





# Quarterly Report | 2021 Q4 October – December

Omaha Combined Sewer Overflow Control Program Implementation Phase





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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: Missouri River, south of the Missouri River Water Resource Recovery Facility.



A City of Omaha Public Works Initiative



# YEAR IN REVIEW

The CSO Program continued to make significant progress in 2021. Lasting COVID-19

impacts resulted in further enhancements to virtual interactions, while some in-person gatherings resumed. The CSO Program continues its mission to save money for ratepayers, do what is best for the community, and meet Clean Water Act requirements. The Program goals of Regulatory Compliance, Economic Affordability and Community Acceptance were further exemplified in 2021 through the efforts noted in the following pages.



# PROJECTS

The CSO Program continued efforts in 2021 to advance projects. Listed below are expected 2022 project work items resulting from efforts in 2021:

## Project construction expected in 2022

- Monroe Street Lift Station Improvements Project
- Early utility relocation work expected to start in 2022 in advance of the Cole Creek CSO 202 Phase 2 70th Avenue & Spencer Street Project, which is expected to bid in 2023.

## Projects expected to bid in 2022

- Blake Street Lift Station Improvements
- Forest Lawn Creek Inflow Removal and Outflow Storm Sewer
- Hickory Street Sanitary Sewer Service Location
- CSO 212 64th Avenue & William Street

# Substantially or Operationally Complete Projects expected in 2022

- Riverview Lift Station Replacement
- Missouri River Water Resource Recovery Facility Transfer Lift Station Pump Replacement
- Burt-Izard Lift Station Improvements
- Papillion Creek North (PCN) 210 Sewer Separation Project
- Cole Creek CSO 204 Area Phase 3 Combined Sewer Separation



### LONG TERM CONTROL PLAN UPDATE

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. The Long Term Control Plan is updated approximately every five years to ensure future water quality improvement projects are as efficient and cost effective as possible.

New technologies, a comprehensive understanding of the system and advanced tools allowed the Program to evaluate a wide range of alternative projects as part of optimization efforts. An improved water quality model confirmed that 85% wet weather volume capture should comply with water quality standards. Evaluation of alternatives that focus on 85% volume capture allowed the estimated cost of the CSO Program to be reduced from \$2.4 billion to approximately \$2.0 billion. The approved 2021 Long Term Control Plan will provide a guide for the Program to continue to implement the plan through 2037.

In response to the COVID-19 Pandemic, which began in 2020, the CSO Program Management Team continued to facilitate design projects, maintain construction activities and provide outreach to keep the public and



stakeholders informed about the Program while following health and safety guidance set forth by the CDC.

# CSO PROGRAM OUTREACH

One-on-one community conversations and direct stakeholder outreach were conducted on the Nicholas Street Sewer Extension Phase 3B final design project.



The project team worked closely with impacted commercial stakeholders through meetings and video-conferences. Area residents received direct mail and email notifications featuring a project update video on the Program website. Contractor outreach and construction bid opening also occurred in March.

A revamped version of the CSO Program website debuted in May, providing an enhanced and streamlined user experience. The public website is a powerful tool that connects and educates ratepayers and other interested parties with important CSO Program work. It includes Program projects, current and upcoming activities, contractor resources, and historic documents. With a fresh, lighter look and enhanced navigation, site visitors can quickly find and access information. A key element of the new website is an interactive project map. This feature makes it easy to see current activity locations at a glance, as well as search for specific addresses.

In June, Nebraska Game and Parks restocked Fontenelle Lagoon and Hanscom Park pond for catch and release fishing. Kids and families explored the improved parks and watched the stocking of 300 hybrid bluegill and green sunfish at each location. Camp Hanscom coincided with the event, creating a youth outreach opportunity.

World O! Water is an annual event for Omaha-area youth to learn about the important role water plays in our lives and community. The CSO public outreach team toured Spring Lake Park with a Program engineer to learn more about how the park could be used as a learning destination. Modeling this experience, the team developed a worksheet for families and educators to download for self-guided tours. The worksheet leads participants through the park and promotes conversation about stormwater management and green infrastructure.

The CSO Program continued activities to enhance contractor outreach to increase the number of competitive bids. The Program hosts contractor meetings to review 60% design documents, pre-advertises 95% documents for contractor access, identifies listing of expanded bid items, and coordinates large project bid periods with other metro agencies so that no two large projects are competing at the same time for contractor bids.



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.



CSO

Solutions

# Economic Affordability

Goal 2:

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

# Goal 3:

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.

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# 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.



