

An aerial photograph of an industrial waterfront. A large river or waterway flows through the center, with several large barges and ships docked along the banks. On the left bank, there are industrial buildings, some with smoke rising from them. On the right bank, there are more industrial structures, including a large building with a colorful facade. In the background, a city skyline is visible under a clear sky.

# Lower Duwamish Waterway Source Control Activities – 2010-2013 Dedicated Studies

2013 Science Seminar

Jeff Stern



# Overview

- Purpose and relationship to LDW cleanup process
  - Adequately control sources to:
    - Allow cleanup to occur
    - Limit recontamination of the cleanup
    - Meet cleanup goals
  - Ecology source control lead  
EPA lead on sediment cleanup
- Past Work and Approach
- Water and Land Resources Div. (WRLD) Source Control Studies
- Next Steps



# Past Work and Approach

- LDW Source Control Work Group
  - Plan and coordinate source control actions
  - Ecology, EPA, County (Industrial Waste, Airport, WLRD), Seattle Public Utilities, Port, Tukwila
- Joint Inspection Program → Duwamish Inspectors Group
  - Develop one-stop site inspections and define follow-up authority
  - Ecology water quality and cleanup programs, Seattle Public Utilities, Industrial Waste , WLRD
- Studies
  - Phthalates source study
  - CSO input chemical characterization
  - Air deposition in the LDW
  - Key manhole and industrial user survey

# Past Work and Approach

- Funding Ecology Inspector
  - Stormwater inspections in combined basins (Brandon 1<sup>st</sup>)
  - Fills “hole” in current inspections
    - Lower priority for City than separated basins (CSOs 3% of inputs)
    - Industrial stormwater general permit exempts discharges to combined
  - Position funded for 3 years, starting July 2012, renewed annually
- Source control 3-year emphasis
  - Focus on front-loading source control efforts
    - Identifying and tracking sources to combined system
    - Frame question – what to target next?

# WLRD Source Control Studies

*Information to assist in understanding sources to the LDW*

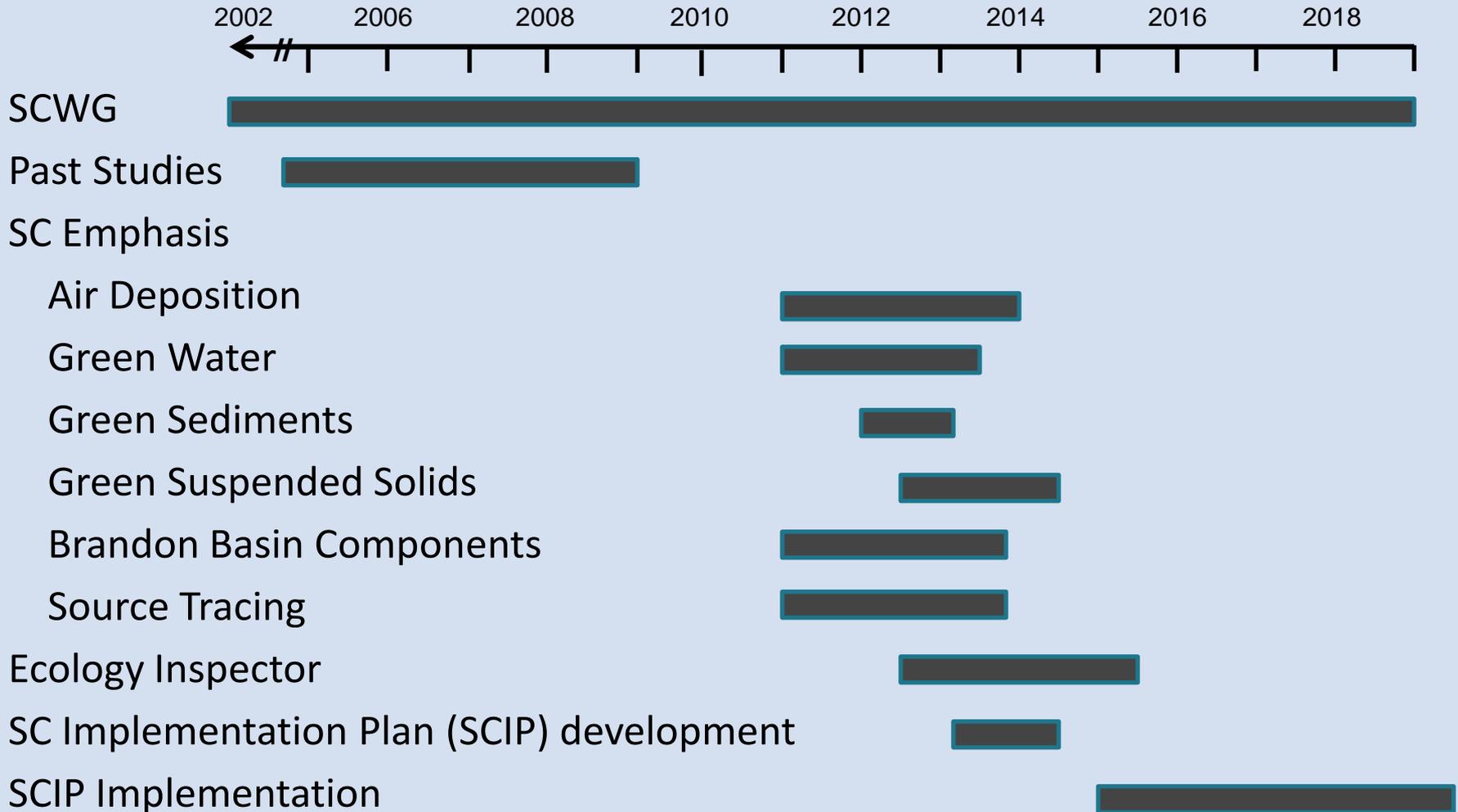
- Bulk Air Deposition Study\*
- Green River Studies
  - Whole Water
  - Stream Sediments\*
  - Suspended Solids\*
- Brandon Basin CSO Study
- Duwamish CSO Source Tracing

\* Received partial funding from Ecology for 3 studies during Jan-Jun 2013  
No current Ecology funding for 2013-15 biennium

Past and present studies at:

<http://www.kingcounty.gov/environment/wastewater/Duwamish-waterway/PreventingPollution/PollutionSources.aspx>

# Source Control Schedule



# Next Steps: Studies

- Finish Studies
  - Data reports
    - Bulk Air Deposition: Draft June 2013
    - Green River Basin Sediments and Whole Water: Draft September 2013
    - Green River Suspended Solids: Draft July 2014
    - Brandon CSO Basin: Draft February 2014
    - Incorporate later study results (e.g., water, air)
    - Final after any comments
  - Follow-up briefings on findings
    - LDW Source Control Work Group
    - LDW Stakeholders
- Identify ongoing source control needs
  - Where to target efforts
  - Outstanding data gaps and questions

# Next Steps:

## Develop Source Control Implementation Plan

- Purpose and scope
  - Programs with regulatory authority
  - Next 5 years of activities, actions and resources
  - Appendices to Ecology Source Control Strategy (includes Ecology, City, Implementation Plan)
- Negotiate with Ecology
  - Target ~mid 2014 (by Record of Decision)

# Long-term Issues Triggered by Ongoing Source Control and Cleanup Goals

- Water body 303(d) listing
  - Sediment removed
  - Tissue and water quality added
- Listing triggers TMDL (timing uncertain)
  - Waste load allocation
  - Discharge limits
  - New discharge moratorium
  - Permit modifications
  - Affects entire basin if upstream contributes