



Quarterly Report | **2022 Q1**

January – March 2022

Omaha Combined Sewer Overflow Control Program
Implementation Phase



CSO!

Clean Solutions for Omaha

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PROGRAM MISSION

The Program Management Team's job is to save money for ratepayers and do what is best for the community as we meet the objectives and requirements of the Clean Water Act.

For additional information regarding the Omaha CSO Program, please visit www.OmahaCSO.com or call the CSO Program Information Line at 402-341-0235.

ON THE COVER: — The Burt Iazard Lift Station project, including the facility exterior, the new pumps, pump dry pit, electrical and control panels, and the grit access covers.



A City of Omaha
Public Works Initiative



Bypass pump structure for the **Monroe Street Lift Station Improvements Project** — to allow for bypassing of the lift station during construction, a new diversion structure was placed over the two influent sewers into the lift station. This will also allow for the replacement of the existing pumps and other major equipment elements.



Saddle Creek Retention Treatment Basin Project construction primary areas of improvements are currently centered around the chemical, operations, and administration buildings with pre-cast concrete wall installation underway. The RTB effluent structure is shown in the foreground; the administration building and headworks is shown in the background.

1ST QUARTER HIGHLIGHTS



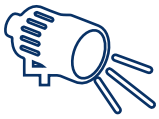
Following routine winter shutdown, **Cole Creek CSO 203 Sewer Separation Project** construction restarted late this quarter. Currently 25% complete, substantial completion is expected summer 2023.



-  Conceptual design is in progress for **CSO 204 Phase 4a – 57th Street & Pratt Street Project**. The 10% deliverables were received Q1 2022.
-  Preliminary design is in progress for the **CSO 119 South Barrel Conversion and Sewer Separation Project** with 30% documents expected in Q2 2022.
-  Final design is nearly complete for the **CSO 212 – 64th Avenue and William Street Project**; 90% documents are anticipated this summer.
-  Final design is in progress for the **Cole Creek CSO 202 Phase 2– 70th Avenue and Spencer Street Project**; 90% documents received this quarter are under review.
-  Final design is complete for the **Hickory Street Sewer Separation Project**, with bid advertisement anticipated in Q2 2022.
-  **Blake Street Lift Station Improvements Project** will be ready for construction bid advertisement upon completion of right-of-way and property acquisition activities.
-  **Forest Lawn Creek Inflow Removal and Outflow Storm Sewer Project** bid advertisement was this quarter. Construction is expected to begin late 2022 or early 2023.
-  **Monroe Street Lift Station Improvements Project** construction notice to proceed was given January 1, 2022 and construction has commenced.
-  **Nicholas Street Sewer Extension, Phase 3B Project** construction is underway and will extend into 2024.
-  **Papillion Creek North (PCN) 210 Sewer Separation Project** construction is underway; substantial completion is expected spring 2023.
-  Construction activities continue on the **Cole Creek CSO 204 Area – Phase 3 Combined Sewer Separation (Taylor to Ruggles between 56th & 61st) Project**; substantial completion is expected Q3 2022.
-  **Riverview Lift Station Improvements Project** construction continues, substantial completion is expected Q3 2022.
-  Testing of pumps #1 and #2 (of five pumps) was completed Q1 2022 at the **Missouri River Water Resource Recovery Facility – Transfer Lift Station Pump Replacement Project**. Construction will extend into Q2 2022.
-  Start-up activities for the **Burt-Izard Lift Station Improvements Project** were completed in Q1 2022. The lift station will operate at 50 million gallons per day starting in Q2 2022 allowing increased capture and treatment of combined sewage at the Missouri River Water Resource Recovery Facility.

 Study & Design
 Completed

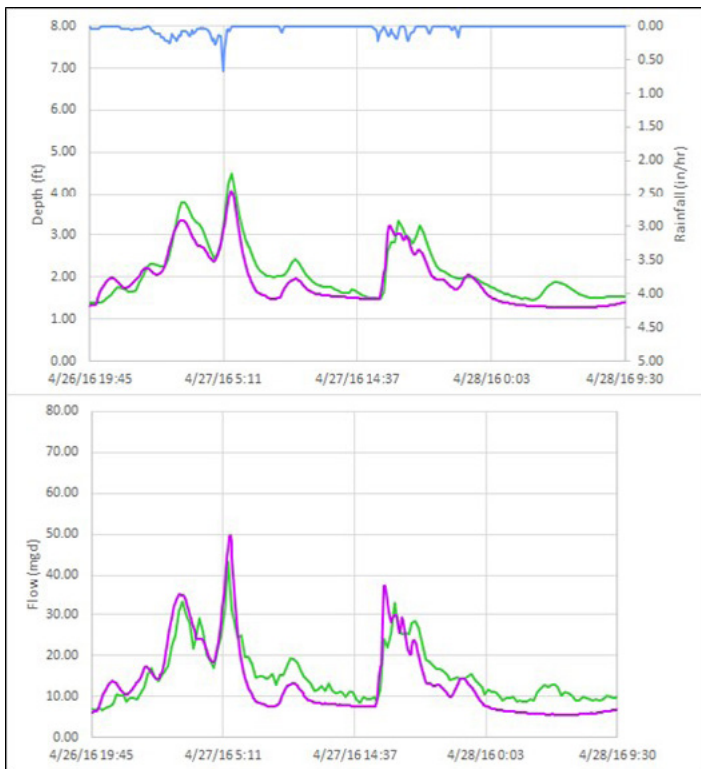
 Bid/Construction
 Future Project



Sewer Collection System Model Value

In 2003, the City embarked on creating a computer model of its sewer collection system. The primary purpose was to support development of the (2009) CSO Long Term Control Plan (LTCP), by characterizing sewer system components, improving understanding of system operations, and identifying cost effective controls. The model was used to develop the original LTCP in 2009 and for LTCP updates in 2014 and 2021. The model informs CSO project designs by identifying concerns and constraints. As the model evolves, changes to the sewer system are continually incorporated. This allows the team to identify cost-effective controls and answer complex questions.

