



2021

METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI

CAPITAL IMPROVEMENT PROGRAM (CIP)

DRAFT BUDGET REQUEST

August 17, 2021

Overview of MSD's draft 2021 Five-year CIP budget proposal

This document serves as a guide to the 2021 CIP draft budget, explaining why specific projects have been included or excluded, and, in some cases, why project budgets and schedules may have changed from previous reports. Under the terms of the 1968 Agreement, MSD must submit a 5-year capital improvement plan (CIP) on an annual basis. Although a 5-year plan is submitted, the capital budget is approved on an annual basis. The Board of County Commissioners' (BoCC) approval of the capital budget usually occurs in December with an appropriation funds that under Ohio Revised Code Chapter 6117 allows MSD to proceed with engineering planning and design of various projects, and with construction in the case of some allowances. Funding for construction projects, while listed in the annual CIP budget, is not appropriated until detailed plans and specifications are presented by MSD and approved by the BoCC on a per project basis. These approvals occur throughout the calendar year.

Request Summary

The capital budget request contains three broad categories of projects; WWIP (Wet Weather Improvement Plan, or Consent Decree) projects, Asset Management (AM) projects (projects to renew, replace, or enhance existing infrastructure), and OTHER projects (projects for which funding gets allocated to either WWIP or AM as a part of year-end accounting). Projects classified as OTHER include program contingency (funding used for items such as construction change orders) and labor (for MSD staff working on the capital program). Within the WWIP and AM categories, there are various subtypes of projects such as sewer replacements, facility projects, pump station upgrades/eliminations, etc.

The 2021 budget request is presented in the table below with a comparison to the capital budget approved last year. For 2021, the total request has increased over 2020 due to an increase in expected WWIP spending. Note that the 2019 CIP budget, approved by the BoCC in 2018, was \$135 million, and that the current draft request is *lower* than that amount.

	2020 CIP (Approved)	2021 CIP (Draft Request)
WWIP	\$51.9 M	\$57.2 M
AM	\$60.2 M	\$59.6 M
OTHER	\$16.5 M	\$16.5 M
TOTAL	\$128.6 M	\$134.7 M

Consent Decree Projects

In addition to meeting prior obligations (WWIP Phase 1 and Bridge schedules), this capital budget seeks to comply with the County's 2018 Phase 2A plan. As of January 2020, all Phase 1 projects were substantially complete and are providing beneficial use. That said, the Consent Decree obligates MSD to perform Phase 1 "post-construction monitoring" to evaluate the effectiveness of the constructed projects and to update the system wide model. Multiple WWIP projects are being constructed in 2021 in accordance with a 2018 Consent Decree modification known as the "Bridge schedule" and these projects are referred to as "Bridge projects". In May of 2020, the federal court overseeing the Consent Decree ordered that Hamilton County's June 29, 2018 Phase 2A Schedule shall serve as the Co-Defendants' submittal for the purpose of Phase 2A negotiations. As such, the MSD is seeking to implement the County's 2018 Phase 2A proposal to the extent that this is possible, and is providing financial and engineering data to support the County in ongoing negotiations with the USEPA, Ohio EPA and ORSANCO (the Regulators).

There are five projects that deviate from the County Phase 2A plan are included in this budget. The first is the inclusion of the CSO 488/490 I-75 Reconstruction Coordination project that is described in a later section. The second project is a design funding request for the Upper Muddy Creek Interceptor Replacement Phase A project. This is the portion of the sewer that is upstream of the Upper Muddy Creek Interceptor Replacement Phase B project that the BoCC approved for construction in June of 2019. The Phase A project was created when the original project was split in 2018 to create the Bridge project that will soon be constructed. The remaining, upstream portion of the sewer is also in very poor condition and is at high risk of failure. Additionally, planning funds for the Muddy Creek (Remote) Pump Station Upgrade and the Addyston Pump Station Elimination projects are included in the draft CIP budget request in order to address critical asset management needs at those facilities. Finally, a planning project for sewer separation on Vine St. and Erchenbrecher Ave., a collaborative project with the Cincinnati Zoo that is also described in a later section, is included in the request. If the County wishes, MSD can reclassify these five projects as an AM project so that these critical asset management needs can be addressed outside of the WWIP.

