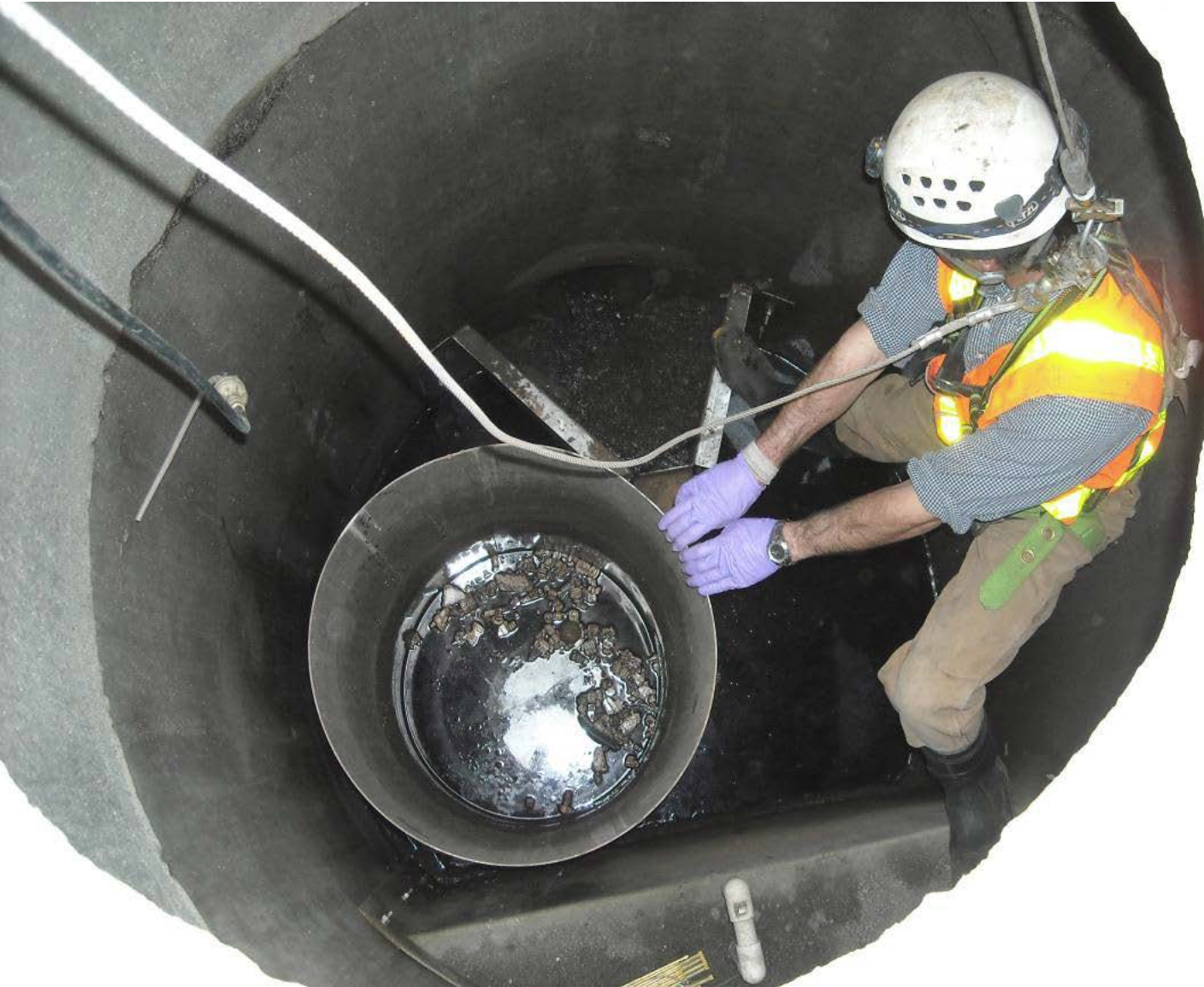




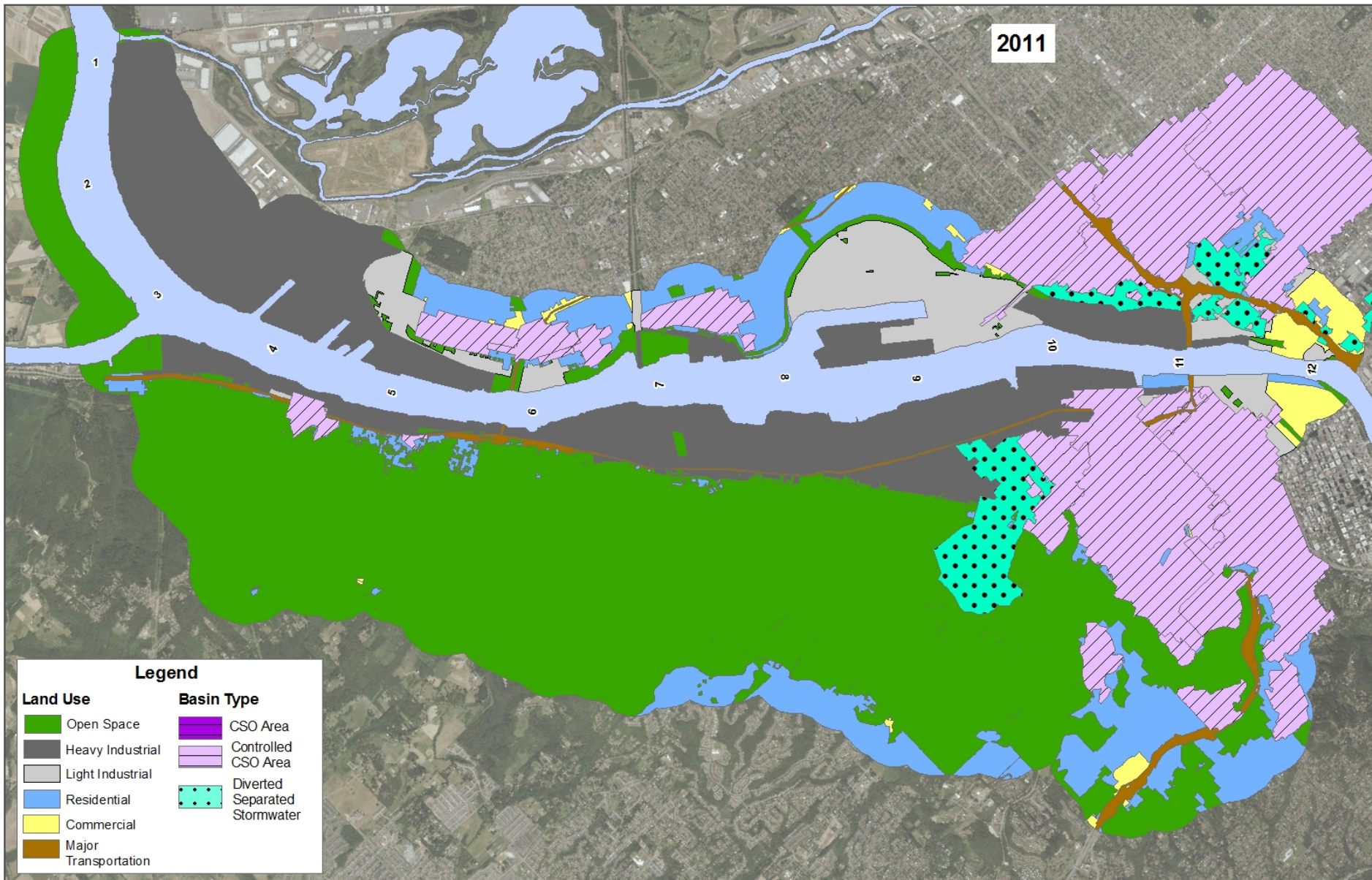
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# City of Portland Stormwater Outfalls Investigation