The Sewer Collection
that experience
Project Management

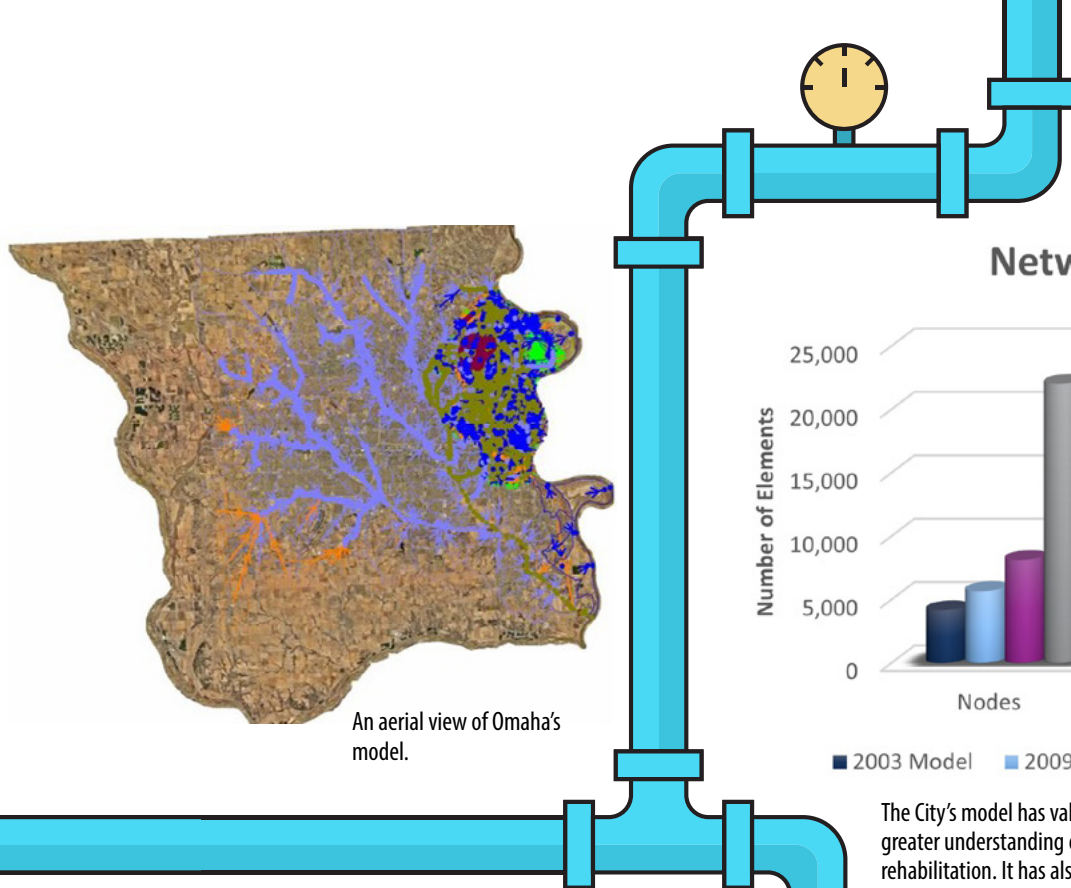


The chart above shows water depth (top) and flow (bottom). The model output is shown in purple; meter data is shown in green; and rainfall intensity is shown in blue. This shows how closely the model represents actual information and performs well.

The City has recognized the tremendous potential of a reliable model to support data-driven decision-making. The CSO Program Management Team (PMT) ensures the model is maintained as the sewer system grows and changes. Knowing the model would be used to support a \$2 billion Program, the City has invested over \$8 Million since 2003 in developing, updating, and expanding the model to include flow and rainfall monitors and resulting data. This data helps validate and ensure model reliability.

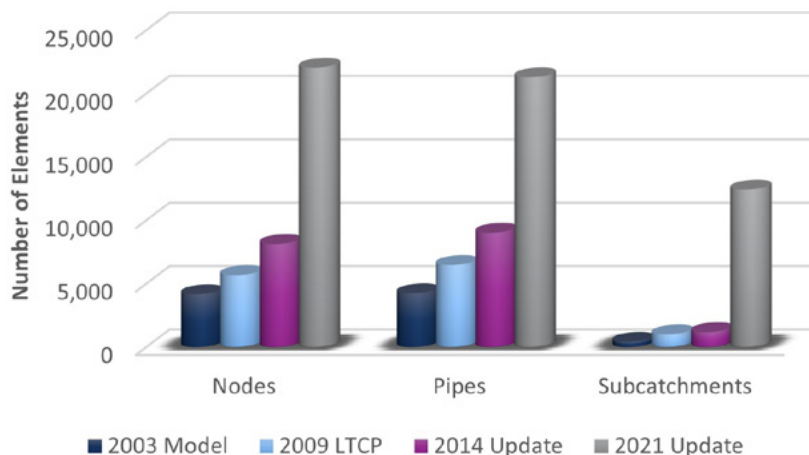
The model's hydrologic component determines how rainfall turns into runoff during wet weather and where runoff enters the sewer system. That stormwater is added to sanitary flows generated by residential, commercial, and industrial users to make up the combined sewer flow. A hydraulic model component then determines how the flow moves through the sewer system as it encounters pumps, orifices, weirs, gates, and screens on its way to the City's two water resource recovery facilities for treatment.

The most basic model components—sometimes called network elements—are sewer pipes, “nodes” (primarily manholes) where the pipes intersect, and subcatchments



An aerial view of Omaha's model.

