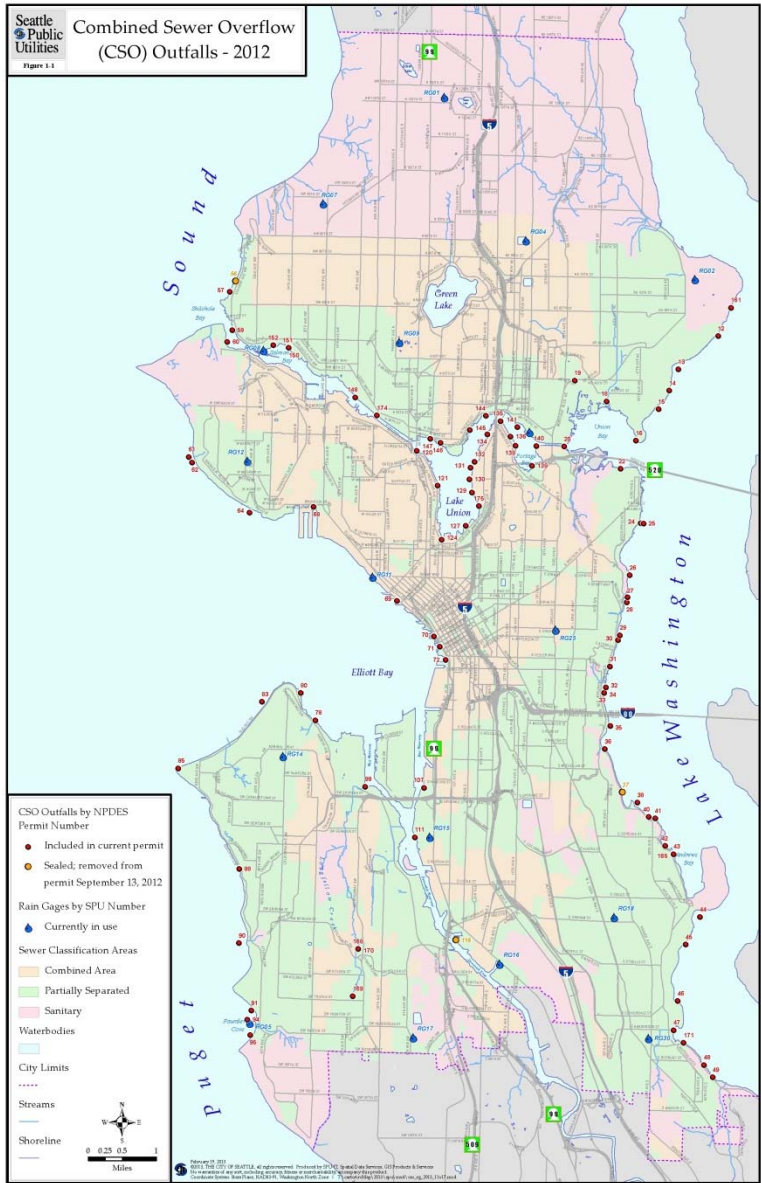


# NINE MINIMUM CONTROLS

Just what are they anyway?

