



**Metropolitan Sewer District of Greater Cincinnati  
Capital Budget and Capital Improvement Program  
Hamilton County Board of County Commissioners  
Board Modified 2020-2024 CIP Book**

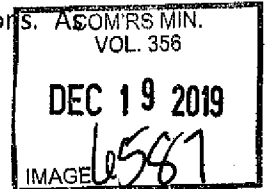


Wednesday, December 18, 2019

## Executive Summary – MSD’s 2020-2024 CIP

This document presents Hamilton County’s five-year budget and plan for the Metropolitan Sewer District of Greater Cincinnati (MSD) 2020-2024 Capital Improvement Program (CIP). This modifies the proposed CIP submitted by MSD.

In May 2019, County Administration directed MSD to produce a 2020-2024 CIP that both included the County’s Consent Decree WWIP Phase 2A plan and stayed within the budget for that plan. The CIP submitted by MSD in November did not comply with County direction. As a result, the County has modified the CIP to meet County directives and goals.



### **MSD 2020-2024 Achievements**

MSD’s Board Modified CIP achieves the following:

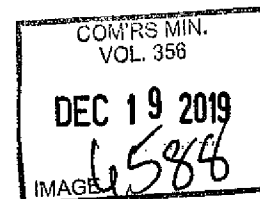
- Year 2020 completes WWIP Bridge projects that were not completed in 2019 and includes many of the Year 1 projects of the County’s 5-year Phase 2A plan;
- Years 2021-2024 include the remainder of the County’s Phase 2A plan;
- Each year’s capital budget is consistent with the Phase 2A rate analysis previously approved by the Board (with a 0% rate increase for 2020); and
- The Asset Management program for 2020 is based on MSD’s plan and was finalized with MSD’s input.

### **Total Spending and Identified Project Breakdown for the 2020 CIP**

The Board Modified CIP for 2020 anticipates a total cost of \$129 million on 64 projects, including nearly \$52 million in Consent Decree spending. The projects and costs listed for years 2021-2024 represent remaining County Consent Decree Phase 2A projects and a currently unspecified budget for Asset Management projects. The County and MSD will collaborate to identify the Asset Management projects for 2021 and beyond. The table below provides the financial breakdown of the 2020 CIP.

<b><u>CIP Section (2020)</u></b>	<b><u>Number of Projects (2020)</u></b>	<b><u>Budget of Projects (2020)</u></b>
WWIP Bridge Projects	8	\$22.4M
WWIP Phase 2A	5	\$10.3M
<b>Sub-Total WWIP Projects</b>	<b>13</b>	<b>\$32.7M</b>
<b>Sub-Total WWIP Allowances</b>	<b>6</b>	<b>\$19.2M</b>
<b>Total WWIP</b>	<b>19</b>	<b>\$51.9M</b>
<b>Asset Management Projects</b>	<b>38</b>	<b>\$41.2M</b>
<b>Asset Management Allowances</b>	<b>4</b>	<b>\$19.0M</b>
<b>Total Asset Management</b>	<b>42</b>	<b>\$60.2M</b>
<b>Total Other CIP Projects</b>	<b>3</b>	<b>\$16.5M</b>
<b>Total 2020 CIP</b>	<b>64</b>	<b>\$128.6M</b>

## Executive Summary – MSD's 2020-2024 CIP



### Other Projects for the 2020 CIP

In addition to the projects identified in the table above, each year of the five-year CIP also contains three projects categorized as Other:

Programmatic Contingency: Project budgets in the CIP do not include a contingency line item. MSD uses programmatic contingency to fund construction and design change orders for all projects in the capital program. For 2020, the program contingency amount is \$5 million. Costs are allocated to specific capital projects as they are expended.

MSD Labor Allowance: Starting in 2020, MSD will use a common allowance to charge employee labor costs for work done on capital projects. This is a cost-neutral budget item as the labor costs were removed from specific projects within the CIP book. If costs are not funded from the capital budget, the operating budget would need to increase by a corresponding amount. The annual request is \$5 million and is based on known expenses. Labor costs will be allocated to capital projects at the end of the budget year.

Program Management: This allowance is used to fund consultant support required to implement the capital program during the ramp-up of Phase 2A of the Consent Decree. In addition to providing expert staff for ongoing project controls functions (scheduling, cost estimating, and KPI reporting), this funding allows for the implementation of the new eBuilder project management information system (PMIS) that is supported by the County and will integrate seamlessly with the new Project Delivery System (PDS) that is being developed by MSD staff. The new procedures and workflows being developed and implemented using this funding allowance will allow MSD to manage the capital program more efficiently and effectively while providing more transparency through accurate and timely reporting of program and project performance. The funding request for 2020 is \$6.5 million. Costs will be allocated to WWIP or AM projects as appropriate at the end of the budget year.

### Solid Waste Management/Odor Control Projects

Also notable for 2020, five odor control projects are being initiated to further a prior Board directive. As a result of an incinerator shutdown at the Little Miami Treatment Plant in late 2015, MSD began to haul thickened sludge originally destined for Little Miami to various landfills. In early 2016, the Board provided policy guidance and directed MSD to develop a County-wide Comprehensive Solids Handling "Master Plan" consistent with the Hamilton County Solid Waste Management District Plan. As MSD undertook this effort, its Mission Statement for the Master Plan was:

*To create a 30-year system wide implementation plan including near- and long-term improvements that improve the reliability of MSDGC's solids handling assets while meeting the goal of eliminating offsite odors, minimizing rate impact, providing community resources, operational efficiencies, ensuring system wide resiliency. Opportunities for synergies within county operations to enhance regional economic, social and environmental sustainability will be incorporated, within the financial constraints of affordability for ratepayers.*

## Executive Summary – MSD’s 2020-2024 CIP

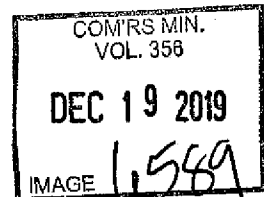
In May 2019, after four large consensus driven workshops including County representation, several smaller group meetings, and ten Technical Memos, MSD released the Master Plan to City Council. Mesophilic Digestion at Little Miami was selected as the recommended path forward to handle the sludge that can no longer be incinerated at Little Miami and incineration will continue at Mill Creek.

While MSD has not yet presented its findings to the Board, a formal presentation will likely occur in the first quarter of 2020. While some questions remain, the Administration-recommended CIP includes funding for five projects to support the recommendation. Public Hearings will be required for the Board to consider the Solids Handling Master Plan.

### **Fact Sheets to be Completed**

As explained above, this is an atypical year for CIP preparation. The County did not receive MSD’s CIP proposal until November and that proposal did not comply with County directives. The County has modified the CIP to meet the Board’s directives, but with only a very limited time to do so. Normally, every project included for 2020 would contain a fact sheet that explains the project’s scope, budget and schedule. Typically, these fact sheets are created by MSD and reviewed by the County before the CIP is approved. But, because the MSD CIP submittal did not contain the projects from the County’s Phase 2A plan, there are no MSD-produced fact sheets to include in this CIP Book for those projects. Some Asset Management project fact sheets provided in the MSD-produced CIP are also not consistent with County guidance. As a result, not all 2020 Asset Management projects in this CIP Book have fact sheets yet.

The County will collaborate with MSD early in 2020 to produce all missing fact sheets and to modify those that are incorrect. Once the County approves a fact sheet, the funds for that project will be released by Board action and the project will proceed.



Metropolitan Sewer District of Greater Cincinnati  
Capital Budget and Capital Improvement Program  
Board Modified 2020-2024 CIP Book



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## Glossary of Terms



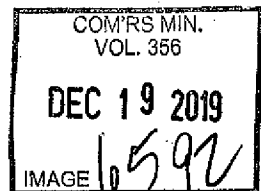
<u>Abbreviation</u>	<u>Description</u>
ALW	Allowance
BOCC	Board of County Commissioners, Hamilton County, OH
CDOTE	Cincinnati Department of Transportation & Engineering
CEHRT	Chemically Enhanced High Rate Treatment
CIP	Capital Improvement
CSO	Combined Sewer Overflow; discharge from a combined sewer collection system.
EPA	Environmental Protection Agency
ESP	Early Success Project
FAC	Treatment Facility
HA	Highly Active SSOs (HASSOs)
HNS	Home Numbers
HSTS	Home Sewage Treatment Systems
HW/DW	High Water, Dry Weather, refers to a specific type of CSO, the condition that occurs when the interceptor sewer floods from area rivers or creeks back-flowing into a CSO structure, resulting in extraneous waters that cause a combined discharge further down the collection system
ITS	IT Systems
LAT	Lateral Sewer
LMCPR	Lower Mill Creek Partial Remedy
LOC	Local Sewer
MGD	Million Gallons per Day
MSD	Metropolitan Sewer District
NPDES	National Pollution Discharge Elimination System; permitting authority overseen by USEPA
O&M	Operations and Maintenance
OEPA	Ohio Environmental Protection Agency
ORC	Ohio Revised Code
PRG	Program Contingency
PSE	Pump Station Improvement Elimination
PSO	Pump Station Overflow
RD/I	Rainfall Derived Infiltration Inflow (IL), extraneous sources of storm ground water into a sanitary sewer system
REG	Regulator Improvement
REM	Sewer Backup Remediation
REP	Sewer Replacement
SBU	Sewer Back Up (aka WIB Water-In-Basement)
SCADA	Supervisory Control and Data Acquisition
SEP	Sewer Separation
SEW	New Sewer
SRC	Source Control
SSO	Sanitary Sewer Overflow; discharge from a separate sanitary sewer
STY	Study
SUP	Supplemental Environmental Project
TUN	Tunnel
USEPA	United States Environmental Protection Agency
WWC	Wastewater Collection Division of MSD
WWIP	Wet Weather Improvement Program
WWT	Wastewater Treatment Division of MSD
WWTP	Wastewater Treatment Plant

2020 CIP Projects

Metropolitan Sewer District of Greater Cincinnati -- Board Modified 2020-2024 CIP Book

Planning/Design/Easement Funding (Exhibit A)

Project No.	Project Category	Project Type	Project Name	P/D/E Funds Budget
10172900	WWIP	FAC	Little Miami Standby Power (Design)	\$ 1,233,300
10199120	WWIP	ALW	Hamilton County Utility Oversight & Coordination (Design)	\$ 4,312,770
10240525	ASSET	REP	Victory Parkway Sewer Rehabilitation (Planning, Design, Easement)	\$ 339,100
10240720	ASSET	REP	Valleyview Court Sewer Replacement (Planning)	\$ 166,000
10240725	ASSET	REP	Shaffer Avenue Sewer Replacement (Planning)	\$ 166,000
10240730	ASSET	REP	Lafeuille Ave at Queen City Ave Sewer Replacement (Planning)	\$ 184,000
10240735	ASSET	REP	De Votle Avenue Sewer Replacement (Planning)	\$ 172,000
10240750	ASSET	REP	Seton Avenue (HN 916) Sewer Replacement (Planning)	\$ 108,000
10240780	ASSET	REP	Galbraith Rd to Sheldon Avenue Sewer Replacement (Planning)	\$ 171,000
10240795	ASSET	REP	Central to McMicken at Stark St Sewer Replacement (Planning)	\$ 66,000
10240810	ASSET	REP	Overlook Ave near Glenway Ave Sewer Replacement (Planning)	\$ 178,000
10240835	ASSET	CSO	CSO 488 Access Lane (Design, Easement)	\$ 41,900
10240855	ASSET	REP	Connecticut Avenue Sewer Replacement (Planning)	\$ 220,000
10240870	ASSET	REP	911 McPherson Avenue Sewer Replacement (Design, Easement)	\$ 458,000
10242025	ASSET	REP	Davey Ave to Hamilton Avenue Sewer Replacement (Planning)	\$ 199,000
10242135	ASSET	REP	Mill Creek Interceptors Rehabilitation (Design, Easement)	\$ 700,000
10270026	ASSET	PSE	Camargo Canyon Pump Station Elimination (Design, Easement)	\$ 253,000
10270220	ASSET	REP	Tusculum Ave at Woodbridge Sewer Replacement (Planning)	\$ 162,000
10270225	ASSET	REP	Elsmere Avenue from Slane to Lafayette Sewer Replacement (Planning)	\$ 163,000
10272030	ASSET	REP	Ridge Avenue (HN 5053) Sewer Replacement (Planning)	\$ 147,000
10630000	ASSET	SUP	Muddy Creek FEMA Property Acquisition & Floodplain Reconfiguration (Design, Construction)	\$ 200,000
10282020	ASSET	ALW	CIP Planning Projects 2020 (Planning)	\$ 480,000
10199020	OTHER	ALW	Program Management and Support Services 2020 (Design)	\$ 6,500,000
13099999	OTHER	ALW	MSD Labor (Design)	\$ 5,000,000
<b>24 Planning/Design/Easement Projects in 2020</b>				<b>\$21,620,070</b>



**2020 CIP Projects**  
**Metropolitan Sewer District of Greater Cincinnati -- Board Modified 2020-2024 CIP Book**  
**Estimate of Construction for Allowances (Exhibit B)**

Project No.	Project Category	Project Type	Project Name	Construction
10180120	WW/P	ALW	Main Sewer Renewal Program 2020 (Construction)	\$ 9,000,000
10180220	WW/P	ALW	Manhole Renewal Program 2020 (Construction)	\$ 973,300
10280720	ASSET	ALW	Critical Asset Management Projects 2020 (Construction)	\$ 6,000,000
10281320	ASSET	ALW	Prioritized Wastewater Collection System Improvements 2020 (Construction)	\$ 12,000,000
<b>Total Estimate of Construction for Allowances:</b>				<b>\$27,973,300</b>



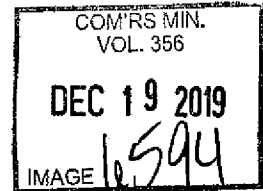


2020 CIP Projects

Metropolitan Sewer District of Greater Cincinnati -- Board Modified 2020-2024 CIP Book

Conditional Projects (Exhibit C)

Project No.	Project Category	Project Type	Project Name	Conditional Funding Budget
10130042	WWIP	REP	UMCI Replacement Phase B (Construction)	
10130566	WWIP	FAC	Muddy Creek WWTP Pump Station for EHRT (Design)	\$ 1,500,000
10131021	WWIP	CSO	CSO 402-406 (Construction)	
101329xx	WWIP	SEP	CSO 198 Partial Separation/SBU Mitigation (Planning)	\$ 500,000
1023xxxx	WWIP	STY	Muddy Creek IWAP (Planning)	\$ 500,000
1024xxxx	WWIP	STY	SSO 700 IWAP (Planning)	\$ 500,000
10140417	WWIP	ALW	WWIP Phase 1 Construction Compliance Assurance (Design)	\$ 2,446,000
10190320	WWIP	ALW	HSTS Elimination 2020 (Planning, Design, Easement, Construction)	\$ 2,085,600
10192020	WWIP	ALW	Urgent Capacity Response Program 2020 (Planning, Design, Easement)	\$ 417,100
10199120	WWIP	ALW	Hamilton County Utility Oversight & Coordination (Design)	
10230045	ASSET	REP	Stonebridge Sewer Relief (Design, Easement)	\$ 711,000
10232015	ASSET	FAC	MUWWTP Thickening Replacement and Pumping Improvements (Planning, Design)	\$ 510,000
10240426	ASSET	PSE	Pleasant Run Pump Station Upgrades (Design, Easement)	\$ 3,109,325
10242140	ASSET	FAC	MCWWTP Dewatering Building Odor Control (Design)	\$ 1,152,000
10252020	ASSET	FAC	PRWWTP Sludge Storage Tank with Odor Control (Planning, Design)	\$ 625,000
10262005	ASSET	FAC	SCWWTP Thickening and Settlement Improvements (Planning, Design)	\$ 320,000
10281100	ASSET	FAC	LMWWTP Solids Disposal with Odor Control (Planning, Design)	\$ 2,120,000
10280240	ASSET	ALW	Hydraulic Modeling 2020 (Planning)	\$ 500,000
<b>18 Projects in 2020 (Conditional)</b>				<b>\$16,996,025</b>



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IMAGE

**2020 CIP Projects**  
**Metropolitan Sewer District of Greater Cincinnati**  
**Board Modified 2020-2024 CIP Book**

Project ID	Project Category	Project Type	Project Name	2020 Total Budget
10130042	WWIP	REP	UMC Replacement Phase B (Construction)	\$7,717,070.00
10130566	WWIP	FAC	Muddy Creek WWTP Pump Station for EHRT (Design)	\$1,500,000.00
10131021	WWIP	CSO	CSO 402-406 (Construction)	\$5,000,000.00
101329xx	WWIP	SEP	CSO 198 Partial Separation/SBU Mitigation (Planning)	\$500,000.00
10142070	WWIP	FAC	SSO 700 STF Disinfection Improvements (Construction)	\$3,817,000.00
10142200	WWIP	SEP	CSO 513 Partial Sewer Separation (Construction)	\$3,617,930.00
10171641	WWIP	SEP	CSO 214 Partial Separation (Construction)	\$1,253,100.00
10172900	WWIP	FAC	Little Miami Standby Power (Design)	\$1,233,300.00
10172940	WWIP	SRC	Mt. Washington Source Control Implementation (Construction)	\$2,081,600.00
1023xxxx	WWIP	STY	Muddy Creek IWAP (Planning)	\$500,000.00
1024xxxx	WWIP	STY	SSO 700 IWAP (Planning)	\$500,000.00
10270170	WWIP	CSO	CSO 83 & 472 Dynamic Underflow Control (Construction)	\$2,989,000.00
10270190	WWIP	SEP	Columbia Square Development Separation (Construction)	\$1,947,474.00
10140417	WWIP	ALW	WWIP Phase 1 Construction Compliance Assurance (Design)	\$2,446,000.00
10180120	WWIP	ALW	Main Sewer Renewal Program 2020 (Construction)	\$9,000,000.00
10180220	WWIP	ALW	Manhole Renewal Program 2020 (Construction)	\$973,300.00
10190320	WWIP	ALW	HSTS Elimination 2020 (Planning, Design, Easement, Construction)	\$2,085,600.00
10192020	WWIP	ALW	Urgent Capacity Response Program 2020 (Planning, Design, Easement)	\$417,100.00
10199120	WWIP	ALW	Hamilton County Utility Oversight & Coordination (Design)	\$4,312,770.00
10230045	ASSET	REP	Stonebridge Sewer Relief (Design, Easement)	\$711,000.00
10230130	ASSET	REP	Dry Weather Channel for SS 937 (Construction)	\$3,045,000.00
10232015	ASSET	FAC	MJWWTP Thickening Replacement and Pumping Improvements (Planning, Design)	\$510,000.00
10240055	ASSET	FAC	MCWWTP Liquid Sludge Storage Tank Covers and Odor Control (Construction)	\$5,217,650.00
10240360	ASSET	PSE	Timbers Pump Station Elimination (Construction)	\$1,713,000.00
10240426	ASSET	PSE	Pleasant Run Pump Station Upgrades (Design, Easement)	\$3,109,325.00
10240455	ASSET	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation (Construction)	\$516,200.00
10240473	ASSET	PSE	Bahama Gardens Pump Station Upgrade (Construction)	\$809,400.00
10240495	ASSET	REP	Wahl Terrace Sewer Replacement (Construction)	\$658,400.00
10240525	ASSET	REP	Victory Parkway Sewer Rehabilitation (Planning, Design, Easement)	\$339,100.00
10240545	ASSET	REP	Central Parkway Sewer Replacement (HN 2402) (Construction)	\$432,500.00
10240590	ASSET	FAC	Mill Creek WWTP Main Substation Improvements (Construction)	\$3,560,642.00
10240710	ASSET	CSO	Fitzpatrick Sewer Cleaning and Rehabilitation (Construction)	\$2,732,000.00
10240720	ASSET	REP	Valleyview Court Sewer Replacement (Planning)	\$166,000.00
10240725	ASSET	REP	Shaffer Avenue Sewer Replacement (Planning)	\$166,000.00
10240730	ASSET	REP	Lafeuille Ave at Queen City Ave Sewer Replacement (Planning)	\$184,000.00
10240735	ASSET	REP	De Votie Avenue Sewer Replacement (Planning)	\$172,000.00
10240750	ASSET	REP	Seton Avenue (HN 916) Sewer Replacement (Planning)	\$108,000.00
10240780	ASSET	REP	Galbraith Rd to Sheldon Avenue Sewer Replacement (Planning)	\$171,000.00
10240795	ASSET	REP	Central to McMicken at Stark St Sewer Replacement (Planning)	\$66,000.00
10240810	ASSET	REP	Overlook Ave near Glenway Ave Sewer Replacement (Planning)	\$178,000.00
10240835	ASSET	CSO	CSO 488 Access Lane (Design, Easement)	\$41,900.00
10240855	ASSET	REP	Connecticut Avenue Sewer Replacement (Planning)	\$220,000.00
10240870	ASSET	REP	911 McPherson Avenue Sewer Replacement (Design, Easement)	\$458,000.00
10242025	ASSET	REP	Davey Ave to Hamilton Avenue Sewer Replacement (Planning)	\$199,000.00
10242135	ASSET	REP	Mill Creek Interceptors Rehabilitation (Design, Easement)	\$700,000.00
10242140	ASSET	FAC	MCWWTP Dewatering Building Odor Control (Design)	\$1,152,000.00
10252020	ASSET	FAC	PRWWTP Sludge Storage Tank with Odor Control (Planning, Design)	\$625,000.00
10262005	ASSET	FAC	SCWWTP Thickening and Settlement Improvements (Planning, Design)	\$320,000.00

