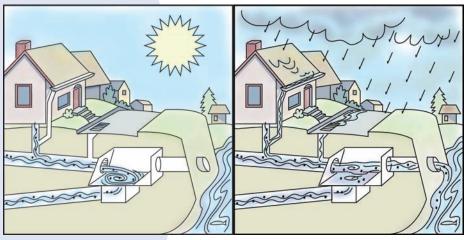
Portland's CSO Program

lmost every time it rains, Portland's combined sewers overflow into the Willamette River. Combined sewer overflows (CSOs) carry raw sewage that pollutes water and threatens our quality of life.



rainwater fills the combined sewer system causing overlows into the river

How We Got Here

Older Portland neighborhoods have a sewer system that mixes untreated sewage and stormwater runoff in a single pipe. On rainy days, runoff from buildings, streets, and other hard surfaces fills these combined sewers to capacity and they overflow into the Willamette River.

Working for Clean Rivers

Controlling CSOs is an important part of Portland's efforts to improve Willamette River water quality. CSO solutions include projects to remove stormwater runoff from sewers and building new facilities to carry sewage and stormwater to the Columbia Boulevard Wastewater Treatment Plant.

For more information, call Environmental Services at 503-823-7740.





Dean Marriott, Director

www.cleanriverspdx.org

OD 0512 #3

Cornerstone Projects

Portland started the CSO control program in 1991 with a set of Cornerstone Projects that remove stormwater from combined sewers. Projects include installing street sumps and sedimentation manholes, building separate sewers for stormwater in some neighborhoods, encouraging homeowners in targeted neighborhoods to disconnect downspouts from the sewer system, and removing west hills streams from the combined sewers.

Green Solutions

Environmental Services promotes other innovative projects to manage stormwater onsite instead of piping it into sewers or streams. Projects include ecoroofs, pervious pavement, swales and stormwater planters.

Big Pipe Projects

Environmental Services completed the Columbia Slough Big Pipe in 2000. The 12-foot diameter pipeline reduced CSOs to the Slough by 99%.

Construction of the Swan Island Pump Station and the West Side Big Pipe will be complete in 2006. The 3.5-mile, 14-foot diameter tunnel will carry combined sewage from the west side of the Willamette to Swan Island and the pump station will pump it to the wastewater treatment plant.

Also in 2006, Environmental Services will begin construction of the East Side Big Pipe, a six-mile long, 22-foot diameter tunnel to collect sewage from the east side of the Willamette. When completed in 2011, these projects will reduce CSOs to the Willamette by 94%.