### 82 Construction Package Contracts

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



\* These numbers reflect the 2021 Long Term Control Plan Update







Contracts



# **PROJECT DELIVERY SCHEDULE FOR ACTIVE PROJECTS**\*

Long Term Control Plan Projects	2021	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 (project construction expected to begin in 2030)						
System Reliability Projects**	2021	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						
			*Active project	s in design and/o	r construction.	

Design/ Bidding

Construction

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 for CSO Program completion.

# GOAL 2: Economic Affordability

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

### City Continues to Look for Program Savings

The City continues to look for ways to lower the CSO Program costs and the impacts to the ratepayers. Two recent activities helped to reduce the overall Program cost – Program re-evaluation and securing a low interest State Revolving Fund (SRF) loan.

The recent Program optimization and re-evaluation allowed the City to adjust Program projects and their timing while still meeting Program goals. These accepted changes created estimated Program cost reductions of approximately \$400M.

The City of Omaha secured a SRF loan from the Nebraska Department of Environment and Energy (NDEE) for the CSO Program's Saddle Creek Retention Treatment Basin (SCRTB) Project. This loan provides \$31M in 0% interest, 0% administrative fee funds for the project. These advantageous loan terms assist the City by reducing construction loan financing costs.

# 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**.



# 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.



### Outreach Event Hosted for UNO Engineering Students

On Nov. 12, 2021, the Program Management Team, along with the Saddle Creek Retention Treatment Basin Project Team, conducted a two-part youth outreach event for University of Nebraska College of Engineering students. In the morning, the team gave a presentation to Dr. George Hunt's introduction to Civil Engineering class on the project overview and the types of engineering careers associated with a project of this magnitude, then answered questions from the students. In the afternoon, the class, along with the Nebraska Water Environment Association (NWEA) and American Society of Civil Engineers (ASCE) student chapter groups, were invited to tour the job site from the periphery. The team discussed how the operation of the facility will work, the stages of construction, key basin facts and the different engineering roles needed to create such a monumental project. The outreach engaged more than 30 students during this two-part session.





# **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.





construction activities through December 2021.

# **COMPANIES ENGAGED**

During the past five years,\* small and emerging small businesses (SEBs) received just over \$9M in construction contracts and subcontracts, representing over nine percent of the total construction work contracted through the City's CSO Program over the same period of time.

In addition, approximately \$21M in construction subcontracts went 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.

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

PROJECT OVERVIEW



	CURRENT CONSTRUCTION	KEY	CONSTRUCTION CONTRACTS	CONSTRUCTION MANAGER'S CURRENT ESTIMATE AT COMPLETION REFLECTS CSO FUNDING*	
			Missouri River Water Resource Recovery Facility – Transfer Lift Station Pump Replacement (OPW 53408)	<ul> <li>\$6,240,000</li> <li>92% Complete</li> </ul>	The contractor started installation of pump #1, which is the fifth of six
		B	Burt-Izard Lift Station Improvements (OPW 52472)	<ul> <li>\$15,200,000</li> <li>\$99% Complete</li> </ul>	<ul> <li>Expecting substantial completion in Q1 2022.</li> </ul>
		C	Riverview Lift Station Replacement (OPW 52402)	<ul> <li>\$25,846,000</li> <li>73% Complete</li> </ul>	Placement of the final roof slab for the facility is underway.
		D	Cole Creek CSO 204 Area – Phase 3 Combined Sewer Separation (Taylor to Ruggles Between 56th & 61st) (OPW 53206)	\$4,729,000           43% Complete	Construction efforts have suspended for winter weather; construction substantial completion expected in Q2 2022.
		E	Papillion Creek North (PCN) 210 Sewer Separation (OPW 53320)	<b>*7,287,000 43%</b> Complete	Construction efforts have suspended for winter weather; efforts will resume in the spring.
		F	Cole Creek CSO 203 Sewer Separation Project (OPW 53059)	<b>*7,358,000 26%</b> Complete	Construction efforts have suspended for winter weather; efforts will resume in the spring.
Y		G	Saddle Creek Retention Treatment Basin (OPW 52049)	<b>\$94,000,000</b> <b>69%</b> Complete	Construction of the basins are completed and backfill is nearly complete.
		€	Nicholas Street Sewer Extension – Phase 3B (OPW 53753)	\$21,806,000           \$3% Complete	• Construction began in Q4 2021.
T		0	Monroe Street Lift Station Improvements Project (OPW 53082)	\$24,391,000           (0)         (0)	<ul> <li>Construction notice to proceed expected Q1 2022.</li> </ul>

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



# **SCHEDULE DETAIL**

The schedule below reflects the 2021 Long Term Control Plan (LTCP) Update. Projects are no longer classified as Major Projects or Sewer Separation Projects. The City has not yet received a draft CSO Permit but anticipates that these dates will be in the permit. The Combined Sewer Overflow (CSO) Program is maintaining the overall schedule to meet current regulatory expectations.

