

# WORKING WATERFRONTS AND REGULATORY CONSTRAINTS: A COLLABORATIVE APPROACH

National Working Waterfronts & Waterways Symposium  
March 25-28, 2013  
Tacoma, Washington  
Allison Geiselbrecht, Ph.D.



## Waterfront industries vital to Pacific Northwest

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## Increasing regulatory constraints



Waterfront use must coexist successfully



Limited real estate



Some success stories



## Some success stories

Issuance Date: October 21, 2009  
Effective Date: January 1, 2010  
Expiration Date: January 1, 2015

Modification Issuance Date: May 16, 2012  
Modification Effective Date: July 1, 2012

## **INDUSTRIAL STORMWATER GENERAL PERMIT**

A National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge  
General Permit for Stormwater Discharges Associated With  
Industrial Activities

**State of Washington**  
**Department of Ecology**  
Olympia, Washington 98504-7600

In compliance with the provisions of  
The State of Washington Water Pollution Control Law  
Chapter 90.48 Revised Code of Washington  
and  
The Federal Water Pollution Control Act  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 et seq.

Until this permit expires, is modified or revoked, Permittees that have properly obtained  
coverage under this general permit are authorized to discharge in accordance with the special and  
general conditions which follow.

### Case Study: Stormwater compliance in Washington State



**Table 2: Benchmarks and Sampling Requirements Applicable to All Facilities**

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level <sup>a</sup>	Minimum Sampling Frequency <sup>b</sup>
Turbidity	NTU	25	EPA 180.1 Meter	0.5	1/quarter
pH	Standard Units	Between 5.0 and 9.0	Meter/Paper <sup>c</sup>	±0.5	1/quarter
Oil Sheen	Yes/No	No Visible Oil Sheen	N/A	N/A	1/quarter
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	1/quarter
Zinc, Total	µg/L	117	EPA 200.8	2.5	1/quarter

<sup>a</sup> The Permittee shall ensure laboratory results comply with the *quantitation level* specified in the table. However, if a Permittee knows that an alternate, less sensitive method (higher detection level and *quantitation level*) from 40 CFR Part 136 is sufficient to produce measurable results in its effluent, it may use that method for analysis.

<sup>b</sup> 1/quarter means 1 sample taken each quarter, year-round.

<sup>c</sup> Permittees shall use either a calibrated pH meter or narrow-range pH indicator paper with a resolution not greater than ± 0.5 SU.

## Stormwater numerical benchmarks

# BENCHMARKS DIFFICULT TO ACHIEVE

- 3 years into permit – roughly 67% of facilities routinely exceeding permit limits.
- Many facilities now at Level 3 phase requiring evaluation and installation of stormwater treatment.



