



# Lower Duwamish Waterway Cleanup and Source Control

**NORTHWEST REGIONAL OFFICE  
TOXICS CLEANUP • WATER QUALITY  
PROGRAMS**

**May 28, 2015**

# Three Parts of the Cleanup

**Early Action  
Area Cleanups**

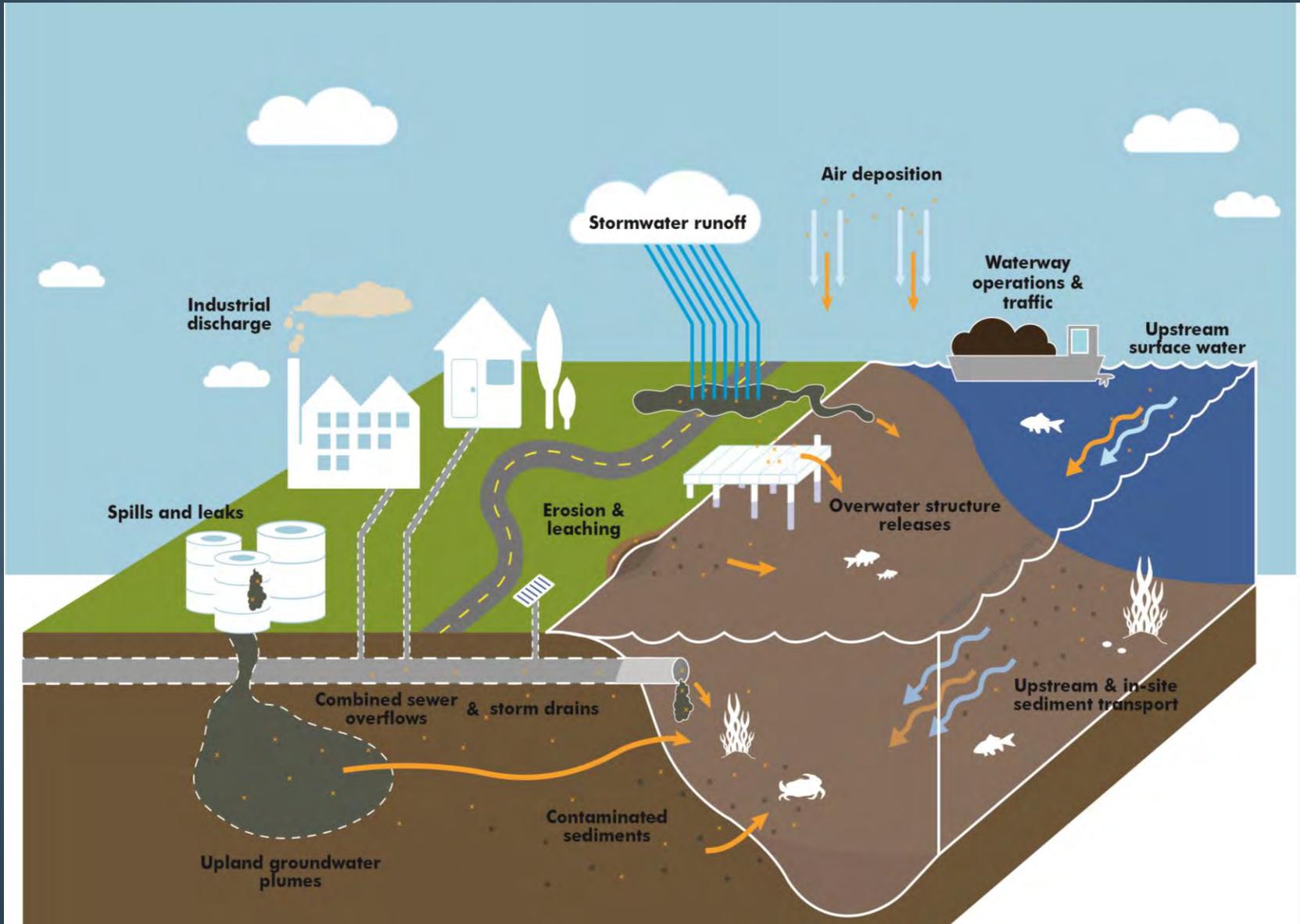


**Source  
Control**



**River-wide  
Sediment  
Cleanup**

# Source Control Pathways Model



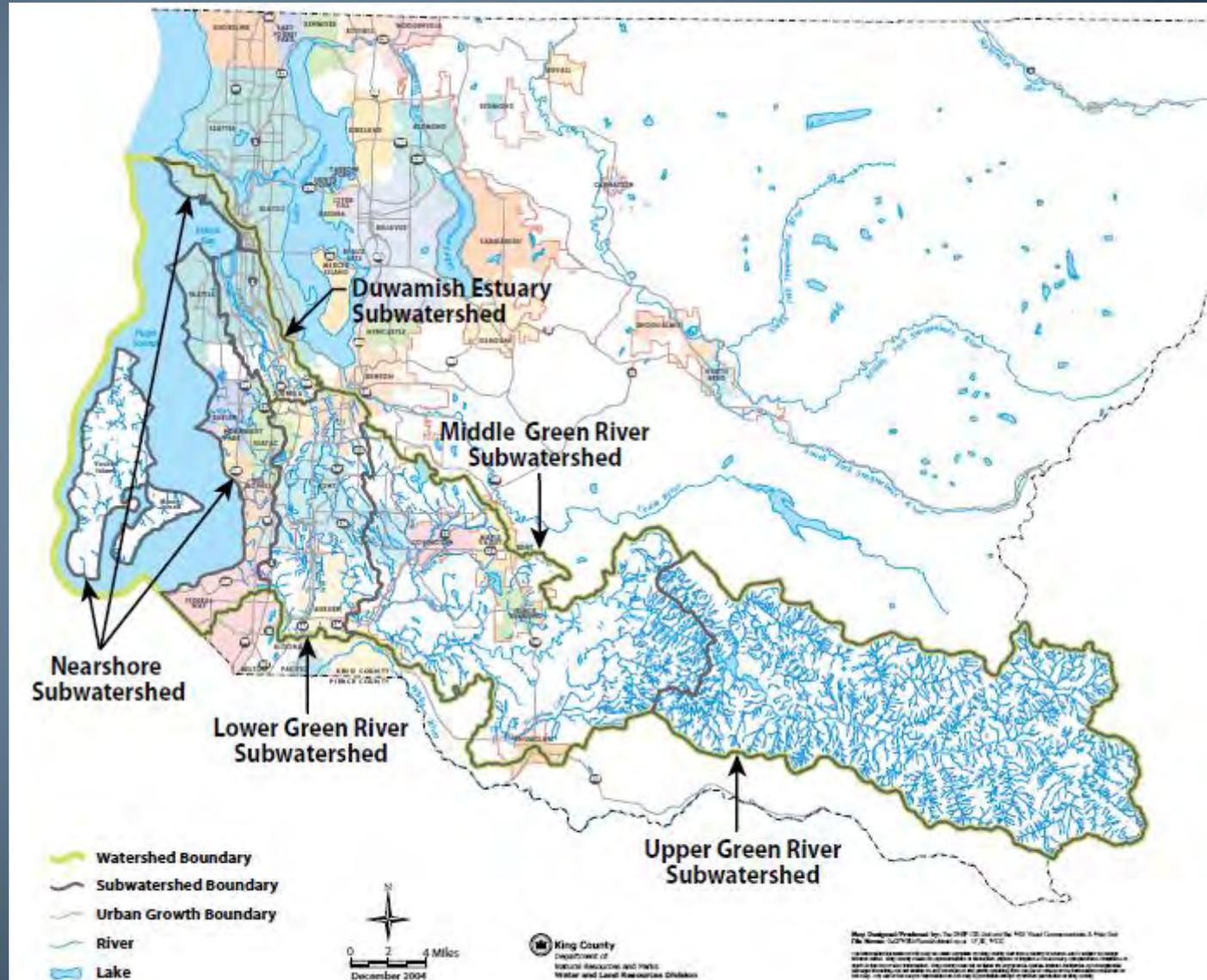
# Contributing Watershed Area

450 square miles

14 municipalities

207,000  
MT/yr solids

57  
contaminated sites



# Immediate Source Area

## Stormwater

## Combined Sewer



**8,900 acres  
(14 sq miles)**

**20,000 acres  
(31 sq miles)**

**~235 outfalls**

**14 combined  
sewer outfalls**

**4,000 MGY  
1,150 MT/yr  
solids**

**75 MGY  
35 MT/yr solids**

**179  
Contaminated  
Sites**

**173  
Contaminated  
Sites**

# Source Control Strategy

Ecology's Source Control Strategy is a stand alone 'living' document.

The Source Control Strategy is an integral part of the LDW cleanup.

Predicated on all agencies using their regulatory authorities toward common goals.