In addition to the additive projects listed above, MSD is also requesting a Phase 2 planning allowance in the 2021 budget. This is something not currently funded and it is intended to ensure that remaining WWIP-required projects are being planned appropriately and timely. Some projects in the County 2018 Phase 2A plan have yet to be planned. Successful execution of Phase 2A projects will require engineering planning and comprehensive validation of the proposed project scopes to confirm workable the baseline budgets and schedules for delivery. Failure to perform this work in advance of a formal commitment to Regulators significantly increases the risk of schedule delays and project costs that exceed expectations. This has been the case with the recent agreement to the Bridge plan for a small group of projects that the co-defendants agreed to undertake without complete project planning and validation, and is an avoidable situation. In addition, the furtherance of WWIP planning will facilitate ongoing Phase 2 negotiations and permit the utility to take advantage of the terms of the Consent Decree that allow for adaptive management, or the substitution of prescribed, agreed upon projects, if an equivalent overflow reduction benefit can be shown through engineering planning.

Some specific County Phase 2A projects are addressed in more detail in subsequent paragraphs within this document.

Asset Management Projects

Asset Management projects are all capital projects that the utility undertakes outside of the Consent Decree. Asset management projects are largely the result of a need for continuous reinvestment in the public sewer system, and can include some system expansions, treatment plant upgrades, and sewer replacements. MSD manages nearly three thousand miles of sewers and operates nine permitted treatment plants, in addition to more than 100 remote facilities. Parts of the MSD sewer system are over 200 years old and the district's largest treatment plants were constructed in the 1950's. With this aging system, asset management needs consistently exceed the funding available. For example, given that sewer district manages assets with a value of on the order of \$15 billion, an annual reinvestment rate of only 1% (a recommended minimum under industry standards) would amount to a \$150 million annual capital budget. In response to this situation, MSD has developed a comprehensive and sophisticated asset management system to proactively identify risks and needs in advance, seeking to prevent failures that would result in public health and safety threats or environmental hazards, and to avoid reactive repairs that are more costly than planned work and MSD has identified the most urgent priorities.

In order to ensure appropriate level of asset reinvestment, both the MSD and County Phase 2A proposals from 2018 agreed that an average annual *minimum* of \$50 million (2006\$) in capital asset management funding should be provided. Accounting for inflation, this amounts to approximately \$65 million in current dollars. As mentioned in the preceding paragraph, the minimum asset reinvestment rate should be at least 1% of total asset value, but it is recognized by all parties that many of the required WWIP projects provide a significant asset management benefit. Although current budget request falls below target annual AM spending, some CIP out-years have budgets that exceed \$50 million (2006\$). For example, the much-needed solids disposal facility that has been proposed for the Little Miami WWTP, will cost \$80 million to construct in 2022 and MSD cannot forgo all other asset management spending in that year. Although the total asset management spending will exceed \$50 million (2006\$) in 2022, this is completely consistent with the County Phase 2A plan. From page 43 of the County document:

"The Board believes that \$50 million (2006\$) per year is reasonable and appropriate at this time for CIP asset management spending, so the 5-year total asset management spending proposed for Phase 2A is \$250 million (2006\$). *MSDGC is currently developing comprehensive asset management programs for its WWTPs, pump stations and collection system. Once these programs are more fully developed, and a more comprehensive understanding of the existing asset conditions are determined, this level of required asset management may increase.*"

Sewer Backups (SBU's) and Capital Program Strategy

The Cincinnati metropolitan area continues to experience what has become a trend of more intense rainfall events with increasing frequency. Rainfall is the direct cause of sewer backups, and it is obviously a variable that MSD cannot control. While the SBU response program (assessment, cleaning, claims, etc.) is funded from the operating budget and led by the Wastewater Collection Division, the apparent changes in regional weather has led the utility to recognize the need for, and recommend funding of, a more proactive and comprehensive project-based approach to provide long term solutions. This strategy is reflected in the current budget proposal and in current capital program activity. For example, MSD is currently designing a source control solution for a neighborhood in Mt. Washington, and planning is underway for other many problem areas across the district.