Basin 44 manhole



# CSO Controls in Portland Harbor: 1991-2011



# Challenges

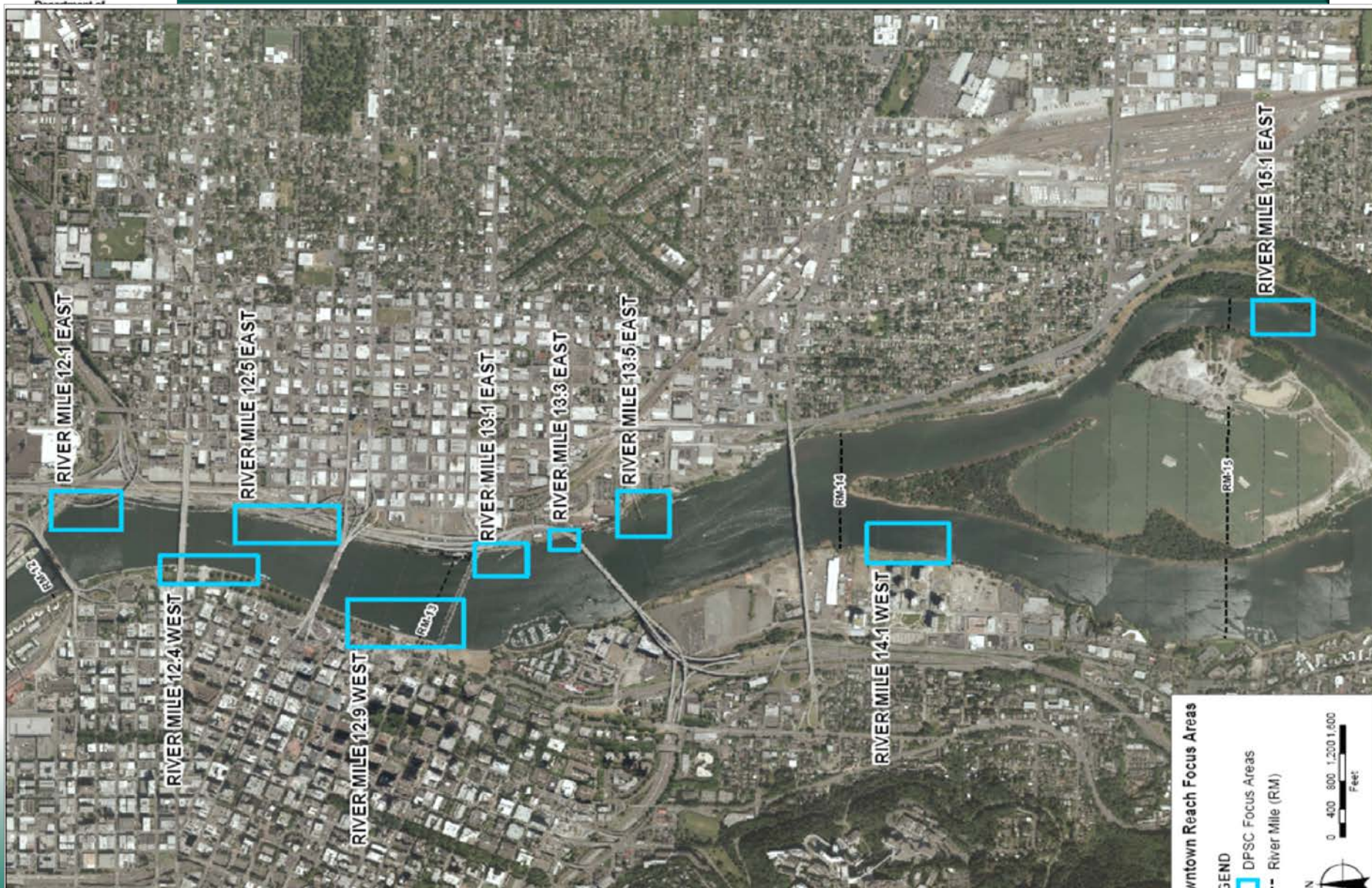
## Riverbanks

- Complete riverbank SCEs at all upland sites
- Riverbanks within an AOPC - integrate riverbank SC with in-water RD/RA
- Riverbanks outside of AOPCs - DEQ pursue SC

# Challenges

- Allocation
- Source control compliance & performance standards
- Stormwater

# Upstream Work





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# Zidell In-Water & Upland Remedies Completed in 2010 to 2012





# Upland Source Control Completion

DEQ's focus is on:

- Implementing control measures at High Priority sites
- Stormwater assessment and control
- Ensuring that Medium & Low Priority sites are evaluated
  - If evaluation indicates they are High Priority, then control measures are aggressively implemented