# Source Control Strategy: Goals

## Short Term Goal

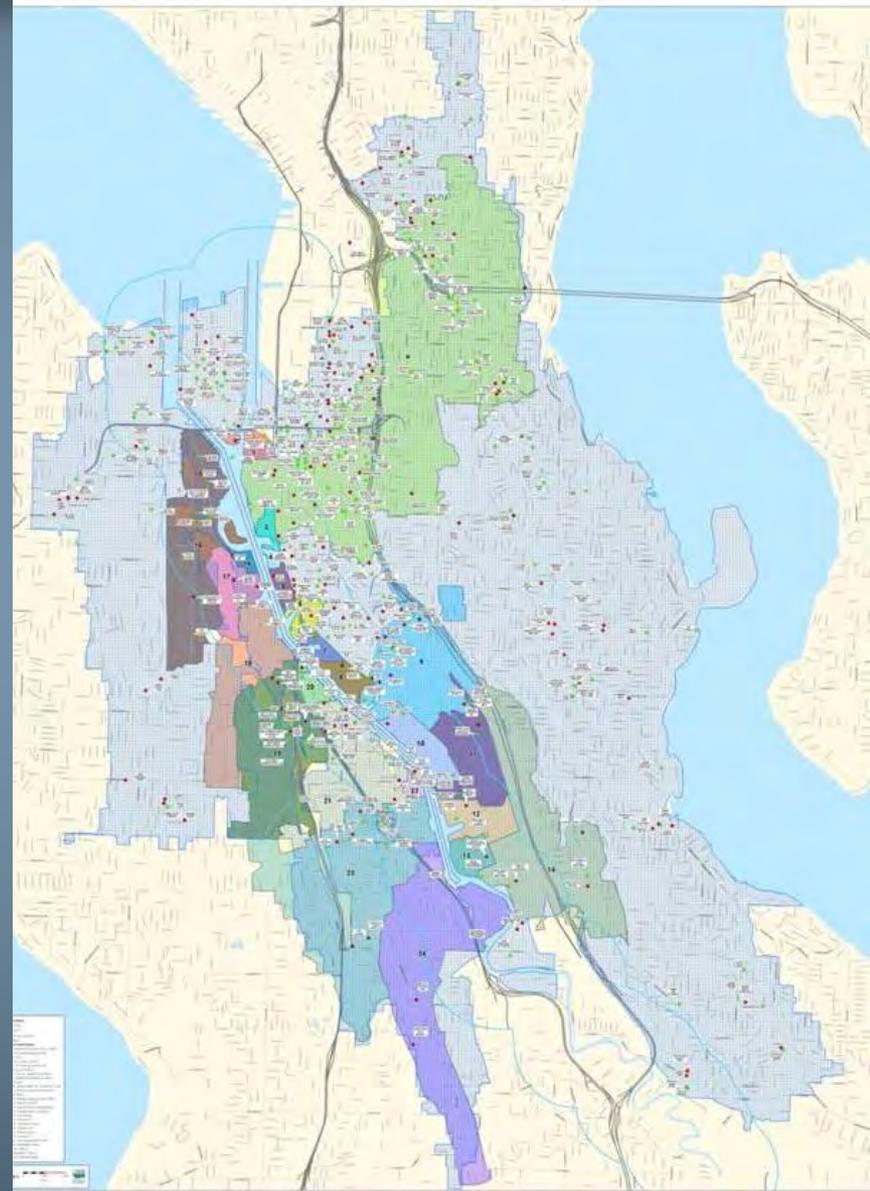
- Control sources of sediment contamination sufficiently to begin active in-waterway cleanup

## Long Term Goal

- Minimize recontamination of sediments after cleanup
- Improve effectiveness of natural recovery

