



# Portland Harbor Superfund Site Record of Decision

U.S. Environmental Protection Agency, Region 10  
*March 2017*

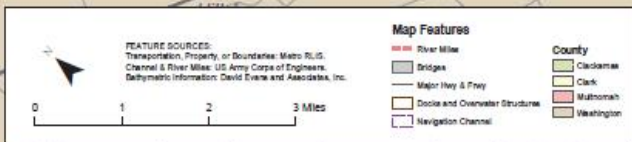
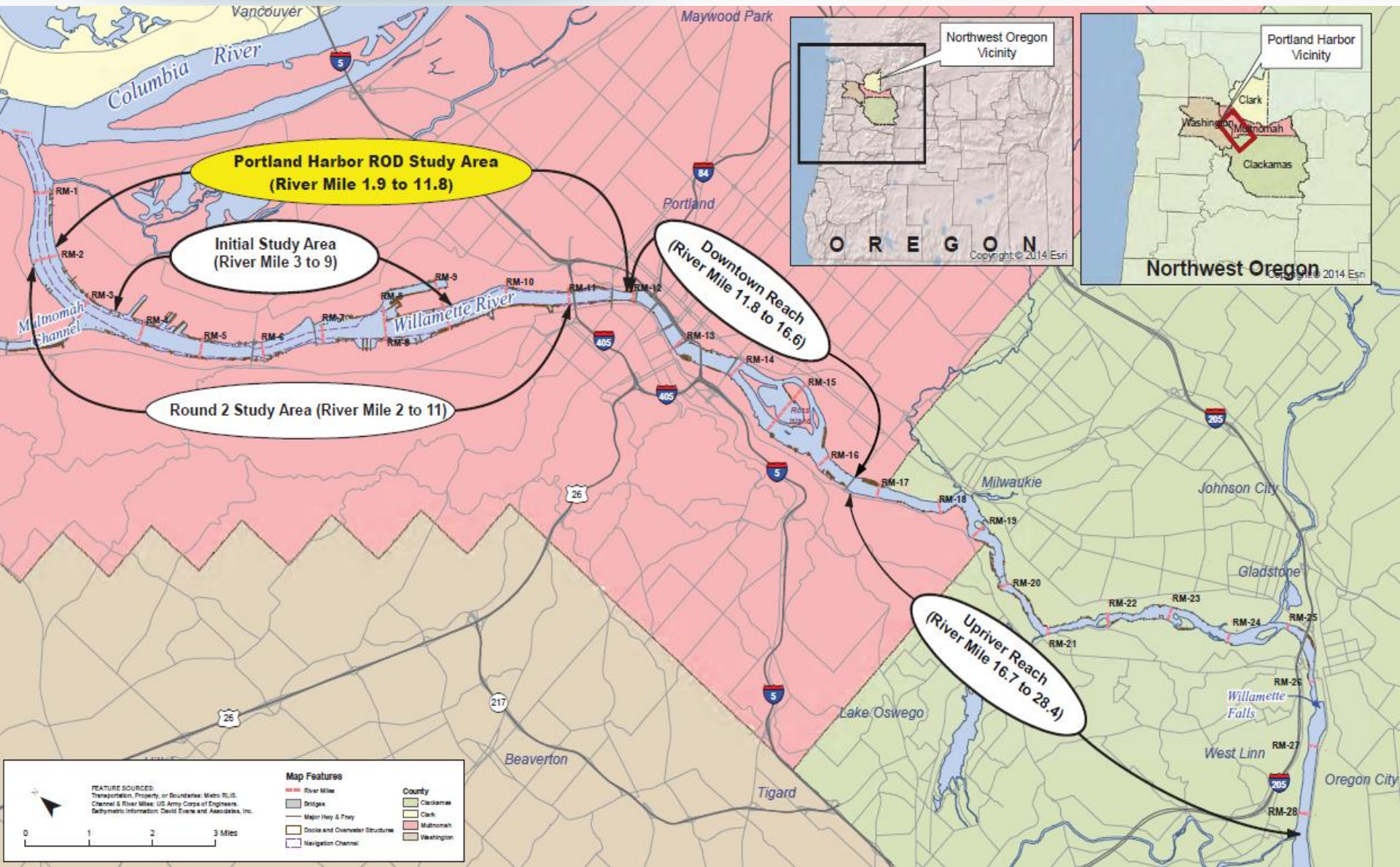
**Sean Sheldrake and Laura Knudsen**