Project Name	LTCP Milestone <sup>1</sup>	Current Status <sup>2</sup>
Cole Creek CSO 204 Area - Phase 3 Combined Sewer Separation (Taylor to Ruggles Between 56th and 61st)	6/30/2022	Under Construction
Papillion Creek North (PCN) 210 Sewer Separation	12/31/2022	Under Construction
Cole Creek CSO 203 Sewer Separation Project (CSO)	12/31/2023	Under Construction
Saddle Creek Retention Treatment Basin	12/31/2023	Under Construction
Forest Lawn Creek Inflow Removal and Outfall Storm Sewer	12/31/2024	Final Design
CSO 212 - 64th Avenue and William Street	6/30/2025	Preliminary Design
Nicholas Street Sewer Extension - Phase 3B	6/30/2025	Under Construction
East Cole Creek Interceptor Rehabilitation	6/30/2026	Future
CSO 119 South Barrel Conversion & Sewer Separation	6/30/2026	Preliminary Design
CSO 202 Phase 2 - 70th Avenue and Spencer Street	12/31/2026	Final Design
Minne Lusa Relief Sewer Diversion Modifications	6/30/2028	Future
61st & Radial Storm Sewer	12/31/2028	Future
Grace St and North Interceptor DWF Diversion Rehabilitation	12/31/2028	Future
CSO 105 Outfall Active Control	6/30/2029	Future
CSO 204 Phase 4a - 57th Street and Pratt Street	6/30/2030	Preliminary Design
North Downtown Conveyance Sewer - 11th and Izard to 6th and Abbott	6/30/2030	Future
CSO 204 Phase 4b - 56th Street and Bedford Avenue	12/31/2032	Preliminary Design
11th & Izard Grit and Screening Facility	6/30/2033	Future
11th and Izard Active Control	6/30/2033	Future
Northeast Omaha RTB - 6th Street and Abbott Drive	6/30/2034	Future
Jones Street to Leavenworth Diversion	12/31/2035	Future
21st and Cuming Active Control	6/30/2037	Future
Hickory Street Sewer Separation	6/30/2037	Future
Pierce Street Sewer Separation	6/30/2037	Future
Leavenworth Basin Storage Tank (CSO 109)	6/30/2037	Future
1–LTCP Milestone is the date of substantial completion for sewer separation projects and operationally complete for facility projects.		

2—Future projects are not scheduled to start yet.

YEAR-END SUPPLEMENTAL



# **PROJECT STATUS LIST**

PROJECT AND CONTRACT PROGRESS STATUS OVERVIEW (THROUGH FOURTH QUARTER 2021)											
	Future Projects	Study and Design	Bid/ Construction	Complete	Total						
Number of Long Term Control Plan Projects	14	7	8	26	55						
Number of Long Term Control Plan Project Construction Contracts	16	8	10	48	82						
Note: As part of adaptive management, 39 Long Term Control Plan projects have been removed, combined, or pooled; this includes 13 that were eliminated due to the change in the Minne Lusa permit modification in June 2017.											

With this change, 15 contracts were eliminated.

# **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.0mahaCS0.com*).

	ACTIVE DESIGN PROJECT STATUS OVERVIEW										
Omaha Public Works Project Number (OPW)	City Council District	Project Name	Opinion of Probable Construction Cost <sup>1</sup>	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 anticipated in Q1 2022.			
53270	4	Blake Street Lift Station Improvements Project <sup>2</sup>	\$1–5 million			✓		Bid advertisement anticipated in Q2 2022.			
53869	1	CSO 202 Phase 2 – 70th Avenue and Spencer Street	\$10–15 million			>		90% documents expected Q1 2022.			
53899	4	Hickory Street Sewer Separation	<\$1 million			~		Construction bid advertisement expected in Q1 2022.			
53149	4	CSO 119 South Barrel Conversion & Sewer Separation	\$10–15 million		✓			30% documents expected Q1 2022.			
53820	1	CSO 204 Phase 4a – 57th Street and Pratt Street CSO 204 Phase 4b – 56th Street and Bedford Avenue	\$35–40 million		✓			Concept deliverable expected Q1 2022.			
51685	3	CSO 212 – 64th Avenue and William Street	\$5–10 million		1			60% documents expected Q1 2022.			