For 2021, MSD recommends additional capital resources to address sewer backups. These projects go hand in hand with the SBU response program funded with the operating budget, and information collected from that program continuously informs the needs of the capital improvement program.

In the current budget proposal, the Urgent Capacity Response allowance that was funded in 2019 and 2020 has been included with an update to allow for construction. This will allow MSD to take immediate action to make small system improvements to provide quick relief where possible.

Also proposed in this budget is the Greater Cincinnati East Side SBU Mitigation Study which will initiate planning of solutions to recurring and widespread sewer backup problems in multiple areas, including Norwood, Hyde Park, and Oakley.

Bridge Projects and WWIP Projects listed as Conditional in 2020 CIP

Three Bridge projects are included in the 2021 CIP budget for construction funding. These include the CSO 513 Sewer Separation project, the CSO 214 Partial Separation project, and the CSO 83 & 472 Dynamic Underflow Control project, and the CSO 402-406.

The CSO 402-406 Wet Weather Improvement project is a Consent Decree Bridge *continuation* project (designed in the Bridge) that was included in the County's 2018 Phase 2A plan now before the Regulators. Although included in the Board-modified and approved 2020 CIP budget, this project is advancing in accordance with the schedule that was reported by MSD last year. The project could not be expedited to begin construction in 2020 due to ongoing design and right-of-way acquisition, and it is in the budget request for 2021 construction.

Of the eighteen projects listed in the 2020 Board modified and approved CIP (Exhibit C), twelve have been approved as of the date of this submittal. One of these is the Upper Muddy Creek Interceptor Replacement Phase B project, a Bridge project that was approved by the BoCC in June and is currently in construction procurement phase. Another, the CSO 198 Partial Separation project, a County Phase 2A project, was approved earlier this year so that planning could commence in 2020 per the County-proposed schedule.

2020 Conditional projects that remain unapproved include the Muddy Creek Pump Station & EHRT project, the SSO700 IWAP planning project, and the Muddy Creek IWAP planning project. These projects are discussed in more detail later in this document.

Of the remaining six unapproved projects, only the CSO 402-406 project is recommended in the 2021 CIP budget.

County Phase 2A: Muddy Creek Pump Station and EHRT

The Muddy Creek EHRT & Pump Station project is notable for its lack of appearance in the 2021 budget. This project is largest project in the County's 2018 WWIP Phase 2A proposal, and according to a July 12th communication from the County monitor, the County now seeks its completion by 2025. MSD advises that this schedule may not be possible for this large and complex project that has not yet been planned, but the utility will nevertheless endeavor to meet this goal. Initially, MSD brought forth legislation seeking approval of design funding for this project in early 2019, but the BoCC determined that this request was ahead of schedule. The 2020 CIP budget approved by the BoCC contained a budget for planning of this project, but that conditional funding was never released. The continued lack of funding for project planning has prevented MSD from developing an accurate budget, schedule, and scope and this puts the County's Phase 2A plan at risk. Rather than include the design request in the 2021 budget, MSD will submit legislation for planning and design funding as an amendment to the 2020 CIP so that the project can be implemented as expeditiously as possible.

County Phase 2A: Integrated Watershed Action Plans (IWAP) and the Water Infrastructure Improvement Act (WIIA)

At the County's request, MSD spent several years and over \$4 million studying alternatives to specific required Consent Decree projects on a project known as the SSO700 IWAP. This study was completed in 2019 and was not fruitful because there were no viable alternatives, or "early action projects", identified. Perhaps anticipating a different result, the County sought to include "SSO700 IWAP early action projects" as adaptive management projects in its 2018 Phase 2A plan. Unfortunately, there are no projects to recommend and MSD must report that this aspect of the County Phase 2A plan is not feasible. Additionally, MSD does not recommend expending additional funds on the SSO700 IWAP study as proposed in the BoCC modified and approved 2020 CIP, and those conditionally budgeted funds remain unapproved.