# Session Goals



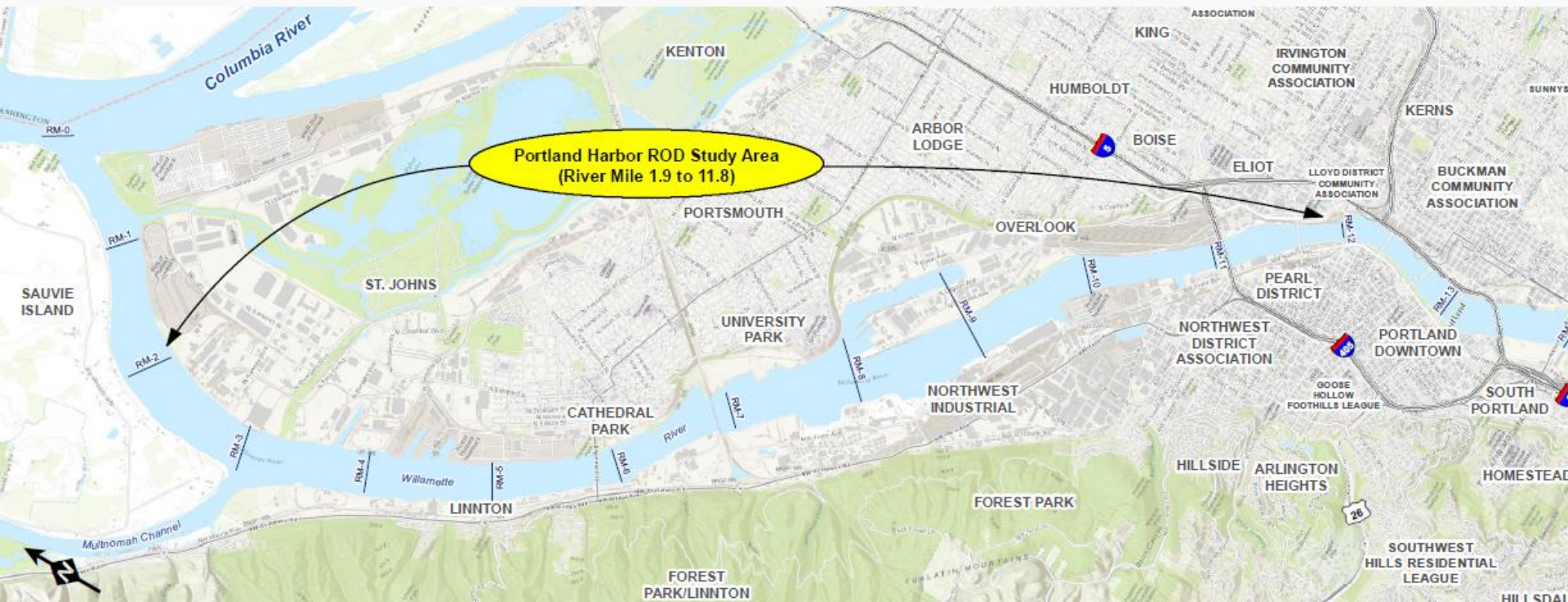
- **Give a brief overview of the Portland Harbor Superfund Site**
  - Map, Timeline, Basis for Taking Action, Contaminants of Concern (COCs)
- **Discuss the highlights of the Proposed Plan and Record of Decision**
  - Impact of comments collected during the public comment period
- **Talk about work related to the final remedy**
- **Discuss community engagement activities**
- **Provide an opportunity for Q&A**

# Site Map





# Site Map



**Source Credits:** The source of this map image is Esri, used by EPA with Esri's permission. Also the 'Neighborhood Associations' dataset from the CivicApps website was used (courtesy of the City of Portland).

# Site Timeline

## *Pre ROD*



- National Priorities List: **2000**
- Remedial Investigation & Feasibility Study: **2001 – 2016**
- Proposed Plan: **June 8, 2016**
  - End of 90 Day Public Comment Period: **Sept. 6, 2016**
- Record of Decision: **January 2017**

# Site Timeline

## Post ROD



ROD Signed  
*Jan. 2017*

### Portland Harbor Post-ROD Timeline

**Pre-Remedial Design  
Work for Site-Wide  
Baseline Sampling**  
*Estimate: 1-2 years*

**Remedial Design**  
*Estimate: 2-3 years*

**Remedial Action**  
*13 years*

**Operation & Maintenance**  
*Five Year Reviews*

Includes Long-Term Monitoring

# Basis for Action



- **Unacceptable Risk to Human Health**
  - Greatest risk – eating resident fish
  - Infants breastfed by mothers eating resident fish are most at risk
  - Contaminants pose both cancer and non-cancer risks