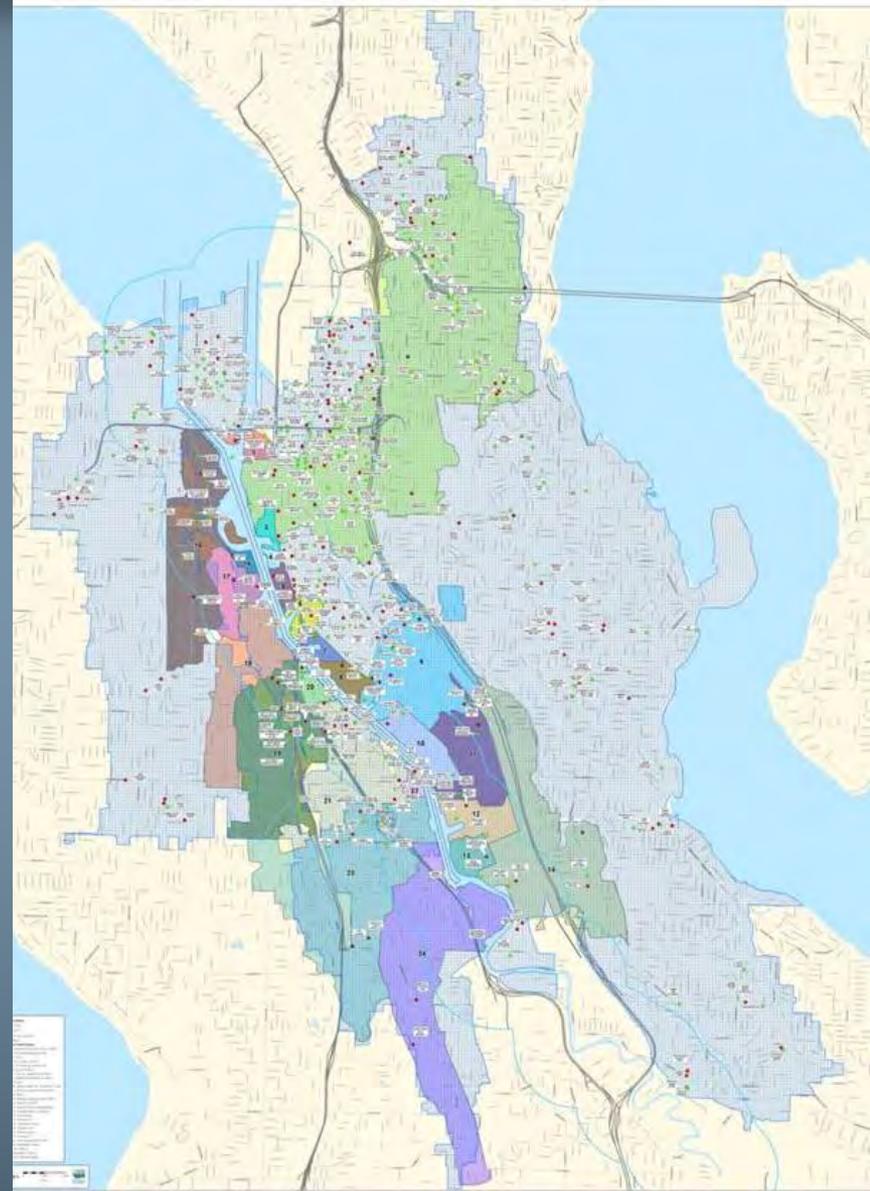
# Source Control Strategy: Foundation

- 24 Source Control Areas
  - Data Gaps
  - Action Plans



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- 24 Source Control Areas
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  - Action Plans
- **Technical Studies**



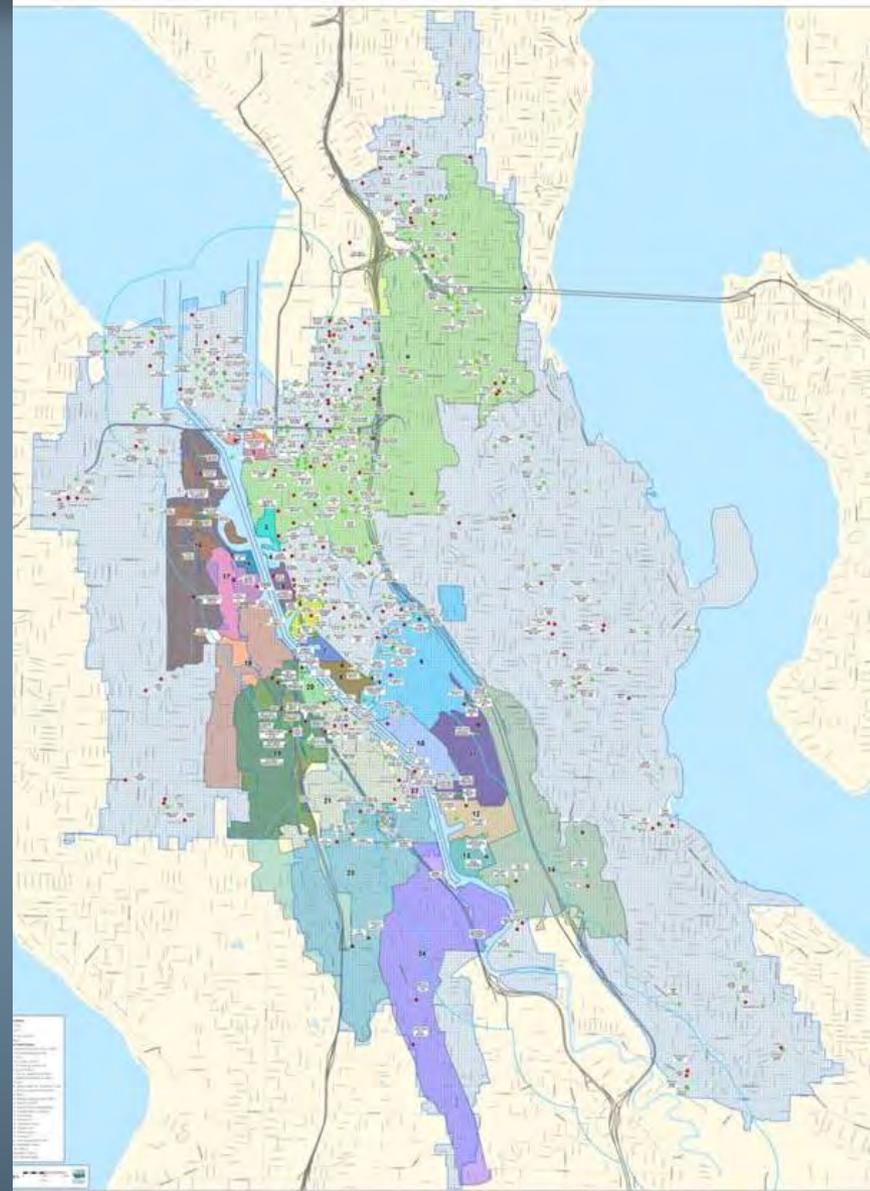
- PCBs in Building Materials
- Outfall Inventory
- Stormwater Pollution Prevention Plan Review
- Industrial Facilities Sampling
- Green River Loading Study
- Green River Environmental Data Compendium
- Cement Kiln Dust Report
- Goose Guano Report
- And many more...