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IMAGE 6596

**2020 CIP Projects**  
**Metropolitan Sewer District of Greater Cincinnati**  
**Board Modified 2020-2024 CIP Book**

Project ID	Project Category	Project Type	Project Name	2020 Total Budget
10270026	ASSET	PSE	Camargo Canyon Pump Station Elimination (Design, Easement)	\$253,000.00
10270175	ASSET	REP	East Hill Ave Sewer Replacement (Construction)	\$1,582,800.00
10270220	ASSET	REP	Tusculum Ave at Woodbridge Sewer Replacement (Planning)	\$162,000.00
10270225	ASSET	REP	Elsmere Avenue from Slane to Lafayette Sewer Replacement (Planning)	\$163,000.00
10272030	ASSET	REP	Ridge Avenue (HN 5053) Sewer Replacement (Planning)	\$147,000.00
10272060	ASSET	REM	Delta Ave Sewer Backup Remediation (HN 544) (Construction)	\$69,000.00
10280505	ASSET	PSE	Pump Station Telemetry System Upgrades (Construction)	\$7,711,650.00
10281100	ASSET	FAC	LMWWTP Solids Disposal with Odor Control (Planning, Design)	\$2,120,000.00
10630000	ASSET	SUP	Muddy Creek FEMA Property Acquisition & Floodplain Reconfiguration (Design, Construction)	\$700,000.00
10280240	ASSET	ALW	Hydraulic Modeling 2020 (Planning)	\$500,000.00
10280720	ASSET	ALW	Critical Asset Management Projects 2020 (Construction)	\$6,000,000.00
10281320	ASSET	ALW	Prioritized Wastewater Collection System Improvements 2020 (Construction)	\$12,000,000.00
10282020	ASSET	ALW	CIP Planning Projects 2020 (Planning)	\$480,000.00
10199020	OTHER	ALW	Program Management and Support Services 2020 (Design)	\$6,500,000.00
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000.00
13099999	OTHER	ALW	MSD Labor (Design)	\$5,000,000.00
<b>64 CIP Projects for 2020</b>				<b>\$128,560,811</b>



# 2020 WWIP Projects

**2020 CIP Projects**  
**Metropolitan Sewer District of Greater Cincinnati -- Board Modified 2020-2024 CIP Book**  
**WWIP Projects**

Project ID	Project Category	Project Type	Project Name	2020 Total WWIP Budget
10130042	WWIP	REP	UMCI Replacement Phase B (Construction)	\$7,717,070.00
10130566	WWIP	FAC	Muddy Creek WWTP Pump Station for EHRT (Design)	\$1,500,000.00
10131021	WWIP	CSO	CSO 402-406 (Construction)	\$5,000,000.00
101329xx	WWIP	SEP	CSO 198 Partial Separation/SBU Mitigation (Planning)	\$500,000.00
10142070	WWIP	FAC	SSO 700 STF Disinfection Improvements (Construction)	\$3,817,000.00
10142200	WWIP	SEP	CSO S13 Partial Sewer Separation (Construction)	\$3,617,930.00
10171641	WWIP	SEP	CSD 214 Partial Separation (Construction)	\$1,253,100.00
10172900	WWIP	FAC	Little Miami Standby Power (Design)	\$1,233,300.00
10172940	WWIP	SRC	Mt. Washington Source Control Implementation (Construction)	\$2,081,600.00
1023xxxx	WWIP	STY	Muddy Creek IWAP (Planning)	\$500,000.00
1024xxxx	WWIP	STY	SSO 700 IWAP (Planning)	\$500,000.00
10270170	WWIP	CSO	CSO 83 & 472 Dynamic Underflow Control (Construction)	\$2,989,000.00
10270190	WWIP	SEP	Columbia Square Development Separation (Construction)	\$1,947,474.00
10140417	WWIP	ALW	WWIP Phase 1 Construction Compliance Assurance (Design)	\$2,446,000.00
10180120	WWIP	ALW	Main Sewer Renewal Program 2020 (Construction)	\$9,000,000.00
10180220	WWIP	ALW	Manhole Renewal Program 2020 (Construction)	\$973,300.00
10190320	WWIP	ALW	HSTS Elimination 2020 (Planning, Design, Easement, Construction)	\$2,085,600.00
10192020	WWIP	ALW	Urgent Capacity Response Program 2020 (Planning, Design, Easement)	\$417,100.00
10199120	WWIP	ALW	Hamilton County Utility Oversight & Coordination (Design)	\$4,312,770.00
<b>Total Cost for 19 WWIP CIP Projects</b>				<b>\$51,891,244</b>



**Project ID: 10130042**

**Project Title: UMCI Replacement Phase B**

MSD to provide revised fact sheet in accordance with County CIP Resolution.

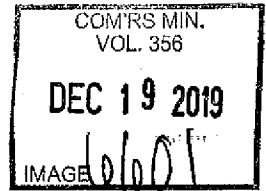


**Project ID: 10130566**

**Project Title: Muddy Creek WWTP Pump Station for EHRT**



MSD to provide fact sheet in accordance with County CIP Resolution.

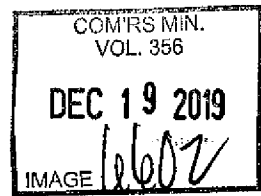


**Project ID: 10131021**

**Project Title: CSO 402-406**

MSD to provide fact sheet in accordance with County CIP Resolution.





**Project ID: 101329XX**

**Project Title: CSO 198 Partial Separation/SBU Mitigation**

MSD to provide fact sheet in accordance with County CIP Resolution.

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title SSO 700 STF Disinfection Improvements  
 Project ID 10142070 CIP Number 10142070 CD Index # 229A 455  
 Project Type Treatment Facility Sewer Number 69000MRS MIN.

## Purpose and Justification

The purpose of this project is to improve water quality of the plant effluent at the SSO 700 Storage and Treatment Facility by adding a new chemical disinfection system to treat storage tank overflow and replacing the existing UV system which has reached the end of its useful life.

## Impact to Operating Budget

None

69000MRS MIN.  
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 DEC 19 2019  
 IMAGE *Woods*

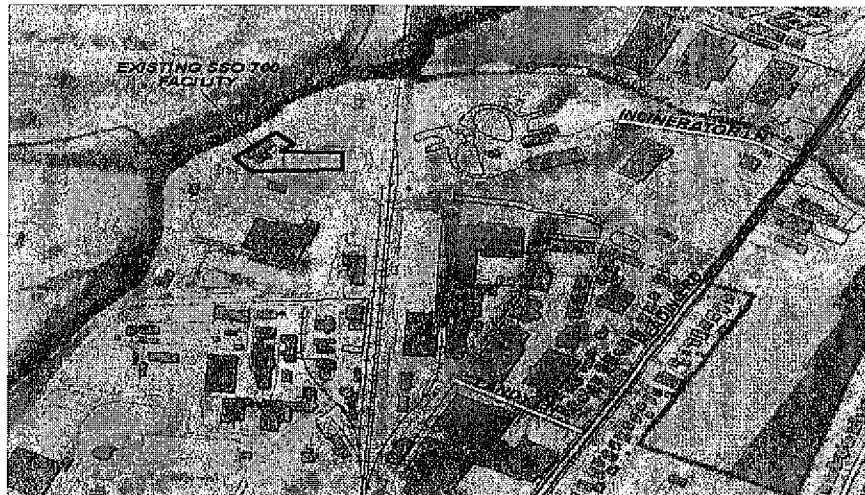
## Description and Location

The project includes the design and construction of a new storage disinfection facility (SDF) housing chemical storage and feed equipment for chlorination and dechlorination of storage tank 4 (ST-4) overflows. The building will be a pre-engineered metal building (PEMB) with pife foundation. The work also includes installation of chemical feed duct banks to the feed points, upgrades to the existing UV disinfection system, replacement of an existing air compressor, and implementation of electrical and instrumentation system improvements. This project is located in the City of Reading, Hamilton County, Ohio.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$184,000	\$0	\$0	\$0	\$0
Design	\$257,000	\$382,000	\$0	\$0	\$382,000
Pre-Construction Services	\$30,000	\$65,000	\$0	\$0	\$65,000
Miscellaneous Expense	\$50,000	\$24,000	\$0	\$0	\$24,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$1,500,000	\$0	\$2,696,000	\$0	\$2,696,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$308,000	\$0	\$1,121,000	\$0	\$1,121,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,329,000</b>	<b>\$471,000</b>	<b>\$3,817,000</b>	<b>\$0</b>	<b>\$4,288,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$471,000	\$0	\$0	\$0	\$0	\$471,000
	\$3,817,000	\$0	\$0	\$0	\$0	\$4,288,000

**Prior Legislation Action**  
 Jan 2019, May 2019, Sep 2019



DEC 19 2019

IMAGE 6604

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title CSO 513 Sewer Separation

Project ID 10142200 CIP Number 10142200 CD Index # 231  
Project Type Sewer Separation Sewer Number 6886

## Purpose and Justification

This project is required by the Wet Weather Consent Decree. It is listed in Index 231 of Attachment 2 to the Final WWIP. The project is necessary to reduce overflows tributary to CSO 513.

## Impact to Operating Budget

None.

## Description and Location

This project will reduce overflows from CSO 513 by removing storm water from the upstream combined sewers that are tributary to CSO 513. This project is located in the Mill Creek Basin in the City of Reading, Hamilton County, Ohio.

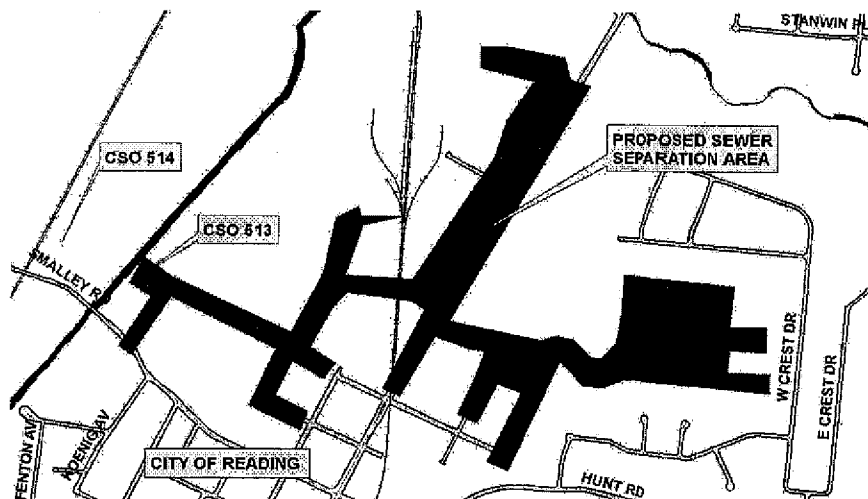
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$198,900	\$0	\$0	\$0	\$0
Design	\$210,400	\$280,311	\$0	\$0	\$280,311
Pre-Construction Services	\$146,300	\$160,000	\$0	\$0	\$160,000
Miscellaneous Expense	\$97,500	\$50,000	\$0	\$0	\$50,000
Right-of-Way	\$0	\$50,000	\$0	\$0	\$50,000
Construction	\$2,568,700	\$50,000	\$3,587,930	\$0	\$3,637,930
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$254,300	\$0	\$30,000	\$0	\$30,000
Interest / Financing	\$127,200	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$3,603,300</b>	<b>\$590,311</b>	<b>\$3,617,930</b>	<b>\$0</b>	<b>\$4,208,241</b>

## 5 Year Projected Legislation

Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$590,311	\$3,617,930	\$0	\$0	\$0	\$0	\$4,208,241

## Prior Legislation Action

Dec 2017, Sep 2018, Mar 2019





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VOL. 356  
**DEC 19 2019**  
IMAGE *6606*

# 2020 Capital Budget and Capital Improvement Program

Monday, December 16, 2019

Department: Metropolitan Sewer District of Greater Cincinnati  
Project Title: **LMWWTP Standby Power**  
Project ID: **10172900** CIP Number: **10172900** CD Index #: **204**  
Project Type: **Treatment Facility** Sewer Number: **6796**

**Purpose and Justification**  
The standby generator replacement is needed due to the age and condition of the existing equipment and to increase the capacity for additional critical loads. The new electrical room is necessary because the existing electrical room doesn't have room to expand the existing primary and secondary switchgear to accommodate the proposed additional loads. This is associated with Index 204 in Attachment 2 of the final WWTP.

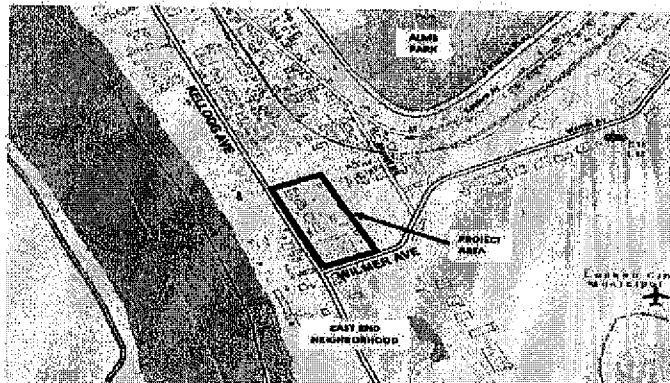
**Impact to Operating Budget**  
None

**Description and Location**  
The project includes improvements to the electrical system and standby power at the Little Miami WWTP. These improvements include replacement of the existing standby power generators that provide backup power for emergency lighting, storm drainage pumps, groundwater pumps and other critical equipment. This project also includes the construction of an electrical room to house the new main plant primary and secondary switchgear. The Little Miami WWTP is located in the East End neighborhood of the City of Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$375,356	\$0	\$1,033,300	\$0	\$1,033,300
Pre-Construction Services	\$160,652	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$94,722	\$0	\$200,000	\$0	\$200,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$4,417,919	\$0	\$0	\$13,830,000	\$13,830,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$823,340	\$0	\$0	\$1,600,000	\$1,600,000
Interest / Financing	\$100,407	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$5,972,396</b>	<b>\$0</b>	<b>\$1,233,300</b>	<b>\$15,430,000</b>	<b>\$16,663,300</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$1,233,300	\$0	\$0	\$0	\$1,233,300

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Mt Washington Source Control Implementation

Project ID 10172940 CIP Number 10172940 CD Index # 317  
Project Type Source Control Sewer Number 6811

## Purpose and Justification

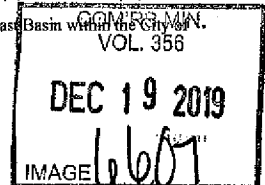
The purpose of the project is to remove street inlet storm flow from the combined sewer and convey it to the downstream combined sewer at a location where the capacity exists to accept the flow, reducing the risk of sewer backups (SBU).

## Impact to Operating Budget

None

## Description and Location

This project proposes to construct 1710 LF of new storm sewer ranging in size from 30-42 inch and 750 lf of 6x3 box culvert. This project is located in the Little Miami sewer shed of the East Basin within the City of Cincinnati's Mt. Washington neighborhood.

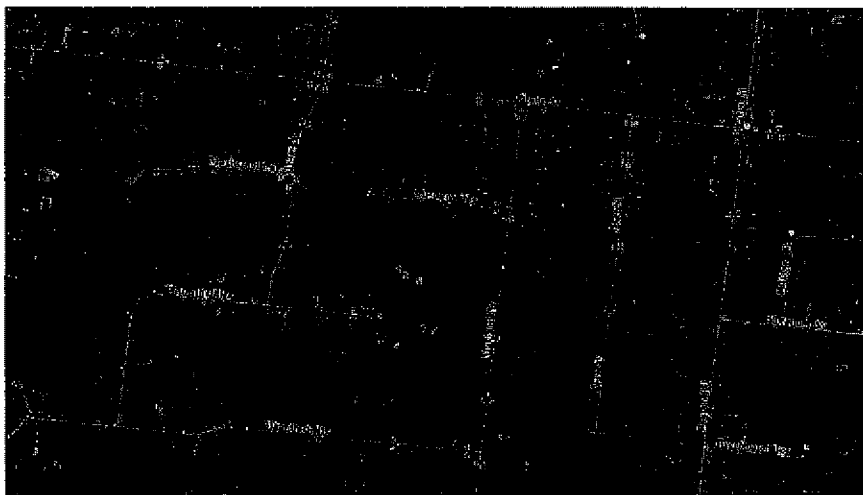


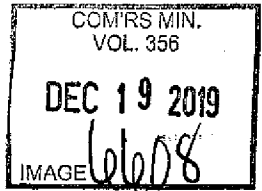
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$332,300	\$0	\$0	\$0	\$0
Design	\$541,925	\$288,723	\$0	\$0	\$288,723
Pre-Construction Services	\$265,143	\$62,200	\$0	\$0	\$62,200
Miscellaneous Expense	\$114,129	\$149,777	\$0	\$0	\$149,777
Right-of-Way	\$600,000	\$30,000	\$0	\$0	\$30,000
Construction	\$7,291,418	\$0	\$2,073,600	\$0	\$2,073,600
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$689,371	\$0	\$8,000	\$0	\$8,000
Interest / Financing	\$165,714	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$10,000,000</b>	<b>\$530,700</b>	<b>\$2,081,600</b>	<b>\$0</b>	<b>\$2,612,300</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$530,700	\$2,081,600	\$0	\$0	\$0	\$0	\$0	\$2,612,300

## Prior Legislation Action

May 2019, Oct 2019

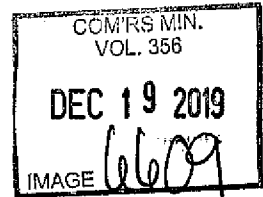




**Project ID: 1023XXXX**

**Project Title: Muddy Creek IWAP**

MSD to provide fact sheet in accordance with County CIP Resolution.



**Project ID: 1024XXXX**  
**Project Title: SSO 700 IWAP**

MSD to provide fact sheet in accordance with County CIP Resolution.



# 2020 Capital Budget and Capital Improvement Program

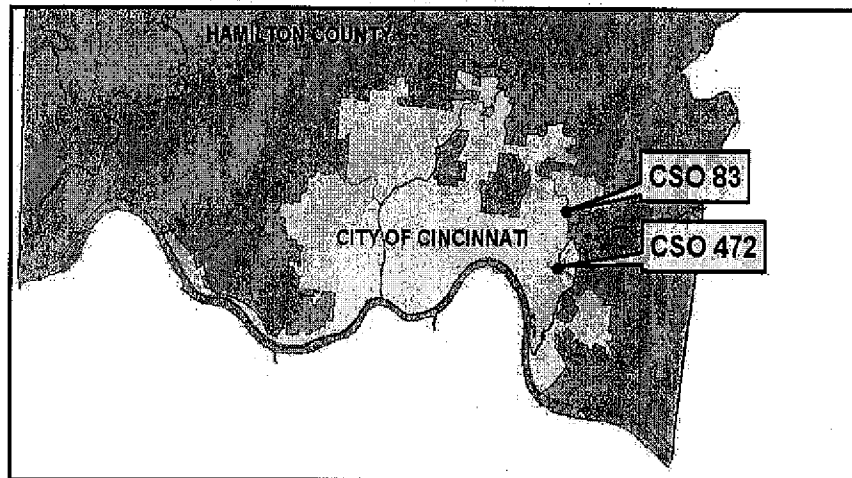
Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 83 and 472 Dynamic Underflow Control		
Project ID	10270170	CIP Number	10270170 CD Index # 255 285
Project Type	CSO Improvement/Elim	Sewer Number	6594
<b>Purpose and Justification</b>	<p>This project will provide a cost effective strategy to reduce combined sewer overflows through operational controls. Additionally, this project will provide information to be used to support MSD's needs to collect data to provide cost effective and innovative solutions for the Federal Consent Decree. It offers the opportunity to demonstrate water quality management at the lowest cost to rate payers, and a goal to be on the forefront of water management practices.</p>		
<b>Impact to Operating Budget</b>	<p>MSD utilizes 0.75% of the construction budget to estimate annual operating costs for future revenue requirement projections. This impact is considered to begin two years after construction legislation.</p>		
<b>Description and Location</b>	<p>The project consists of modifications to CSO 83 and CSO 472 that will provide for an automated control of flow into the interceptor sewer. The proposed improvements consist of replacement of the underflow pipe, replacement of the regulator, addition of level sensors, and telemetry equipment. The project is located in the Little Miami basin in Linwood and Madisonville neighborhoods of the City of Cincinnati, Hamilton County, Ohio.</p>		

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$267,000	\$569,025	\$0	\$0	\$569,025
Pre-Construction Services	\$72,000	\$72,000	\$0	\$0	\$72,000
Miscellaneous Expense	\$65,000	\$65,000	\$0	\$0	\$65,000
Right-of-Way	\$0	\$165,000	\$0	\$0	\$165,000
Construction	\$2,377,310	\$0	\$2,739,000	\$0	\$2,739,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$58,500	\$0	\$250,000	\$0	\$250,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,839,810</b>	<b>\$871,025</b>	<b>\$2,989,000</b>	<b>\$0</b>	<b>\$3,860,025</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$871,025	\$0	\$0	\$0	\$0	\$3,860,025
	\$2,989,000					

**Prior Legislation Action**  
 Dec 2014, Mar 2015, Oct 2015, Dec 2016, Aug 2017, Jan 2019

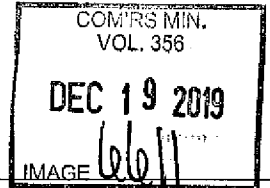


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 IMAGE 6610

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

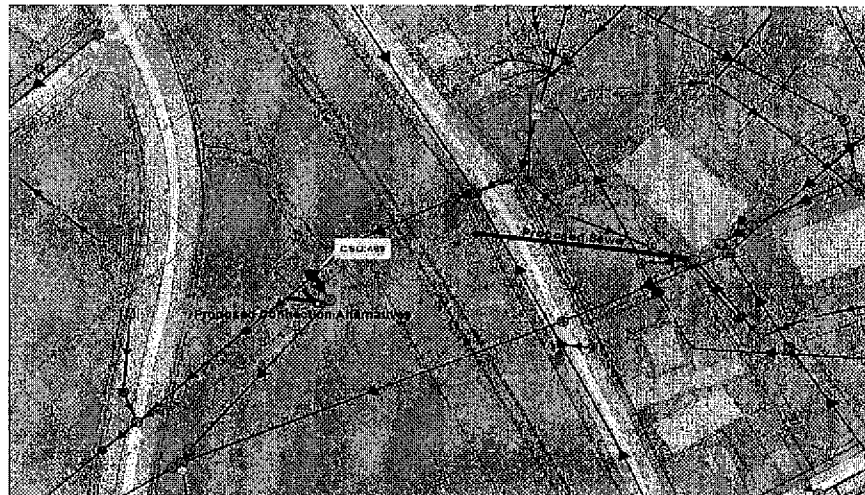
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Columbia Square Development Separation		
Project ID	10270190	CIP Number	10270190 CD Index # 282A
Project Type	Sewer Separation	Sewer Number	6864
<b>Purpose and Justification</b>			
This project will convey the storm water from the Columbia Square Development to the Ohio River. It is currently connected to the combined sewer system. The purpose is to reduce the Plan Remaining CSO Volume at CSO 469 to help meet the performance criteria in the Final WWIP.			
<b>Impact to Operating Budget</b>			
None.			
<b>Description and Location</b>			
This project will construct approximately 435 feet of storm sewer to separate the Columbia Square Development from the combined sewer system. This project is located in the Columbia Tusculum neighborhood of the City of Cincinnati.			