Source Credits: Oregon Health Authority



- **Unacceptable Risk to Ecological Receptors**
  - Risk to fish
  - Risk to birds & mammals that eat fish
  - Risk to vertebrate and invertebrate animals living in the water because of sediment contamination from pesticides and metals
  - Contaminants can **\*biomagnify\*** into the food chain



# Contaminants of Concern



## These Focused COCs are:

- ☐ The most widespread
- ☐ Have the most associated risk
- ☐ Address other COCs

- **Focused COCs**

- Polychlorinated Biphenyl (PCBs)
  - **Where Do They Come From?** Used in electrical equipment, oil, plastics
- Polycyclic Aromatic Hydrocarbons (PAHs)
  - **Where Do They Come From?** Produced when coal, oil, gas, wood, garbage and tobacco are burned
- DDx (DDT, DDE, DDD)
  - **Where do They Come From?** Commonly used in pesticides
- Dioxins/Furans
  - **Where do They Come From?** Created when certain products are made, like herbicides, pulp/paper or when products are burned.

# Proposed Plan



- **Proposed Plan Issued in June 2016**
- **EPA's Preferred Alternative was Alternative I**
- **Alternative I Included:**
  - Dredge or cap contaminated sediment and river banks
  - Dispose of dredged material in an on-site confined disposal facility and landfills
  - Monitor natural recovery into the future
  - Enhance natural recovery in some locations

**Approximate Acres Covered: 300**

**Approximate Cost: \$745 million**

# Public Comment Period



- **Timeframe: June 9 – September 6, 2016**
- **Over 5,300 Comments Received From:**
  - Tribes
  - Environmental / Community Organizations
  - Community Members
  - Potentially Responsible Parties
  - Groups Representing Businesses
  - Local Governments
  - State of Oregon
  - Other Government Entities

# Record of Decision

## Issued January 2017



- **EPA's Final Remedy:** Alternative F Modified
- **Alternative F Modified Includes:**
  - More dredging and riverbank removal
  - Less monitored natural recovery
  - No in-river disposal
  - More people will be able to eat fish sooner
  - More consistent triggers for capping and dredging
  - Continued commitment to cooperation and communication
  - Institutional controls