Network Elements



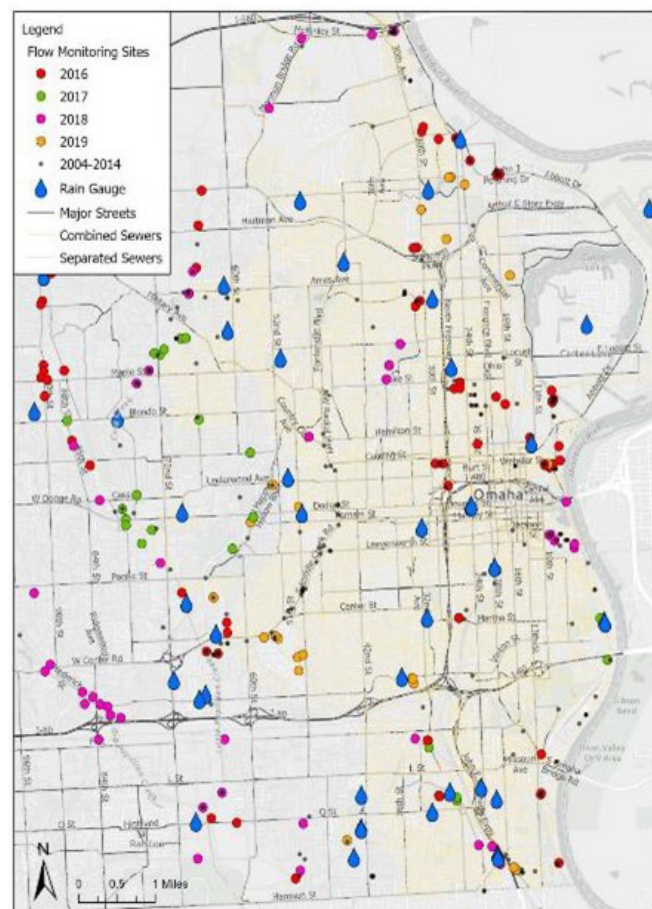
The City's model has valuable application beyond the CSO Program including a greater understanding of impacts from development, sewer rerouting, and sewer rehabilitation. It has also been used to identify cost of service, to recertify the levee, and to support fighting major floods in 2011 and 2019. It cost-effectively facilitates asking "What if..." to allow exploration of creative solutions.

System Model has been applied to areas of Omaha basement backups. Model results help the Team modify designs to prevent future backups.

that reflect neighborhood topography. The figure (above right) shows how the number of network elements has grown substantially as the model has increased in complexity. The model currently represents more than 800 miles of pipe in the City's sewer system.

The model has valuable application beyond the CSO Program. This includes a greater understanding of impacts from development, sewer rerouting, and sewer rehabilitation. The model is also helping to identify cost of service, to re-certify the levee, and to support fighting major floods in 2011 and 2019. The model allows project teams to cost-effectively ask "what if..." and explore creative solutions. When EPA officials requested assistance in 2019, the model was used to help smaller communities accomplish CSO planning by providing results to validate EPA efforts and provide a CSO tool for small communities.

The sewer system model has been an important and effective tool in guiding City decision-makers to solutions that result in substantial improvements in the quality of local rivers and creeks, so residents can safely enjoy the environment in which they live.



Flow and rain monitoring locations



PROGRAM GOALS

Goal 1:

Regulatory Compliance

Meet specific regulatory requirements as identified by the Environmental Protection Agency and Nebraska Department of Environment and Energy.

- Complete implementation of CSO projects within identified schedule.
- Reduce pollutant discharges to the Missouri River and Papillion Creek.



Goal 2:

Economic Affordability

Minimize cost impacts to ratepayers by completing CSO projects within or under budget.

Goal 3:

Community Acceptance

Maintain continuous public dialogue, provide information and pursue opportunities for multiple benefits in CSO projects.

PROGRAM MISSION

The CSO Program's mission is to save money for ratepayers and do what is best for the community as we meet the objectives and requirements of the Clean Water Act.



Goal 1: Regulatory Compliance

Regulatory Compliance includes two items: 1) implement projects within the identified schedule and 2) reduce pollutant discharges to the Missouri River and Papillion Creek.



Multiple packages provide more opportunities for local contractors and efficient delivery.

PROJECT STATUS:

* These numbers reflect the 2021 Long Term Control Plan Update



Study & Design

6 Projects

7 Contracts



Bid/Construction/
Complete

35 Projects

59 Contracts



Future

14* Projects

16* Contracts

PROJECT DELIVERY SCHEDULE FOR ACTIVE PROJECTS*

Long Term Control Plan Projects	2022	2023	2024	2025	2026
Saddle Creek Retention Treatment Basin (SCRTB)					
Cole Creek CSO 204 Area – Phase 3 Combined Sewer Separation					
Papillion Creek North (PCN) 210 Sewer Separation					
Cole Creek CSO 203 Sewer Separation Project					
Forest Lawn Creek Inflow Removal and Outfall Storm Sewer					
CSO 212 – 64th Avenue William Street					
Nicholas Street Sewer Extension – Phase 3B					
CSO 119 South Barrel Conversion & Sewer Separation					
CSO 202 Phase 2 – 70th Avenue & Spencer Street					
CSO 204 Phase 4a – 57th Street & Pratt Street					
CSO 204 Phase 4b – 56th Street & Bedford Avenue (Construction in 2030)					
System Reliability Projects**	2022	2023	2024	2025	2026
Missouri River Water Resource Recovery Facility (MRWRRF) - Transfer Lift Station Pump Replacement					
Burt-Izard Lift Station Improvements					
Riverview Lift Station Replacement					
Blake Street Lift Station Improvements Project					
Monroe Street Lift Station Improvements					

 Design/Bidding
  Construction Substantial Completion

*Active projects in design and/or construction.

