



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Lower Duwamish Waterway

## Source Control Strategy

March 18, 2013

Toxics Cleanup  
Program  
Northwest Regional  
Office

# Source Control Strategy

**Goals and Priorities**

**Sources and Pathways**

**Regulatory Framework**

# Goals and Priorities

## Short Term Goal

- Address existing sources of contaminants within the LDW.

## Long Term Goal

- After the cleanup, minimize the risk of recontaminating sediments above the sediment cleanup standards established in the ROD.

# Goals and Priorities

- Identify and control ongoing sources of chemicals to LDW sediments
- Apply administrative and legal authorities to accomplish corrective actions
- Educate businesses, residents, and agencies others who handle hazardous materials
- Monitor and evaluate source control efforts and revise plans as needed

# Goals and Priorities

- Establish milestones and reporting requirements for source control activities.
- Increase the degree of inter- and intra-agency coordination
- Evaluate whether controls are at the point where a sediment cleanup can proceed

# Sources and pathways

## Controlling Sources

### Contaminant

Origin or release of a chemical caused by some action, event, or industrial or business practice

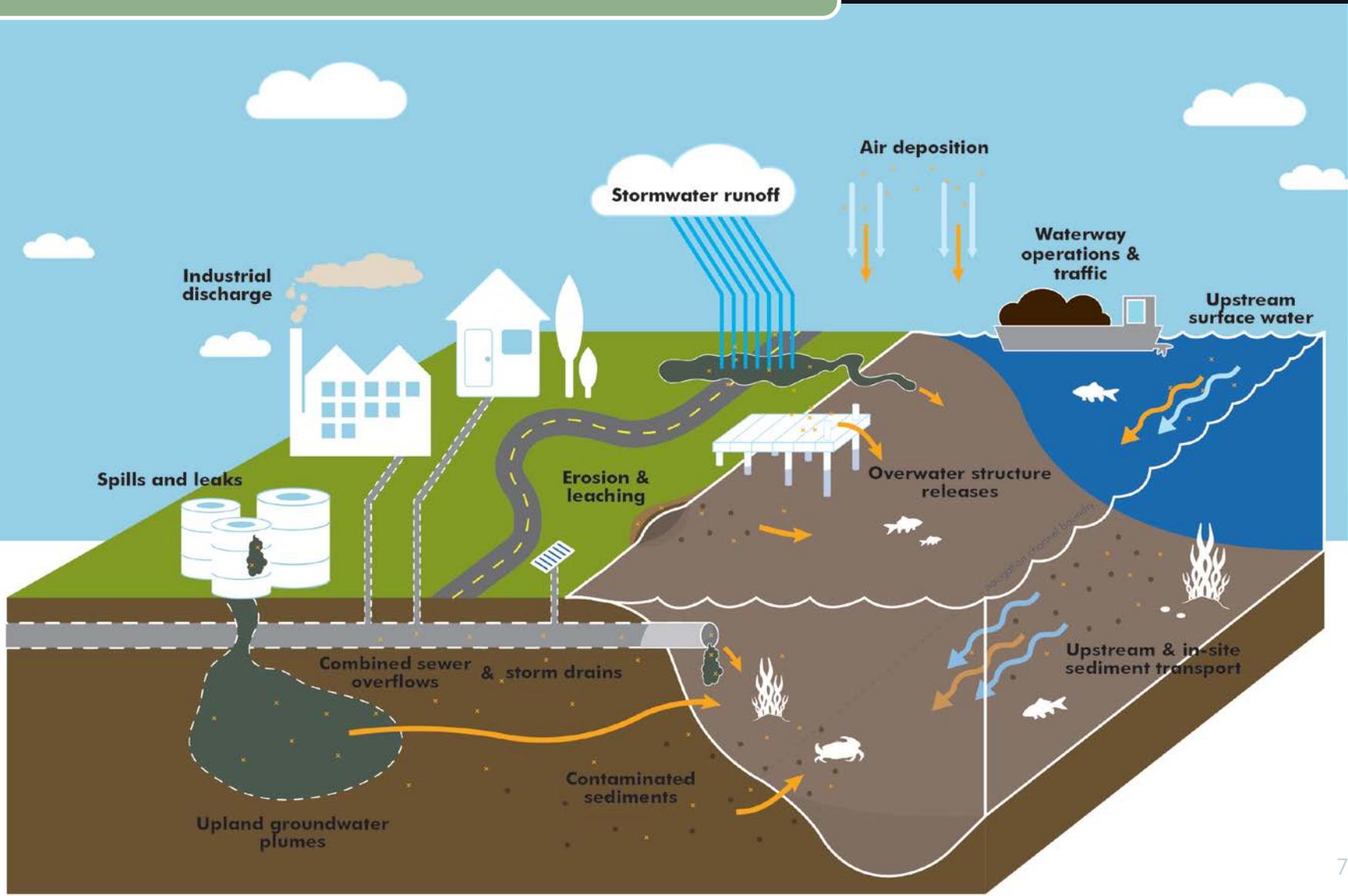
### Media

Volume of air, surface water, groundwater, or soil affected by one or more contaminants