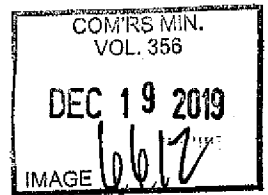


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$53,600	\$161,600	\$0	\$0	\$161,600
Pre-Construction Services	\$8,000	\$96,000	\$0	\$0	\$96,000
Miscellaneous Expense	\$38,200	\$38,200	\$0	\$0	\$38,200
Right-of-Way	\$39,300	\$39,300	\$0	\$0	\$39,300
Construction	\$268,000	\$0	\$1,884,474	\$0	\$1,884,474
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$12,600	\$0	\$63,000	\$0	\$63,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$419,700</b>	<b>\$335,100</b>	<b>\$1,947,474</b>	<b>\$0</b>	<b>\$2,282,574</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$335,100	\$1,947,474	\$0	\$0	\$0	\$0	\$0	\$2,282,574

**Prior Legislation Action**  
Dec 2015, Dec 2017





**Project ID: 10140417**

**Project Title: WWIP Phase 1 Construction Compliance Assurance**

MSD to provide fact sheet in accordance with County CIP Resolution.

# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

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IMAGE *6613*

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Main Sewer Renewal Program 2020

Project ID **10180120** CIP Number **10180120** CD Index # 113.  
Project Type Allowance Sewer Number **6997**

## Purpose and Justification

Formerly known as the "Trenchless Technology Sewer Rehabilitation Allowance", this program provides a cost-effective method of rehabilitating deteriorated existing main sewers while improving the hydraulic performance of the sewer. This work may also increase development credits upstream of an SSO.

## Impact to Operating Budget

None.

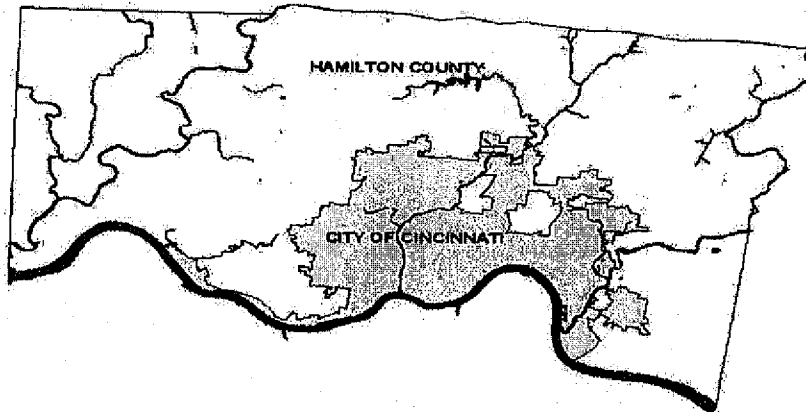
## Description and Location

This program conducts lining of existing main sewers throughout the District as a cost effective method of rehabilitating structurally deteriorated sewers. This scope of work for this program will include, but not limit itself to: slip lining, point lining, spiral wound lining, pipe bursting, carbon filament wrapping, directional drilling, jack-and-boring, Cured-in-place-pipe, and other methods. The sewer segments to be addressed under this program have identified through investigations of the sewer lines and are prioritized based on their risk ranking relative to structural condition and the likelihood and consequence of a sewer failure. The scope of work for the program does not include addressing building sewers.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$5,200,000	\$0	\$9,000,000	\$0	\$9,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$2,500,000	\$0	\$0	\$0	\$0
Interest/Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$7,700,000</b>	<b>\$0</b>	<b>\$9,000,000</b>	<b>\$0</b>	<b>\$9,000,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$9,000,000	\$0	\$0	\$0	\$0	\$9,000,000

Prior Legislation Action:



# 2020 Capital Budget and Capital Improvement Program

Monday, December 16, 2019

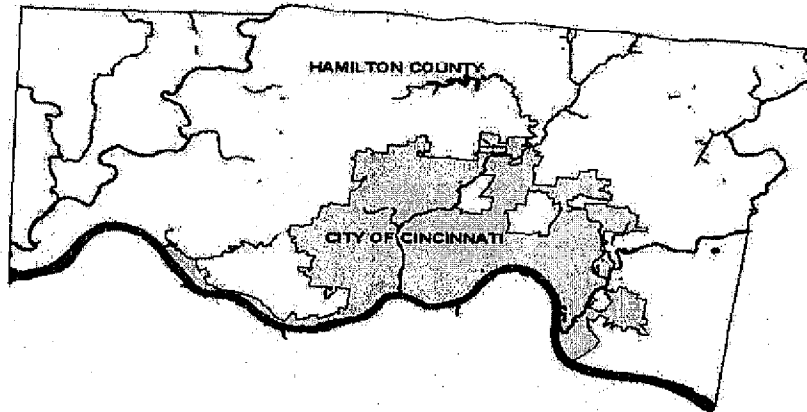
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Manhole Renewal Program 2020		
Project ID	10180220	CIP Number	10180220 CD Index #113
Project Type	Allowance	Sewer Number	6998
<b>Purpose and Justification</b>		<p>Formerly known as the "Trenchless Technology Manhole Rehabilitation Allowance", this program provides a cost-effective method of rehabilitating existing manholes each year to reduce infiltration and inflow upstream of SSOs to reduce overflows. This work may also increase development credits upstream of an SSO.</p>	
<b>Impact to Operating Budget</b>		<p>None.</p>	
<b>Description and Location</b>		<p>This program provides a cost effective method of rehabilitating structurally deteriorated manholes throughout the system. Manhole rehab projects are prioritized based on their risk ranking relative to structural condition and the likelihood and consequence of failure. The scope of work for the program will include manhole repairs, replacement manholes and adjustments and chimney repairs necessary in conjunction with paving projects.</p>	

COMPLIANCE  
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IMAGE 10104

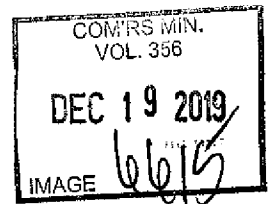
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$1,200,000	\$0	\$873,300	\$0	\$873,300
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$100,000	\$0	\$100,000	\$0	\$100,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,300,000</b>	<b>\$0</b>	<b>\$973,300</b>	<b>\$0</b>	<b>\$973,300</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$973,300	\$0	\$0	\$0	\$0	\$973,300

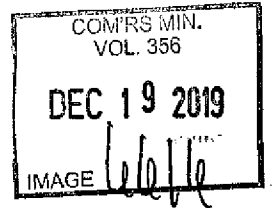
**Prior Legislation Action**



**Project ID: 10190320**  
**Project Title: HSTS Elimination 2020**



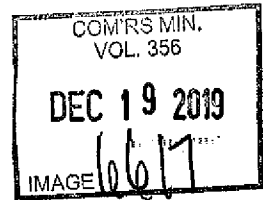
MSD to provide fact sheet in accordance with County CIP Resolution.



**Project ID: 10192020**

**Project Title: Urgent Capacity Response Program 2020**

MSD to provide fact sheet in accordance with County CIP Resolution.



**Project ID: 10199120**

**Project Title: Hamilton County Utility Oversight & Coordination**

MSD to provide fact sheet in accordance with County CIP Resolution.



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IMAGE 16618

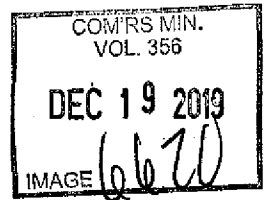
# 2020 ASSET Projects

DEC 19 2019

IMAGE 6619

**2020 CIP Projects**  
**Metropolitan Sewer District of Greater Cincinnati -- Board Modified 2020-2024 CIP Book**  
**ASSET Projects**

Project ID	Project Category	Project Type	Project Name	2020 Total ASSET Budget
10230045	ASSET	REP	Stonebridge Sewer Relief (Design, Easement)	\$711,000.00
10230130	ASSET	REP	Dry Weather Channel for SS 937 (Construction)	\$3,045,000.00
10232015	ASSET	FAC	MUWWTP Thickening Replacement and Pumping Improvements (Planning, Design)	\$510,000.00
10240055	ASSET	FAC	MCWWTP Liquid Sludge Storage Tank Covers and Odor Control (Construction)	\$5,217,650.00
10240360	ASSET	PSE	Timbers Pump Station Elimination (Construction)	\$1,713,000.00
10240426	ASSET	PSE	Pleasant Run Pump Station Upgrades (Design, Easement)	\$3,109,325.00
10240455	ASSET	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation (Construction)	\$516,200.00
10240473	ASSET	PSE	Bahama Gardens Pump Station Upgrade (Construction)	\$809,400.00
10240495	ASSET	REP	Wahl Terrace Sewer Replacement (Construction)	\$658,400.00
10240525	ASSET	REP	Victory Parkway Sewer Rehabilitation (Planning, Design, Easement)	\$339,100.00
10240545	ASSET	REP	Central Parkway Sewer Replacement (HN 2402) (Construction)	\$432,500.00
10240590	ASSET	FAC	Mill Creek WWTP Main Substation Improvements (Construction)	\$3,560,642.00
10240710	ASSET	CSO	Fitzpatrick Sewer Cleaning and Rehabilitation (Construction)	\$2,732,000.00
10240720	ASSET	REP	Valleyview Court Sewer Replacement (Planning)	\$166,000.00
10240725	ASSET	REP	Shaffer Avenue Sewer Replacement (Planning)	\$166,000.00
10240730	ASSET	REP	Lafayette Ave at Queen City Ave Sewer Replacement (Planning)	\$184,000.00
10240735	ASSET	REP	De Votie Avenue Sewer Replacement (Planning)	\$172,000.00
10240750	ASSET	REP	Seton Avenue (HN 916) Sewer Replacement (Planning)	\$108,000.00
10240780	ASSET	REP	Galbraith Rd to Sheldon Avenue Sewer Replacement (Planning)	\$171,000.00
10240795	ASSET	REP	Central to McMicken at Stark St Sewer Replacement (Planning)	\$66,000.00
10240810	ASSET	REP	Overlook Ave near Glenway Ave Sewer Replacement (Planning)	\$178,000.00
10240835	ASSET	CSO	CSO 488 Access Lane (Design, Easement)	\$41,900.00
10240855	ASSET	REP	Connecticut Avenue Sewer Replacement (Planning)	\$220,000.00
10240870	ASSET	REP	911 McPherson Avenue Sewer Replacement (Design, Easement)	\$458,000.00
10242025	ASSET	REP	Davey Ave to Hamilton Avenue Sewer Replacement (Planning)	\$199,000.00
10242135	ASSET	REP	Mill Creek Interceptors Rehabilitation (Design, Easement)	\$700,000.00
10242140	ASSET	FAC	MCWWTP Dewatering Building Odor Control (Design)	\$1,152,000.00
10252020	ASSET	FAC	PRWWTP Sludge Storage Tank with Odor Control (Planning, Design)	\$625,000.00
10262005	ASSET	FAC	SCWWTP Thickening and Settlement Improvements (Planning, Design)	\$320,000.00
10270026	ASSET	PSE	Camargo Canyon Pump Station Elimination (Design, Easement)	\$253,000.00
10270175	ASSET	REP	East Hill Ave Sewer Replacement (Construction)	\$1,582,800.00
10270220	ASSET	REP	Tusculum Ave at Woodbridge Sewer Replacement (Planning)	\$162,000.00
10270225	ASSET	REP	Elsemere Avenue from Slane to Lafayette Sewer Replacement (Planning)	\$163,000.00
10272030	ASSET	REP	Ridge Avenue (HN 5053) Sewer Replacement (Planning)	\$147,000.00
10272060	ASSET	REM	Delta Ave Sewer Backup Remediation (HN 544) (Construction)	\$69,000.00
10280505	ASSET	PSE	Pump Station Telemetry System Upgrades (Construction)	\$7,711,650.00
10281100	ASSET	FAC	LMWWTP Solids Disposal with Odor Control (Planning, Design)	\$2,120,000.00
10630000	ASSET	SUP	Muddy Creek FEMA Property Acquisition & Floodplain Reconfiguration (Design, Construction)	\$700,000.00
10280240	ASSET	ALW	Hydraulic Modeling 2020 (Planning)	\$500,000.00
10280720	ASSET	ALW	Critical Asset Management Projects 2020 (Construction)	\$6,000,000.00
10281320	ASSET	ALW	Prioritized Wastewater Collection System Improvements 2020 (Construction)	\$12,000,000.00
10282020	ASSET	ALW	CIP Planning Projects 2020 (Planning)	\$480,000.00
<b>Total Cost for 42 ASSET CIP Projects</b>				<b>\$60,169,567</b>



**Project ID: 10230045**

**Project Title: Stonebridge Sewer Relief**

MSD to provide revised fact sheet in accordance with County CIP Resolution.

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Dry Weather Channel for SS 937		
Project ID	10230130	CIP Number	10230130 CD Index #
Project Type	Sewer Replacement	Sewer Number	6253

## Purpose and Justification

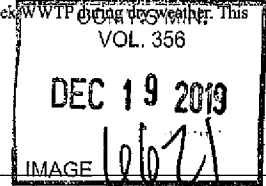
The dry weather channel will remediate significant sewer odors that have been experienced in areas north of the proposed Werk and Westbourne EHRT, along Glenway Avenue and Westbourne Drive where, during dry weather, there is insufficient flow to convey solids through the combined sewer which runs beneath these streets. Furthermore, the dry weather channel will significantly reduce the quantity of solids and associated odors that are conveyed to Schaible Creek during summertime wet weather events characterized by heavy early-onset precipitation. This project will also improve water quality in the creek.

## Impact to Operating Budget

None.

## Description and Location

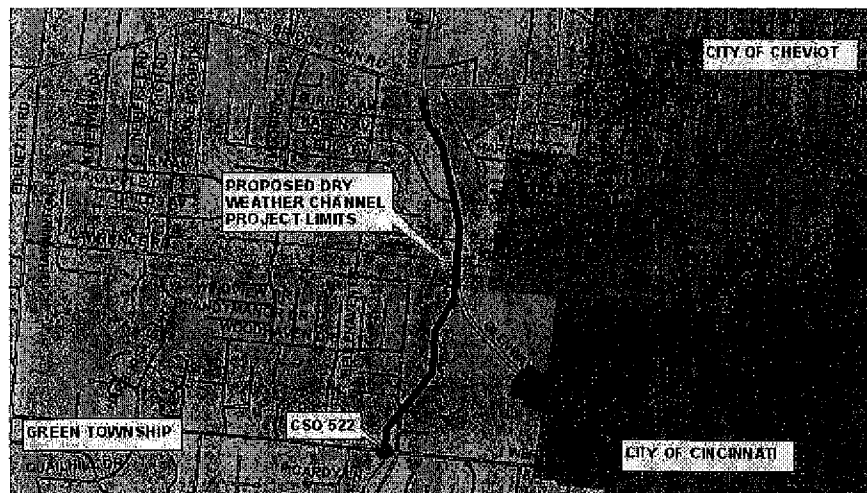
This project proposes to remodel the bottom of 5500 feet of existing Sanitary Sewer 937A and 937B to create a dry weather channel. This dry weather channel will be constructed to increase flow velocity of dry weather flow in this sewer to allow solids to be conveyed and handled at the Muddy Creek WWTIP. This project is located in Green Township, Hamilton County, Ohio.

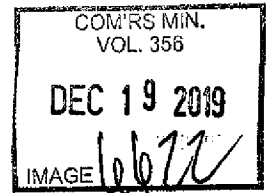


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$120,011	\$0	\$0	\$120,011
Design	\$244,900	\$244,900	\$0	\$0	\$244,900
Pre-Construction Services	\$67,300	\$67,300	\$0	\$0	\$67,300
Miscellaneous Expense	\$42,500	\$42,500	\$0	\$616,500	\$659,000
Right-of-Way	\$65,700	\$65,700	\$0	\$0	\$65,700
Construction	\$1,701,000	\$0	\$2,995,000	\$0	\$2,995,000
Program Management	\$0	\$14,694	\$0	\$0	\$14,694
Construction Services	\$70,000	\$0	\$50,000	\$0	\$50,000
Interest / Financing	\$28,000	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,219,400</b>	<b>\$555,105</b>	<b>\$3,045,000</b>	<b>\$616,500</b>	<b>\$4,216,605</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$555,105	\$3,045,000	\$0	\$616,500	\$0	\$0	\$4,216,605

**Prior Legislation Action**  
May 2013, May 2014





**Project ID: 10232015**

**Project Title: MUWWTP Thickening Replacement and Pumping Improvements**

MSD to provide revised fact sheet in accordance with County CIP Resolution.

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title MCWWTP Liquid Sludge Storage Tank Covers and Odor Control

Project ID 10240055 CIP Number 10240055 CD Index #  
 Project Type Treatment Facility Sewer Number 6667

## Purpose and Justification

To replace the existing covers that have exceeded their useful life and are a clear and present danger to employees. The replacement will also allow for new odor control to be provided to capture and treat the emissions that are currently untreated.

## Impact to Operating Budget

None.

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 10623

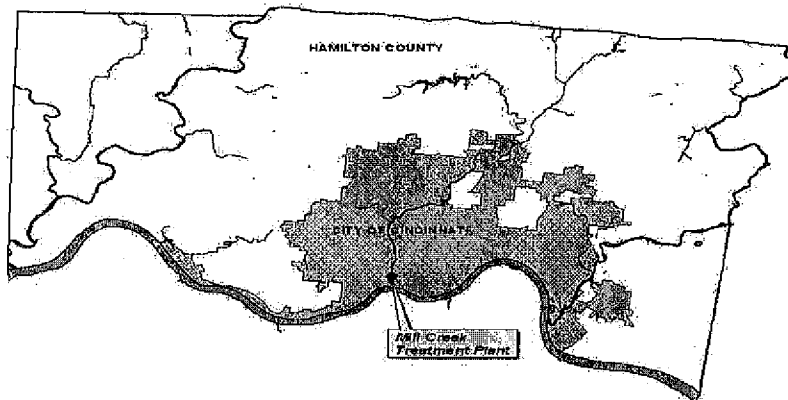
## Description and Location

This project will provide an engineering design for new covers for existing sludge holding tanks and a new odor control system to capture and treat odorous air from the two tanks. All necessary Structural, Electrical, I&C, and Mechanical drawings and specifications are to be included. Services for construction administration will also include submittal review, meetings, bidding assistance, permits, SCADA, and training. This project is located at the Mill Creek WWTP in the Lower Price Hill neighborhood of the City of Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$340,000	\$410,746	\$0	\$0	\$410,746
Pre-Construction Services	\$70,000	\$70,000	\$0	\$0	\$70,000
Miscellaneous Expense	\$40,000	\$40,000	\$0	\$0	\$40,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$3,500,000	\$0	\$4,330,000	\$0	\$4,330,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$718,000	\$0	\$887,650	\$0	\$887,650
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$4,668,000</b>	<b>\$520,746</b>	<b>\$5,217,650</b>	<b>\$0</b>	<b>\$5,738,396</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$520,746	\$0	\$0	\$0	\$0	\$5,738,396
2020	\$5,217,650					

**Prior Legislation Action**  
 Dec 2017, Aug 2019



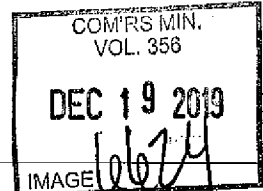
# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Timbers Pump Station Elimination		
Project ID	10240360	CIP Number	10240360 CD Index #
Project Type	Pump Station Improvement/Elim	Sewer Number	6313
<b>Impact to Operating Budget</b>			
None.			
<b>Description and Location</b>			
This project includes construction of approximately 1,600 feet of 8-inch diameter gravity sewer via a jack-and-bore alignment through the Winton Woods Park. The pump station is located in City of Forest Park, Hamilton County, Ohio.			