**Projects related to the CSO Program that enhance the operational reliability of the system.

SCHEDULE: The 2021 Long Term Control Plan (LTCP) Update was approved by the Nebraska Department of Environment and Energy (NDEE) in August 2021. The Project Delivery Schedule for Active Projects (above) is consistent with the approved LTCP Update and reflects the 10-year extension (included in an Amendment to the City's Consent Order with NDEE) for CSO Program completion. A new CSO permit has yet to be issued.



PROGRAM GOALS

GOAL 2:

Economic Affordability

The CSO Program actively seeks opportunities to minimize impacts to ratepayers.



Low Interest Loan Obtained for Monroe Street Lift Station Improvements Project

The City continues to look for ways to lower CSO Program costs and impacts to ratepayers. The City recently secured a low interest (0.98%), State Revolving Fund (SRF) loan for the Monroe Street Lift Station Improvements Project. The loan amount is authorized up to \$24.5M and interest and fees are capped at 0.98%. The City also secured a \$700,000 sewer overflow grant for the project. The cost of funding using SRF opportunities is significantly lower than the City's traditional funding through bond sales. This cost savings directly reduces CSO Program costs and sewer rates, benefiting ratepayers.

RATEPAYER ASSISTANCE

When the Long Term Control Plan was approved, a ratepayer assistance plan was developed to help low income and fixed income households with the sewer rate increases necessary to fund the Program.

Ratepayers are eligible if they receive Low Income Heat and Energy Assistance Program (LIHEAP) from their utility. This has kept administrative costs to a minimum and provided the maximum benefit to those who need it.

For information about the sewer use fee assistance program call **402-444-3908**. To apply for Nebraska LIHEAP, which qualifies you for sewer use fee assistance, call **402-595-1258**.



From January through March 2022,
over **\$2,232,000**
has been provided in assistance;
for a total of **\$16,578,000**
from inception through March 2022.



GOAL 3:

Community Acceptance

The CSO Program supports ongoing dialogue with the public through timely project updates. Close coordination with impacted neighborhoods, businesses and small business contractors is also provided to highlight Program benefits and opportunities.

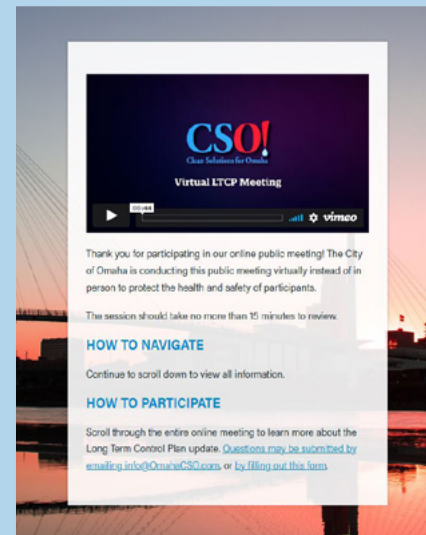


Virtual Tool Provided to Learn About Long Term Control Plan Updates

The 2021 Long Term Control Plan Update was approved in August 2021. Stakeholders and the public can now access an on-demand, virtual meeting through the CSO website.

The unique application features photos, technical details, brief videos, and a feedback form for comments and/or questions. The flexibility of this virtual platform ensures stakeholders can access information

at their own pace and on their own time, and they can return to that information in the future if desired. The presentation page is linked on the CSO website, and it was promoted through the CSO Q1 report email.



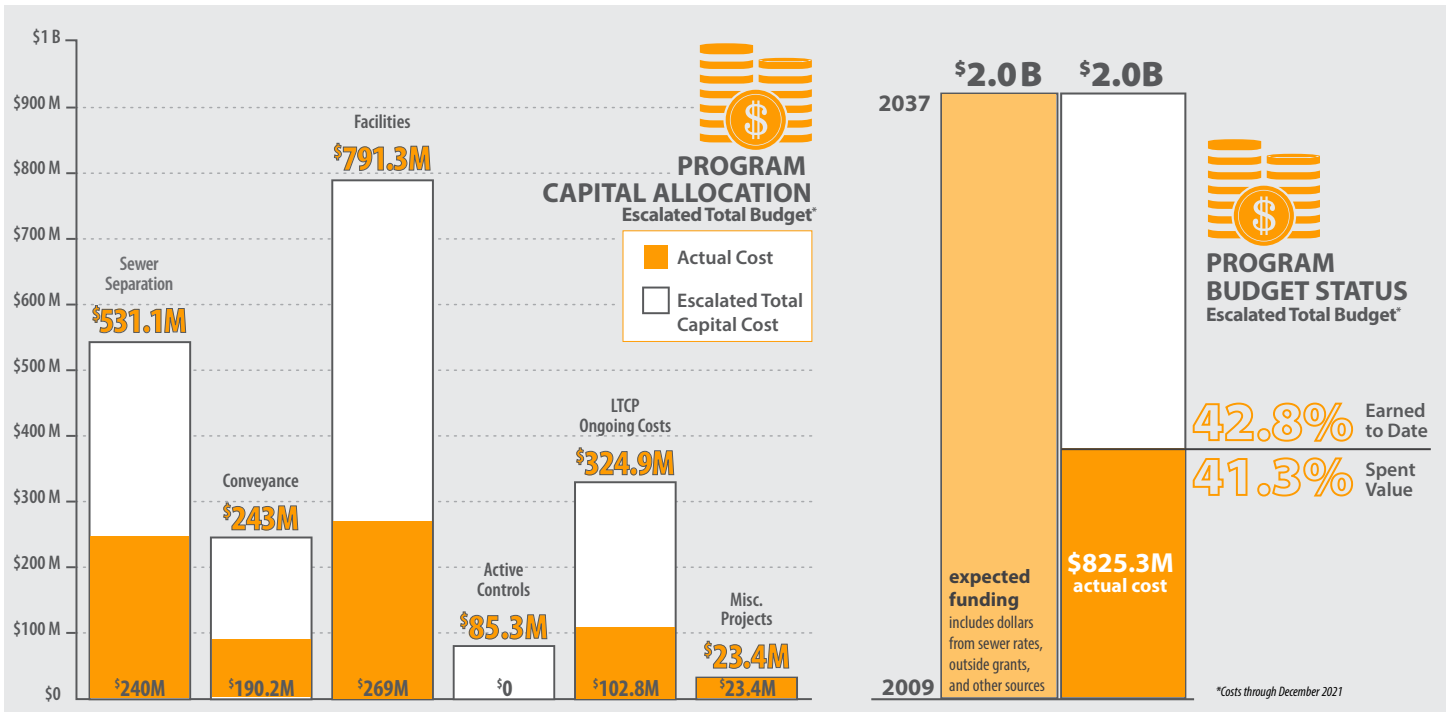
To access the report directly, scan the QR code above or visit **<https://adobe.ly/3xf5IW9>**



