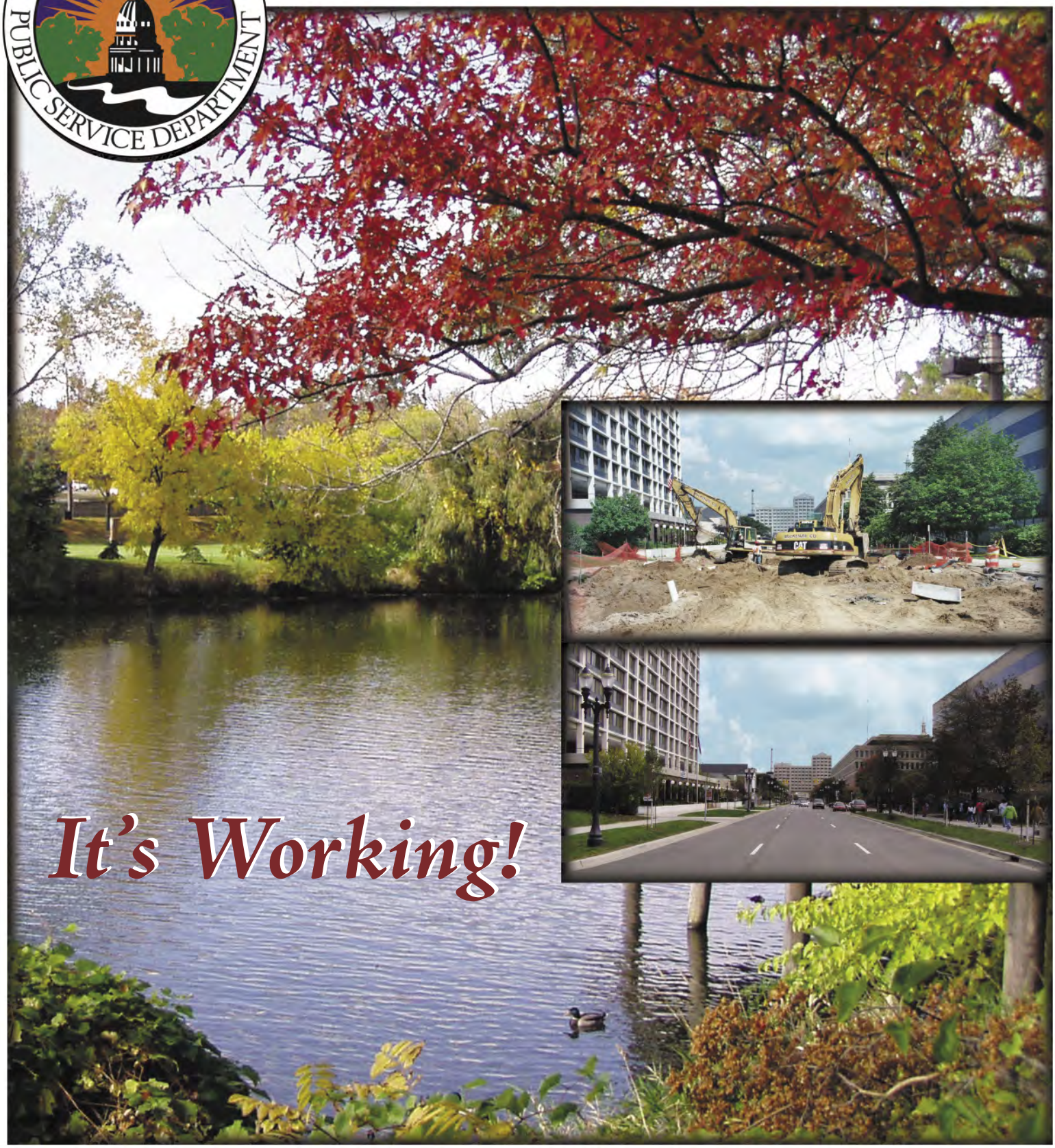
CSO CONTROL PROGRAM

www.cityoflansingmi.com/cso



So many improvements have already been made, and when Lansing's 30-Year Combined Sewer Overflow (CSO) Control Program is completed in 2020, we will have...

ELIMINATED

1.65 billion gallons per year of combined sewage overflow

PROTECTED

the Grand and Red Cedar Rivers, and the Great Lakes

REVITALIZED

hundreds of miles of new sanitary sewers and roads

LANSING'S CSO SOLUTION

After extensive study and review in the late 1980s, sewer separation was determined to be the most cost-effective solution to prevent Lansing's combined sewers from overflowing.