## Purpose and Justification

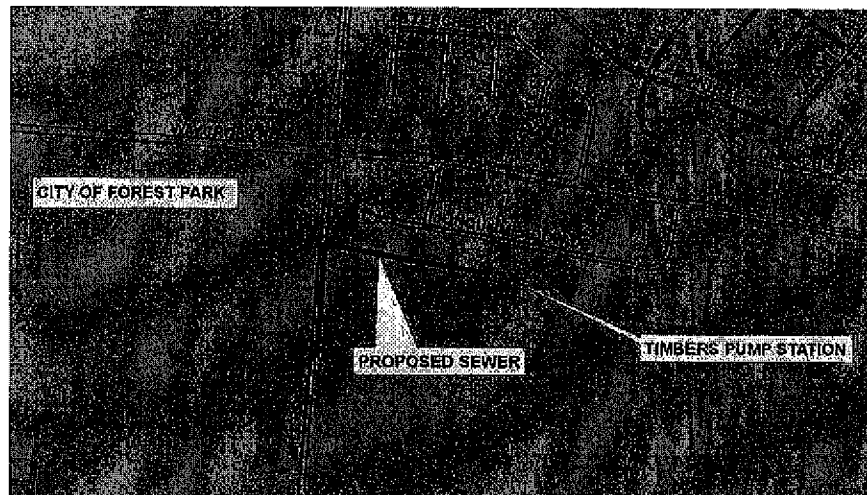
The purpose of this project is to eliminate the Timbers Pump Station that was installed in 1980 to serve 37 homes. The functionality of the pump station is insufficient in terms of handling wet weather flow. Structurally, this station is not sound because of the metal wet well that has been in the ground for more than 30 years. The size of the well is small. This metal wet well has the risk of having continuous flow into it, which will cause continuous pumping, weakening the soil around it that will likely cause structural failure. After the gravity sewer is constructed, the pump station will be decommissioned and parts salvaged.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$5,262	\$0	\$0	\$5,262
Design	\$166,500	\$0	\$0	\$0	\$0
Pre-Construction Services	\$41,200	\$207,700	\$0	\$0	\$207,700
Miscellaneous Expense	\$51,000	\$51,000	\$0	\$0	\$51,000
Right-of-Way	\$21,900	\$21,900	\$0	\$0	\$21,900
Construction	\$1,371,100	\$0	\$1,673,000	\$0	\$1,673,000
Program Management	\$0	\$6,718	\$0	\$0	\$6,718
Construction Services	\$64,500	\$0	\$40,000	\$0	\$40,000
Interest / Financing	\$22,400	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,738,600</b>	<b>\$292,580</b>	<b>\$1,713,000</b>	<b>\$0</b>	<b>\$2,005,580</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$292,580	\$1,713,000	\$0	\$0	\$0	\$0	\$0	\$2,005,580

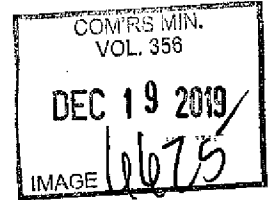
**Prior Legislation Action**  
Dec 2012, May 2014, Nov 2014



**Project ID: 10240426**

**Project Title: Pleasant Run Pump Station Upgrades**

MSD to provide revised fact sheet in accordance with County CIP Resolution.





# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title **Spring Grove Avenue Sewer Replacement and Rehabilitation**

Project ID **10240455** CIP Number **10240455** CD Index # **000**  
 Project Type **Sewer Replacement** Sewer Number **6587**

## Purpose and Justification

The combined sewer in the location described experiences overflows during 2-year storms. The sewer itself was installed around 1900, in poor condition, and has reached the end of its useful life. This project will replace this combined sewer in order to mitigate the overflows and prevent total collapse of the sewer.

## Impact to Operating Budget

None.

COM'RS MIN.  
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**DEC 19 2019**  
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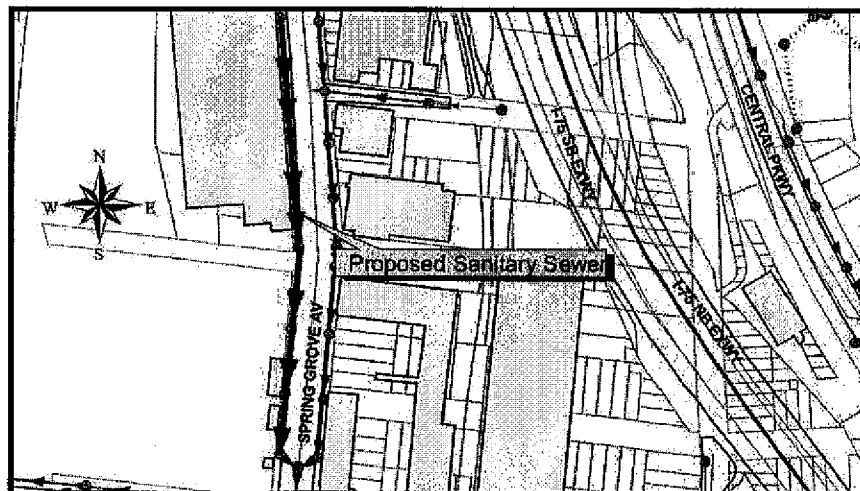
## Description and Location

This project includes upsizing 680 linear feet of combined sewer to a 24 inch diameter pipe and 60 linear feet of 12-15 inch diameter sewer, and five manholes. The project is located along the west side of Spring Grove Avenue between Brashears Street and Arlington Street in the Camp Washington Neighborhood of the City of Cincinnati, Hamilton County

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$14,991	\$0	\$0	\$14,991
Design	\$81,400	\$93,125	\$0	\$0	\$93,125
Pre-Construction Services	\$30,400	\$30,400	\$0	\$0	\$30,400
Miscellaneous Expense	\$15,900	\$12,225	\$0	\$0	\$12,225
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$506,200	\$0	\$506,200	\$0	\$506,200
Program Management	\$0	\$1,704	\$0	\$0	\$1,704
Construction Services	\$34,700	\$0	\$10,000	\$0	\$10,000
Interest / Financing	\$4,400	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$673,000</b>	<b>\$152,445</b>	<b>\$516,200</b>	<b>\$0</b>	<b>\$668,645</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation -	\$152,445	\$516,200	\$0	\$0	\$0	\$668,645

**Prior Legislation Action**  
 Dec 2013, May 2014, Dec 2017, Jul 2019



DEC 19 2019

IMAGE *6621*

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Bahama Gardens Pump Station Upgrade

Project ID 10240473 CIP Number 10240473 CD Index #  
Project Type Pump Station Improvement/Elim Sewer Number 6716

## Purpose and Justification

The Bahama Gardens pump station and force main were constructed in 1964 as part of the Bahama Gardens housing development. It currently serves an estimated 300 apartment units. The force main was replaced in 2016; this project will upgrade the pump station since it is at the end of its useful life and is a high risk pump station, ranking second in MSD's District Wide Pump Station Study completed in 2013. The pump station's structural condition is very poor, it has a steel wet well that is a safety risk to MSD staff, and it has a history of a high volume of overflows that have a significant environmental impact.

## Impact to Operating Budget

None.

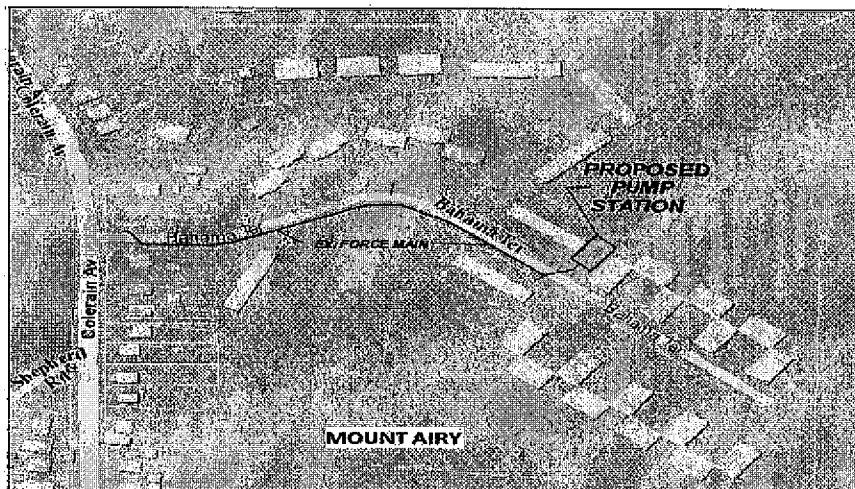
## Description and Location

This project is located in the Mt. Airy neighborhood of the City of Cincinnati at the existing Bahama Gardens Pump Station. The project will upgrade the existing pump station. The scope also includes connecting the pump station to the force main that was replaced in 2016 and demolition of the existing pump station."

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$75,000	\$75,000	\$0	\$0	\$75,000
Pre-Construction Services	\$70,000	\$71,200	\$0	\$0	\$71,200
Miscellaneous Expense	\$15,000	\$15,000	\$0	\$0	\$15,000
Right-of-Way	\$15,000	\$15,000	\$0	\$0	\$15,000
Construction	\$505,700	\$0	\$677,400	\$0	\$677,400
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$103,700	\$0	\$132,000	\$0	\$132,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$784,400</b>	<b>\$176,200</b>	<b>\$809,400</b>	<b>\$0</b>	<b>\$985,600</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$176,200	\$809,400	\$0	\$0	\$0	\$985,600

**Prior Legislation Action**  
Dec 2017



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

COMRS MIN.  
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DEC 19 2019  
IMAGE *WJL*

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title **Wahl Terrace Sewer Replacement**

Project ID **10240495** CIP Number **10240495** CD Index # PN# 23  
Project Type **Sewer Replacement** Sewer Number **6781**

## Purpose and Justification

The project is to replace and line deteriorated sewer segments constructed in 1916 and 1917. The existing sewers are buckling and collapsing and are difficult to maintain. Due to the current structural condition of the sewers, there is a risk of ultimate collapse and the inability to appropriately maintain the sewers that can lead to sewer discharges to the environment and sewer backups (SBU).

## Impact to Operating Budget

None.

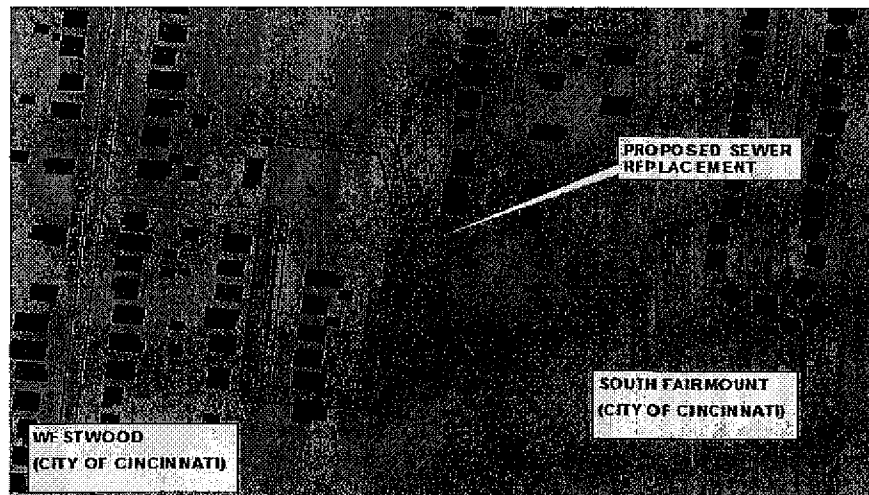
## Description and Location

This project entails the replacement of approximately 1,170 feet of 8 to 18-inch combined sewers and lining of approximately 330 feet of 12-inch combined sewer due to the existing structural condition and inability to effectively maintain the sewers. The subdivision is located south of Harrison Avenue and just north of the Lick Run Valley Conveyance project. The project is located in the Westwood and South Fairmount neighborhoods of the City of Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$10,303	\$0	\$0	\$10,303
Design	\$99,400	\$79,700	\$0	\$0	\$79,700
Pre-Construction Services	\$43,000	\$13,900	\$0	\$0	\$13,900
Miscellaneous Expense	\$112,400	\$39,800	\$0	\$0	\$39,800
Right-of-Way	\$323,000	\$117,800	\$0	\$0	\$117,800
Construction	\$729,800	\$0	\$648,400	\$0	\$648,400
Program Management	\$0	\$1,151	\$0	\$0	\$1,151
Construction Services	\$53,700	\$0	\$10,000	\$0	\$10,000
Interest / Financing	\$9,000	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,370,300</b>	<b>\$262,654</b>	<b>\$658,400</b>	<b>\$0</b>	<b>\$921,054</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$262,654	\$658,400	\$0	\$0	\$0	\$0	\$0	\$921,054

**Prior Legislation Action**  
May 2014, Mar 2016, Oct 2019



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

COMPRS MIN.  
VOL. 356  
**DEC 19 2019**  
IMAGE 6679

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Victory Parkway Sewer Rehabilitation

Project ID 10240525 CIP Number 10240525 CD Index #  
Project Type Sewer Replacement Sewer Number 6589

## Purpose and Justification

The purpose of the project is to rehabilitate two existing 36-inch sewer segments with extensive cleaning followed by installation of an approved lining technology. The project was nominated by WWC due to the existing sewer segments having PACP scores of 5, experiencing shape loss, disposition, groundwater infiltration, and missing stones. A BCE was completed in May 2013 that recommended the lining of these two sewer segments. The current (June 2017) maintenance risk rate is high and the structural risk rate is extreme.

## Impact to Operating Budget

None.

## Description and Location

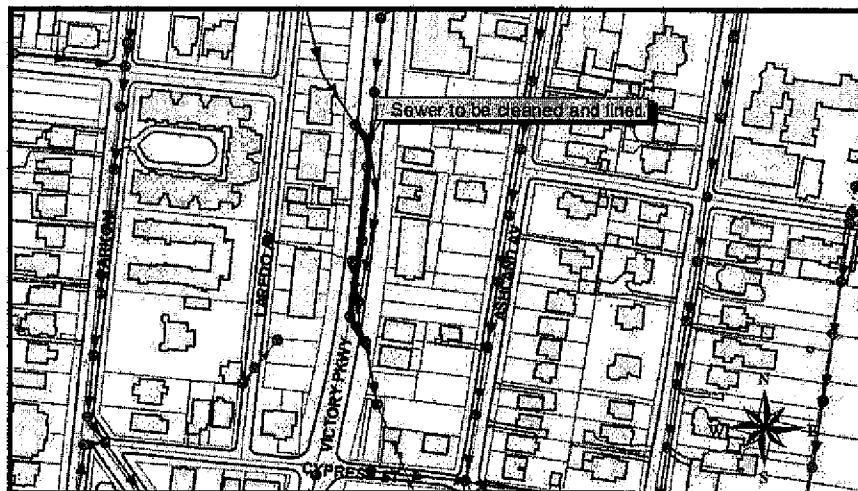
The project is located on an existing 36-inch stone sewer segment between MH 37002032 and MH 37002025. This sewer parallels a portion of Victory Parkway between McMillian Avenue and Cypress Place in the Walnut Hills neighborhood of the City of Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$17,049	\$130,000	\$0	\$147,049
Design	\$56,900	\$56,900	\$152,900	\$0	\$209,800
Pre-Construction Services	\$18,600	\$18,600	\$0	\$0	\$18,600
Miscellaneous Expense	\$30,900	\$30,900	\$0	\$0	\$30,900
Right-of-Way	\$0	\$0	\$56,200	\$0	\$56,200
Construction	\$310,600	\$0	\$0	\$1,765,000	\$1,765,000
Program Management	\$0	\$1,958	\$0	\$0	\$1,958
Construction Services	\$32,700	\$0	\$0	\$40,000	\$40,000
Interest / Financing	\$2,700	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$452,400</b>	<b>\$125,407</b>	<b>\$339,100</b>	<b>\$1,805,000</b>	<b>\$2,269,507</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$125,407	\$339,100	\$0	\$1,805,000	\$0	\$0	\$2,269,507

## Prior Legislation Action

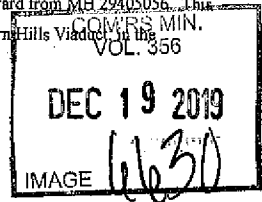
May 2014, Dec 2016, Oct 2017



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

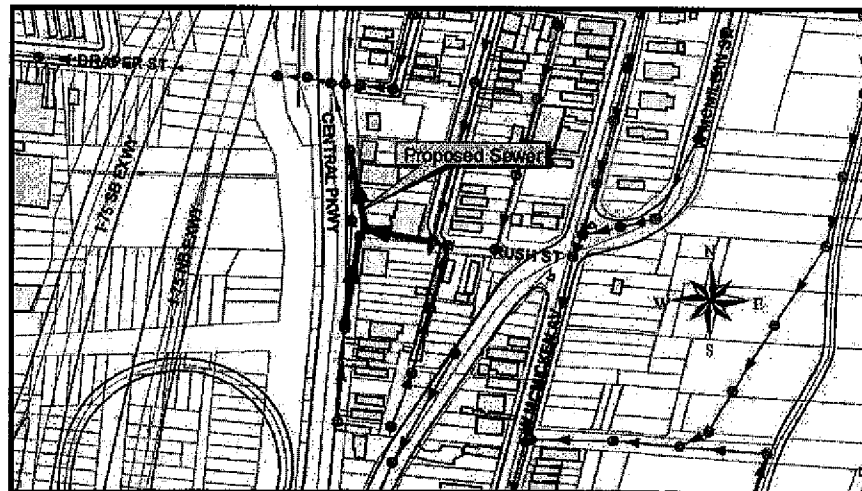
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Central Parkway Sewer Replacement (HN 2402)		
Project ID	10240545	CIP Number	10240545 CD Index # PN# 25
Project Type	Sewer Replacement	Sewer Number	
<b>Purpose and Justification</b>	<p>The existing pipe segments were installed in 1903 and 1907 and are near the end of their useful life. The existing pipe segments are combined sewers, and show fracturing at multiple locations, and have areas of substantial shape loss with some sections of the pipe having fallen in to the sewer.</p>		
<b>Impact to Operating Budget</b>	None.		
<b>Description and Location</b>	<p>This project will replace two segments of 15-inch diameter sewer running northward from MH 29405056. This project is located in the vicinity of 2402 Central Parkway, just north of the Western Hills Village in the City of Cincinnati, Hamilton County, Ohio.</p>		



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$28,210	\$0	\$0	\$28,210
Design	\$54,900	\$54,900	\$0	\$0	\$54,900
Pre-Construction Services	\$18,100	\$58,100	\$0	\$0	\$58,100
Miscellaneous Expense	\$43,300	\$43,300	\$0	\$0	\$43,300
Right-of-Way	\$12,900	\$12,900	\$0	\$0	\$12,900
Construction	\$302,200	\$0	\$422,500	\$0	\$422,500
Program Management	\$0	\$3,201	\$0	\$0	\$3,201
Construction Services	\$40,100	\$0	\$10,000	\$0	\$10,000
Interest / Financing	\$3,800	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$475,300</b>	<b>\$200,611</b>	<b>\$432,500</b>	<b>\$0</b>	<b>\$633,111</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$200,611	\$432,500	\$0	\$0	\$0	\$0	\$0	\$633,111

**Prior Legislation Action**  
 May 2014, Dec 2014, Apr 2017



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Mill Creek WWTP Main Substation Improvements		
Project ID	10240590	CIP Number	10240590
Project Type	Treatment Facility	Sewer Number	6484/VOL. 355

CD Index #  
COM'RS MIN.  
6484/VOL. 355  
**DEC 19 2019**  
IMAGE 6031

**Purpose and Justification**  
To ensure long term reliability of high and medium voltage electrical assets the assets were assessed and evaluated. Needed upgrades to the high and medium voltage electrical distribution system at MCWWTP were identified and prioritized. This equipment was identified as the first priority level based on the Maximo criticality rating for the main distribution transformers of 5700, which is the highest criticality value within the rating system.