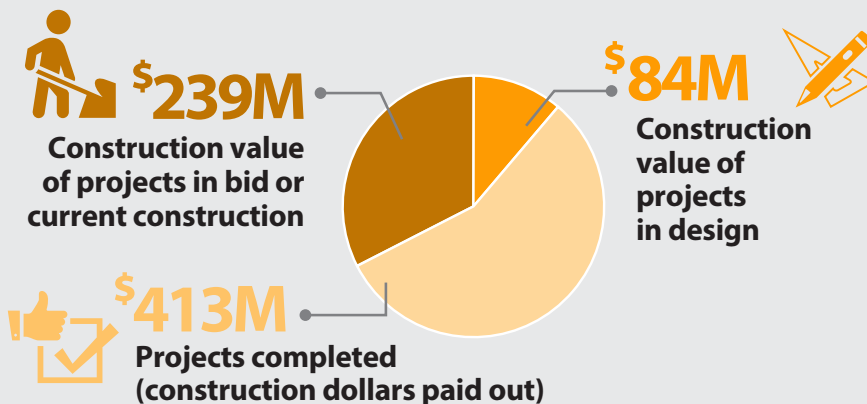
Budget Details

This schedule and costs align with the approved 2021 Long Term Control Plan (LTCP) Update that reflects the ten year time extension. The total Program budget for the project delivery schedule is noted as \$2.0 billion in escalated dollars, which takes into account the estimated effect of inflation for dollars spent between now and

Program completion in 2037. The values below reflect the updated total Program budget, as well as the expected funding from the latest rate ordinance.



Estimated CSO Program Construction Costs



Approximately **\$529M** has been paid out for construction activities through March 2022.

COMPANIES ENGAGED

During the past five years,* small and emerging small businesses (SEBs) received just over **\$8M** in construction contracts and subcontracts, representing over **7.5%** of the total construction work contracted through the City's CSO Program over the same period of time.

In addition, approximately **\$13M** in construction subcontracts were to minority and/or women owned businesses as a part of the Federal Disadvantaged Business Enterprise (DBE) program for projects that received federal funding during that same period of time.