# Technical Studies



# Source Control Strategy: Foundation

- 24 Source Control Areas
  - Data Gaps
  - Action Plans
- Technical Studies
- **Inter-agency Agreements**



# Inter-Agency Agreements

## City of Seattle

- Sample storm drain solids
- Clean storm drain pipes
- Sediment trap pilot project

## Port of Seattle

- Clean storm drain pipes
- Restore river banks

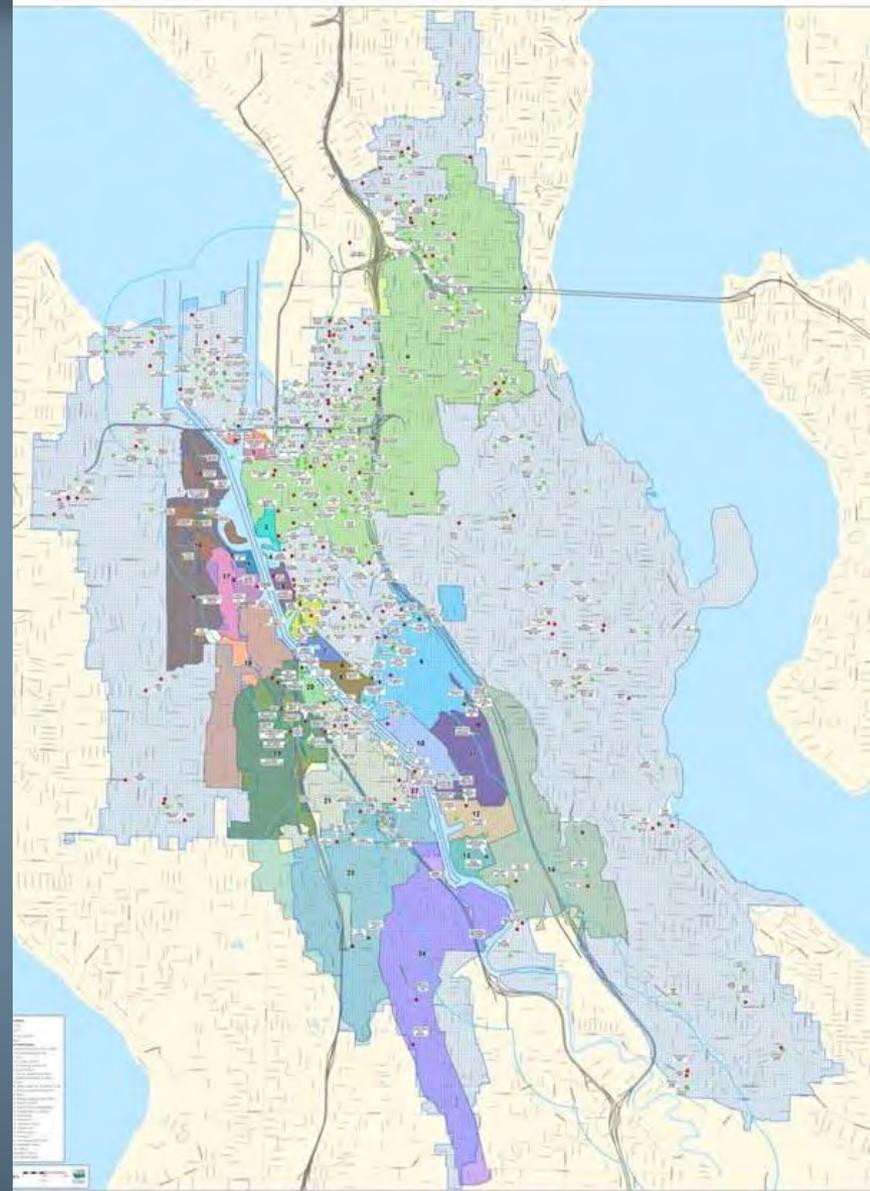
## King County

- Air deposition study
- Watershed ambient conditions study



# Source Control Strategy: Foundation

- 24 Source Control Areas
  - Data Gaps
  - Action Plans
- Technical Studies
- Inter-agency Agreements
- **Implementation Plans**



# Implementation Plans

**A detailed agency-specific plan for conducting source control on the programmatic and site specific levels**

- How each program or division contributes to source control
- How to prioritize actions
- How to measure success
- How to coordinate internally and externally
- How to engage and inform the public