# It's all about water quality

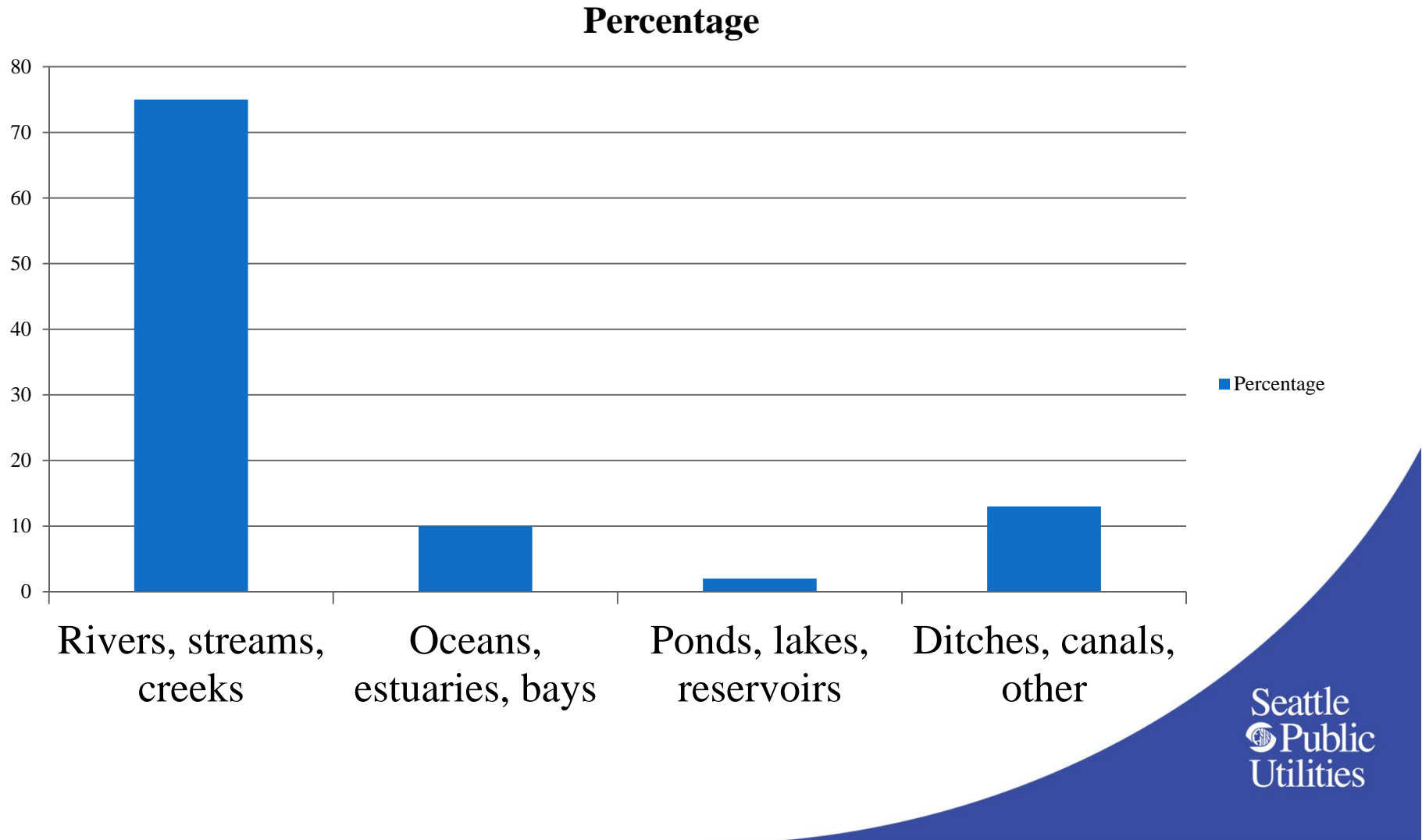
- Combined Sewer Overflows:
  - Point source discharges subject to NPDES Permit and Clean Water Act requirements
- City has separate SW and CSO NPDES Permits



# Where are CSO Systems?



# Nationwide Types of Water Bodies CSOs Discharge to



# CSOs and Drinking Water Intakes

2004 CSO Combined Sewer Overflow  
Statistically-Valid Noncompliance Rate Study  
(EPA Compliance and Enforcement):

59 CSO outfalls are located within one mile  
upstream of a surface water drinking  
source

# National Combined Sewer Overflow Control Strategy August 10, 1989

- Three objectives:
  - Only wet weather CSOs
  - Clean Water Act technology and water quality requirements
  - Minimize CSO impacts
- Confirms CSOs are point sources

# National Combined Sewer Overflow Control Strategy August 10, 1989 cont'd

- CSO point sources subject to NPDES technology-based permit limits:
  - BCT – best conventional pollutant control technology
  - BAT – best available technology economically achievable



# National Combined Sewer Overflow Control Strategy August 10, 1989 (cont'd)

- Minimum technology-based limits (BCT/BAT)
  1. Proper O&M
  2. Max use of collection system for storage
  3. Pretreatment programs to minimize CSO impacts
  4. Max flow to POTW
  5. Prohibit dry weather overflows
  6. Control of solid and floatables in CSOs
- Monitoring and additional CSO controls

# Combined Sewer Overflow Control Policy

## April 19, 1994 Federal Register

- Objectives:
  - Guidance to permittees and authorities
  - Ensure coordination among appropriate parties
  - Ensure public involvement in decision making
- Expectations, flexibility, phased approach

# Combined Sewer Overflow Control Policy

## April 19, 1994 Federal Register (cont'd)

- **Nine Minimum Controls**

1. Proper O&M
2. Max use of collection system for storage
3. Pretreatment programs to minimize CSO impacts
4. Max flow to POTW
5. Prohibit dry weather overflows
6. Control of solid and floatables in CSOs
- 7. Pollution Prevention**
- 8. Public Notification of CSOs**
- 9. Monitoring**