Combined sewer systems carry both sanitary sewage and stormwater in a single pipe. Dry weather flows are directed to the wastewater treatment plant for processing. Excess wet weather flows are discharged to the river. The City is separating the combined system by constructing new sanitary sewers. Stormwater will be transported separately to the Grand and Red Cedar Rivers using the existing sewers.

The 30-Year (1990-2020) Sewer Separation Plan was developed by the Lansing Public Service Department, in conjunction with local engineering consultants. In 1994, Lansing won the second place national award from the U.S. EPA for a CSO Control Project. In 1998, an independent engineering consultant reviewed and further supported Lansing's CSO Control Plan.

Goals & Benefits

During the course of a 30-year program, it is easy to lose sight of the goals we set out to achieve. In the time required to complete this important undertaking, a new generation will be born, raised, graduated, married, and ready to start families of their own. As a reminder, the overall goals and resulting benefits of Lansing's CSO Control Program include:

Accomplish the Plan: Complete approved project activities to meet the legal requirements in the City's CSO Control permit.

Environmental Protection: By the end of the CSO Program, an average of 1.65 billion gallons of combined sewage will be prevented from entering the Grand and Red Cedar Rivers every year! This improves water quality for Lansing's citizens, downstream communities, and the Great Lakes for future generations.

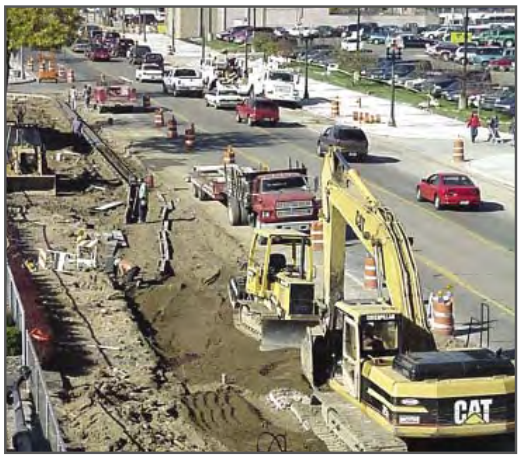
Preserve, Upgrade, and Revitalize: Typical infrastructure improvements in CSO areas include new sanitary sewers, water mains, gas mains, and replacement of non-standard water service leads. These new systems benefit residents and businesses and encourage city-wide revitalization. Sewer separation also reduces the risk of basement backups.

New Streets: Road resurfacing and related improvements accompany infrastructure upgrades. Our neighborhoods look better, and our drive home is smoother!

Pedestrian-Friendly: Work includes improvements to sidewalks, pedestrian safety, and barrier-free ramp installations to meet the requirements of the Americans with Disabilities Act (ADA).

Long-Term Service: The typical life expectancy of a new sanitary sewer main is 80+ years. This work will meet the community's needs for generations to come!

Do More for Less: Minimize total project cost by coordinating CSO work with other infrastructure projects. This is called "Infrastretching."



Michigan Avenue Sewer Separation Construction

Michigan Avenue Post Construction

Quality of Life: In addition to all of the above benefits, the City's diversified communication plan is continually improved to keep all stakeholders satisfied throughout construction.

Surface Flooding and Sanitary Sewer Overflow

Redirected Downspout and Plugged Riser Pipe

OUR NEXT ENVIRONMENTAL CHALLENGE: Sanitary Sewer Overflow (SSO)

As if it is not hard enough to remember all of the details and benefits of CSO control, it is time to introduce SSOs - Sanitary Sewer Overflows. Like CSOs, SSOs impact human and environmental health, and must be controlled, per State and Federal law. SSOs include overflows of raw sewage from sewer system manholes and basement backups during wet weather.

The City of Lansing is also studying and implementing alternatives to reduce SSOs. The "Out with the Inflow" program, described below, is our first line of defense against SSOs. Please read the information below; your help is needed to make this program a success. If you want to learn more about SSOs, visit: www.deq.state.mi.us/csosso. Here is a quote taken from the DEQ's website:

> *"SSOs are discharges of raw or inadequately treated sewage from municipal separate sanitary sewer systems, which are designed to carry domestic sanitary sewage but not stormwater."*

OUT WITH THE INFLOW: Redirecting Rainwater

Rainwater doesn't belong in our new sanitary sewers. When rainwater enters the sanitary sewer system it is called "inflow." Inflow typically comes from:

- "Disappearing" Roof Downspouts
- Catch Basins
- Loading Dock Drains
- Internal Roof Drains
- Yard Drains
- Pumped Footing Drains

These inflow sources can lead to:

- Basement Backups
- Sanitary Sewer Overflows *(see above)*
- Unnecessary costs to treat rainwater

Rainwater doesn't need to be treated at the wastewater treatment plant, so it makes economic sense to remove inflow.

