

# Willamette River Watershed

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## Willamette River Combined Sewer Overflow Tunnel Program Update

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Welcome to 2012, the first full year in Portland's history that we are not using the Willamette River as a default sewer. Completing the CSO Program last month should dramatically alter the way you see your river and interact with it.

Environmental Services has met its December 2011 deadline to complete its 20-year program to control combined sewer overflows (CSOs) to the Willamette River and Columbia Slough. An Oregon Department of Environmental Quality (DEQ) order, originally issued in 1991 and amended in 1994, required the city to control CSOs by December 1, 2011. Completing the CSO program reduces CSO events from an average of 50 per year to an average of four each winter and one every third summer, but it takes a lot of rain to make that happen; nearly 1.2 inches in 24 hours for the river and 2.5 inches in 24 hours for the slough. The program reduced annual CSO volume to the Columbia Slough by 99% and to the Willamette River by 94%.

Work started on the CSO Cornerstone Projects in 1994 to remove as much stormwater runoff as possible from combined sewers, which allowed engineers to design smaller, less expensive facilities to collect and convey combined sewage. Today the stream diversion, sewer separation, sump installation and downspout disconnection projects remove an average of 2.2-billion gallons of stormwater per year from the combined sewer system. Downspout disconnections alone remove an average of 1.2-billion gallons from the system annually.

Construction of larger projects began in 1996 with the Columbia Slough Big Pipe, a 3.5-mile long conduit ranging in diameter from six to 12 feet. The city completed the pipeline and



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projects to expand capacity at the city's sewage treatment plant in 2000. Construction began on West Side CSO projects in 2002. They included the 3.5-mile long, 14-foot diameter West Side Big Pipe, the Swan Island CSO Pump Station, the Peninsular Force Main and the Southwest Parallel Interceptor. The city activated the West Side Big Pipe in 2006 to control CSO outfalls on the west side of the Willamette River. Also in 2006, the city broke ground on the East Side CSO Big Pipe Project, the largest public works project in Portland history. In fall 2011, the city activated the six-mile long, 22-foot diameter tunnel and completed work on the Balch Consolidation Conduit and the Sellwood CSO Pump Station to complete CSO construction.

Over 20 years, the CSO program has cost Portland sewer ratepayers an estimated \$1.4-billion. That estimate includes the costs of more than 300 CSO construction projects since 1994.

2012 will be exciting and a year of even more successes. We'll continue to invest in green infrastructure. We'll make progress in maintaining and improving our aging infrastructure (30 % of our collection system is over 80 years old). We'll continue our work to restore the health of our urban watersheds.

If you have not already seen our new our new CSO program video, narrated by 60 Minutes correspondent Lesley Stahl, you can view it at [www.portlandonline.com/bes/csosvideo](http://www.portlandonline.com/bes/csosvideo).

It has been a pleasure working with all of you and we sincerely appreciate your patience during all of these years of construction.