**Approximate Acres Covered:** 400

**Approximate Cost:** \$1 billion



# Comparison

## *Alt. I to Alt. F Modified*

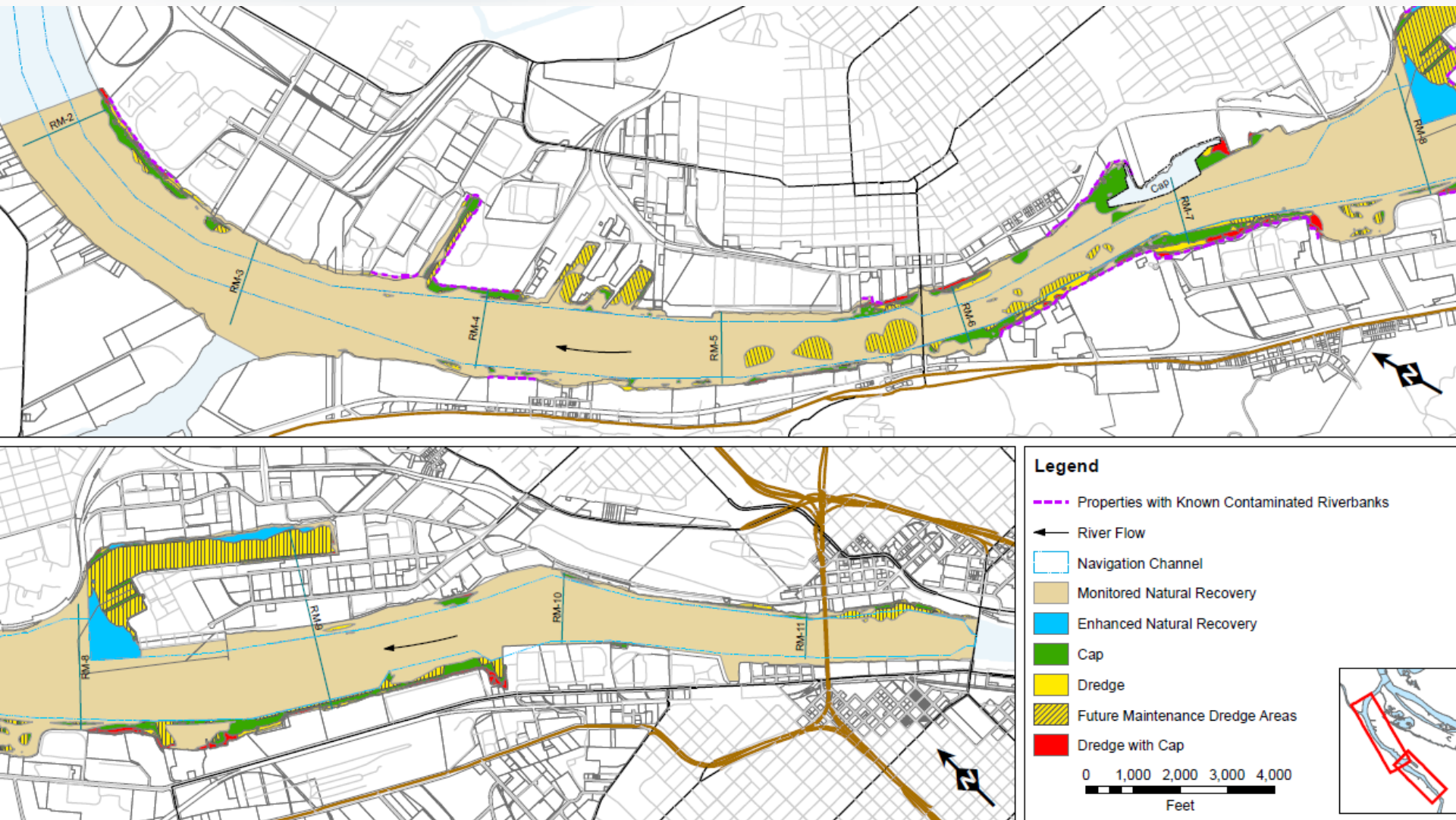


	<b>Alternative I</b>	<b>Alternative F Modified</b>
<b>Area of Active Remediation</b>	~300 acres	~400 acres
<b>Timeframe for Implementation</b>	7 years	13 years
<b>Cost</b>	~\$745 million	~\$1 billion
<b>Dredging</b>	~150 acres	~250 acres
<b>Capping*</b>	~80 acres	~150 acres

\* Not including 25 riverbank acres

# Selected Remedy Map

## Site-Wide



### Legend

- Properties with Known Contaminated Riverbanks
- ← River Flow
- Navigation Channel
- Monitored Natural Recovery
- Enhanced Natural Recovery
- Cap
- Dredge
- Future Maintenance Dredge Areas
- Dredge with Cap