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)	Forest Lawn Creek Inflow Removal & Outfall Storm Sewer			
Project Type	Conveyance	Conveyance	Sewer Separation			
Bid Advertisement (estimated)	Q1 2022	Q2 2022	Q1 2022			
Begin Construction (estimated)	Q2 2022	Q3 2022	Q3 2022			
Construction Estimate	< \$1 Million	\$1–5 Million	\$25–30 Million			

### **WEBSITE SUMMARY**

Use of the Omaha CSO Program's public website is tracked and 2021 summary information is provided below. This continues to show active public use of the website. The website is located here: *www.0mahaCS0.com* 

Omaha CSO January 1 – December 31, 2021

# Website Summary



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



# PROJECTS UNDER CONSTRUCTION

### SADDLE CREEK RETENTION TREATMENT BASIN

### **Project Description:**

The purpose of the **Saddle Creek Retention Treatment Basin (SCRTB) Project** is to capture combined sewage and store or treat it during wet weather events. Combined sewage will be diverted from the Saddle Creek Sewer and conveyed to the SCRTB headworks, where large materials like cans, rocks, tree branches and floatable solids are removed using a grit pit and mechanical screens. Directly following screening, a disinfectant will be added to the combined sewage flows to kill or inactivate pathogenic bacteria. For small wet weather events, the combined sewage will be fully captured (retained) in the underground basin. For larger events, the underground basin will completely fill up and then a dechlorination agent will be added just prior to flows discharging through an overflow channel to the creek. Once completed, the RTB will capture and treat a combined sewage flow rate of up to 160 million gallons per day. The headworks and chemical storage and feed systems were designed to accommodate peak instantaneous flow rates up to 320 million gallons per day to allow for large flow variations into the basin and also the potential for treating higher flows in the future.

The RTB will use dewatering pumps to empty the facility after a wet weather event has ended. These pumps will convey captured combined sewage volume into the downstream Papillion Creek Interceptor sewer for treatment at the Papillion Creek Water Resource Recovery Facility (PCWRRF).

Over 190,000 tons of soil have been excavated for the construction of the 3.3 million gallon below-ground basin. Steel beams have been driven into the soils below the concrete basin to support the facility's structure. These 848 steel beams (approximately 13 miles in total) support the weight of concrete, water, soil and other building materials. Pile driving was completed in Q2 2020 for the underground basin; additional deep foundation supports were installed in Q1 2021 for the above-ground operations and chemical buildings.

Concrete work for the first phase of the channel and diversion structure was completed in early 2020. Construction from summer 2020 to fall 2021 was primarily focusing on placing rebar and concrete pours for the below ground basin. Approximately 25,000 cubic yards of concrete, roughly 2,500 truckloads, will be used to construct the basin and the facility's walls.

Throughout the summer and fall of 2021, construction on the above ground improvements included a building to house controls, grit and screening equipment, and chemicals. The building will provide office space for full-time operations staff, some additional city offices and maintenance for the facility. Winter 2021-2022 construction will also include work in the Saddle Creek outfall channel to complete the improvements with energy dissipation structures and natural channel elements at the confluence with Little Papillion Creek.

An odor control system will be installed to address the risk of odors from the facility. The site will include fencing and lighting for security purposes. The remaining construction activities are expected to have a minimal impact to the surrounding neighborhoods, which include concrete and material delivery and some general construction noise.

**OPW Project Number:** 52049 **Project Location ID on Figure 1:** G **For additional information, see page 7.** 



### MISSOURI RIVER WATER RESOURCE RECOVERY FACILITY IMPROVEMENTS - TRANSFER LIFT STATION

#### **Project Description:**

The Missouri River Water Resource Recovery Facility (MRWRRF) – Transfer Lift Station Pump

**Replacement Project** was identified to replace the existing five wastewater pumps that have had operational issues since being placed into service as part of the MRWRRF Schedule A project in 2014. The improvements also include replacement of the two existing stormwater pumps, bridge crane, and other ancillary equipment to support operation of the new pumps.

**OPW Project Number:** 53408 (Transfer Lift Station Pump Replacement) **Project Location ID on Figure 1:** A **For additional details, see page 7.** 

### **BURT-IZARD LIFT STATION IMPROVEMENTS**

#### **Project Description:**

The existing Burt-Izard Lift Station was originally constructed in the 1960s and initially had a capacity to pump 50 million gallons per day during wet weather events. However, because of significant grit loadings to the facility, the condition of the old South Interceptor Force Main, and the historical lack of treatment capacity at the Missouri River Water Resource Recovery Facility (MRWRRF), the facility has only operated at 25 million gallons per day during wet weather events.