## 9 Min Controls: O&M and CAPACITY

1. Proper O&M for sewer system
2. Max use of collection system for storage
4. Maximize flow to POTW for treatment
5. Eliminate dry weather overflows

## **9 Min Controls: WATER QUALITY & PUBLIC IMPACTS**

3. Pretreatment programs
6. Control of solid and floatable materials
7. Pollution prevention
8. Public notification of CSOs
9. Monitoring to characterize CSO impacts and CSO controls

# Control 3: Pretreatment Programs

- King County Industrial Waste Permits
- SPU Fats, Oils, and Grease Program

# Control 6: Control of Solid and Floatables in CSOs



Photo: Rick Loomis, LA Times  
EPA Region 9 web site

# Control 7: Pollution Prevention

- Objective:
  - Reduce contaminants that enter the sewer system
- Control Measures:
  - Street cleaning
  - Public education programs
  - Solid waste collection and recycling
  - Product ban/substitution



# Control 7: Pollution Prevention (cont'd)

- Control measures (cont'd)
  - Control of product use (pesticides, de-icing)
  - Illegal dumping
  - Bulk refuse disposal
  - Hazardous waste collection
  - Water conservation

# Control 7: Pollution Prevention (cont'd)

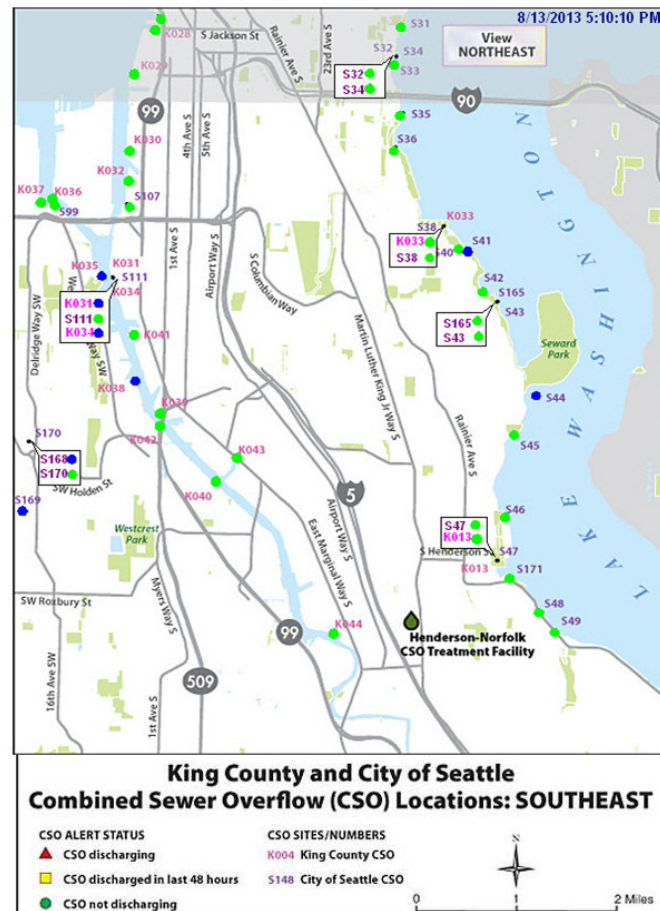
- Control measures (cont'd)
  - **Commercial/Industrial Pollution Prevention**
    - Focus on waste oil or haz waste storage
    - Apply BMPs to minimize pollutants to storm drains
      - Link to stormwater BMP guidance
- Anything that flows into a CSO will flow untreated into a waterway during an overflow

# Control 8: Public Notification of CSOs

- Inform public of:
  - CSO outfall locations
  - Actual CSO occurrences
  - Potential health and environmental effects of CSOs
  - Curtailed recreational (swimming) or commercial activities (shellfish harvesting)

# CSO Notification Web Site

SE Seattle CSO Status



[www.kingcounty.gov/CSOStatus](http://www.kingcounty.gov/CSOStatus)

# Control 9: Monitoring to characterize CSO impacts and CSO Controls

- Initial characterization of the combined sewer system overflow occurrences
- CSO impacts
  - Beach closings
  - Shoreline washup of floatables
  - Fish kills
  - Small boat hazards
  - Street/basement flooding

# Nine Minimum Controls – In Summary

- Required by NPDES Permit
- CWA technology-based BCT/BAT
- Part of Annual CSO Report and CSO Permit Reapplication
- Current CSO NPDES Permit 2010 - 2015

# Seattle Sewer System – Pollution Prevention Required Everywhere