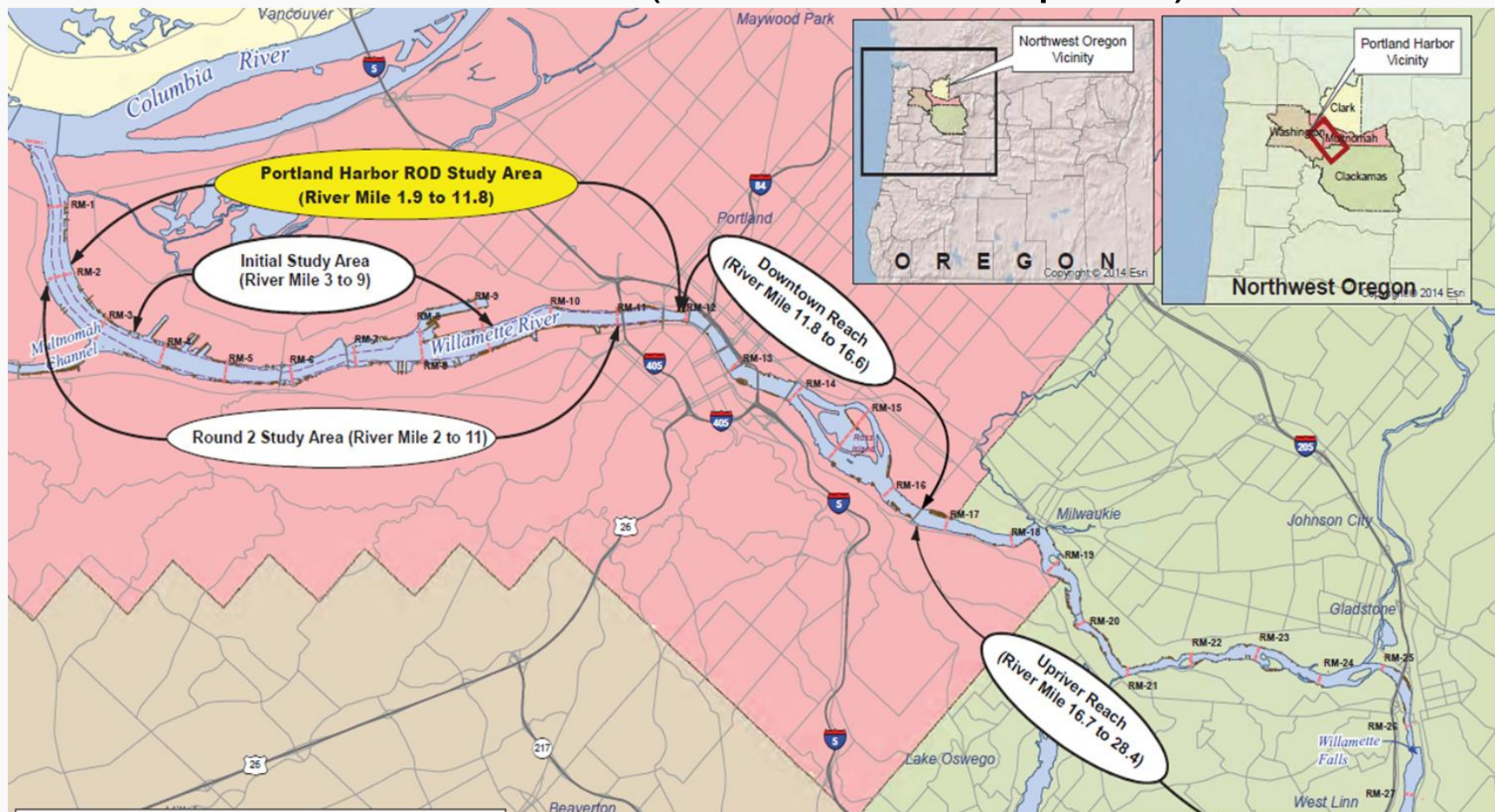
0 1,000 2,000 3,000 4,000  
Feet

**Source Credits:** The source of this map image is Esri, used by EPA with Esri's permission. Other sources that were used were: DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

# Ongoing Work



- **Ongoing Work Related to the ROD**
  - Upland Source Control
  - Downtown Reach (In-Water and Upland)