*2017–2021



FIGURE 1

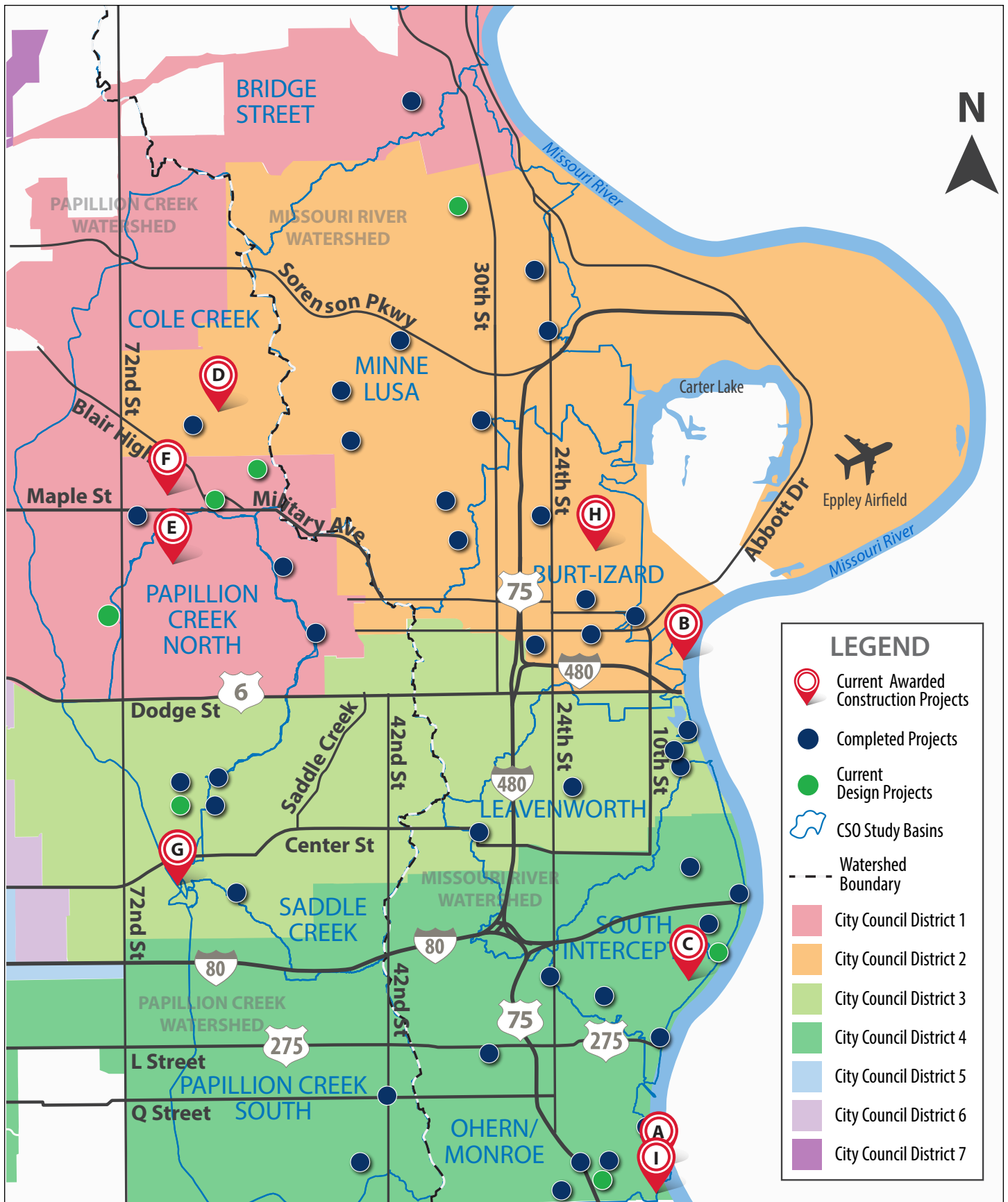


Figure 1 and the corresponding table to the right identify current and completed construction projects.

CURRENT
CONSTRUCTION

	KEY	CONSTRUCTION CONTRACTS	CONSTRUCTION MANAGER'S CURRENT ESTIMATE AT COMPLETION REFLECTS CSO FUNDING*	
	A	Missouri River Water Resource Recovery Facility – Transfer Lift Station Pump Replacement (OPW 53408)	\$6,480,000 92% Complete	Testing of pumps #1 and #2 completed in Q1 2022.
	B	Burt-Izard Lift Station Improvements (OPW 52472)	\$15,300,000 99% Complete	Substantial completion was accomplished in Q1 2022.
	C	Riverview Lift Station Replacement (OPW 52402)	\$25,846,000 84% Complete	Construction continues; substantial completion is expected Q3 2022.
	D	Cole Creek CSO 204 Area – Phase 3 Combined Sewer Separation (Taylor to Ruggles Between 56th & 61st) (OPW 53206)	\$4,818,000 75% Complete	Construction continues; substantial completion is expected Q3 2022.
	E	Papillion Creek North (PCN) 210 Sewer Separation (OPW 53320)	\$7,287,000 49% Complete	Construction continues; substantial completion is expected in 2023.
	F	Cole Creek CSO 203 Sewer Separation Project (OPW 53059)	\$7,358,000 27% Complete	Construction continues; substantial completion is expected summer 2023.
	G	Saddle Creek Retention Treatment Basin (OPW 52049)	\$92,500,000 76% Complete	Basin construction is complete; pre-cast concrete walls are being installed for chemical, operations and administration buildings.
	H	Nicholas Street Sewer Extension – Phase 3B (OPW 53753)	\$21,806,000 8% Complete	Construction is underway. Substantial completion is expected in 2024.
	I	Monroe Street Lift Station Improvements Project (OPW 53082)	\$24,391,000 9% Complete	Construction is underway. Substantial completion is expected in 2024.

*Reflects CSO Funding, does not include other project funding sources.



PROJECT OVERVIEW

ACTIVE DESIGN PROJECT STATUS

Active projects are defined as projects that are currently in request for proposal phase, study or design (preliminary or final), or planned for construction (advertised for bid but not yet under construction). Projects will continue to be divided into multiple design/construction contracts as appropriate to efficiently complete work. Active projects and their corresponding status are listed in the following table. More information about each of the projects can be found on the Program website (www.OmahaCSO.com).

ACTIVE DESIGN PROJECT STATUS OVERVIEW								
Omaha Public Works Project Number (OPW)	City Council District	Project Name	Opinion of Probable Construction Cost ¹	Issued request for proposal or Consultant Selection	Study and Preliminary Design	Final Design	Advertised for Bid or Awarded Contract	Comments
52470	2	Forest Lawn Creek Inflow Removal and Outfall Storm Sewer	\$20–30 Million				✓	Bid advertisement occurred in Q1 2022.
53270	4	Blake Street Lift Station Improvements Project ²	\$1–5 Million			✓		Ready for construction bid advertisement upon completion of right-of-way and property acquisition activities.
53869	1	CSO 202 Phase 2 – 70th Avenue and Spencer Street	\$10–15 Million			✓		90% design documents were received Q1 2022.
53899	4	Hickory Street Sewer Separation	<\$1 Million			✓		Construction bid advertisement expected in Q2 2022.
53149	4	CSO 119 South Barrel Conversion & Sewer Separation	\$10–15 Million		✓			30% design documents expected Q2 2022.
53820	1	CSO 204 Phase 4a – 57th Street and Pratt Street	\$35–40 Million		✓			Conceptual design deliverable was received Q1 2022.
		CSO 204 Phase 4b – 56th Street and Bedford Avenue						
51685	3	CSO 212 – 64th Avenue and William Street	\$5–10 Million			✓		90% design documents expected summer 2022.
54293	1	East Cole Creek Interceptor Rehabilitation	\$5–10 Million	✓				Consultant Request For Proposals has been issued.
¹ –Current Opinion of Probable Construction Cost, which reflect escalated construction bidding year values. ² –Blake Street Lift Station was previously part of the Riverview Lift Station, but is being constructed as a separate construction package.								