Furthermore, MSD is obliged to inform the BoCC that a primary component of the County IWAP philosophy is to identify and remove stormwater from the system to meet County stormwater obligations, but that this is problematic to the extent that County stormwater obligations are not necessarily MSD obligations. The use of sewer district ratepayer funds to create storm water infrastructure is limited by ORC 6117 and it is also restricted by the fourth amendment to the 1968 Agreement. In addition, MSD notes that the Regulators have repeatedly provided negative feedback on the County IWAP process, with the most recent comments delivered in a letter dated 6/29/2020. In that communication, the Regulators noted that Consent Decree implementation cannot be delayed while an

integrated plan is developed, and that while County-led efforts to engage in integrated planning at MSD began shortly after 2012, they have yet to provide any proposals that could be considered an integrated plan.

Finally, MSD must voice concern that the County IWAP philosophy overemphasizes source control and is preventing MSD from solving sewer backups (SBU's), overflowing manholes, and Consent Decree obligations by diverting resources from much needed wastewater conveyance capacity projects. Theoretical aspirations for source control have not been shown to be cost effective.

MSD's factual analysis of the flaws in the County IWAP approach does not diminish the utility's strong support for integrated planning. For the past decade, MSD's wet weather program has transitioned from planning for only traditional conveyance and storage-based solutions to a more holistic method of planning with the goal of cost effectively maximizing environmental and community benefits. Adaptive Plan reviews and substitution of green infrastructure have always been available under the WWIP. MSD's successful effort to modify the Consent Decree to allow for the Lick Run Greenway instead of the more expensive deep tunnel is a prime example of this. Although it is not recommending continuation of IWAP activities, MSD continues its significant efforts in integrated watershed planning. The ongoing work in the Muddy Creek basin is a good example of this.

In 2019, the Water Infrastructure Improvement Act (WIIA) modified the Federal Water Pollution Control Act (also known as the CWA) to codify the Integrated Planning Framework under the NPDES. WIIA also modified CWA to allow utilities to request a modification of a settlement agreement based on a compliant integrated plan. The modification of the Act does not specifically require the Regulators to incorporate green infrastructure into consent decrees, but it does require them to promote and integrate the use of green infrastructure and does not prohibit them from modifying existing agreements. WIIA enshrines in statute what the Defendants negotiated in the WWIP and MSD has been implementing for over a decade. MSD's program philosophy aligns with the WIIA to incorporate innovative elements such as smart sewers, outfall disinfection, and strategic separation of stormwater from combined sewer systems.

County Phase 2A: Mt. Washington Source Control project

The Mt. Washington Source Control project is also a Consent Decree project that was in the 2018 County Phase 2A plan with a proposed cost of \$8.2 million (2006\$), or nearly \$11 million in today's dollars. The primary purpose of the project is to provide a solution to sewer backups in a neighborhood with severe and recurring problems, with a secondary goal of providing a CSO volume reduction at CSO 182, an eventual Consent Decree requirement (Index 317). MSD's request for design funding was approved by the BoCC in May of 2019 and design efforts are currently underway. At the time of design funding approval, it was believed that the project could be designed and constructed at a cost that was significantly lower than the cost assumed in the 2018 County Phase 2A proposal (a total project cost of less than \$3 million). As design has progressed, it has become apparent that this was overly optimistic. In June of 2020, the designer reported the existence of unforeseen utility conflicts and the need for additional right-of-way acquisition were driving up costs and negatively impacting the viability of the project as proposed. As MSD reported to the BoCC on July 27th of this year, MSD is evaluating the feasibility of extending sewer separation further downstream to resolve these conflicts. This proposed change in budget and scope is completely consistent with the County Phase 2A plan.