Construction efforts for the **Burt-Izard Lift Station Improvements Project** include upgrades to the grit building and overall grit handling capacity, bar screen room and lift station. The improvements require upgrades to the electrical, structural, architectural, instrumentation, heating, ventilation, air conditioning and process elements of the facility to meet new code requirements and for operations and maintenance of the upgraded facility. The improved facility will restore the firm capacity of the facility to pump 50 million gallons per day into the new South Interceptor Force Main for subsequent treatment at the expanded and upgraded MRWRRF.

OPW Project Number: 52472 Project Location ID on Figure 1: B For additional details, see page 7.



### **RIVERVIEW LIFT STATION REPLACEMENT**

### **Project Description:**

The existing Riverview Lift Station was originally constructed in the 1960s as part of the South Interceptor Sewer Project and has the capacity to pump 3.5 million gallons per day (MGD) to the Missouri River Water Resource Recovery Facility (MRWWRF). A new lift station is needed to ensure flows from the Riverview and Grover Street sewers can be reliably pumped into the new South Interceptor Force Main and to maximize conveyance of wet weather flows to the MRWRRF. Lift station capacity is also needed to accommodate the Henry Doorly Zoo cleaning and draining of exhibits and facilities.

The new lift station was designed to have the capacity to pump 7.0 MGD. The location of the **Riverview Lift Station Replacement Project** is just west of the existing lift station, adjacent to Gibson Road. Work includes construction of two diversion structures at the existing Grover and Riverview Street combined sewers to capture flows and convey them to the new Riverview Lift Station.

**OPW Project Number:** 52402 **Project Location ID on Figure 1:** C **For additional details, see page 7.** 

### COLE CREEK CSO 204 AREA – PHASE 3 COMBINED SEWER SEPARATION

#### **Project Description:**

The Cole Creek CSO 204 Area - Phase 3 Combined Sewer Separation Project is phase 3 of approximately four phases of work planned within the Cole Creek 204 basin that will convert the existing combined sewers to separated sewers. It will ultimately result in reduced sewer backups into area homes and reductions in combined sewer overflow volume and flow rate in Cole Creek.

It is bordered on the north by Brown Street, on the east by 52nd Street, on the south by Northwest Radial Highway, and on the west by Cole Creek.

The Phase 3 Project includes a new sanitary sewer in Taylor Street, Sahler Street, Sprague Street, North 56th Street, and Ruggles Street. The sanitary sewer will connect to a separated downstream sanitary sewer.

**OPW Project Number:** 53206 **Project Location ID on Figure 1:** D **For additional details, see page 7.** 



### NICHOLAS STREET SEWER EXTENSION, PHASE 3B

#### **Project Description:**

The **Nicholas Street Sewer Extension Phase 3B Project** includes further extension of the storm trunk sewer from the Phase 2 junction structure at 16th & Charles to the north and west to serve additional areas in the Burt-Izard Basin.

Specifically, the Nicholas Street Sewer Extension Phase 3B Project will include the construction of 84-inch to 15-inch storm trunk sewer along 16th Street from just south of Charles to Pinkney Street. Additional storm sewers will be constructed in Corby Street, Lake Street, Grace Street, 18th Street and Florence Boulevard. All sewers will be constructed by open cut methods of construction. A new 12-inch sanitary sewer in 16th Street will replace an existing 8-inch sanitary sewer constructed in the 1880s. Additional sanitary sewers will be constructed in Willis Avenue and Corby Street.

This project will reduce the combined flows downstream of the project area and thereby reduce combined sewer overflows to the Missouri River. In addition, full pavement removal throughout the extent of the project will take place. Along 16th Street, the street pavement will be narrowed and provide bike lanes and parking. Restoration will include sidewalk replacement and ADA compliant ramps.

**OPW Project Number:** Phase 3B – OPW 53753 **Project Location ID on Figure 1:** H **For additional information, see page 7.** 

### **COLE CREEK CSO 203 SEWER SEPARATION**

#### **Project Description:**

The **Cole Creek CSO 203 Sewer Separation Project** includes construction of sanitary and storm sewers to provide sewer separation to 125 acres in the area.

This project is located in the Cole Creek Basin and is bounded on the north by Pratt Street; on the east by Military Avenue; on the south by Maple Street and on the west by Cole Creek. This project includes construction of both sanitary and storm sewer and converts the existing combined sewer to either storm or sanitary sewer.

The primary objective of the Cole Creek CSO 203 Sewer Separation Project is to separate combined sewers in the area, reduce basement back-ups and potentially deactivate CSO 203 without increasing the peak stormwater discharge to Cole Creek.

