

ENTER A DRAWING!

Help celebrate completion of the CSO Program. We'll draw names this June and a limited number of the winners will tour the Swan Island CSO Pump Station. Go nearly 160 feet below ground to see the giant machines that pump up to 220-million gallons a day to help keep the Willamette River clean.



To enter go to
www.portlandonline.com/bes/drawing

Only City of Portland residents
are eligible.

CSO Video Update

Controlling CSOs cost Portland sewer ratepayers \$1.4 billion. But it's hard to see the results of their investment because most CSO facilities are underground. Go to

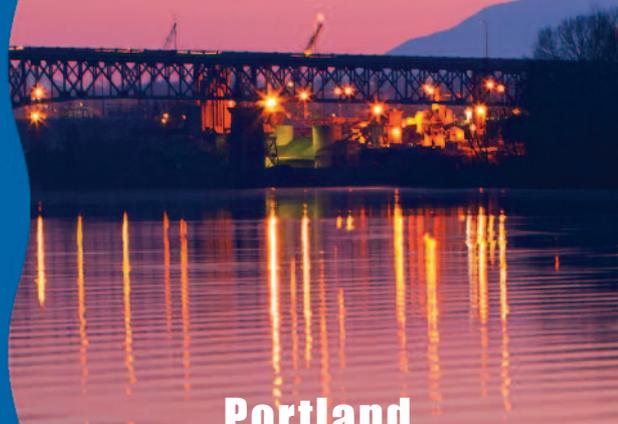
www.portlandonline.com/bes/csovideo

to see a new video that shows where CSO facilities are, how the city constructed them and how the new system works.

For disability accommodation requests:
Call 503-823-7740, TTY 503-823-6868
Oregon Relay Service 1-800-735-2900

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working for clean rivers



Portland CSO Program 1991 - 2011

Celebrating the
successful completion
of Portland's
combined sewer
overflow (CSO)
control program



ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers



Dan Saltzman, Commissioner
Dean Marriott, Director

www.portlandoregon.gov/bes

Environmental Services completed the city's 20-year program to control CSOs to the Columbia Slough and Willamette River in December 2011. That reduces CSO volume to the river by 94%, and means that CSO frequency has dropped from about 50 events per year to an average of four each winter and one every third summer.

How We Got Here

CSO control projects ranged from traditional sewer construction to state-of-the-art tunneling. Construction started in 1994 on projects, like the downspout disconnection program, that keep stormwater runoff out of the combined sewer system.

Innovative Construction

Construction of larger, more complicated projects to convey and treat combined sewage began with the 3.5-mile long Columbia Slough Big Pipe, which virtually eliminated CSOs to the slough when it was completed in 2000.

In 2006, the city completed the 3.5-mile long, 14-foot diameter West Side Big Pipe and the Swan Island Pump Station. In 2011, the city activated the largest of all CSO construction projects, the six-mile long, 22-foot diameter East Side Big Pipe.



Green Infrastructure

The CSO Program expanded sewage and stormwater pipe system. The city is also using green infrastructure to manage stormwater more sustainably. Green infrastructure keeps stormwater out of sewers to make the traditional pipe system more effective, saves money, and helps restore watershed health.

✓ Portland and its partners are planting thousands of street and yard trees to help reduce stormwater runoff and prevent erosion.



✓ The city is constructing green street facilities to collect and filter street runoff.



✓ Portland offers incentives to replace conventional roofs with ecoroofs, vegetated roof systems that absorb rain and reduce stormwater runoff volume.

✓ The city protects and restores natural areas by removing invasive vegetation and restoring native plants to naturally manage stormwater and enhance fish and wildlife habitat.

