

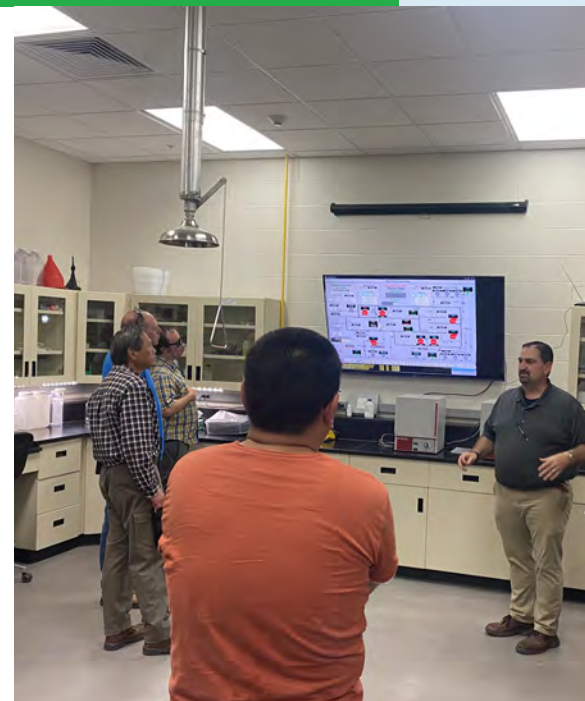
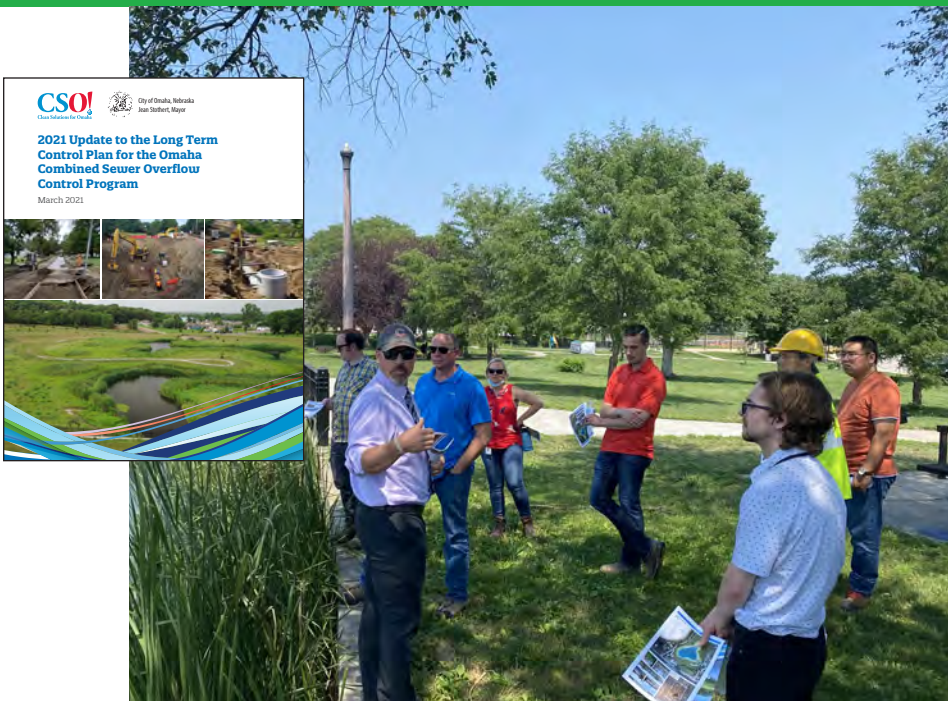
# CSO LTCP Update Approved with Efficiencies, New Path Forward

**The 2021 Long Term Control Plan Update, submitted in March 2021, was approved by the Nebraska Department of Environment and Energy (NDEE) on August 11, 2021, with no revisions required.**

Approximately every five years, the Long Term Control Plan is updated to ensure future water quality improvement projects are as efficient and cost effective as possible. The last update to the Long Term Control Plan occurred in 2014. In 2018, the Program Management Team began exploring possible

plan modifications through an extensive optimization effort. This effort used state-of-the-art modeling tools and techniques to review the impacts of completed, current and future projects. More than 100,000 alternatives to capture additional wet weather volume and reduce combined sewer overflows were

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Meetings were held with NDEE on August 12, 2021 to discuss Program progress. The department toured Fontenelle Lagoon (above left), Missouri River Water Resource Recovery Facility (above right), Riverview Lift Station, and Saddle Creek Retention Treatment Basin.



## Program Expenditures

**\$2.4B** 2014 LTCP Update Program Budget

**\$790M**

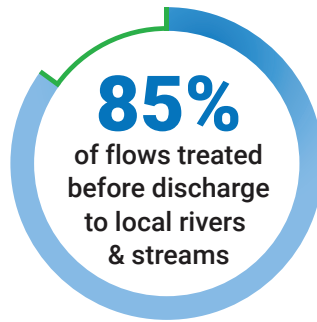
Spent to Date  
(2009 through September 2021)

**\$376M**

Estimated Cost of Design & Construction Active Projects  
(through 2026 CSO Permit)



## Wet Weather Capture



**\$2.0B**

2021 LTCP Update

**NEW! Program Budget**



**\$400M**

Estimated Savings 

evaluated with optimization software working with the Program's hydraulic model of the collection system. This effort resulted in the identification of updated projects that have been incorporated into the now-approved Long Term Control Plan Update.

The Long Term Control Plan Update (inset at left), in addition to outlining the 56 total specific projects, includes non-project commitments such as reducing inflows into combined sewers and evaluating real-time controls for stormwater facilities.

The CSO Program is moving forward with implementing the updated projects, which included alternatives to the deep tunnel system in previous versions of the Long Term Control Plan. New projects include a high-rate treatment facility in North Omaha, similar to the Saddle Creek Retention Treatment Basin project currently under construction, and an underground storage tank near Union Pacific's Missouri River Bridge. Active controls and a sewer to convey combined sewage from the North Downtown area to the new high-rate treatment facility will be constructed in conjunction with these projects to maximize

flows handled by the two facilities. Technology that was not previously available, including advanced sensors, will control the combined sewage inflows in real time, holding it in pipes or redirecting it to maximize the use of new and existing facilities.

New technologies, a comprehensive understanding of the system and advanced tools allowed the Program to evaluate the wide range of alternative projects as part of the optimization. An improved water quality model confirmed that the 85% wet weather volume capture should comply with water quality standards at a lower cost. In all, these efficiencies have allowed the estimated cost of the CSO Program to be reduced from \$2.4 billion to approximately \$2.0 billion.

With approval of the 2021 Long Term Control Plan Update, the Program will continue to implement the plan through 2037.

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