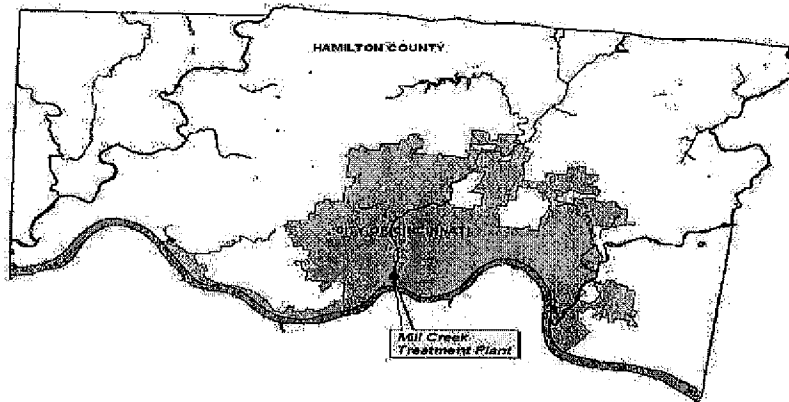
**Impact to Operating Budget**  
None

**Description and Location**  
This project will provide improvements for the main substation transformers, power bus and switches, along with revising the electric service entrance, adding power monitoring and transformer isolation wall. Power Building Switchgear will be demolished with feeders extended from the new substation to equipment currently fed from this gear. The Project is located at the Mill Creek Wastewater Treatment Plant facility, in the City of Cincinnati's Lower Price Hill Neighborhood.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$220,000	\$0	\$0	\$0	\$0
Design	\$306,000	\$200,000	\$0	\$0	\$200,000
Pre-Construction Services	\$52,000	\$83,000	\$0	\$0	\$83,000
Miscellaneous Expense	\$67,100	\$58,600	\$0	\$0	\$58,600
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$2,560,000	\$5,889,576	\$3,560,642	\$0	\$9,450,218
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$231,000	\$700,000	\$0	\$0	\$700,000
Interest / Financing	\$70,000	\$188,000	\$0	\$0	\$188,000
<b>Total</b>	<b>\$3,506,100</b>	<b>\$7,119,176</b>	<b>\$3,560,642</b>	<b>\$0</b>	<b>\$10,679,818</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$7,119,176	\$3,560,642	\$0	\$0	\$0	\$0	\$0	\$10,679,818

**Prior Legislation Action**  
Dec 2015, Dec 2016, Jan 2018, Oct 2018, Oct 2019



# 2020 Capital Budget and Capital Improvement Program

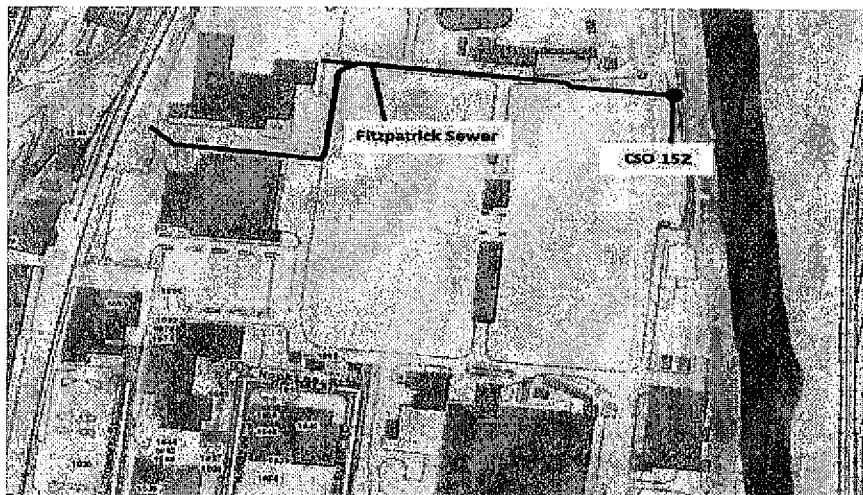
Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Fitzpatrick Sewer Cleaning and Rehabilitation		
Project ID	10240710	CIP Number	10240710 CD Index #
Project Type	CSO Improvement/Elim	Sewer Number	664
<b>Impact to Operating Budget</b>		COMRS MIN. VOL. 356	
None.		DEC 19 2019	
<b>Description and Location</b>		IMAGE 10131	
<p>This project is to clean and line the Fitzpatrick Sewer within the Mill Creek WWTP campus. The sewer lining will remove large mineral deposits that constrict flow and allow solids to build within the sewer potentially causing odors. The Fitzpatrick Sewer is also degraded. It currently has several sections with exposed rebar and concrete decay. Lining will prevent further sewer degradation and extend the life of the Fitzpatrick Sewer. This project will also install a flow meter to measure the frequency and flow rate of the incinerator scrubber overflow. This information is currently unknown and would help inform future plant projects and operations. This project is located within the Mill Creek WWTP in the neighborhood of Lower Price Hill within the City of Cincinnati.</p>			

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$50,000	\$50,000	\$0	\$0	\$50,000
Pre-Construction Services	\$20,000	\$20,000	\$0	\$0	\$20,000
Miscellaneous Expense	\$50,000	\$50,000	\$0	\$0	\$50,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$2,475,000	\$0	\$2,475,000	\$0	\$2,475,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$257,000	\$0	\$257,000	\$0	\$257,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,852,000</b>	<b>\$120,000</b>	<b>\$2,732,000</b>	<b>\$0</b>	<b>\$2,852,000</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$120,000	\$2,732,000	\$0	\$0	\$0	\$0	\$0	\$2,852,000

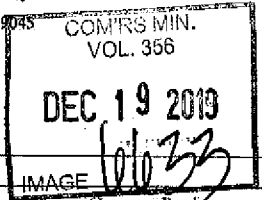
**Prior Legislation Action**  
Jan 2019



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

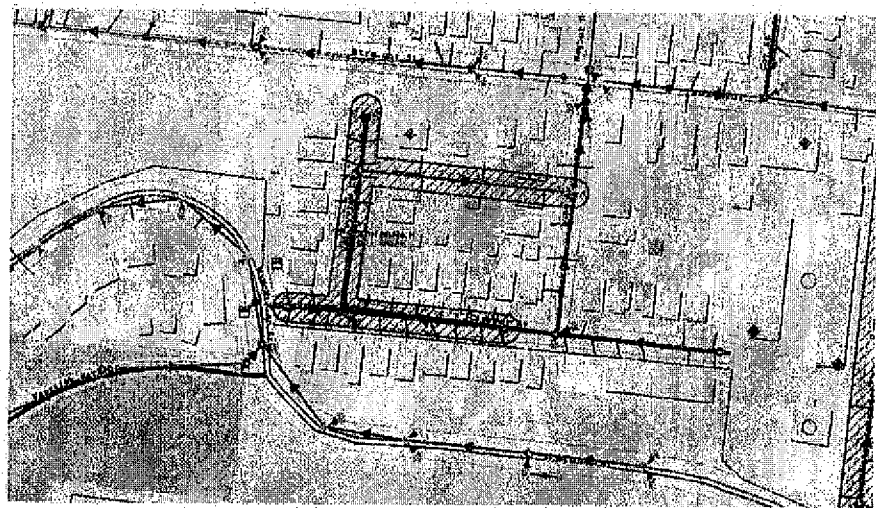
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Valleyview Court Sewer Replacement		
Project ID	10240720	CIP Number	10240720 CD Index #
Project Type	Sewer Replacement	Sewer Number	6680
<b>Purpose and Justification</b>	<p>The BCER pipe segment was last inspected by CCTV in February 2017. The inspection identified a number of cracking and fracturing throughout the length of the pipe. The WWC GSAM asset management system identified the segment, with a structural risk bin score of 23, for lining rehabilitation, however the pipe is located near or beneath several residential structures. The planning project is to evaluate alternatives to address the condition and location of the sewer. The other pipe segments included in the evaluation have structural risk bin scores ranging from 3-12 and have been identified for lining or open cul replacement.</p>		
<b>Impact to Operating Budget</b>	None.		
<b>Description and Location</b>	<p>Planning efforts include CCTV inspection, local flow monitoring, model updates, alternatives analysis, and development of a BCE with recommendation. Pipe segment 32909045-32910018 is approximately 295 feet of 15-inch combined sewer installed in 1916. Additional segments included in the planning analysis are: 32910017-32909044, 32909049-32909044, 32909044-32909045, 32909051-32909045</p>		



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$90,000	\$0	\$166,000	\$0	\$166,000
Design	\$120,000	\$0	\$0	\$198,000	\$198,000
Pre-Construction Services	\$24,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$200,000	\$0	\$0	\$200,000	\$200,000
Right-of-Way	\$30,000	\$0	\$0	\$30,000	\$30,000
Construction	\$720,000	\$0	\$0	\$720,000	\$720,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$84,000	\$0	\$0	\$14,000	\$14,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,268,000</b>	<b>\$0</b>	<b>\$166,000</b>	<b>\$1,162,000</b>	<b>\$1,328,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$166,000	\$428,000	\$0	\$0	\$734,000
						\$1,328,000

Prior Legislation Action





# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department: Metropolitan Sewer District of Greater Cincinnati  
 Project Title: **Shaffer Avenue Sewer Replacement**

Project ID: **10240725** CIP Number: **10240725** CD Index #:   
 Project Type: **Sewer Replacement** Sewer Number: **6681**

**Purpose and Justification**  
 The BCER pipe segment was last inspected by CCTV in 2015. The inspection identified depositing, multiple fractures, and material changes in the pipe. The WWC GSAM asset management system identified the segments, with structural risk bin scores of 17 & 22, for lining rehabilitation, however the pipe is located near or beneath several residential structures. The planning project is to evaluate alternatives to address the condition and location of the sewer. The other pipe segments included in the evaluation have structural risk bin scores ranging from 5-10, but are upstream of the BCER segments and are baseling, with no inspection data available.

**Impact to Operating Budget**  
 None.

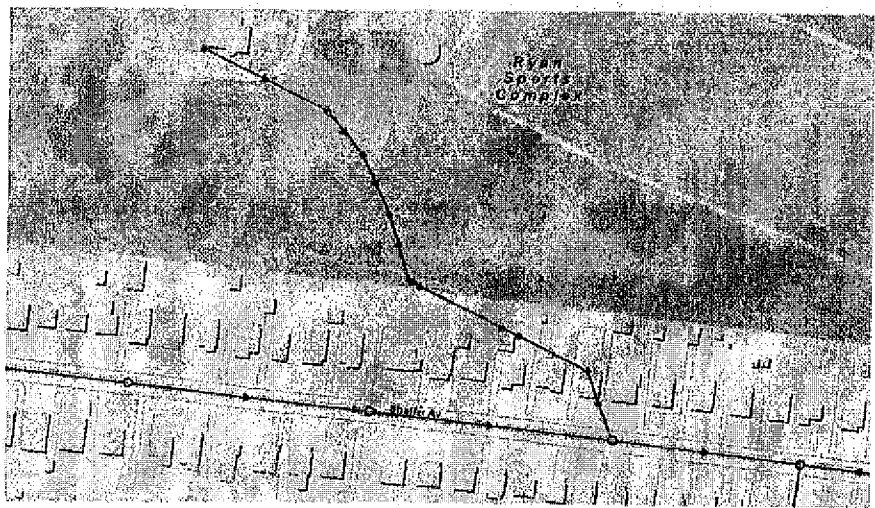
**Description and Location**  
 Planning efforts include CCTV inspection, local flow monitoring, model updates, alternatives analysis, and development of a BCE with recommendation. Pipe segments 25308015-25301027-25301021 are approximately 349 feet of 24-inch combined sewer installed in 1920. Additional segments included in the planning analysis are 25308010-25308011-25308012-25308013-25308014-25308015

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 IMAGE 10654

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$166,000	\$0	\$166,000
Design	\$76,000	\$0	\$0	\$130,000	\$130,000
Pre-Construction Services	\$12,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$100,000	\$0	\$0	\$100,000	\$100,000
Right-of-Way	\$60,000	\$0	\$0	\$60,000	\$60,000
Construction	\$352,000	\$0	\$0	\$320,000	\$320,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$43,000	\$0	\$0	\$6,000	\$6,000
Interest / Financing	\$4,000	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$647,000</b>	<b>\$0</b>	<b>\$166,000</b>	<b>\$616,000</b>	<b>\$782,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$166,000	\$290,000	\$0	\$0	\$326,000
						\$782,000

**Prior Legislation Action**



DEC 19 2019

IMAGE 10639

# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department: Metropolitan Sewer District of Greater Cincinnati  
Project Title: Lafayette Avenue at Queen City Avenue Sewer Replacement

Project ID: 10240730 CIP Number: 10240730 CD Index #:   
Project Type: Sewer Replacement Sewer Number: 6682

### Purpose and Justification

The BCER pipe segment was last inspected by CCTV in 2015. The inspection identified a number of cracks and other structural defects, including a hole in the pipe. The WWC GSAM asset management system identified the segment, with a structural risk bin score of 23, for lining rehabilitation, however the pipe is beneath multiple structures. The planning project is to evaluate alternatives to address the condition and location of the sewer. Additional segments to either side of the BCER segment are also near structures and identified for "multiple renewal" repair with structural risk bin scores of 9-16.

### Impact to Operating Budget

None.

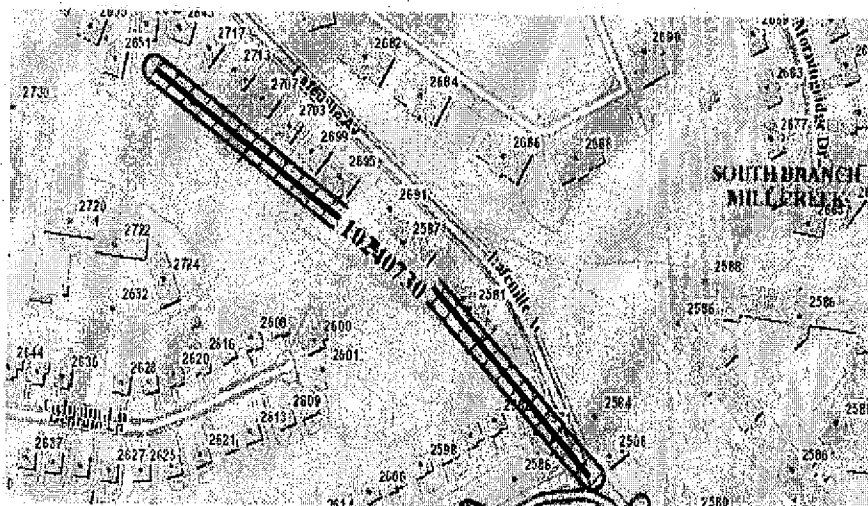
### Description and Location

Planning efforts include CCTV inspection, local flow monitoring, model updates, alternatives analysis, and development of a BCE with recommendation. Pipe segment 23904014-25201004 is approximately 471 feet of 48-inch combined sewer installed in 1940. Additional segments included in the planning analysis are: 23904010-23904011-23904013-23904014-25201004-25201038-25116020.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$184,000	\$0	\$184,000
Design	\$160,000	\$0	\$0	\$220,000	\$220,000
Pre-Construction Services	\$37,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$310,000	\$0	\$0	\$310,000	\$310,000
Right-of-Way	\$75,000	\$0	\$0	\$75,000	\$75,000
Construction	\$1,210,000	\$0	\$0	\$1,100,000	\$1,100,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$130,000	\$0	\$0	\$6,000	\$6,000
Interest / Financing	\$27,500	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,949,500</b>	<b>\$0</b>	<b>\$184,000</b>	<b>\$1,711,000</b>	<b>\$1,895,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$184,000	\$605,000	\$0	\$1,106,000	\$0
	\$0	\$184,000	\$605,000	\$0	\$1,106,000	\$0
	\$0	\$184,000	\$605,000	\$0	\$1,106,000	\$1,895,000

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

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IMAGE 16310

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title De Votte Avenue Sewer Replacement

Project ID 10240735 CIP Number 10240735 CD Index #  
Project Type Sewer Replacement Sewer Number 6683

## Purpose and Justification

The BCER pipe segment was last inspected by CCTV in March 2017. The inspection identified a number of cracking and fracturing throughout the length of the pipe. The WWC GSAM asset management system identified the segment, with a structural risk bin score of 23, for lining rehabilitation, however the pipe is located near or beneath several residential structures. The planning project is to evaluate alternatives to address the condition and location of the sewer. The other pipe segments included in the evaluation have structural risk bin scores ranging from 4-10. Several of these segments are baseline, with no inspection data available, and other segments have been identified for

## Impact to Operating Budget

None.

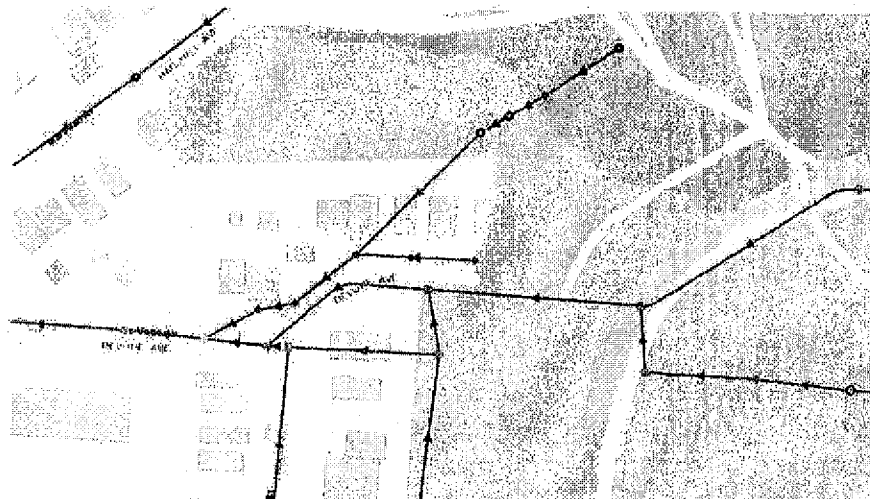
## Description and Location

Planning efforts include CCTV inspection, local flow monitoring, model updates, alternatives analysis, and development of a BCE with recommendation. Pipe segment 32802032-32915015 is approximately 166 feet of 20-inch combined sewer installed in 1930. Additional segments included in the planning analysis are: 32802028-32802029, 32802033-32802032, 32915015-32916056-32916063-32916062 and 32915014-32915015.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$172,000	\$0	\$172,000
Design	\$120,000	\$0	\$0	\$187,000	\$187,000
Pre-Construction Services	\$22,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$190,000	\$0	\$0	\$190,000	\$190,000
Right-of-Way	\$67,000	\$0	\$0	\$67,500	\$67,500
Construction	\$638,000	\$0	\$0	\$580,000	\$580,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$78,000	\$0	\$0	\$8,000	\$8,000
Interest / Financing	\$7,250	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,122,250</b>	<b>\$0</b>	<b>\$172,000</b>	<b>\$1,032,500</b>	<b>\$1,204,500</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$172,000	\$444,500	\$0	\$0	\$588,000
						\$1,204,500

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

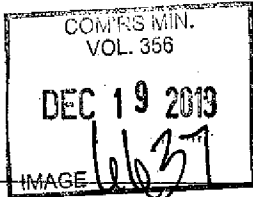
Tuesday, December 10, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Seton Avenue (HN 916) Sewer Replacement		
Project ID	10240750	CIP Number	10240750 CD Index #
Project Type	Sewer Replacement	Sewer Number	6686

**Purpose and Justification**  
 The BCER pipe segment was last inspected by CCTV in 2009. The inspection identified cracking in the pipe. The WWC GSAM asset management system identified the segment, with a structural risk bin score of 19, for lining rehabilitation, however the pipe is located beneath a residential structure. The planning project is to evaluate alternatives to address the condition and location of the sewer.

**Impact to Operating Budget**  
 None.

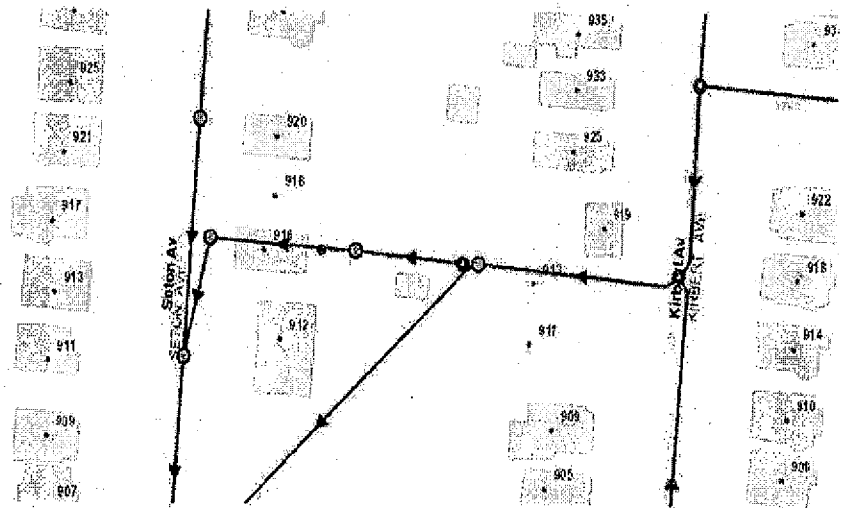
**Description and Location**  
 Planning efforts include CCTV inspection, alternatives analysis, and development of a BCE with recommendation. Pipe segment 24914027-24914037 is approximately 94 feet of 18-inch combined sewer installed in 1908. Additional segments included in the planning analysis are: 24914036-24914027-24914037-24914021



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$108,000	\$0	\$108,000
Design	\$11,000	\$0	\$0	\$155,000	\$155,000
Pre-Construction Services	\$11,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$90,000	\$0	\$0	\$90,000	\$90,000
Right-of-Way	\$15,000	\$0	\$0	\$15,000	\$15,000
Construction	\$352,000	\$0	\$0	\$320,000	\$320,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$37,000	\$0	\$0	\$8,000	\$8,000
Interest / Financing	\$4,000	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$520,000</b>	<b>\$0</b>	<b>\$108,000</b>	<b>\$588,000</b>	<b>\$696,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$108,000	\$260,000	\$0	\$0	\$328,000
						\$696,000

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title **Galbraith Rd to Sheldon Avenue Sewer Replacement**

Project ID **10240780** CIP Number **10240780** CD Index #  
Project Type **Sewer Replacement** Sewer Number **6696**

## Purpose and Justification

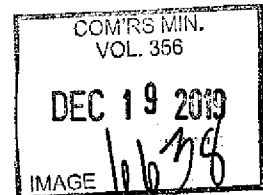
The project includes one segment that has been requested for a BCE by the WWC Gravity Sewer Asset Management system with structural risks of 23. These segments and all others included in the project will be investigated to determine how to address the structural concerns.

## Impact to Operating Budget

None.

## Description and Location

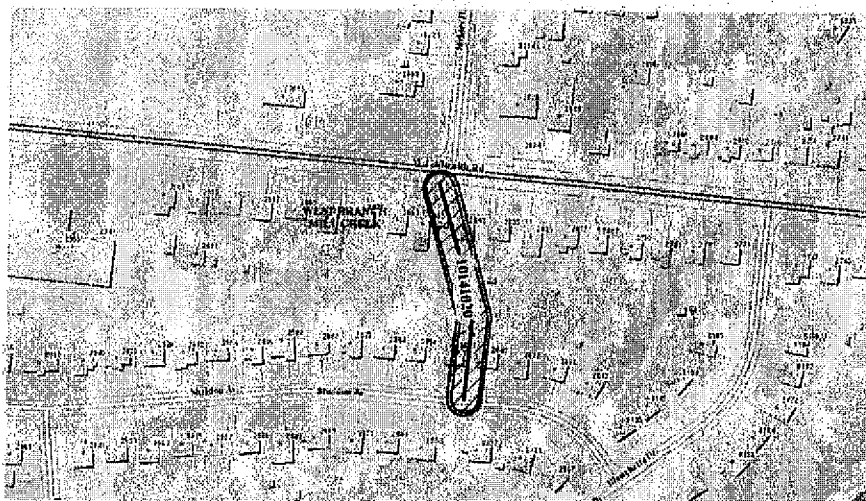
Project to address 12" sanitary sewer pipe installed in 1948, in deteriorating condition under buildings. The project includes segments 25914020-25914037 and 25914021-25914020



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$171,000	\$0	\$171,000
Design	\$38,000	\$0	\$0	\$120,000	\$120,000
Pre-Construction Services	\$5,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$42,000	\$0	\$0	\$42,000	\$42,000
Right-of-Way	\$30,000	\$0	\$0	\$30,000	\$30,000
Construction	\$140,000	\$0	\$0	\$400,000	\$400,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$17,000	\$0	\$0	\$6,000	\$6,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$272,000</b>	<b>\$0</b>	<b>\$171,000</b>	<b>\$598,000</b>	<b>\$769,000</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$171,000	\$192,000	\$0	\$0	\$406,000	\$769,000

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Central to McMicken at Stark St Sewer Replacement  
 Project ID 10240795 CIP Number 10240795 CD Index #  
 Project Type Sewer Replacement Sewer Number 6791

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 IMAGE 11639

## Purpose and Justification

The project includes six segments that have been requested for a BCE by the WWC Gravity Sewer Asset Management system with structural risks of 14, 14, 16, 19, 21, and 23. These segments and all others included in the project will be investigated to determine how to address the structural concerns.

