What are the Benefits from the CSO Control projects?

- Cleaner rivers in the Springfield area for fishing and boating
- Renewal and improvement of collection system infrastructure, which will improve level of service for sewers
- New sidewalks and paved streets at project sites
- Stormwater management features, including "green" infrastructure
- Improved system operational flexibility to control CSOs and maximize treatment during heavy rain events
- Compliance with Massachusetts DEP and USEPA requirements

Springfield's Long Term CSO Control Plan (LTCP) wQuick Facts

- Twelve screening level CSO control alternatives were created and modeled for CSO control performance.
- The screening level CSO control alternatives included storage tanks, tunnels, relief sewers, satellite treatment facilities, total sewer separation and "hybrid" combinations of these.
- The screening level alternatives were evaluated for cost, performance, constructability, operation and maintenance requirements, infrastructure renewal, community disruption and potential community benefit, which resulted in the "hybrid" alternative selected for further analysis.
- Over 70 variations of the "hybrid" CSO control alternatives were created and modeled for CSO control performance. These alternatives were evaluated for cost effectiveness, performance, constructability, infrastructure renewal, CSO control optimization, implementation flexibility, community disruption, and potential community benefit.
- A regional water quality model was used to analyze the receiving water quality benefits of the highest rated alternatives and final selected plan.

CSO Program Public Hearings

The Commission will be hosting two public hearings to present the CSO control program and explain the public commenting process.

Public Hearing Dates:

Wednesday, March 21, 2012
6:00 p.m.
Central High School
Cafeteria #2
1840 Roosevelt Avenue

Tuesday, April 3, 2012
6:00 p.m.
Springfield City Hall
36 Court Street
City of Springfield

CSO Program Contact Information

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Springfield Water and Sewer Commission's Combined Sewer Overflow (CSO) Long Term Control Plan Overview

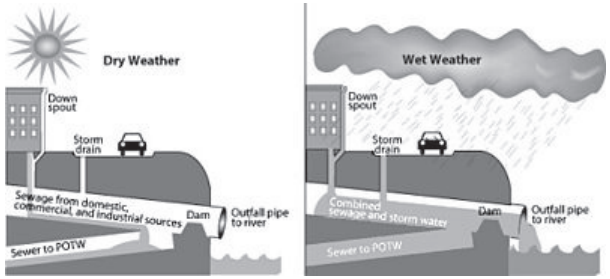
Publication date: March 15, 2012

Combined Sewer Overflow (CSO) Program

The Springfield Water and Sewer Commission is responsible for providing wastewater collection and treatment services to eight communities including the City of Springfield. The Commission is in the process of updating its Long Term Combined Sewer Overflow (CSO) Control Plan which will significantly reduce the impact of Springfield's CSOs on the Connecticut, Chicopee and Mill Rivers over the next 20 years.

What is a CSO?

In older sewer systems such as Springfield's, combined sewers were commonly constructed to collect and transport sanitary sewage and stormwater together in one pipe. During heavy rain events, the combined sewer fills up beyond capacity with stormwater runoff and diluted sanitary sewage. To prevent the excessive flow from backing up into basements and spilling onto roadways, discharge relief points were installed so the excess flow would empty into water bodies. Each discharge relief point is known as a combined sewer overflow, or CSO (illustrated below). A CSO is the discharge of wastewater and stormwater from a combined sewer system directly into a river, stream, lake or ocean. CSOs are caused by stormwater runoff during rainfall events.

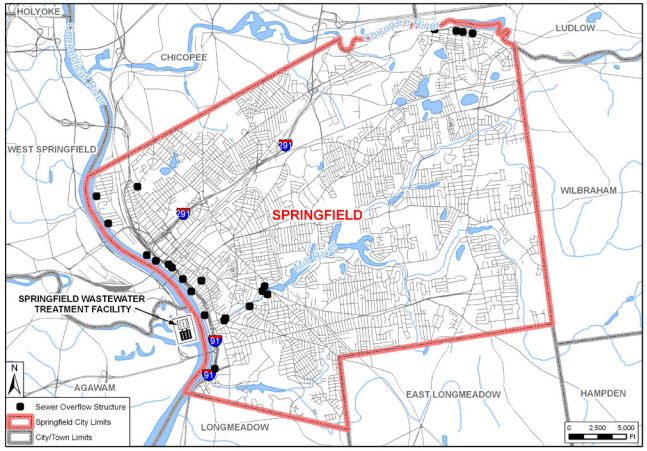


**POTW = Publicly Owned Treatment Works (Treatment Plant)*

Stormwater runoff contributes a significant amount of pollutants to CSO. Pollutants like oil, grease, and fecal matter from pet and wildlife waste, and pesticides accumulate on hard surfaces and are flushed into the sewer system when it rains.

Where are Springfield's CSOs?

There are 23 potentially active CSOs in Springfield. Of these, 12 CSOs discharge to the Connecticut River, 4 CSOs discharge to the Chicopee River, and 7 CSOs discharge to the Mill River. Some CSO outfalls discharge infrequently, while others activate every time it rains.



Previous CSO Control Projects in Springfield

Since 2000, the Commission has invested $88 million in CSO control projects to reduce CSO discharges to receiving waters.

Benefits from Previous CSO Control Projects

Receiving Water	Million Gallons Removed	% Reduction of CSO Volume
Mill River	60	11%
Chicopee River	16	3%
Connecticut River	8	1%
Totals	**84**	**15%**

CSO Communities

Springfield is one of 772 communities in the United States which have combined sewer systems with CSOs. In Massachusetts, other CSO communities along the Connecticut River include Chicopee, Holyoke, and Montague. CSO discharges are regulated by Massachusetts Department of Environmental Protection (DEP) and U.S. Environmental Protection Agency (EPA) in accordance with state and federal CSO policies and the State Water Quality Standards (WQS).

What is an Administrative Order (AO)?

The EPA issues permits to water and sewer utilities with conditions intended to control discharges to water bodies and establish water quality standards. If the permit conditions are exceeded, an Administrative Order is issued for corrective action. The Commission is currently under an Administrative Order to reduce its CSO discharges by updating and implementing its Long Term CSO Control Plan. Failure to meet the AO requirements may subject the Commission to further enforcement action and fines. Many communities across the United States that have combined sewer systems and CSO discharges are under similar Administrative Orders.

What is Springfield's Long Term CSO Control Plan (LTCP)?

The Commission's plan was developed by analyzing and comparing multiple project alternatives to select the most cost-effective solution. The plan consists of several projects to be completed in phases over the next 20 to 40 years to achieve more than 85% reduction in CSO discharge volume and better than 95% water quality compliance with state WQS.

Benefits from Previous CSO Control Projects

Projects	% Reduction of CSO Volume	Construction Date
Washburn CSO Control	11%	2012 - 2014
York St. Pump Station and River Crossing	54%	2015 - 2020
Locust Transfer & Flow Control Structures	1%	2015 - 2016
York to Union Box Culvert	12%	2020 - 2027
Union to Clinton Relief Conduit	6%	2025 - 2029
Worthington/ Clinton Stormwater Management & Selective Sewer Separation	4%	2027 - 2031
Total	**87%**	

The cost of the program is estimated to be $136 million over the initial 20 years.

Publication date: March 15, 2012