This project will reduce the amount of stormwater entering the existing Cole Creek Interceptor, thereby maintaining capacity in the interceptor during storm events for the conveyance of sanitary flows. It will ultimately result in reduced sewer backups into area homes and reductions in combined sewer overflow volume and flow rate in Cole Creek.

**OPW Project Number:** 53059 **Project Location ID on Figure 1:** F **For additional information, see page 7.** 



# PAPILLION CREEK NORTH (PCN) 210 SEWER SEPARATION

### **Project Description:**

The **Papillion Creek North (PCN) 210 Sewer Separation Project** is located in the Papillion Creek North Basin. It is bordered on the north by Maple Street, on the east by 60th Street, on the south by Blondo Street, and on the west by North 67th Street.

This project includes the construction of a combination of new sanitary sewer and new storm sewer to provide complete separation to the area. In 2002 a combined sewer renovation project (RNCL 5788A) was completed in the area of 61st and Lake Street, which provided partial separation for the Papillion Creek North Basin. The PCN 210 Sewer Separation project includes construction of additional new sanitary sewer and new storm sewer which will complete the sewer separation for this basin. This project will ultimately result in reduced risk of sewer backups into area homes and reductions in combined sewer overflow volume into Papillion Creek.

OPW Project Number: 53320 Project Location ID on Figure 1: E For additional details, see page 7.

### MONROE STREET LIFT STATION IMPROVEMENTS PROJECT

#### **Project Description:**

The existing Monroe Street Lift Station was originally constructed in the 1960s as part of the South Interceptor Sewer Project. With three wet-weather pumps in service, the lift station has the capability to deliver up to 60 million gallons per day (MGD), but is currently limited to approximately 40 MGD. The diversion structure, screens, and the lift station were designed to pump into the Missouri River Water Resource Recovery Facility (MRWRRF) via one 42-inch force main. In 1996, improvements were made to the Monroe Street Lift Station grit basin, a new conveyor was installed, Pump 2 was replaced with a smaller, dry-weather pump with a 9-MGD capacity, and a generator was added.

Construction efforts for the **Monroe Street Lift Station Improvements Project** include upgrading the diversion structure and lift station to reliably convey 60-65 MGD to the MRWWRF during wet weather events. Upgrades include refurbishing or replacing all equipment in the lift station, updating the facility to meet current code requirements, improving grit collection and removal, screenings improvements, structural refurbishment, and replacement of the existing pumps and motors. Real-time-controls and gate replacements will occur in the diversion structure to maximize conveyance of flows to the newly expanded MRWRRF headworks for treatment of up to 150 MGD of wet weather flows while reducing the number of CSO discharges at CSO 119.

The main benefits of this project will be a reduction of combined sewage discharged to the Missouri River and maximization of flows to the new MRWRRF headworks for treatment during wet weather events. Additional benefits will include a fully upgraded and reliable lift station which will reduce maintenance and operations efforts by City staff.

OPW Project Number: 53082 Project Location ID on Figure 1: | For additional information, see page 7.



# **COMPLETED CONSTRUCTION CONTRACTS**

Construction contracts that are substantially complete or operationally complete as of the end of the fourth quarter of 2021 are shown in the table below. Projects can be delivered through multiple construction contracts.