UPCOMING BID OPPORTUNITIES

Project	Hickory Street Sanitary Sewer Service Relocation	Blake Street Lift Station (and Gravity Sewer)	CSO 212 64th Avenue and William Street Sewer Separation
Project Type	Conveyance	Conveyance	Sewer Separation
Bid Advertisement (estimated)	Q3 2022	Q3 2022	Q3 2022
Begin Construction (estimated)	Q3 2022	Q3 2022	Q2 2023
Construction Estimate	< \$1 Million	\$1–5 Million	\$1–5 Million

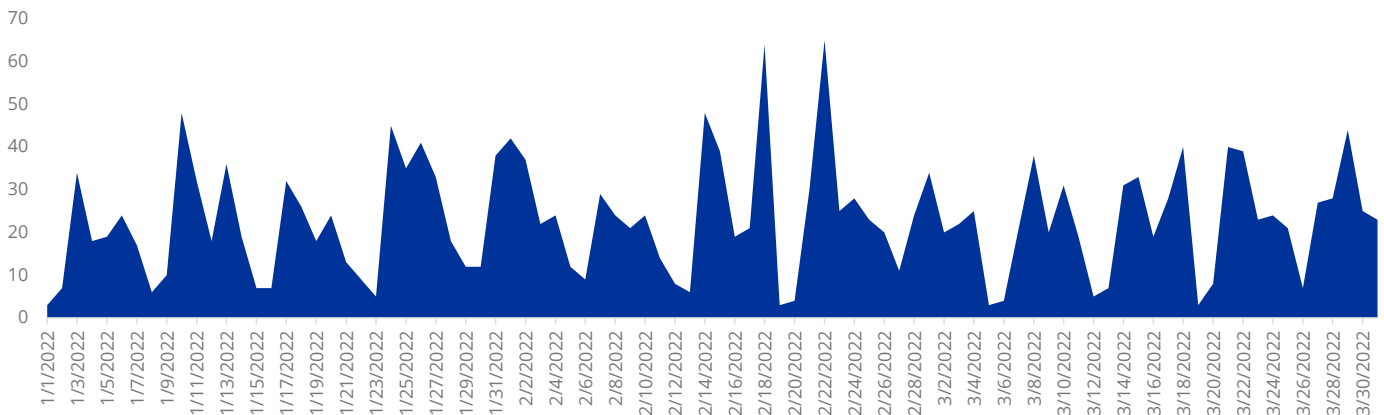
WEBSITE SUMMARY

Use of the Omaha CSO Program's public website is tracked and 2022 summary information is provided below. This continues to show active public use of the website. The website is located here: www.OmahaCSO.com

Omaha CSO January 1 – March 31, 2022

Website Summary

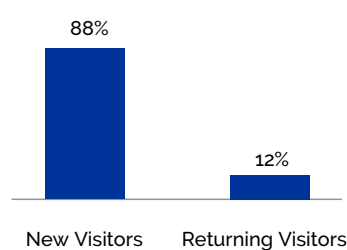
Users per Day



Totals

New (first-time) Users	1,709
Web Page Views	5,060
Sessions*	2,260
Avg Visit Duration	2:19
Avg Pages/Visit	2.17

Visitors by Type



Sessions by Device



Some Sessions do not have a set device.

*Sessions include all visits to the website by new and returning users.

CSO!
Clean Solutions for Omaha



PROGRAM MANAGEMENT OVERVIEW AND ACTIVITIES

The responsibility of the Program Management Team (PMT) is to evaluate Program regulatory milestone progress and guide multiple projects toward compliance by providing a consistent framework for design and construction. PMT success is gauged by achieving Program goals and regulatory milestones at the lowest cost to ratepayers. PMT responsibilities include:

- Maintain and update tools and process development for Program and project delivery.
- Obtain and maintain regulatory and environmental compliance.
- Maintain and update public participation, including a public website (www.OmahaCSO.com).
- Facilitate stakeholder education and outreach.
- Identify construction enhancement opportunities that provide added community benefits.
- Promote green infrastructure and sustainability goals.
- Adapt the Long Term Control Plan (LTCP) to changing conditions.
- Seek opportunities to reduce costs.
- Schedule oversight and tracking.

- Assist construction managers with understanding environmental requirements to confirm compliance.
- Review and coordinate permits.
- Develop and refine plans, protocols, procedures, standards, guidance documents and workflows.
- Track and coordinate schedule of metro area projects with Nebraska Department of Transportation, M.U.D., City of Omaha, Council Bluffs Interstate System Improvement Program, University of Nebraska Medical Center, Omaha Public Schools, University of Nebraska Omaha and the Omaha Airport Authority.
- Monitor construction costs and trends in the Omaha construction market.

Recurring Program Quarterly Activities

- Meet with Nebraska Department of Environment and Energy and Environmental Protection Agency Region VII to discuss LTCP implementation status and project details.
- Provide outreach to OPPD, M.U.D. and other utility companies to discuss the Program and project coordination and minimize costs and disruptions to ratepayers.
- Work closely with City of Omaha Right-of-Way and General Services Division to coordinate property and easement acquisitions, bid advertisement, contracting processes and schedules.
- Inform key stakeholders, including United States Army Corps of Engineers, Nebraska Department of Transportation, UPRR, BNSF Railway and Nebraska Department of Natural Resources, regarding upcoming projects.
- Coordinate, oversee and monitor project progress to confirm projects are completed within scope, schedule and budget as much as possible.
- Proactively identify issues that could impact the on-time delivery of phased regulatory milestones.
- Perform inspections of construction sites to confirm compliance with all permits and approvals.