# Implementation Plan Development

**King County**  
Under revision

**City of Seattle**  
Revised draft in  
review

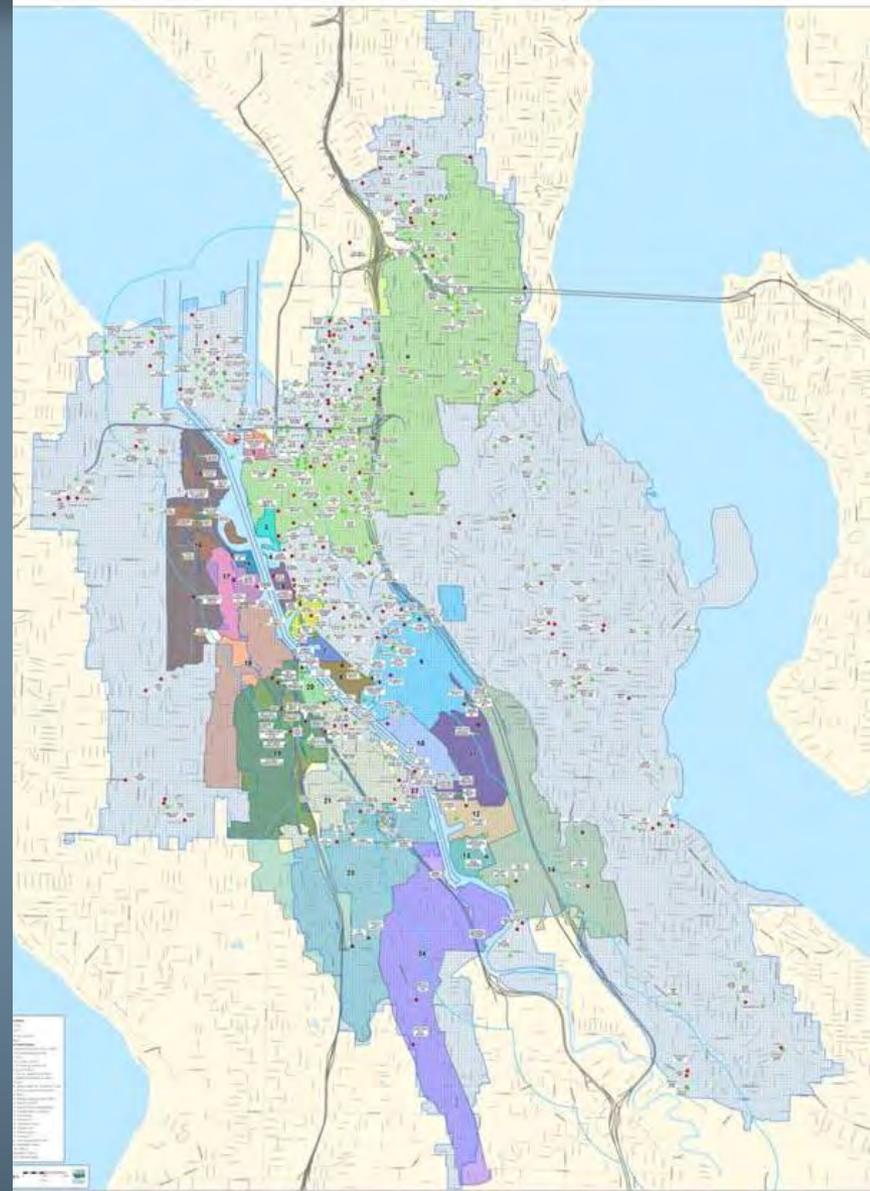
**EPA**  
Draft in review

**Ecology**  
In development

**Goal: Plans will be finalized by end of 2015**

# Source Control Strategy: Foundation

- 24 Source Control Areas
  - Data Gaps
  - Action Plans
- Technical Studies
- Inter-agency Agreements
- Implementation Plans
- **Site Cleanups**