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# DEQ's Source Control Summary Report Timing

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Target summer/fall 2013

for consideration by EPA in drafting the  
Proposed Plan, which is anticipated  
mid-2014

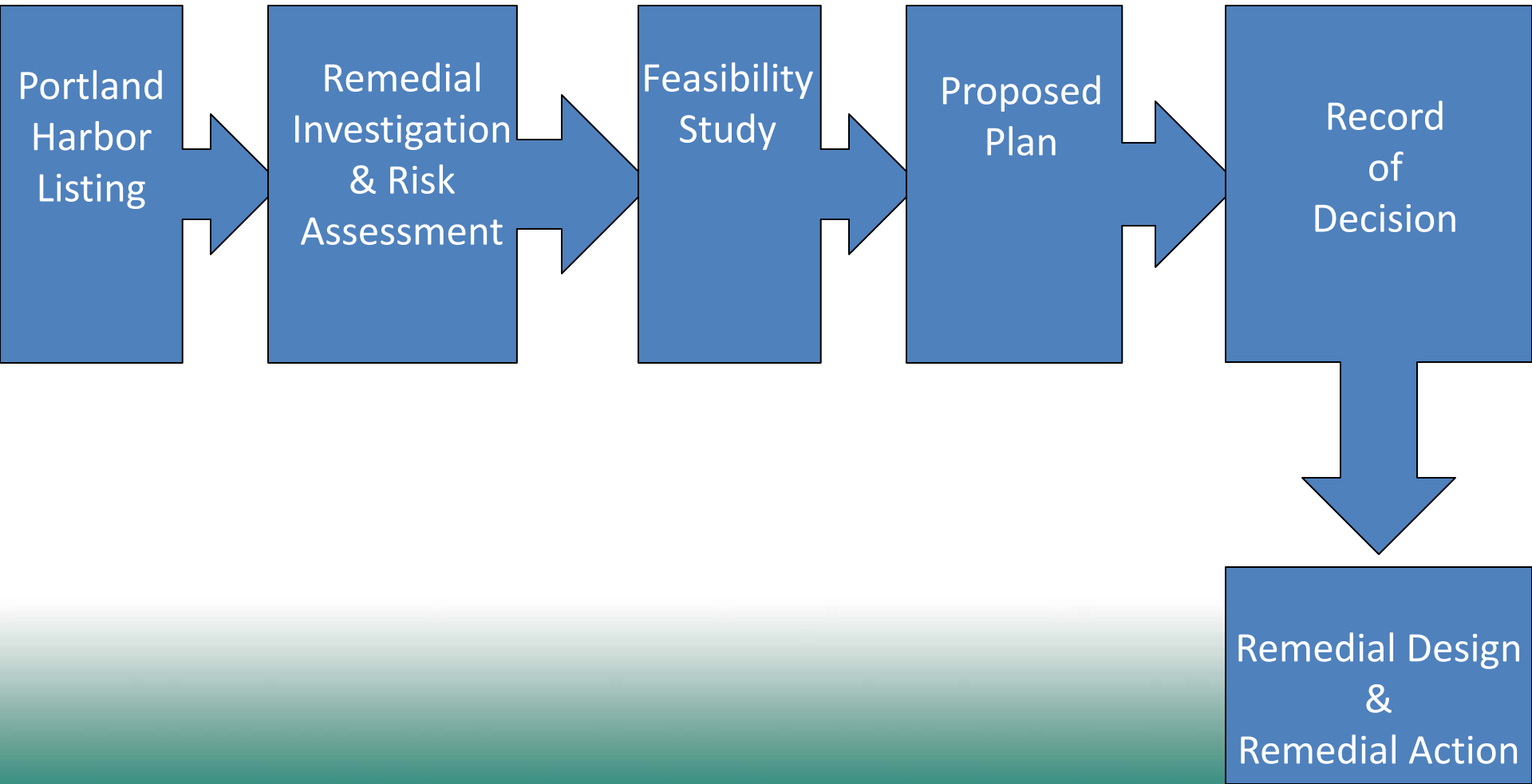


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# Portland Harbor Superfund Milestones



We are here





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## Questions?