Removing inflow from our new sanitary sewer system can more easily be accomplished with the cooperation of property owners. As part of the CSO Program, every property owner is required to remove all sources of inflow from their private property and to cover associated costs.

The City will help coordinate inflow removal and will perform inspections along with design and construction. Property owners will be notified when it is time to remove inflow sources. The first of three informational mailings will be sent to each property owner approximately 18 months prior to CSO construction in the area.

It is helpful if property owners can plan and budget for inflow removal in advance. For more information, please call the City's Inflow Removal Helpline at 517.394.5577. Representatives can help answer questions and offer advice on inflow removal strategies.

"Infrastretching"

"Infrastretching" is a strategy used by the City of Lansing to complete multiple improvements at the same time to minimize repeated disruption and to reduce overall project costs.

REVITALIZING & PROTECTING

Resources . Updates . Links

The City of Lansing's Public Service Department is committed to providing outstanding customer service, including ongoing public outreach activities and easily accessible information.

- Visit www.cityoflansingmi.com/cso for up-to-date project information and contacts.
- Call the CSO Hot Line, 517.394.5566, with questions and concerns, or to arrange for on-site assistance.
- Watch for the first of three informational mailings about 18 months prior to the start of construction in your area.
- Call the Inflow Removal Helpline, 517.394.5577, for advice, answers and coordination for completing private property sewer separation.
- We encourage you to attend the three neighborhood meetings held in conjunction with each project to offer your input and have your questions answered. The first meeting is held in the fall/winter prior to construction.
- Request a "Construction Coffee Meeting," which is held as-needed with affected businesses to share project progress and proposed schedules.
- Please complete a Post-Construction Survey so we can improve how we communicate with you. The survey will be mailed to you or it can be completed on-line.
- Links of Interest:

www.cityoflansingmi.com/cso

www.deq.state.mi.us/csosso

www.epa.gov/npdes/cso

2020 TASK FORCE

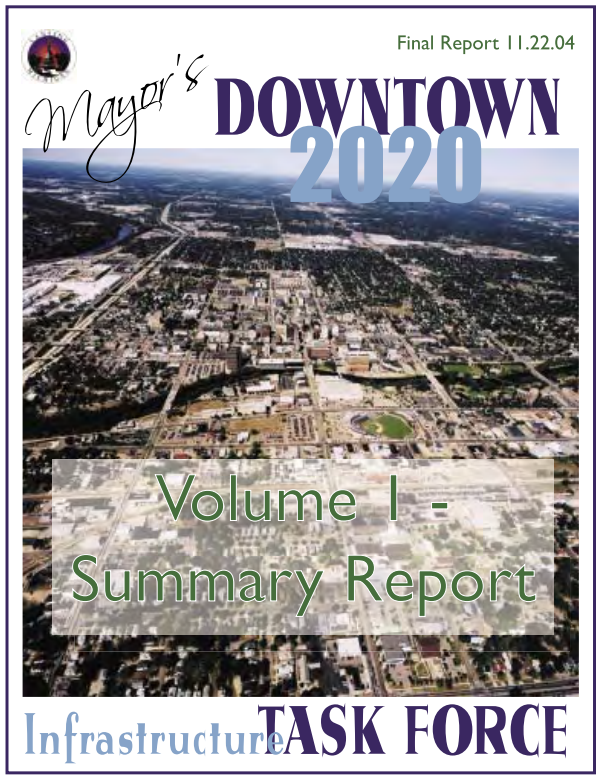
The City of Lansing formed the "Mayor's Downtown 2020 Infrastructure Task Force" to study and suggest methods for improving the infrastructure project process in the Downtown area. Major recommendations included:

- Improve Our Metropolitan Riverfront Setting and the Supporting Infrastructure *(ongoing)*
- Improve Communication with Stakeholders to Minimize Disruption during Construction *(ongoing)*
- Break the Project into Smaller Segments and Perform the Work over Fourteen Years instead of Five, to Reduce the Impact on Local Businesses in any Given Year *(completed)*
- Publish a Construction Schedule and Project Maps for Private and Public Planning Purposes *(completed)*
- Maximize Project Benefits and Cost-Effectiveness *(ongoing)*
- Gather Feedback to Identify Improvements to Implement as we move forward *(ongoing)*

Volume 1 is a summary of the Task Force's findings, and includes construction maps by year. It can be viewed at:

www.cityoflansingmi.com/cso/2020_vol1_final_112204.pdf

Volume 2 contains the complete works of the Task Force and can be viewed at the Public Service Department on the seventh floor of City Hall or on compact disc, which can be obtained by calling the Department at 517.483.4455.



The City of Lansing is continuously striving to improve its level of customer service, as evidenced by its immediate implementation of several task force recommendations.