County Phase 2A: Mill Creek WWTP EHRT

Work on the Mill Creek WWTP EHRT facility, known as Mill Creek CEPT in the WWIP, began with the 2018 approval of the Bridge schedule which called for initiation of construction of a new diversion chamber. A diversion chamber is the term used for the underground structure that connects the interceptor sewers to the pump station. The County's 2018 Phase 2A schedule proposed a project called "Mill Creek EHRT, Complete Diversion Chamber". This was proposed in recognition that the funding proposed in the Bridge schedule would not suffice to complete the required structure(s). In 2019, the County chose to accelerate their Phase 2A project by funding the entire Diversion Chamber. As such, this project is currently under construction and no additional activity or funding will be required for Phase 2A for this phase of the Mill Creek EHRT project.

With that said, it should be noted that the Bridge project was originally initiated because of:

- 1) **Asset Management need:** The existing Mill Creek pump station, the district's largest, is deteriorating and is seen as MSD's highest risk asset. Multiple failures of large gates and concrete structures have been observed over the past several years. These cannot be repaired without taking the pump station offline because of how the facility was designed, before a treatment plant existed, and when it was acceptable to discharge 100 million gallons per day of raw sewage into the Mill Creek for an extended period of time. Construction of the new Diversion Chamber will allow for a new, modern, maintainable pump station to be constructed while the existing pump station remains in 24/7 operation. In addition, the new Diversion Chamber will provide a location to place temporary pumps that could mitigate an environmental disaster by allowing for limited pumping capacity in the event that the existing diversion chamber (a weak link) fails before the new pump station has been constructed.
- 2) **WWIP need:** Under the terms of the federal Consent Decree, MSD is required to construct a wet weather facility at the Mill Creek WWTP. This facility will require additional pumping capacity that the existing pumping facility cannot provide. Because of the large cost of the complete project, the Regulators agreed to a phased construction approach.

It should be noted that the benefit of the Diversion Chamber currently being constructed does not provide wet weather benefit, or significant asset management benefits, until the additional phases are designed and constructed. Consistent with the County Phase 2A plan MSD is not proposing additional funding for future construction phases in the 2021 CIP budget but recommends that the design of the next phase begin as soon as possible.

County Phase 2A: Little Miami Standby Power, Duke Rider, and Pump Station Upgrades

The County Phase 2A plan contains multiple projects at the Little Miami WWTP. The Little Miami Standby Power project will be designed so that construction can proceed in 2021, and a request for construction funding appears in the 2021 budget request. As previously reported by MSD, the County's proposed "Duke Rider Cost" is an ongoing operating expense and the County has not explained how this can be capitalized or considered to be a WWIP project.

In accordance with the 2018 County Phase 2A proposal, MSD can proceed with design of the Little Miami Pump Station Upgrades if funding is made available. However, MSD has not been provided information from the County about the proposed scope of these projects. Although planning was completed in 2014, the proposed upgrades were not separated into two projects as is the case in the County Phase 2A plan and MSD has not been provided with additional information. A request for design funding is not currently in the 2021 CIP draft budget. However, with feedback from the County on the intended scope of these projects, MSD can develop a design funding request that can be included in the final 2021 capital budget, or in a later budget year.

Collaborative Projects: ODOT and Cincinnati Zoo

In the 2020 draft budget request, MSD has included a project called CSO 488/490 I-75 Reconstruction Coordination. This WWIP project was a "Bucket D", or low priority project in MSD's January 2020 Validation Report. Since that time, the Ohio Department of Transportation (ODOT) has contacted MSD to seek collaboration and coordination on this project with their ongoing construction project in the Interstate 75 corridor, and if MSD were to revise the Validation this would now be a "Bucket A", or highest priority, project.

Because we cannot alter the ODOT construction schedule, there is a small window of opportunity for a collaborative effort, ODOT will proceed with construction that, despite meeting permitting requirements, would increase the overflow volume at CSO 488. This increase in overflow volume would need to be addressed by MSD in the future, at the sole expense of the ratepayers, in order to meet the requirements of Index 442 in Attachment 2 of the Final WWIP. For this collaborative project, MSD is requesting \$1 million in 2020.