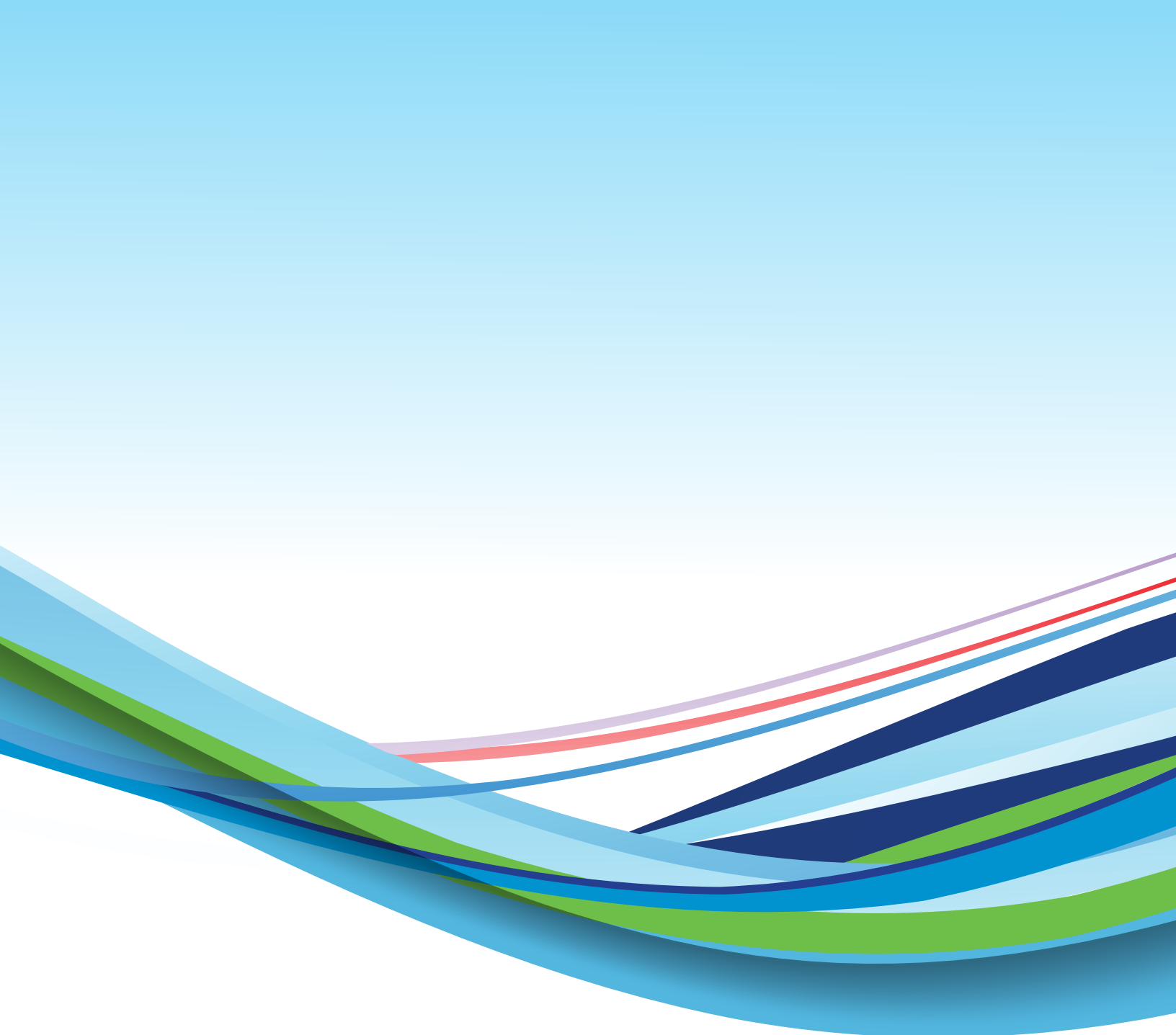


LONG TERM CONTROL PLAN PROJECTS MILESTONE SCHEDULE

The Long Term Control Plan (LTCP) project schedules shown below are consistent with the 2021 LTCP Update approved by the Nebraska Department of Environment and Energy (NDEE) in August 2021. This schedule includes a revised list of projects with committed LTCP milestone completion dates.

Milestone Schedule of Long Term Control Plan Projects*																	
Missouri River Watershed Projects	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
MINNE LUSA (ML) BASIN																	
Forest Lawn Creek Inflow Removal and Outfall Storm Sewer																	
Minne Lusa Relief Sewer Diversion Modifications																	
Grace St and North Interceptor DWF Diversion Rehabilitation																	
CSO 105 Outfall Active Control																	
BURT-IZARD (BI) BASIN																	
Nicholas Street Sewer Extension – Phase 3B																	
North Downtown Conveyance Sewer – 11th & Izard to 6th & Abbott																	
11th & Izard Grit and Screening Facility																	
11th & Izard Active Control																	
Northeast Omaha RTB – 6th Street & Abbott Drive																	
21st & Cumming Active Control																	
OHERN-MONROE (OM) BASIN																	
CSO 119 South Barrel Conversion and Sewer Separation																	
SOUTH INTERCEPTOR (SI) BASIN																	
Pierce Street Sewer Separation																	
Jones Street to Leavenworth Diversion																	
Hickory Street Sewer Separation																	
LEAVENWORTH (LV) BASIN																	
Leavenworth Basin Storage Tank (CSO 109)																	
Papillion Creek Watershed Projects																	
COLE CREEK (CC) BASIN																	
CC CSO 204 Area – Phase 3 Combined Sewer Separation																	
CC CSO 203 Sewer Separation																	
East CC Interceptor Rehabilitation																	
CSO 202 Phase 2 – 70th Avenue & Spencer Street																	
61st and Radial Storm Sewer																	
CSO 204 Phase 4a – 57th Street and Pratt Street																	
CSO 204 Phase 4b – 56th Street and Bedford Avenue																	
PAPILLION CREEK NORTH (PCN) BASIN																	
PCN 210 Sewer Separation																	
CSO 212 – 64th Avenue and William Street																	
SADDLE CREEK BASIN																	
Saddle Creek Retention Treatment Basin																	

*Additional projects are being completed within the CSO Program, but are not included in the 2021 LTCP Update schedule. These projects include: Burt-Izard Lift Station Improvements; Riverview Lift Station Replacement; Monroe Street Lift Station Improvements; Missouri River Water Resource Recovery Facility – Transfer Lift Station Pump Replacement. Dates listed in this report may not directly correspond with LTCP dates reflected here. The City works with NDEE to adjust dates as necessary to remain in compliance.



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Printed May 2022