

# ENVIRONMENTAL SERVICES WORKING FOR CLEAN RIVERS



ENVIRONMENTAL SERVICES  
CITY OF PORTLAND



A nighttime photograph of a large steel truss bridge spanning a wide river. In the background, several modern high-rise buildings are illuminated with warm lights, their reflections shimmering on the water's surface. The sky is a deep blue with some light clouds. The overall scene is serene and urban.

# *a river renewed*

Portland CSO Program Completion

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# The Willamette was Polluted

**WARNING!**

**Sewage** 

Avoid contact with river after rain.



ENVIRONMENTAL SERVICES, CITY OF PORTLAND 823-2479



- Portland's combined sewer system – like more than 1,000 others nationwide – overflowed when it rained
- **1991** – City signs Stipulation and Final Order (SFO) with DEQ to eliminate most CSOs
- **1994** – City signs Amended Stipulation and Final Order (ASFO) to reduce Columbia Slough CSOs 99% and Willamette River CSOs 94%





# CSO Control Milestones

**2000**

Work completed on Columbia Slough CSO projects



**2006**

West side Willamette River CSO projects completed



**2001**

7 Willamette River CSO outfalls controlled



**2011**

East side CSO projects completed



2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013



# Final CSO Compliance

- CSOs controlled by December 1, 2011 as required by ASFO
- ASFO required a final CSO compliance report 12 months after the end of CSO construction
- City submitted compliance report in December 2012 to satisfy Portland's last CSO control requirement





# System Performance



- Before the CSO Program—average of 50 CSO events per year, average annual CSO volume of 6 billion gallons
- Average annual rainfall is 37 inches – 53 inches fell between 12/01/11 and 11/30/12
- During that time, 7 storms were large enough to cause overflows
- The CSO system captured three storms and we had 4 CSO events that discharged 497 million gallons





# The Challenge

- Managing stormwater runoff is key to continued CSO control
- Expanding green streets and other green infrastructure that captures and infiltrates stormwater runoff
- Increases pipe system efficiency, protects CSO investments and restores watershed health





# So What Does the Future Hold?



- A clean Willamette means more interest in recreational use
- More public access – people wanting to enjoy the dividends
- We sample and report water quality conditions online at [www.portlandoregon.gov/bes/WillametteRiverRecreationIndex](http://www.portlandoregon.gov/bes/WillametteRiverRecreationIndex)