## Impact to Operating Budget

None.

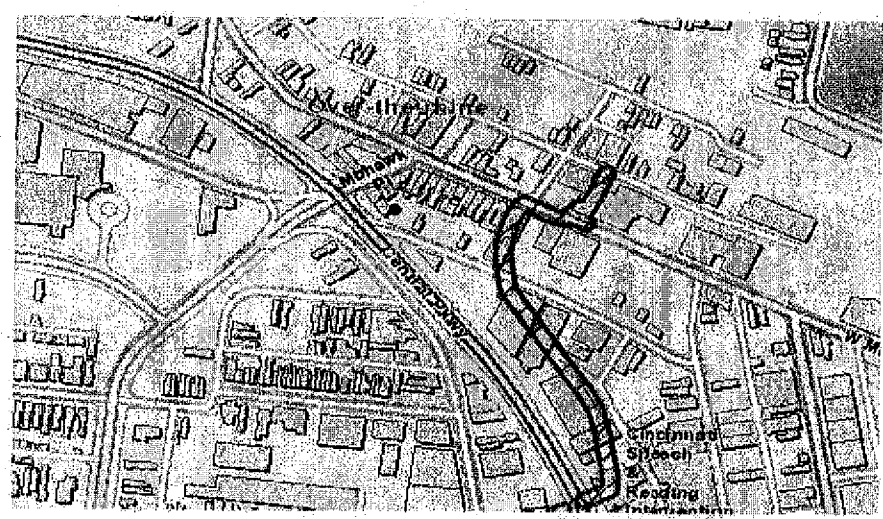
## Description and Location

Project to address 12"-90" combined sewer pipe under buildings in deteriorating condition. The project includes segments 33015085-33015084, 33015084-33015083, 33010090-33010089, 33010088-33010087, 33015118-33015045, 33015133-33015085, 33010086-33010085, 33015125-33015085, 33015044-33015043, 33010106-33010105, 33010089-33010088, 33015083-33015118, 33015043-33010090, 33010085-33010106, 33010087-33010086, and 33015123-33015133

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$66,000	\$0	\$66,000
Design	\$240,000	\$0	\$0	\$240,000	\$240,000
Pre-Construction Services	\$61,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$510,000	\$0	\$0	\$510,000	\$510,000
Right-of-Way	\$150,000	\$0	\$0	\$150,000	\$150,000
Construction	\$1,700,000	\$0	\$0	\$1,700,000	\$1,700,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$210,000	\$0	\$0	\$40,000	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,871,000</b>	<b>\$0</b>	<b>\$66,000</b>	<b>\$2,640,000</b>	<b>\$2,706,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$66,000	\$900,000	\$0	\$1,740,000	\$0
						\$2,706,000

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

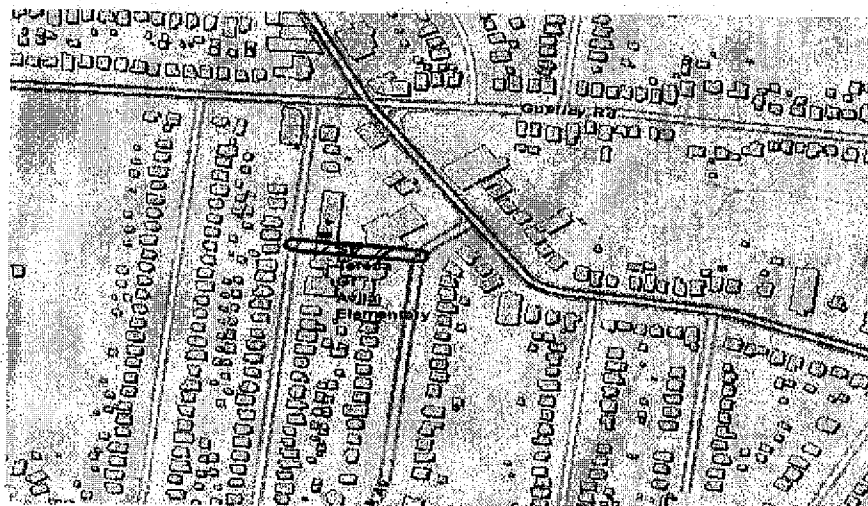
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Overlook Avenue near Glenway Ave Sewer Replacement		
Project ID	10240810	CIP Number	10240810 CD Index #
Project Type	Sewer Replacement	Sewer Number	6703
<b>Purpose and Justification</b>			
The project includes one segment that has been requested for a BCE by the WWC Gravity Sewer Asset Management system with structural risk of 23. This segment and all others included in the project will be investigated to determine how to address the structural concerns.			
<b>Impact to Operating Budget</b>			
None.			
<b>Description and Location</b>			
Project to address 15" combined sewer pipe installed in 1915, under buildings in deteriorating condition. The project includes segments 24111012-24111013 and 24111013-24111015			

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VOL. 356  
**DEC 19 2019**  
IMAGE *6640*

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$178,000	\$0	\$178,000
Design	\$55,000	\$0	\$0	\$187,000	\$187,000
Pre-Construction Services	\$8,300	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$69,000	\$0	\$0	\$69,000	\$69,000
Right-of-Way	\$30,000	\$0	\$0	\$30,000	\$30,000
Construction	\$230,000	\$0	\$0	\$230,000	\$230,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$29,000	\$0	\$0	\$8,000	\$8,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$421,300</b>	<b>\$0</b>	<b>\$178,000</b>	<b>\$524,000</b>	<b>\$702,000</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$178,000	\$286,000	\$0	\$238,000	\$0	\$702,000

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 488 Access Lane		
Project ID	10240835	CIP Number	10240835 CD Index #
Project Type	CSO Improvement/Elim	Sewer Number	6758

**Purpose and Justification**

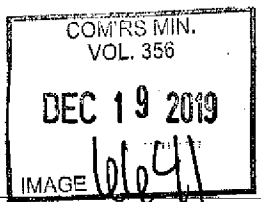
The current request is for amending the 2020 MSD CIP to add and asset management project and providing design phase funding. The CSO 488 Access Lane will construction an asphalt drive for MSD's WWC Division vehicles used to maintain the CSO's control structure. The proposed access lane will be approximately 330 feet long and 12 feet wide with a parking turnaround area and lockable gate, from West 68th Street to MSD's CSO 488 control structure. It will be situated along the alignment of an existing MSD sewer and have ample separation from existing residential structures in the neighborhood.

**Impact to Operating Budget**

None

**Description and Location**

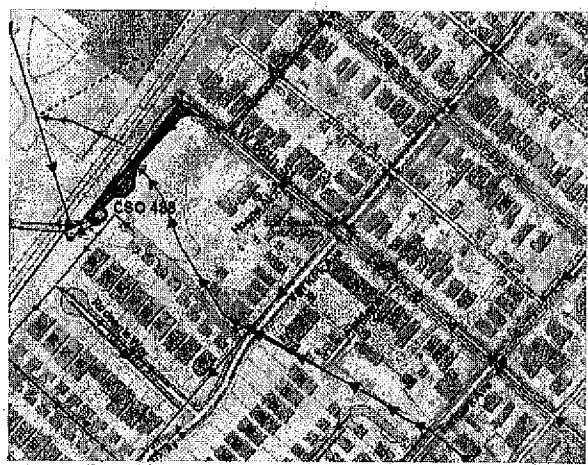
Project to address CSO access restrictions in order to improve Waste Water Collection's ability to maintain the asset.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$50,000	\$0	\$0	\$0	\$0
Pre-Construction Services	\$1,403	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$2,708	\$0	\$10,900	\$0	\$10,900
Right-of-Way	\$32,440	\$0	\$31,000	\$0	\$31,000
Construction	\$46,755	\$0	\$0	\$68,000	\$68,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$7,200	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$140,506</b>	<b>\$0</b>	<b>\$41,900</b>	<b>\$68,000</b>	<b>\$109,900</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$41,900	\$0	\$68,000	\$0	\$0	\$109,900

**Prior Legislation Action**





# 2020 Capital Budget and Capital Improvement Program

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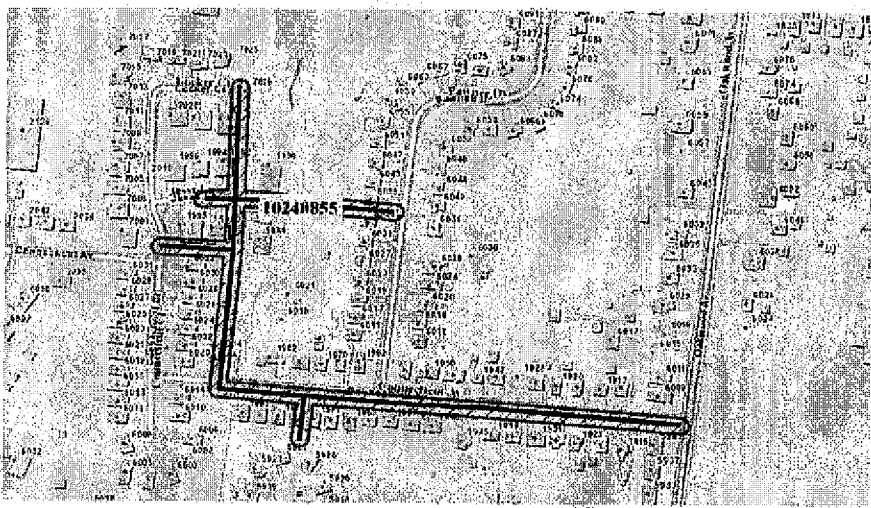
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Connecticut Avenue Sewer Replacement		
Project ID	10240855	CIP Number	10240855 CD Index #
Project Type	Sewer Replacement	Sewer Number	6778
<b>Purpose and Justification</b>		<b>Impact to Operating Budget</b>	
<p>The project includes one segment that has been requested for a BCE by the WWC Gravity Sewer Asset Management system with a structural risk of 23. These segments and all others included in the project will be investigated to determine how to address the structural concerns and to investigate whether improved capacity will reduce sewer backups in the area.</p>		None	
<b>Description and Location</b>			
<p>The project is to evaluate sewer replacement and existing capacity serving the homes on the east side of the 6000 block of Connecticut Ct. Analysis will be performed to evaluate potential benefits to homes upstream of said street, along Connecticut Avenue, as well as Pawnee Drive which connects at the downstream end of said 6000 block.</p>			

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IMAGE *WOLZ*

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$220,000	\$0	\$220,000
Design	\$290,000	\$0	\$0	\$400,000	\$400,000
Pre-Construction Services	\$78,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$650,000	\$0	\$0	\$650,000	\$650,000
Right-of-Way	\$120,000	\$0	\$0	\$120,000	\$120,000
Construction	\$2,100,000	\$0	\$0	\$2,100,000	\$2,100,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$270,000	\$0	\$0	\$6,000	\$6,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$3,508,000</b>	<b>\$0</b>	<b>\$220,000</b>	<b>\$3,276,000</b>	<b>\$3,496,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$220,000	\$1,170,000	\$0	\$2,106,000	\$0
						\$3,496,000

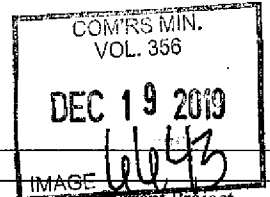
Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	911 McPherson Avenue Sewer Replacement		
Project ID	10240870	CIP Number	10240870 CD Index #
Project Type	Sewer Replacement	Sewer Number	6831
<b>Purpose and Justification</b>			
The primary benefit of this project is the replacement or elimination of pipes in poor structural condition and pipe segments in undesirable locations.			
<b>Impact to Operating Budget</b>			
None			
<b>Description and Location</b>			
The project is located in the East Price Hill neighborhood of the City of Cincinnati, Hamilton County, Ohio. The project proposes the replacement of approximately 630 feet of 12-24 inch diameter combined sewer pipe. The pipe is in poor condition and is located near or beneath several homes. A proposed new alignment for the replacement sewer will reduce the risk of maintaining sewers under homes.			



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$140,000	\$0	\$140,000	\$0	\$140,000
Pre-Construction Services	\$30,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$250,000	\$0	\$250,000	\$0	\$250,000
Right-of-Way	\$68,000	\$0	\$68,000	\$0	\$68,000
Construction	\$924,000	\$0	\$0	\$924,000	\$924,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$100,000	\$0	\$0	\$100,000	\$100,000
Interest / Financing	\$10,500	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,522,500</b>	<b>\$0</b>	<b>\$458,000</b>	<b>\$1,024,000</b>	<b>\$1,482,000</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$458,000	\$0	\$0	\$0	\$1,024,000	\$1,482,000

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Davey Avenue to Hamilton Avenue Sewer Replacement		
Project ID	10242025	CIP Number	10242025 CD Index # PN# 38
Project Type	Sewer Replacement	Sewer Number	6849
<b>Purpose and Justification</b>			
<p>This pipes in this project have structural issues that will be addressed. Sewer segments have been scored from high to extreme risk and require replacement or remediation in accordance with the Gravity Sewer Asset Management protocol. A 2018 video of sewers identified significant cracks, voids, and deformation of pipe sections. A cave-in near portions of the sewer was reported in 2017. The sewers in this project are showing structural issues and need to be addressed as part of a replacement and rehabilitation project.</p>			
<b>Impact to Operating Budget</b>			
None			
<b>Description and Location</b>			
<p>The project will address deteriorating sewers located between Davey Avenue, Hamilton Avenue, and north of Larch Avenue within the City of Cincinnati and the neighborhood of College Hill. The sewer segments are within the Mill Creek basin and Kings Run watershed. The high to extreme risk sewers will be addressed through abandonment, rehabilitation or replacement. The project descriptions and costs are as follows:</p>			

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IMAGE 101044

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$76,000	\$0	\$199,000	\$0	\$199,000
Design	\$98,000	\$0	\$0	\$137,100	\$137,100
Pre-Construction Services	\$18,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$150,000	\$0	\$0	\$150,000	\$150,000
Right-of-Way	\$86,000	\$0	\$0	\$86,000	\$86,000
Construction	\$500,000	\$0	\$0	\$500,000	\$500,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$62,000	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$990,000</b>	<b>\$0</b>	<b>\$199,000</b>	<b>\$873,100</b>	<b>\$1,072,100</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$199,000	\$373,100	\$0	\$500,000	\$0	\$1,072,100

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Mill Creek Interceptors Rehabilitation		
Project ID	10242135	CIP Number	10242135 CD Index #
Project Type	Sewer Replacement	Sewer Number	7003

## Purpose and Justification

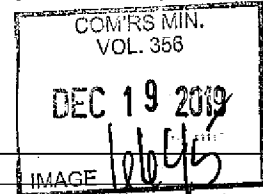
A recent failure of a manhole on the MCI, along with new assessment data identifying multiple extreme risk segments, indicate sewer failures will increase in frequency. An annual allowance of \$5,000,000 beginning in 2020, is requested to start the process of repairing, replacing, and providing access for repairs and inspection to the interceptors along Mill Creek via design-build project delivery. Any activity related to accomplishing improvements such as inspection, surveying, ROW, permitting, planning and design, construction, etc., is intended to be inclusive within the allowance. The Mill Creek Interceptors are a critical conveyance component of the MSDGC system.

## Impact to Operating Budget

None

## Description and Location

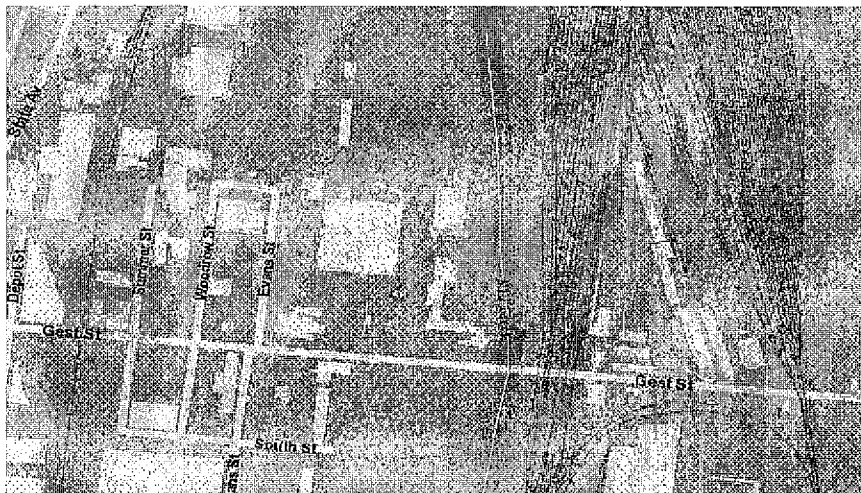
The project will focus on emergency repairs and segments identified as high to extreme risk through the ongoing assessment efforts. In addition, the project will establish the necessary access to complete the repairs, as well as to set up other future projects related to the Mill Creek interceptor and the Auxiliary Mill Creek interceptor.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$130,000	\$0	\$130,000	\$0	\$130,000
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$420,000	\$0	\$420,000	\$0	\$420,000
Right-of-Way	\$150,000	\$0	\$150,000	\$0	\$150,000
Construction	\$4,300,000	\$0	\$0	\$4,300,000	\$4,300,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$5,000,000</b>	<b>\$0</b>	<b>\$700,000</b>	<b>\$4,300,000</b>	<b>\$5,000,000</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$0	\$700,000	\$0	\$4,300,000	\$0	\$0	\$0	\$5,000,000

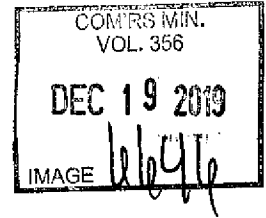
## Prior Legislation Action



**Project ID: 10242140**

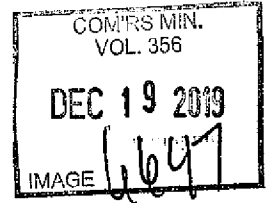
**Project Title: MCWWTP Dewatering Building Odor Control**

MSD to provide revised fact sheet in accordance with County CIP Resolution.



**Project ID: 10252020**

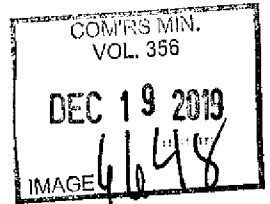
**Project Title: PRWWTP Sludge Storage Tank with Odor Control**



MSD to provide revised fact sheet in accordance with County CIP Resolution.

**Project ID: 10262005**

**Project Title: SCWWTP Thickening and Settlement Improvements**



MSD to provide revised fact sheet in accordance with County CIP Resolution.

# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Camargo Canyon Pump Station Elimination		
Project ID	10270026	CIP Number	10270026 CD Index #
Project Type	Pump Station Improvement/Elim	Sewer Number	6868

**Purpose and Justification**

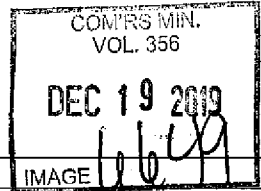
The purpose of the project is to eliminate the Camargo Canyon Pump Station installed in 1990. The existing pumps are lasting between 4 and 10 years where the pumps, shoes and rails will require replacement. Recent conditions have noticed an increase in high wet well events at the location which could potentially result in an overflow. Additionally the force main is only 4", resulting in high head pressure, limiting the pump selection. Elimination of the pump station will reduce maintenance costs and has a lower Net Present Value than maintenance of the pump station.

**Impact to Operating Budget**

None.

**Description and Location**

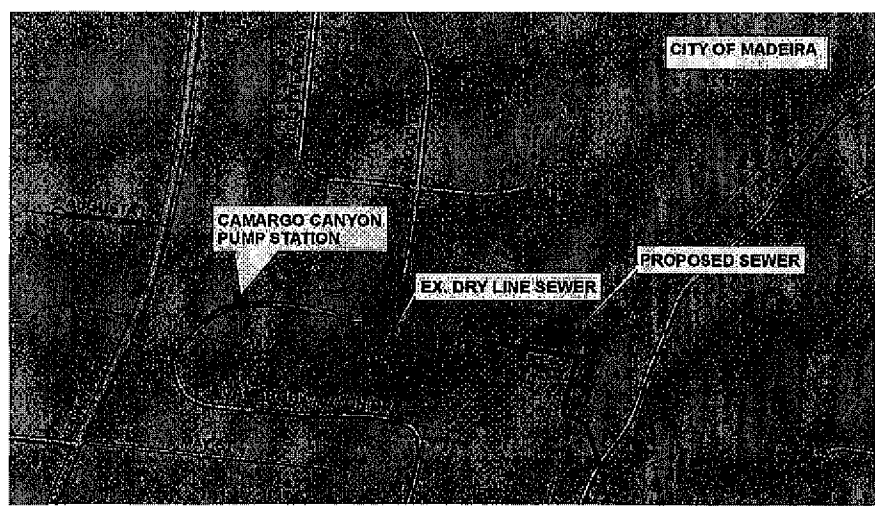
The pump station is to be eliminated with the construction of 892 feet of new 8-inch diameter gravity sewer to connect a dry line installed with the pump station to an existing sewer on Camargo Road. This project is located in the City of Madeira.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$85,300	\$138,568	\$138,000	\$0	\$276,568
Pre-Construction Services	\$35,300	\$35,300	\$0	\$0	\$35,300
Miscellaneous Expense	\$36,800	\$0	\$15,000	\$0	\$15,000
Right-of-Way	\$27,400	\$10,932	\$100,000	\$0	\$110,932
Construction	\$589,200	\$0	\$0	\$1,178,400	\$1,178,400
Program Management	\$0	\$15,567	\$0	\$0	\$15,567
Construction Services	\$54,000	\$0	\$0	\$0	\$0
Interest / Financing	\$8,500	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$836,500</b>	<b>\$200,367</b>	<b>\$253,000</b>	<b>\$1,178,400</b>	<b>\$1,631,767</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$200,367	\$253,000	\$0	\$0	\$1,178,400	\$0	\$1,631,767

**Prior Legislation Action**  
Dec 2011, Jan 2014, May 2014





# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	East Hill Ave Sewer Replacement		
Project ID	10270175	CIP Number	10270220 CD Index #
Project Type	Sewer Replacement	Sewer Number	665
<b>Impact to Operating Budget</b>			
None.			
<b>Description and Location</b>			
This asset management project located in the Hyde Park neighborhood of the City of Cincinnati. This project will install approximately 165 of new 18 inch sewer, 399 feet of new 30 inch sewer, and 77 feet of new 36 inch sewer to replace and relocate a severely deteriorated 24 inch sewer near East Hill Ave and Madison Road. The new sewer will placed complete outside of the Madison Road ROW and abandon and the existing sewer running underneath the three residences will be abandoned.			

