BACKGROUND

In the late 1980s and 1990s the Federal government, through the Clean Water Act, called for the elimination of Sanitary Sewer Overflows (SSOs) and reductions in discharges from Combined Sewer Overflows (CSOs). This initiative affected every wastewater system in the country, including the Metropolitan Sewer District of Greater Cincinnati (MSD), where the age and design of the system contributed to increased scrutiny and enforcement as well as heavy civil penalties for non-compliance.

In 1999, while MSD had already begun addressing the elimination of the SSOs and reductions regarding CSOs, costs to the system’s customers were significant factors in entering into negotiations with the Environmental Protection Agency (EPA), the Department of Justice (DOJ) and the State of Ohio to develop an acceptable formal remediation program. The process has resulted in multiple agreements:

- Interim Partial Consent Decree (accepted February 2002)
- Global Consent Decree (accepted in 2006)
- Final Wet Weather Improvement Program (WWIP) (accepted August 2010)
- Lower Mill Creek Partial Remedy (accepted May 2013)

INTERIM PARTIAL CONSENT DECREE

This Decree addressed SSOs with the following specific requirements:

- Developed a computer-based model of MSD’s sewer system which is used to determine capacity limits and plan for future needs and prevent creating new overflows. (Evaluation and updates to Hydraulic Model and Capacity Assurance Program are ongoing.)
- Constructed a temporary treatment facility (completed in 2010) to reduce the number of discharges from SSO 700, the system’s largest SSO allowing time to plan and implement a permanent solution (due December 31, 2022).
- Developed Collection, Treatment and Industrial operating and maintenance programs to prevent SSOs and CSOs.

GLOBAL CONSENT DECREE

This Decree addressed the CSOs, the implementation of the SSO correction plan established in the Interim Partial Consent Decree, the Water-in-Basement (WIB) Program and capacity-related issues at certain Wastewater Treatment Plants. The following specific requirements included:

- Completed 23 pre-identified projects to eliminate unpermitted CSO discharges.
- Implemented MSD’s CSO LTCP to eliminate Wastewater Treatment Plant bypasses or reduce bypasses and provide maximum feasible treatment utilizing high-rate treatment and/or primary clarification and disinfection.
- Updated the LTCP to include comprehensive water quality testing, innovative water quality monitoring, cost/benefit study of possible options for correcting CSOs, a public review of proposed solutions and implementation of selected measures.
- Implemented enhanced CSO control, response and public notification measures.
- LTCP Post-Construction Monitoring Studies and Reporting re: performance of completed control measures.
- Invested $5.3 million in local environmental enhancement projects.
- Paid $1.2 million in fines to Federal and State agencies for past SSO and CSO discharges.
- Water-in-Basement Program implementation to prevent backups, including quick customer service response, cleanup, claims, reimbursements (subject to legal conditions) and installation of prevention measures in the short-term and increased system capacity for the long-term.
FINAL WET WEATHER IMPROVEMENT PROGRAM

This agreement fulfills the Consent Decree requirements associated with the CSO Long-Term Control Plan Update and the Capacity Assurance Program Plan and incorporates the remaining work of both the Interim Partial and Global Consent Decrees into a final schedule and cash flow. Phase 1 projects are required to reach Substantial Completion no later than December 31, 2018. Phase 2 schedule of work is due by June 30, 2017 as well as plans for Asset Management and Allowances and the Supplemental Remedial Measures Plan for Enhanced High-Rate Treatment (EHRT) facilities.

- Submitted alternative to deep tunnel with the proposed Lower Mill Creek Partial Remedy.
- Submitted Final SSO 700 Remedial Plan.
- Beginning implementation of pilot Werk & Westbourne EHRT Project.

LOWER MILL CREEK PARTIAL REMEDY (LMCPR)

This agreement involves updates to the Final WWIP. It modifies an initial plan that involved the construction of a deep, large and expensive underground storage tunnel. A more cost-effective plan to separate sewage from stormwater and daylight the stormwater runoff, thus creating recreational and green spaces and enhancing the quality of life for impacted communities (Lick Run in South Fairmount, West Fork and Mt Airy Forest, Kings Run in the Wooden Shoe area, Bloody Run) has been accepted as an alternative.

The LMCPR is based on an integrated watershed-based approach to reduce CSOs into rivers and streams and to prevent basement sewage backups, manage urban stormwater runoff and wastewater collection/treatment needs, as well as enhance the community and improve water quality. MSD conducted significant public outreach in the local watershed communities as part of the integrated solution.

A 3-year study regarding green and other measures for the Lower Mill Creek Partial Remedy is required to start at the close of Phase I (January 1, 2019).

POTENTIAL COSTS

Substantial Completion is to be accomplished by February 28, 2022 provided the costs for the Capacity Assurance Program Plan and the Long-Term Control Plan (LTCP) do not exceed $1.5 billion over the 19-year period. The actual cost of the program is dependent upon the correction measures selected to address WIBs, CSOs and SSOs. If costs exceed the spending cap, MSD will have additional time to complete the program after 2022.

IMPACT ON RATEPAYERS

To pay for the sewer system improvements, annual service rate increases are necessary. All rate increases must be approved by the Hamilton County Board of Commissioners. MSD works to minimize costs to ratepayers by using alternative project designs and by aggressively pursuing State and Federal loans and grants.

FOR MORE INFORMATION

The Consent Decree documents and additional information are posted on MSD’s website at www.msdgc.org. Comments and questions may be submitted through the site, or for further assistance please call MSD’s Engineering Customer Service team at 513.557.3594 or email MSD.COMMUNICATIONS@CINCINNATI-OH.GOV