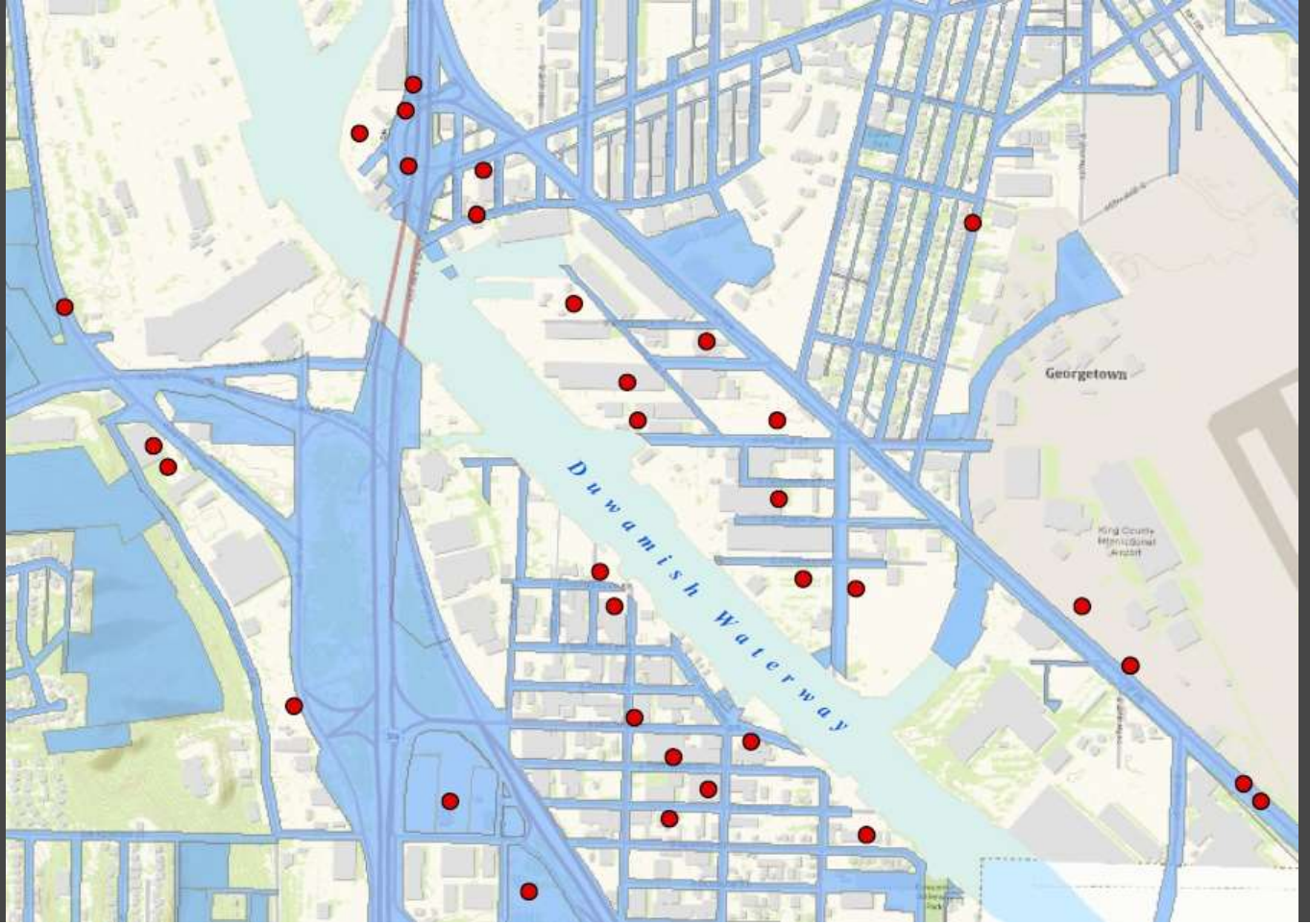
Stormwater treatment—can occupy large footprint on a small site



Significant disruption during construction

## FOCUS ON INDIV. INDUSTRIAL PARCELS ILLOGICAL

- Zinc, turbidity, and copper primary concerns
- All three are associated with releases from vehicles – tires, fuels, brakes – in addition to industrial sources
- Washington State facilities under SIC codes such as bus barn, marine cargo handling, general warehousing, and trucking companies are in the top 15 industry types exceeding ISWGP benchmarks



## ISWGP facilities in South Seattle



## Map of ISWGP coverage – by parcels



## Map of ISWGP coverage – with public ownership



# NEW APPROACH NEEDED – MULTI-PARTY BASIN-WIDE TREATMENT

- Define industrial basins and ID contributors – including streets
- Basin organized like utility district – new entity representing basin contributors and with responsibilities
- Centralized treatment locations – most likely on public land
- Discharges routed to central treatment
- Central treatment = economy of scale



## South Seattle

## MULTI-PARTY BASIN TREATMENT (CONT).

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- More sustainable, efficient, treatment systems possible – green infrastructure alternatives
- Provides NPDES permit holders benefits
- Reduces loading from basin to receiving waters
- Maximizes private and public funding opportunities



## Low impact development options

## MULTI-PARTY BASIN TREATMENT (CONT).

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- Would require a new permitting class
- Could be based on other “utility district” constructs to share costs and liabilities
- Municipalities would need permit modifications – areas carved out of muni permits

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