COMPLETED CONSTRUCTION CONTRACTS									
Omaha Public Works Project Number	Project Name <sup>1</sup>	Long Term Control Plan Project Name <sup>1</sup>		Final Construction Cost					
51784	Spring Street Sewer Separation	Spring Street Sewer Separation	Q2 2010	\$113,710					
51503	Webster Street Sewer Separation Phase 2	Webster Street Phase 2 (Burt-Izard-108-3A)	Q3 2010	\$6,896,264					
50986	42nd Street and X Street Sewer Separation	42nd Street and X Street Sewer Separation	Q4 2010	\$942,149					
51861	South Omaha Industrial Area Sewer Separation (SOIASS)	Ohern/Monroe Industrial Flow Area Sewer Separation	Q4 2010	\$1,731,390					
51497	24th Street and Ogden Street Sewer Separation <sup>3</sup>	24th Street and Ogden Street Sewer Separation <sup>3</sup>	Q1 2011	\$2,738,814					
52199	Leavenworth Lift Station Contract 1 – Site Preparation	Leavenworth Lift Station Replacement	Q2 2012	\$946,824					
52209	Nicholas Street Former Economy Products Building Demolition Contract	Nicholas Street Phase 1 (Economy Products Building Demolition)	Q2 2012	\$531,728					
51661	20th Street and Poppleton Street Sewer Separation <sup>3</sup>	20th & Poppleton Sewer Separation (19th to 24th; Pierce to Woolworth) <sup>3</sup>	Q4 2012	\$5,837,273					
51880	Martha Street Sewer Separation, Martha Street Area – Residential Combined Sewer Separation	Martha Street Sewer Separation, Phase 1: Martha Street Area – Residential Combined Sewer Separation	Q4 2012	\$796,579					
52246	Gunderson Rail Property Demolition	Minne Lusa Stormwater Conveyance Sewer	Q2 2013	\$622,681					
50588	Country Club Phase 2 Sewer Separation <sup>3</sup>	SC RNC 205-1; Country Club Phase 2 Sewer Separation <sup>3</sup>	Q3 2013	\$5,573,142					
51686	Pacific Street — 63rd to 66th Sewer Separation	CSO 211 Sewer Separation	Q3 2013	\$346,341					
51892	Nicholas Street Phase 1	Nicholas Street Phase 1 (10th Street to 16th Street)	Q3 2013	\$15,514,610					
51151	Aksarben Village Neighborhood Sewer Separation Project & Elmwood Park	Aksarben Village, Phase A & B	Q4 2013	\$8,171,894					
52134	Martha Street Sewer Separation, Martha Street to Riverview Lift Station Phase 1	Martha Street Sewer Separation, Phase 1: Martha Street to Riverview Lift Station, Phase 1	Q4 2013	\$1,988,156					
52187	Martha Street Sewer Separation, Lauritzen Gardens Sanitary & Storm Sewer Separation	Martha Street Sewer Separation, Phase 1: Lauritzen Gardens Sanitary & Storm Sewer Separation	Q4 2013	\$8,025,531					
52188	Martha Street Sewer Separation, Lauritzen Gardens Storm Sewer Grading and CSO Abandonment	Martha Street Sewer Separation, Phase 1: Lauritzen Gardens Storm Sewer & CSO Abandonment	Q4 2013	\$553,233					
51957	South Omaha Industrial Area Force Main and Gravity Sewer	Ohern/Monroe Industrial Lift Station, Force Main and Gravity Sewer	Q1 2014	\$4,880,064					

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YEAR-END SUPPLEMENTAL 202



COMPLETED CONSTRUCTION CONTRACTS									
Omaha Public Works Project Number	Project Name <sup>1</sup>	Long Term Control Plan Project Name <sup>1</sup>	Completion Date	Final Construction Cost					
51941	Miller Park to Pershing Detention Basin Sewer Separation	Miller Park to Pershing Detention Basin Sewer Separation	Q2 2014	\$5,468,154					
51956	South Omaha Industrial Area Lift Station	Ohern/Monroe Industrial Lift Station, Force Main and Gravity Sewer	Q2 2014	\$9,377,488					
51777	Saddle Creek Area – 55th Street to 64th Avenue Sewer Separation	Saddle Creek Area – 55th Street to 64th Avenue Sewer Separation Project/Bohemian Cemetery Sewer Separation	Q3 2014	\$12,047,423					
52200	Missouri River Water Resource Recovery Facility (MRWRRF), Schedule A	Missouri River WWTP – Schedule A	Q3 2014	\$19,606,842					
51698	36th Street Sewer Separation (State Street to McKinley Street)	36th Street Sewer Separation	Q4 2014	\$586,171					
51874	Leavenworth Lift Station Replacement	Leavenworth Lift Station Contract 2 – Lift Station	Q1 2015	\$28,327429					
51873	South Interceptor Force Main (SIFM), Central and South	South Interceptor Force Main – South Segment	Q3 2015	\$20,181,295					
51817	39th Street & Fontenelle Street Sewer Separation Project <sup>3</sup>	39th Street & Fontenelle Street Sewer Separation <sup>3</sup>	Q4 2015	\$1,355,642					
51962	Webster and Nicholas Sewer Separation Phase 1	Nicholas and Webster Sewer Separation Phase 1	Q4 2015	\$9,455,863					
52570	Missouri River Water Resource Recovery Facility (MRWRRF), Wetlands Mitigation	MRWRRF: Wetlands Mitigation	Q4 2015	\$411,319					
51875	Missouri River Water Resource Recovery Facility (MRWRRF), Schedule B1	Improvements to the Missouri River Water Resource Recovery Facility – Schedule B1	Q3 2016	\$61,790,360					
51995	Cole Creek CSO 204 Sewer Separation Phase 1	Cole Creek CSO 204 Sewer Separation Phase 1	Q3 2016	\$4,571,645					
51997	Missouri Avenue/Spring Lake Park Phase 1	Missouri Avenue Sewer Separation Phase 1	Q3 2016	\$10,907,849					
52049A	Saddle Creek Retention Treatment Basin (RTB), Early Soils Removal	Saddle Creek Retention Treatment Basin, Early Soils Removal	Q3 2016	\$2,229,362					
52165 and 52390	John Creighton Boulevard (JCB) Stormwater Conveyance Sewer Project & Adams Park Project	John Creighton Boulevard (JCB) and Miami Street, Phase 1 Sewer Separation and Phase 2 Sewer Separation	Q4 2016	\$20,865,053					
52297	Nicholas Street Phase 2 to 23rd and Grace Sewer Separation	Nicholas Street Phase 2 to 23rd and Grace	Q4 2016	\$18,419,352					
52456	Vinton Street Green Infrastructure Project	Vinton Street Green Infrastructure Project	Q4 2016	\$1,066,000					
52193	49th Street and Caldwell Street Sewer Separation (RNC) <sup>3</sup>	49th and Caldwell Area Sewer Separation <sup>3</sup>	Q1 2017	\$5,076,645					
52494	MRWRRF Bank Stabilization	Missouri River WWTP – Bank Stabilization	Q2 2017	\$7,055,316					
52390A	Adams Park Landscaping Improvements	Minne Lusa 105-1; JCB and Miami Phase 1 and 2 (OPW 52165)	Q3 2017	\$670,530					