# Site Cleanups

## Ecology

18 sites with Agreed Orders

13 in Toxics Cleanup

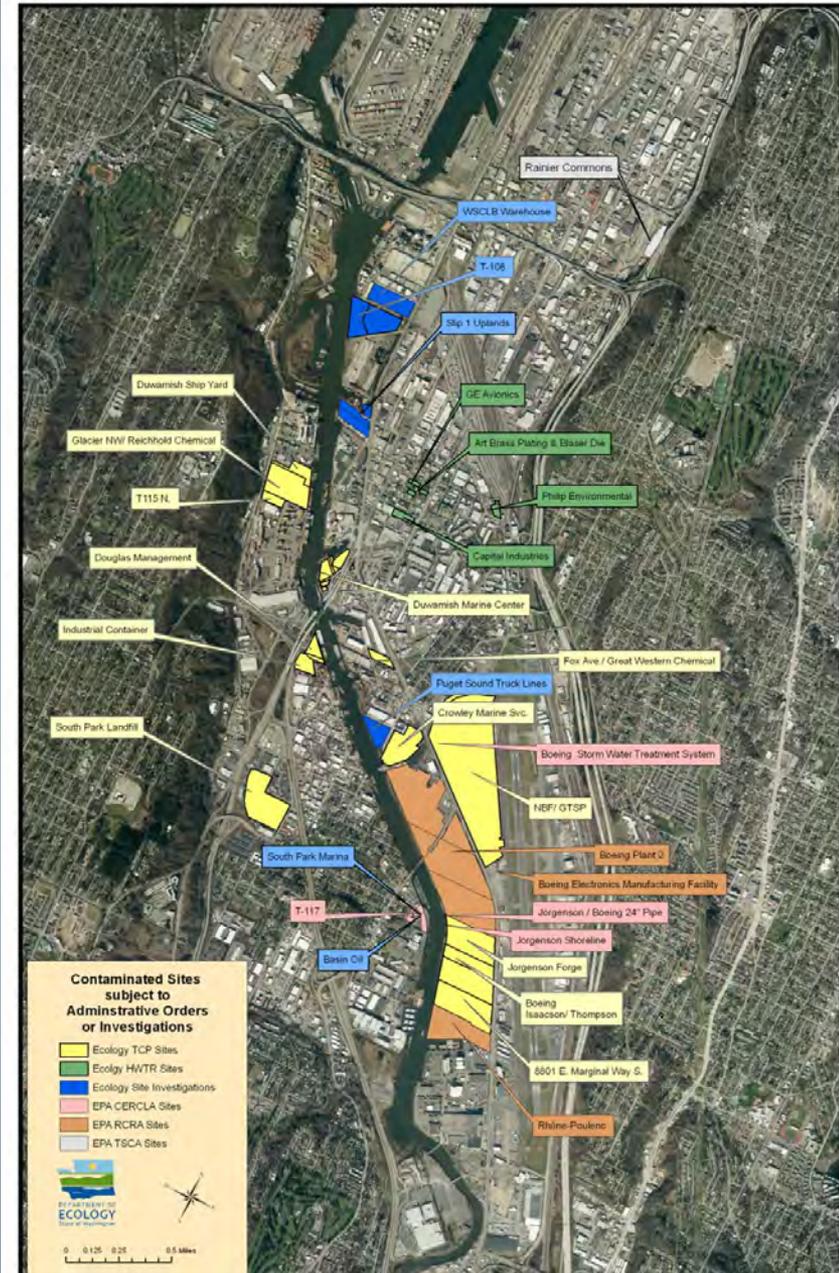
5 in Hazardous Waste

14+ facilities Waiting for  
Agreed Orders

200+ Site Hazard Assessments

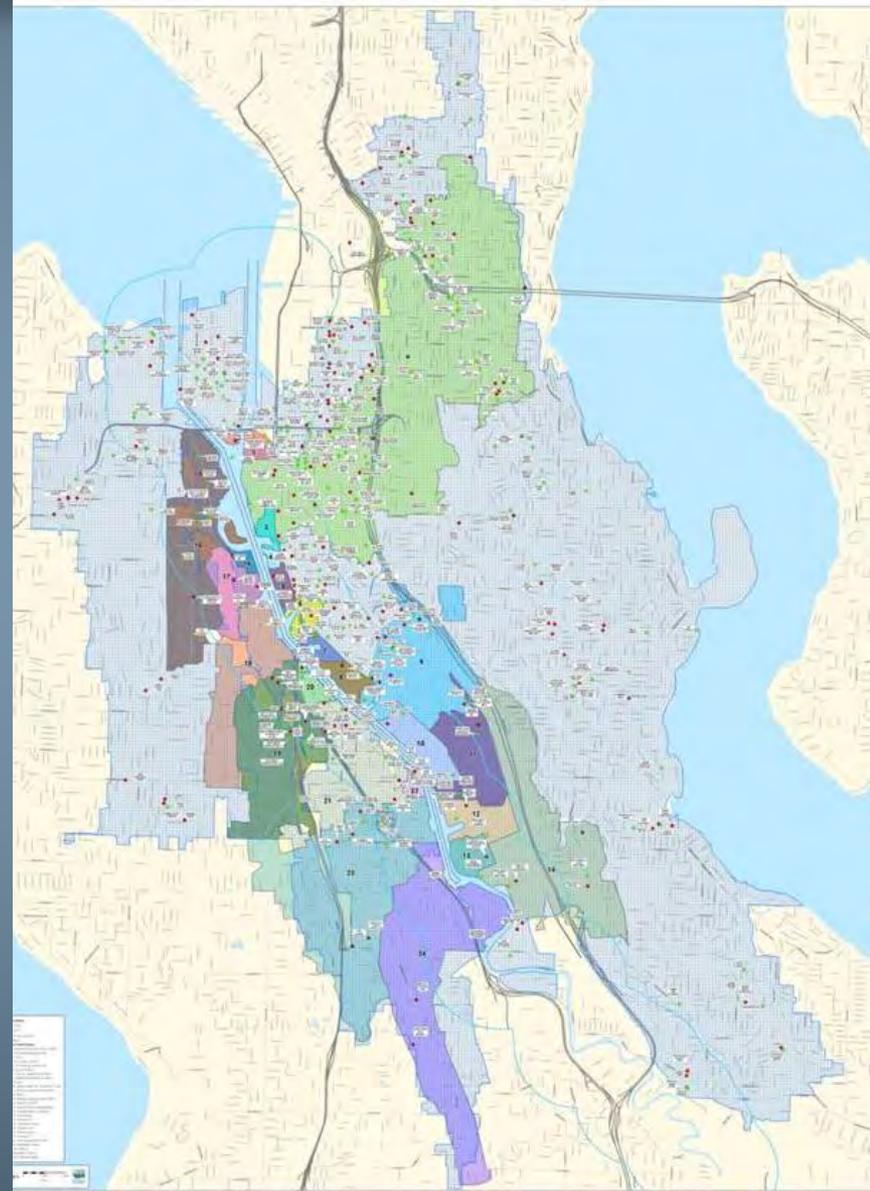
## EPA

6 facilities with CERCLA,  
RCRA or TSCA orders



# Source Control Strategy: Foundation

- 24 Source Control Areas
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- Technical Studies
- Inter-agency Agreements
- Implementation Plans
- Site Cleanups
- **Water Quality Permits**



# Water Quality Permits

- Industrial stormwater treatment, data collection & line cleaning
- Municipal stormwater adaptive management
- Construction stormwater for contaminated sites
- Seattle CSO control: Integrated Plan w/ stormwater treatment
- King County CSO control: Wet Weather Treatment Plant

Permit Type	# in LDW
Industrial Stormwater	95
Boatyard	2
Sand & Gravel	6
Individual Industrial	2
Municipal Stormwater	5
Combined Sewer Overflow	2

# Source Control Strategy: Next Steps

The Draft Strategy is being revised based upon:

- **Additions of the Implementation Plans to the Strategy**
- Public comments



**QUESTIONS?**