## Purpose and Justification

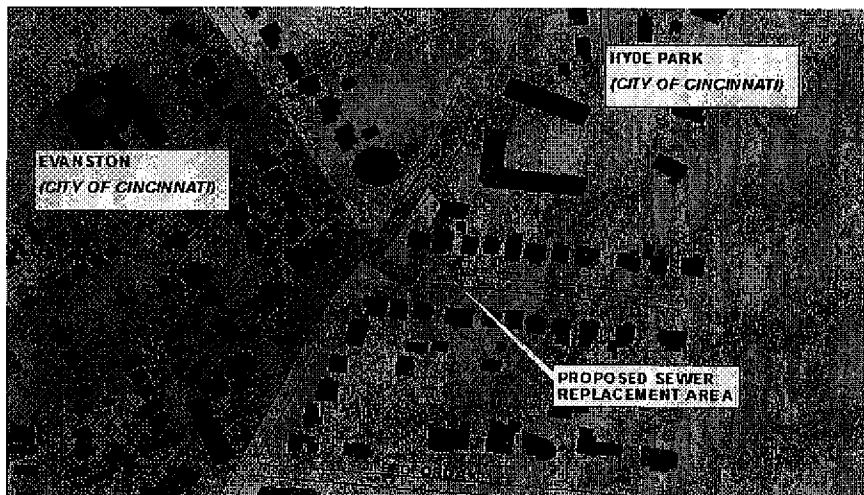
The purpose of this project is to address a severely deteriorated combined sewer segment that is at risk of failure. WWC nominated this project in 2011 based on a TV inspection that showed multiple quad fractures and substantial shape loss throughout the sewer. The nominated sewer segments were given structural risk ratings of 20 and 10, which rank as high risk of failure. A secondary benefit to this project, but not the driving force of the project, is that it removes a sewer from under three residences and replaces this sewer in the public right of way, allowing for much easier maintenance in the future and reducing MSD's risk from potential property damages.

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IMAGE 16650

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$177,100	\$177,100	\$0	\$0	\$177,100
Pre-Construction Services	\$42,500	\$79,700	\$0	\$0	\$79,700
Miscellaneous Expense	\$43,500	\$43,500	\$0	\$0	\$43,500
Right-of-Way	\$16,600	\$101,200	\$0	\$0	\$101,200
Construction	\$1,416,800	\$0	\$1,542,800	\$0	\$1,542,800
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$48,700	\$0	\$40,000	\$0	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,745,200</b>	<b>\$401,500</b>	<b>\$1,582,800</b>	<b>\$0</b>	<b>\$1,984,300</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$401,500	\$1,582,800	\$0	\$0	\$0	\$0	\$0	\$1,984,300

**Prior Legislation Action**  
Dec 2014, Jun 2017, Mar 2019



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department: Metropolitan Sewer District of Greater Cincinnati  
 Project Title: Tusculum Avenue at Woodbridge Sewer Replacement  
 Project ID: 10270220 CIP Number: 10270220 CD Index #:   
 Project Type: Sewer Replacement Sewer Number: 6692

## Purpose and Justification

The project includes one segment that has been requested for a BCE by the WWC Gravity Sewer Asset Management system with structural risk of 22. This segment and all others included in the project will be investigated to determine how to address the structural concerns.

## Impact to Operating Budget

None.

## Description and Location

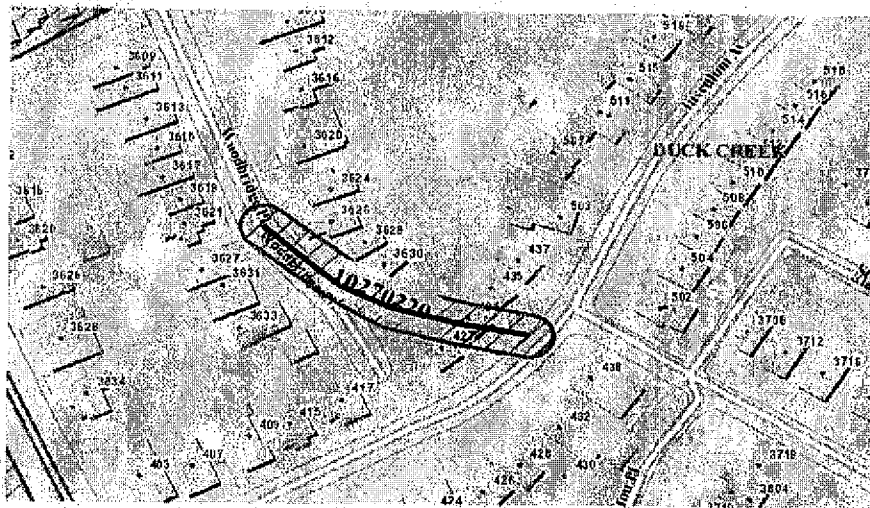
Project to address 18"-48" combined sewer pipe under buildings in deteriorating condition. The project includes segments 42201037-42201036, 42201036-42201014, and 42201038-42201037

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 IMAGE 0651

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$162,000	\$0	\$162,000
Design	\$74,000	\$0	\$0	\$110,000	\$110,000
Pre-Construction Services	\$12,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$100,000	\$0	\$0	\$100,000	\$100,000
Right-of-Way	\$45,000	\$0	\$0	\$45,000	\$45,000
Construction	\$340,000	\$0	\$0	\$340,000	\$340,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$42,000	\$0	\$0	\$6,000	\$6,000
Interest/ Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$613,000</b>	<b>\$0</b>	<b>\$162,000</b>	<b>\$601,000</b>	<b>\$763,000</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$162,000	\$255,000	\$0	\$0	\$346,000	\$763,000

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department: Metropolitan Sewer District of Greater Cincinnati  
Project Title: Elsmere Avenue from Slane to Lafayette Sewer Replacement

Project ID: 10270225 CIP Number: 10270225 CD Index #:   
Project Type: Sewer Replacement Sewer Number: 6697

## Purpose and Justification

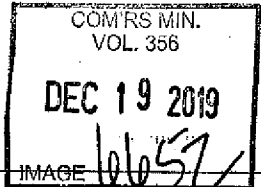
The project includes two segments that have been requested for a BCE by the WWC Gravity Sewer Asset Management system, both with structural risks of 19.

## Impact to Operating Budget

None.

## Description and Location

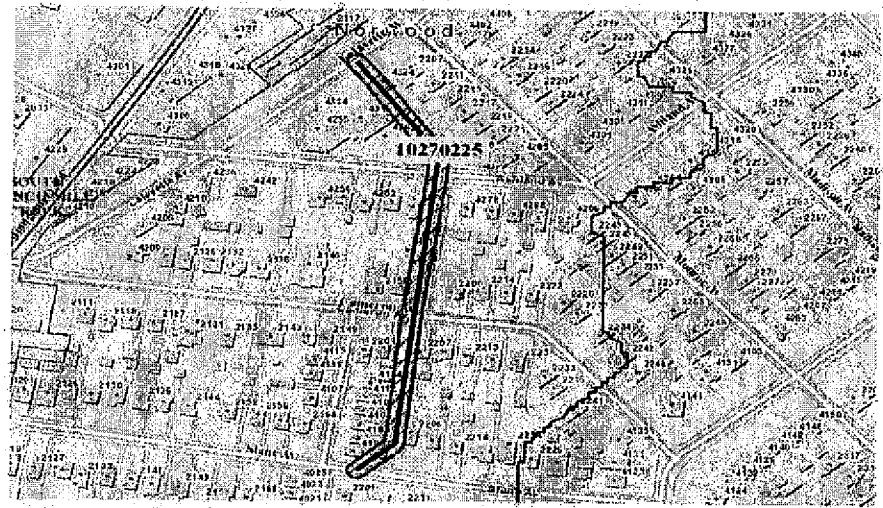
Project to address 42" combined sewer pipe of unknown age, installed under buildings in deteriorating condition. The project includes segments 37713031-37804004 and 37713030-37713031.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$163,000	\$0	\$163,000
Design	\$140,000	\$0	\$0	\$200,000	\$200,000
Pre-Construction Services	\$29,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$240,000	\$0	\$0	\$240,000	\$240,000
Right-of-Way	\$142,500	\$0	\$0	\$142,500	\$142,500
Construction	\$800,000	\$0	\$0	\$800,000	\$800,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$100,000	\$0	\$0	\$6,000	\$6,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,451,500</b>	<b>\$0</b>	<b>\$163,000</b>	<b>\$1,388,500</b>	<b>\$1,551,500</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$163,000	\$582,500	\$0	\$0	\$806,000	\$1,551,500

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Tuesday, December 10, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Ridge Avenue (HN 5053) Sewer Replacement		
Project ID	10272030	CIP Number	10272030 CD Index # PNH 38
Project Type	Sewer Replacement	Sewer Number	6848

## Purpose and Justification

The project was nominated due to observed structural deficiencies in segment 42611018-42611016. The WWC gravity sewer asset management system calls for the segment to be fully lined but WWC has capacity concerns. This project will evaluate the renewal or replacement method in order to address the structural deficiencies with the potential capacity concerns in mind.

## Impact to Operating Budget

None

## Description and Location

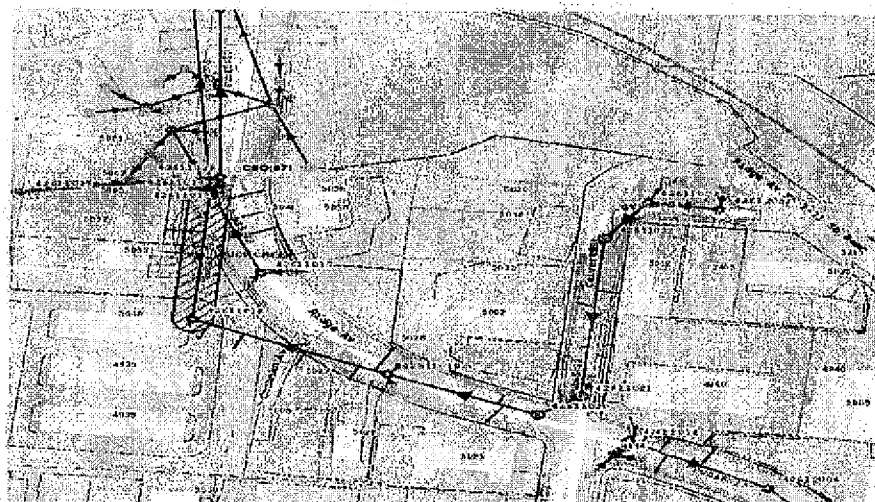
The project is located in the City of Cincinnati Neighborhood of Oakley. The project is within the Upper Duck Creek Watershed in the Little Miami basin. This project will address structural concerns for existing 18" reinforced concrete pipe within Ridge Avenue. The project is located directly upstream of CSO 671 which was included in the project nomination to determine if the CSO can be eliminated.

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IMAGE 6053

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$44,800	\$0	\$147,000	\$0	\$147,000
Design	\$34,000	\$0	\$0	\$34,000	\$34,000
Pre-Construction Services	\$10,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$36,000	\$0	\$0	\$36,000	\$36,000
Right-of-Way	\$15,000	\$0	\$0	\$15,000	\$15,000
Construction	\$120,000	\$0	\$0	\$120,000	\$120,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$15,000	\$0	\$0	\$15,000	\$15,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$274,800</b>	<b>\$0</b>	<b>\$147,000</b>	<b>\$220,000</b>	<b>\$367,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$147,000	\$85,000	\$0	\$135,000	\$367,000

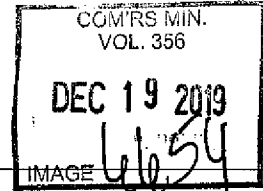
Prior Legislation Action:



# 2020 Capital Budget and Capital Improvement Program

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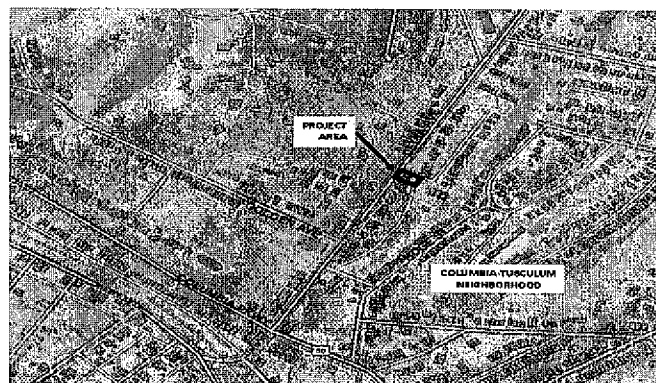
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Delta Ave Sewer Backup Remediation (HN 544)		
Project ID	10272060	CIP Number	10272060 CD Index #
Project Type	Sewer Backup Remediation	Sewer Number	6946
<b>Purpose and Justification</b>			
This project has acquired the property at 544 Delta Ave with the purpose of razing the house. The foundation will be removed, as well as the sewer lateral that connects to the existing 108" combined sewer. The purpose of this project is to address the sewer backups occurring at this property.			
<b>Impact to Operating Budget</b>			
None			
<b>Description and Location</b>			
This project will demolish property at 544 Delta Ave. The project is located in the Columbia Tusculum neighborhood in the City of Cincinnati, Hamilton County, Ohio			



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$60,000	\$0	\$60,000	\$0	\$60,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$9,000	\$0	\$9,000	\$0	\$9,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$69,000</b>	<b>\$0</b>	<b>\$69,000</b>	<b>\$0</b>	<b>\$69,000</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$0	\$69,000	\$0	\$0	\$0	\$0	\$0	\$69,000

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Pump Station Telemetry System Upgrades		
Project ID	10280505	CIP Number	10280505 CD Index # PN# 14
Project Type	Pump Station Improvement/Elim	Sewer Number	

## Purpose and Justification

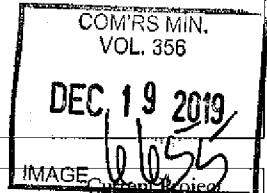
The purpose of this project is to replace the existing telemetry system that was installed in 1993 for the pump stations throughout the MSD service area. The system has significantly exceeded its expected useful life of 7 to 10 years. Replacement parts have been installed as needed to maintain the system; however the manufacturer of the radio system no longer supports the proprietary control board.

## Impact to Operating Budget

None.

## Description and Location

This project will replace the existing telemetry system at 92 locations throughout the MSD service area. In addition to complying with NPDES permit monitoring requirements, the new system will provide accurate time stamped data, capture additional data to improve diagnostics and maintenance strategies, mitigate security risks, and reduce maintenance personnel safety risks.

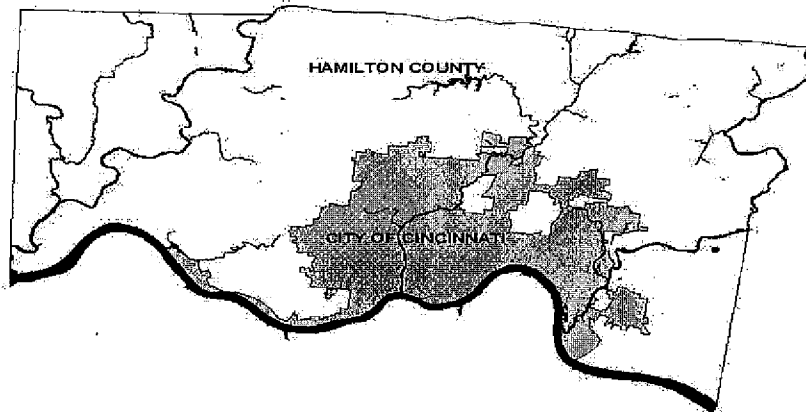


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$400,000	\$439,951	\$0	\$0	\$439,951
Pre-Construction Services	\$0	\$68,200	\$0	\$0	\$68,200
Miscellaneous Expense	\$0	\$25,000	\$0	\$0	\$25,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$6,076,650	\$0	\$6,076,650
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$1,635,000	\$0	\$1,635,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$400,000</b>	<b>\$533,151</b>	<b>\$7,711,650</b>	<b>\$0</b>	<b>\$8,244,801</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$533,151	\$7,711,650	\$0	\$0	\$0	\$8,244,801

## Prior Legislation Action

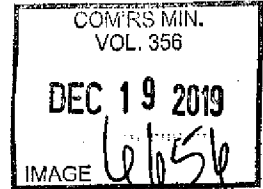
Feb 2016, Dec 2016, Sep 2017, Dec 2017, Oct 2019



**Project ID: 10281100**

**Project Title: LMWWTP Solids Disposal with Odor Control**

MSD to provide revised fact sheet in accordance with County CIP Resolution.



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Muddy Creek FEMA Property Acquisition & Floodplain Reconfiguration		
Project ID	10630000	CIP Number	10630000 CD Index #
Project Type	Supplemental Environmental Prj	Sewer Number	7005

## Purpose and Justification

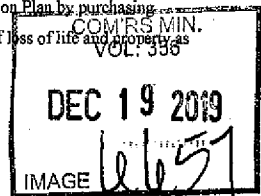
MSD submitted two hazard mitigation grants for Muddy Creek Road and received invitations to submit full applications to voluntarily acquire approximately 25-40 properties. The first full application is to be submitted in mid-November with OEMA submittal to FEMA by April 2020. The second full application is due February 2020. If approved, both grants require a 12.5% match, of which this project will provide the match for the first application. If the second is awarded, it will be added to the CIP later.

## Impact to Operating Budget

Acquiring the targeted properties will reduce risk and liability of future cleanings and claims associated with SBU. The properties are at risk for SBUs and have had repeated impacts, with MSD having already paid over \$500K in damage claims since 2009.

## Description and Location

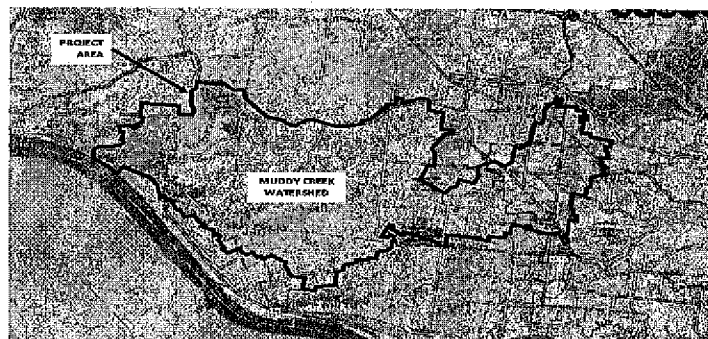
The area of focus is Muddy Creek Road between Glenway Avenue and Muddy Creek. The Project is directly related to and will effectively carry out the goals of the State of Ohio Hazard Mitigation Plan by purchasing floodprone property within the floodway and floodplain, mitigating the risk of loss of life and property, as well as future damage claims to FEMA and Ohio EMA.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$200,000	\$0	\$200,000	\$0	\$200,000
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$500,000	\$0	\$500,000	\$0	\$500,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$700,000</b>	<b>\$0</b>	<b>\$700,000</b>	<b>\$0</b>	<b>\$700,000</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$0	\$700,000	\$0	\$0	\$0	\$0	\$0	\$700,000

Prior Legislation Action





**Project ID: 10280240**

**Project Title: Hydraulic Modeling 2020**

MSD to provide revised fact sheet in accordance with County CIP Resolution.



# 2020 Capital Budget and Capital Improvement Program

Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Critical Asset Management Projects 2020		
Project ID	10280720	CIP Number	10280720 CD Index #
Project Type	Allowance	Sewer Number	

**Purpose and Justification**

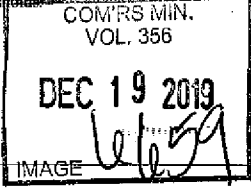
The purpose of the Facilities Asset Management Projects allowance is to provide MSD with an expeditious means of addressing infrastructure and other asset failures in advance of catastrophic failure when possible. This allowance utilizes district wide condition reports, field data, studies and other analyses in coordination with in-house engineering to provide MSD with a rapid means to address failing roofs, roadways, other unforeseen capital needs that require little or no design, that are needed sooner than the normal CIP project process allows, and or are of significantly less cost than a typical standalone CIP project.

**Impact to Operating Budget**

None.