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2021 YEAR-END SUPPLEMENTAL

COMPLETED CONSTRUCTION CONTRACTS									
Omaha Public Works Project Number	Project Name <sup>1</sup>	Long Term Control Plan Project Name <sup>1</sup>	Completion Date	Final Construction Cost					
52881	42nd & Q Street Sewer Separation (Hitchcock Park Green Infrastructure)	42nd and Q Sewer Separation (Hitchcock Park Green Infrastructure)	Q3 2017	\$382,441					
52184	Gilmore Avenue Sewer Separation Phase 1 and 2	OM 119-6 Gilmore Avenue Phase 1 & 2	Q4 2017	\$10,692,062					
52184A	Gilmore Avenue Detention Pond and Albright Park Landscaping	OM 119-6 Gilmore Avenue Phase 1 & 2 (Gilmore Avenue Detention Pond and Albright Park Landscaping)	Q4 2017	\$296,819					
52223	South Interceptor Force Main (SIFM), North Segment	South Interceptor Force Main — North Segment	Q2 2018	\$33,134,137					
52658	Lake James to Fontenelle Park	Lake James to Fontenelle Park, Lagoon	Q3 2018	\$7,009,498					
52257	42nd & Q Street Sewer Separation	42nd & Q Street Sewer Separation	Q3 2019	\$2,891,774					
51997A	Missouri Avenue/Spring Lake Park Mitigation Plantings	Missouri Avenue Sewer Separation Phase 1 — Mitigation Plantings	Q4 2019	\$284,957					
52648	Missouri River Water Resource Recovery Facility (MRWRRF), Schedule B2	Improvements to the Missouri River WWTP-Schedule B2	Q4 2019	\$50,972,612					
52659	Lake James to Fontenelle Park	Lake James to Fontenelle Park Sewer Separation	Q4 2019	\$5,402,981					
52781	Hanscom Park Green Infrastructure	Stormwater Green Projects – Hanscom Park	Q1 2020	\$2,268,884					
53417	Cole Creek CSO 202 Sewer Separation, Phase 1	Cole Creek CSO Sewer Separation	Q1 2020	\$1,167,181					
52721	Nicholas Street Sewer Separation, Phase 3A	Nicholas Street Sewer Separation, Phase 3A	Q3 2020	\$1,423,654					
52783	Leavenworth Lift Station, Flood Mitigation	Leavenworth Lift Station Contract 3 – Flood Mitigation	Q4 2020	\$2,824,307					
52931	18th & Fort Sewer Improvements <sup>3</sup>	18th & Fort Sewer Improvements <sup>3</sup>	Q3 2021	\$3,761,248					
51997B	Missouri Avenue Sewer Separation, Phase 2	Missouri Avenue/Spring Lake Park Sewer Separation Phase 2	Q3 2021	\$7,614,344					

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YEAR-END SUPPLEMENTAL 🍃



# **ADDITIONAL PUBLIC BENEFITS**

In addition to the new storm and sanitary sewer pipe constructed and/or rehabilitated, Program projects included the reconstruction of adjacent infrastructure as integral components of those projects.



Includes 30 completed or underway projects as of fourth quarter, 2021, since the inception of the Program.



PROGRAM OVERVIEW

# **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.0mahaCS0.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.

### **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.

- 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.



# 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 & Cuming 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	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
COLE CREEK (CC) BASIN												1					
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.





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