# Watershed Approach



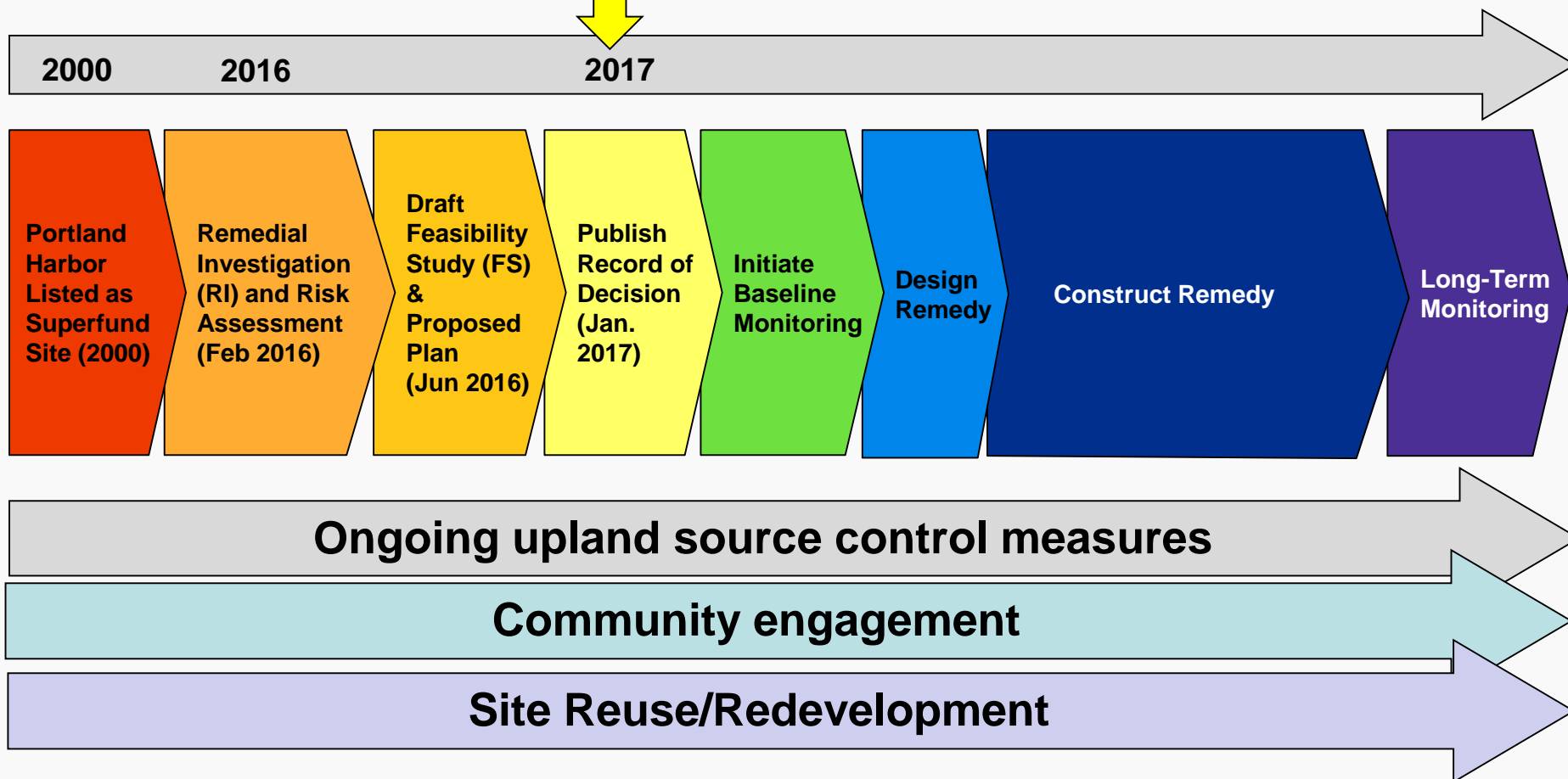
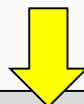
- **Contamination Issues Exist in the Willamette Watershed**
  - These issues are beyond the scope of this remedy
- **As a result, the Oregon Department of Environmental Quality and EPA are Working on a Watershed Strategy to Enhance the Remedy**
  - **Overall Goal:** Look at how we can reduce contaminant loading for the whole Willamette Watershed
  - **General Approach:**
    - Inventory work that has already been done
    - Engage interested parties in leadership & collaboration to reduce toxics in the watershed



# What Happens Next?



**Now**



# Continued Community Engagement



- **Technical Analysis of the Record of Decision**
  - Analysis of how community comments & concerns were incorporated into the ROD
    - Intended to help the community better understand the ROD
- **Update of the Community Involvement Plan**
  - Interviews with community members
  - Determine the best way to communicate information
- **Superfund Job Training Initiative Pilot**
- **Education & outreach efforts for fish advisories**

# Continued Community Engagement



## FISH ADVISORY

Atención Chú ý 注意 Внимание 注意

Fish from these waters may be harmful to eat, especially for children, pregnant or nursing women, and women of childbearing age.



SALMON



STEELHEAD



BASS



CATFISH



CARP



More information call 1-877-290-6767  
[www.healthoregon.org/fishadv](http://www.healthoregon.org/fishadv)

Oregon  
Health  
Authority

# Continued Community Engagement



- Continue to monitor the EPA Portland Harbor website: <http://go.usa.gov/3Wf2B>
- Sign-Up for Updates on our listserv

1. Visit EPA's Portland Harbor Superfund Site Website at <http://go.usa.gov/3Wf2B>

2. On the section of the website that says "Join our mailing list", type in your e-mail and press "Enter" or click "Submit"

A screenshot of the EPA Portland Harbor Superfund Site website. The page is titled "Learn More" and contains several sections: "Community Resources", "Early Action Cleanup Areas", "Maps & Photos", "Contact", "Lead State Agency", "Community Advisory Group", and "Special accommodations". The "Join our mailing list" section is highlighted with a red circle and a red arrow pointing to it from the text in the light blue box. This section includes a sign-up form with a "Submit" button. The form has a yellow background and contains the text "Sign up for email updates about Portland Harbor Superfund Site:" followed by a yellow star icon and the label "Email Address". Below the label is a text input field and a "Submit" button. The "Special accommodations" section mentions Laura Knudsen and provides a phone number (206-553-1838) for requesting special accommodations, including support for language translation and interpretation.





## Question and Answer Session

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