**Description and Location**

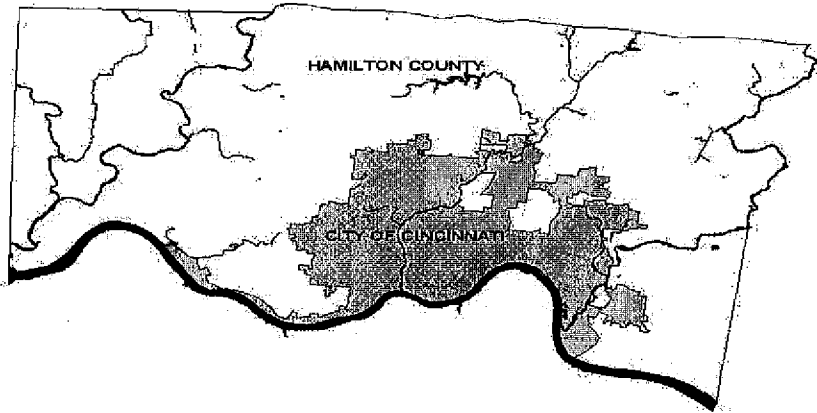
This allowance serves as an annual "budget" from which smaller expenditures will be made as the need arises. To manage this allowance, MSD will maintain a risk-based prioritized list of proposed expenditures that will be updated as needs arise and seek legislative approval according to established thresholds.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$6,000,000	\$0	\$6,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,000,000</b>	<b>\$0</b>	<b>\$6,000,000</b>

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$0	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$6,000,000

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Monday, December 16, 2019

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title **Prioritized Wastewater Collection System Improvements 2020**  
 Project ID **10281320** CIP Number **10281320** CD Index #  
 Project Type **Allowance** Sewer Number

## Purpose and Justification

MSD proposes to use this allowance to fund all planned and reactive improvements to publicly owned assets that comprise the wastewater collection system and to remedy structurally failed privately-owned building sewers located within the public right-of-way, excluding work specifically covered in other Consent Decree specified allowances (Main Sewer Renewal and Manhole Renewal).

## Impact to Operating Budget

None.

## Description and Location

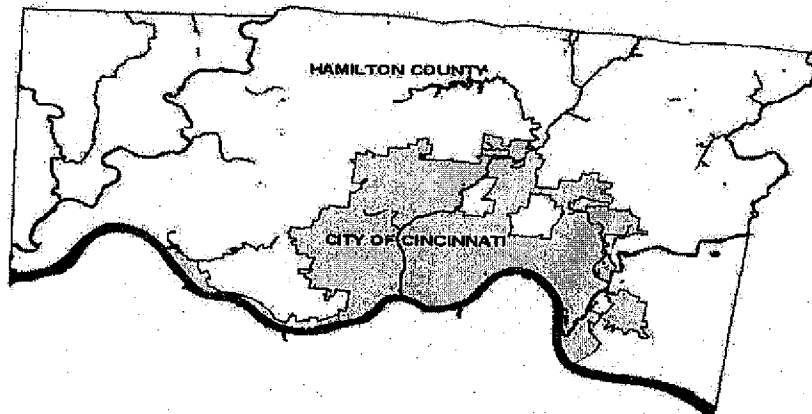
This program will allow the District to respond to sudden, unexpected system failures; to complete planned repairs and improvements to high risk utility-owned assets, and to make prioritized system improvements through construction coordination projects in order to maintain acceptable levels of service at the lowest life-cycle cost. This allowance represents a consolidation of the former Emergency Sewer, High Risk Asset Renewal, and Building Sewer Renewal allowances.

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**DEC 19 2019**  
*Wetzel*  
IMAGE: [unclear]

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$13,000,000	\$0	\$10,000,000	\$0	\$10,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$2,000,000	\$0	\$2,000,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$13,000,000</b>	<b>\$0</b>	<b>\$12,000,000</b>	<b>\$0</b>	<b>\$12,000,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$12,000,000	\$0	\$0	\$0	\$0	\$12,000,000

Prior Legislation Action



# 2020 Capital Budget and Capital Improvement Program

Monday, December 16, 2019

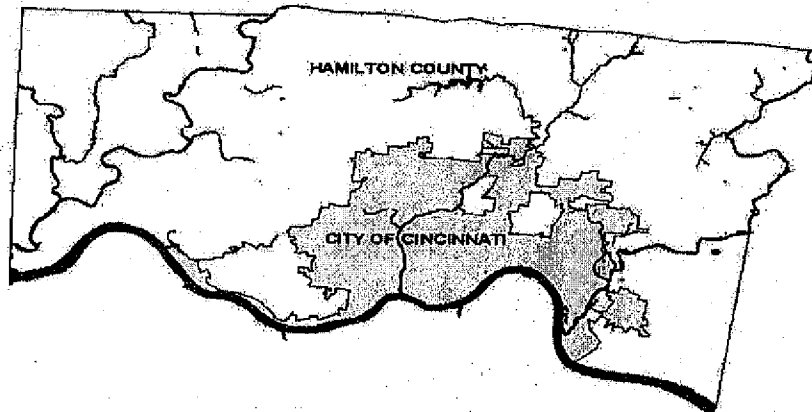
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CIP Planning Projects 2020		
Project ID	10282020	CIP Number	10282020 CD Index #
Project Type	Allowance	Sewer Number	
<b>Purpose and Justification</b>			
This project will provide capital funding to support planning CIP projects.			
<b>Impact to Operating Budget</b>			
None.			
<b>Description and Location</b>			
This project provides appropriated funds for the resources necessary for the planning of capital projects for advancement to the design phase.			

COM'RS MIN.  
VOL. 358  
**DEC 19 2019**  
IMAGE *leblat*

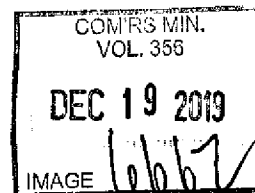
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$480,000	\$0	\$480,000
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	\$0	\$0	\$480,000	\$0	\$480,000

5 Year Projected Legislation							
Prior Legislation	2020	2021	2022	2023	2024	Project Total	
\$0	\$480,000	\$0	\$0	\$0	\$0	\$0	\$480,000

Prior Legislation Action

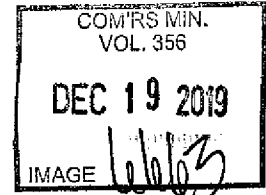


# 2020 OTHER Projects



**2020 CIP Projects**  
**Metropolitan Sewer District of Greater Cincinnati -- Board Modified 2020-2024 CIP Book**  
**OTHER Projects**

Project ID	Project Category	Project Type	Project Name	2020 Total OTHER Budget
10199020	OTHER	ALW	Program Management and Support Services 2020 (Design)	\$6,500,000.00
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000.00
13099999	OTHER	ALW	MSD Labor (Design)	\$5,000,000.00
<b>3 CIP OTHER Projects for 2020</b>				<b>\$16,500,000</b>



# 2020 Capital Budget and Capital Improvement Program

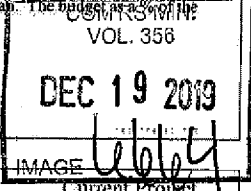
Tuesday, December 10, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Program Management and Support Services 2020		
Project ID	10199020	CIP Number	10199020-CD Index # 113
Project Type	Allowance	Sewer Number	7090

**Purpose and Justification**  
 This project supports the internal efforts, supplemental staff and professional services necessary to carry out the Capital Program. The activities will include program and project management, systems implementation, training, project delivery, project controls, design management, CIP planning, and construction administration.

**Impact to Operating Budget**  
 None.

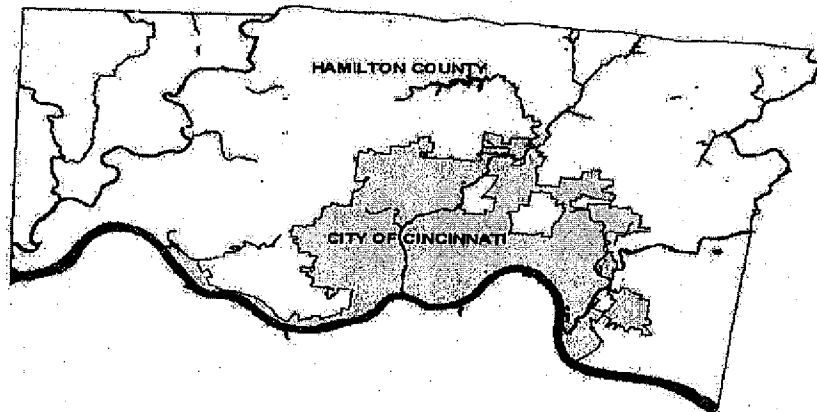
**Description and Location**  
 The Program Management Team (PMT) consists of outside professional consultant staff working in an integrated manner with internal MSD personnel. The PMT is providing support for the development and delivery of the entire CIP, inclusive of all WWIP and Asset Management projects. The core services needed to support the management, delivery, and reporting has been defined in an Annual Program Work Plan. The budget for the CIP is consistent with average National Program Management Fees per CMAA.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$6,500,000	\$0	\$6,500,000
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,500,000</b>	<b>\$0</b>	<b>\$6,500,000</b>

5 Year Projected Legislation	2020	2021	2022	2023	2024	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$6,500,000	\$0	\$0	\$0	\$0	\$6,500,000

**Prior Legislation Action**



# 2020 Capital Budget and Capital Improvement Program

Wednesday, December 18, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Programmatic Contingency		
Project ID	13090000	CIP Number	CD Index #000
Project Type	Program Contingency	Sewer Number	

## Purpose and Justification

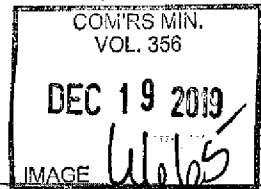
Project budgets in the CIP do not include a contingency line item. MSD uses programmatic contingency to fund construction and design change orders for all projects in the capital program.

## Impact to Operating Budget

None.

## Description and Location

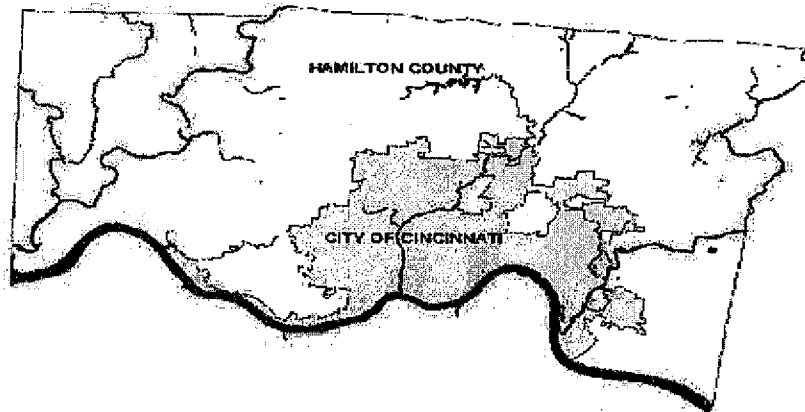
For 2020, the Allowance for Programmatic Contingency has been estimated at \$5 million which is consistent with expenditures from this fund in recent years, and consistent with industry standard benchmarking. Costs are allocated to specific capital projects as they are expended.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$50,000,000	\$9,250,193	\$5,000,000	\$40,000,000	\$54,250,193
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$50,000,000</b>	<b>\$9,250,193</b>	<b>\$5,000,000</b>	<b>\$40,000,000</b>	<b>\$54,250,193</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$9,250,193	\$5,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$54,250,193

Prior Legislation Action





# 2020 Capital Budget and Capital Improvement Program

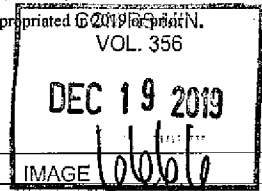
Friday, November 22, 2019

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	MSD LABOR		
Project ID	13099999	CIP Number	CD Index #
Project Type	Allowance	Sewer Number	

**Purpose and Justification**  
 Effective January 1, 2020 MSD accounting practices will revise how MSD staff labor will be capitalized. This change was discussed internally with the County Monitor Team, and it was mutually determined that there is no added value in tracking internal labor to specific projects as is the current process. As an alternate to the current system, MSD will create a capital allowance as part of the 2020 capital budget to fund the capital portion of MSD engineering labor. Total MSD engineering labor is estimated at \$5,000,000 which is reflected in the 2020 budget line item.

**Impact to Operating Budget**  
 None

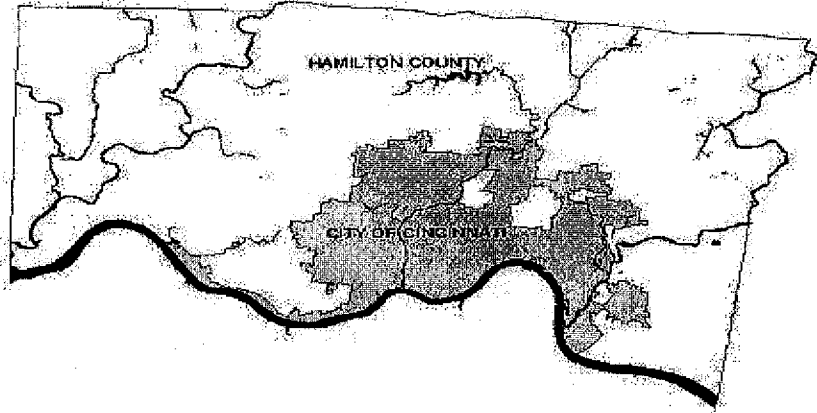
**Description and Location**  
 MSD's use of this allowance in 2020 will be based on: WWE staff will charge their hours to the MSD Labor Allowance. The final budget may be adjusted based on actual costs. At fiscal year end, MSD will proportionately allocate the capitalized labor costs to all active projects during the year. Project budgets in the CIP will not contain any budget for MSD labor. Funding for MSD labor appropriated in 2019 and 2020 years will be de-legislated in 2020.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$5,000,000	\$20,000,000	\$25,000,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,000,000</b>	<b>\$20,000,000</b>	<b>\$25,000,000</b>

5 Year Projected Legislation						
Prior Legislation	2020	2021	2022	2023	2024	Project Total
\$0	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$25,000,000

**Prior Legislation Action**

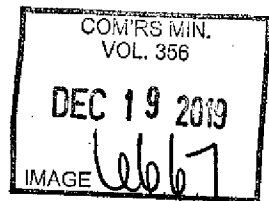


## 2021 CIP

### Metropolitan Sewer District of Greater Cincinnati - Board Modified CIP Book

Project ID	CIP Type	Project Description	2021 CIP Budget
10130140	WWIP	Addyston Extraneous Stormwater Removal (Planning, Design)	\$1,532,000
10131021	WWIP	Muddy Creek CSOs 402-406 Wet Weather Improvements (Construction)	\$9,005,600
101329xx	WWIP	CSO 198 Partial Separation/SBU Mitigation (Design)	\$1,861,500
1013xxxx	WWIP	Muddy Creek WWTP EHRT (Design)	\$9,800,000
10170176	WWIP	Stanley Ave Lateral Relocations (Construction)	\$148,700
10172940	WWIP	Mt. Washington Source Control Implementation (Design)	\$1,221,400
1017xxxx	WWIP	Little Miami WWTP PS Upgrades for EHRT (Part 1) (Design)	\$7,969,000
1017xxxx	WWIP	Little Miami WWTP PS Upgrades for EHRT (Part 1) (Design)	\$4,895,200
10180121	WWIP	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,036,800
10180221	WWIP	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,007,400
10190321	WWIP	Home Sewer Treatment System Eliminations 2021 (Planning, Design, Construction)	\$2,158,700
10192021	WWIP	Urgent Capacity Response Program 2021 (Construction)	\$431,800
10199021	WWIP	Program Management and Support Services 2021 (Design)	\$3,500,000
10199121	WWIP	Hamilton County Utility Oversight & Coordination	\$3,924,600
		<b>WWIP TOTAL:</b>	<b>\$50,960,700</b>
		<b>Asset Management<sup>(1)</sup>:</b>	<b>\$50,839,300</b>
		<b>2021 CIP BUDGET:</b>	<b>\$101,800,000</b>

<sup>(1)</sup> Asset Management project list will be identified and prioritized at end of 2020 prior to annual CIP Budget approval process.

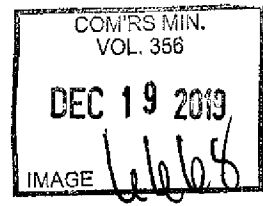


## 2022 CIP

### Metropolitan Sewer District of Greater Cincinnati - Board Modified CIP Book

Project ID	CIP Type	Project Description	2022 CIP Budget
1013xxxx	WWIP	Muddy Creek WWTP Pump Station (for EHRT) (Construction)	\$40,571,800
1013xxxx	WWIP	East Branch Muddy Creek Interceptor (Part 1) - Based on Integrated Planning Results (Planning)	\$744,800
1014xxxx	WWIP	Mill Creek CEPT (Pump Station) (Design)	\$7,068,300
10172900	WWIP	LMWWTP Standby Power (Construction)	\$5,105,900
1017xxxx	WWIP	LMWWTP Pump Station Upgrades for EHRT (Part 1) (Construction)	\$20,975,100
10180122	WWIP	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,213,200
10180222	WWIP	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,042,700
10190322	WWIP	Home Sewer Treatment System Eliminations 2022 (Planning, Design, Construction)	\$2,234,300
10192022	WWIP	Urgent Capacity Response Program 2022 (Construction)	\$446,900
10199022	WWIP	Program Management and Support Services 2022 (Design)	\$3,500,000
10199122	WWIP	Hamilton County Utility Oversight & Coordination	\$4,062,000
<b>WWIP TOTAL:</b>			<b>\$90,965,000</b>
<b>Asset Management<sup>[1]</sup>:</b>			<b>\$66,935,000</b>
<b>2022 CIP BUDGET:</b>			<b>\$157,900,000</b>

<sup>[1]</sup> Asset Management project list will be identified and prioritized at end of 2021 prior to annual CIP Budget approval process.

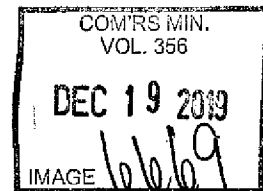


**2023 CIP**

**Metropolitan Sewer District of Greater Cincinnati - Board Modified CIP Book**

Project ID	CIP Type	Project Description	2023 CIP Budget
10130140	WWIP	Addyston Extraneous Stormwater Removal (Construction)	\$6,790,100
10131006	WWIP	East Branch Muddy Creek Interceptor (Part 1) - Based on Integrated Planning Results (Design,Easement)	\$797,800
1013290X	WWIP	CSO 198 Partial Separation/SBU Mitigation (Construction)	\$10,466,700
1013XXXX	WWIP	Muddy Creek WWTP EHRT (Construction)	\$41,992,000
10171761	WWIP	CSO 552 Stormwater Removal (Planning, Design,Easement)	\$496,200
10172935	WWIP	LMWWTP Pump Station Upgrades for EHRT (Part 2) (Design)	\$4,207,700
10172940	WWIP	Mt. Washington Source Control Implementation (Construction)	\$10,466,700
10180123	WWIP	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,395,600
10180223	WWIP	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,079,200
10190323	WWIP	Home Sewer Treatment System Eliminations 2023 (Planning, Design, Construction)	\$2,312,400
10192023	WWIP	Urgent Capacity Response Program 2023 (Construction)	\$462,600
10199023	WWIP	Program Management and Support Services 2023 (Design)	\$3,500,000
10199123	WWIP	Hamilton County Utility Oversight & Coordination	\$4,204,100
		<b>WWIP TOTAL:</b>	<b>\$92,171,100</b>
		<b>Asset Management<sup>[1]</sup>:</b>	<b>\$69,378,900</b>
		<b>2023 CIP BUDGET:</b>	<b>\$161,550,000</b>

<sup>[1]</sup> Asset Management project list will be identified and prioritized at end of 2022 prior to annual CIP Budget approval process.

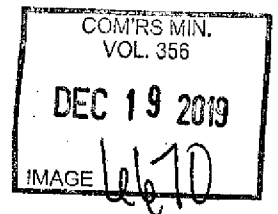


## 2024 CIP

### Metropolitan Sewer District of Greater Cincinnati - Board Modified CIP Book

Project ID	CIP Type	Project Description	2024 CIP Budget
101XXXXX	WWIP	Phase 2B (planning and design costs) projects and costs to be determined at end of Phase 2A.	\$25,000,000
10180124	WWIP	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,584,400
10180224	WWIP	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,088,200
10190324	WWIP	Home Sewer Treatment System Eliminations 2023 (Planning, Design, Construction)	\$2,393,300
10192024	WWIP	Urgent Capacity Response Program 2023 (Construction)	\$478,700
10199024	WWIP	Program Management and Support Services 2023 (Design)	\$3,500,000
10199124	WWIP	Hamilton County Utility Oversight & Coordination	\$4,209,400
		<b>WWIP TOTAL:</b>	<b>\$42,254,000</b>
		<b>Asset Management<sup>[1]</sup>:</b>	<b>\$47,096,000</b>
		<b>2024 CIP BUDGET:</b>	<b>\$89,350,000</b>

<sup>[1]</sup> Asset Management project list will be identified and prioritized at end of 2023 prior to annual CIP Budget approval process.





# Hamilton County

## Board of County Commissioners

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Clerk of the Board  
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Fax (513) 946-4444

December 23, 2019

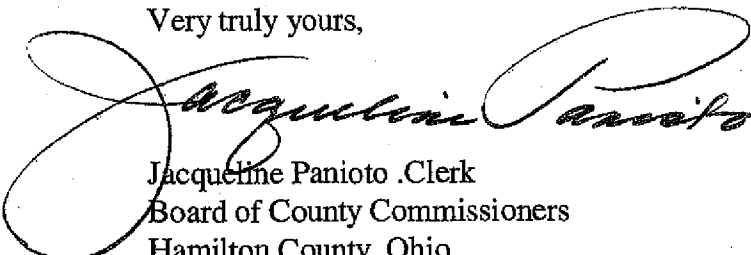
Mr. Patrick Duhaney  
City Manager  
801 Plum Street  
Cincinnati, Ohio 45202

Dear Mr. Duhaney:

The Board of County Commissioners, at its meeting on December 19, 2019, adopted a Resolution approving and adopting the MSD 2020-2024 Capital Improvement Program for the Metropolitan Sewer District of Greater Cincinnati, Hamilton County Ohio as modified by the Board of County Commissioner with conditions and directives to MSD and appropriating funds therefor, authorizing the preparation of detailed plans, specification, estimate of cost and/or other relevant documents, approving the detailed plans, specifications, estimate of cost, and/or other relevant documents, declaring the necessity to construct, determining to proceed with improvements and authorizing the City Manager to advertise for bids.

Enclosed is a certified copy of said resolution for your records.

Very truly yours,

  
Jacqueline Panioto .Clerk  
Board of County Commissioners  
Hamilton County, Ohio

Enclosure  
JP/lrh