### Pathway

Route to the river that contaminated media travel

# Sources and pathways



# Regulatory Framework

- **Legal mechanisms for implementing source control**
  - Cleanup Program Agreed Orders
    - MTCA
    - CERCLA
    - RCRA
  - Water Quality Program Orders
    - NPDES permits
  - Other mechanisms – local, state, federal?
- **Implementation Plans**

# Agency Specific Implementation Plan

**Goal: Develop a detailed agency specific plan for conducting source control on the programmatic and site specific levels**

- The overarching plan for the next 20-30 years of how **each agency** will manage its programs to address source control
- Intra- and inter-agency coordination between programs
- Ecology, King County, City of Seattle and EPA

# King County Implementation Plan

## Examples of required work:

- Prioritization of source control actions based on locations
- Plan relies on Combined Sewer Overflow long term control plan
- Source management at King County International Airport
- Improve stormwater management program

# EPA Implementation Plan

## Examples of required work:

- Coordinate source control with EPA lead sites
- Continue supporting source control, especially as it relates to CERCLA cleanup
- Elevate local policy issues to national level
- Coordinate with other federal agencies that have authority in the LDW

# City of Seattle Implementation Plan

## Examples of required work:

- Improve stormwater management program
  - Structural stormwater control projects (treatment systems)
- Prioritize capital improvement projects
  - Coordination during road improvement projects
- Develop and implement a circuit-wide stormwater system cleaning program

# Ecology Implementation Plan

## Examples of required work:

- Continue to define sources
  - Air deposition and Green River studies
- Identify and initiate work on new MTCA cleanup sites
- Address tasks outlined in action plans
- Define LDW-wide site cleanup numbers

# Remaining Work

# Coordinating Source Control and Cleanup

- **Develop process for coordination**
  - MOU development and negotiation with EPA
  - Implementation Plans
- **Prioritize cleanup and source control areas**
  - Determine process for sequencing cleanup work
- **Determine if source control is effective**
  - Is it good enough to start cleanup?
  - After cleanup – is it good enough to prevent recontamination?

# Source Control

- **Define and address recontamination**
  - What is recontamination? Over a regulatory limit?
    - SMS, human health risk levels, water quality standards
    - How do we measure this?
- **Adapt to SMS and WQ regulation changes**
  - SMS Rule change effective Sept 1, 2013
  - WQ rule revision process underway (years)

# Technical Work

# Current Technical Work

**Air Deposition  
Study**

**Green River  
Studies**

**Stormwater  
Pollution  
Prevention Plan  
Review**

**Source Tracing  
and Line Cleaning**

# Air Deposition Study

**Goal: Identify potential air sources affecting the LDW and review efforts in other states to control air sources**

- Cataloging stationary air sources
- Literature review
  - Puget Sound and other local studies
  - Other areas with more advanced air deposition studies and programs

**Next Step:**

**Decide how to address air deposition as a source**

## Green River Studies

**Goal: Estimate loading of contaminants from Green River suspended sediments to the LDW.**

- Expands on EAP 2009 study
- Interagency Agreement with USGS
- Sample water, suspended sediment, & bed sediment upstream of the LDW
- Focus on high flow events and times of high suspended sediment concentrations.

**Next Step:**

**Evaluate data & determine follow-up studies or actions**

# Green River Studies

**Goal: Gather information to develop a strategy for addressing inputs from the Green River**

## Existing Information Report

- Plot contaminated sites, hazardous waste generators, NPDES permittees, facilities, etc
- Plot available sediment data
- Map all storm drains and discharge locations
- Coordinating with King County sampling study

## **Next Step:**

**Consolidate with other study results and decide if we need to expand source control to the Green River**

# Stormwater Pollution Prevention Plan Review

**Goal:** Link permitted industrial facilities to specific outfalls

- Joint WQP and TCP project
- Information on discharge points missing from databases and SWPPPS
- Reviewed 100 SWPPPs from permitted facilities
- Matching outfalls and permits

**Next Step:** Address SWPPP deficiencies

# **Commenting on the Source Control Strategy**

# What Types of Comments are We Looking For?

Ways we can coordinate between agencies

Ideas on how to implement source control

Ideas on how to coordinate source control and  
cleanup

Information about historic or current sources

# Next Steps

# Next Steps

**Respond to Comments**

**Establish process for coordinating source control and cleanup**

**Finalize Implementation Plans and Strategy**

A scenic view of a river or canal. On the left, there is a rocky bank with lush green trees and bushes. The water is calm with gentle ripples. In the distance, there are industrial buildings and a dock with several masts or poles. The sky is a clear, bright blue.

# QUESTIONS?