The Vine Street & Erchenbrecher Ave Sewer Separation project is a collaborative effort with the Cincinnati Zoo that will address old, failing sewers while separating and diverting stormwater to a detention facility that will be constructed by MSD and the Zoo as a part of its new parking facility. The Zoo will treat the diverted stormwater and use it for animal care needs within the park. The 2021 request is to initiate planning, at a cost of \$750,000. This planning collaboration cannot be delayed as it must align with the schedule of the Zoo's capital improvement plan.

**Metropolitan Sewer District of Greater Cincinnati
Capital Budget and Capital Improvement Program
Year 2021**

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Glossary of Terms

Abbreviation

Description

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
RDI/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

ANNUAL CIP LEGISLATION ASSUMPTIONS

The development of this CIP was based on several key assumptions that are defined below:

Escalation, Inflation, and Labor Inflation

Per MSD's Financial Analysis Manual:

a. Escalation = 3.5% b. Inflation = 2.1% c. Labor Inflation = 3.0%

Planning / Study

The cost for planning or study, during any stage of the planning phase. May be performed by MSD personnel and or by consultant contract.

Design

The cost for detailed design during the design phase. May be performed by MSD personnel and or by consultant contract.

Pre Construction Services

Prior to 2020, this included the cost of MSD personnel performing support functions during the planning and design phases. These costs are now captured in an Allowance for MSD Labor.

Miscellaneous Expense

The cost of all permit fees paid directly by MSD during the design phase. These costs include, but are not limited to, PTI, street opening permit, building permits, 401 permits. In addition, costs may include utility relocations and demolition if not handled during construction.

Right of Way

The cost of easement acquisition by MSD personnel, professional services for appraisal and title opinions, appropriation costs, court costs, and compensation paid to property owners for easements during the design phase.

Construction

The bid cost to construct the project as estimated by the engineer, including startup and commissioning costs if required for project.

Construction Services

The cost for construction phase professional services, as needed, including construction management, construction inspection, field engineering and other related costs.

Interest/Financing

The cost of interest charged prior to the asset being placed in service. This is only applied to projects that have a prospective borrowing, such as projects financed through OPEA low interest loan program. Most 2021 CIP Projects will proceed with bond financing, so the value is shown as \$0.

MSD Labor

The cost for MSD project planning, design and delivery related activities, including project management, construction management, construction inspection, field engineering, and other project-related personnel costs.

2020 - 2024 CIP

The schedule for the Phase 2 WWIP remains under development by the City and County in preparation for anticipated Regulatory discussions. Individual projects to be advanced are subject to change pending on-going engineering or affordability considerations. Due to the evolving nature of these evaluations and their direct impact on future regulatory compliance, the Projects associated with the future Phase 2 WWIP have not been included in this CIP.

Legislated Costs

Legislated costs include costs that have been previously legislated and legislation anticipated to be approved during 2020. Due to this assumption, it may be the case that some legislated costs may not have been approved at the time of drafting this document.

Cost Estimates

Project costs have been estimated and based on industry best practice and AACE International guidelines. In general, most P D E projects are considered as a Class 5 estimates based on the maturity of the scope development and have an expected accuracy range of -50% to +100%. Construction projects are based on an Engineer's Opinion of Probable Costs (OPCC) and will be reflective of the estimate class at the time of the budget update.

Project Schedules

Project schedules are established based on the use of a standard template developed for the type and size of the project. The schedules are then refined to address project specific issues or complexities, such as alternative delivery method, hydraulic physical modeling, or extensive ROW acquisition requirements. In general, the schedule templates for conveyance projects account for a typical ROW activity and duration. This is not included in most facility projects. All schedules are created and maintained in Primavera P6 and updated on a regular basis to reflect the current forecasted completion of the remaining milestones.



2021 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

Planning/Design/Easement Funding Request (Exhibit A)

Project No	CIP Type	Project Type	Project Name	P/D/E Funds Requested
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Planning)	\$550,000
10130280	WWIP	PSE	Addyston Pump Station Elimination (Planning)	\$159,382
10140417	WWIP	ALW	WWIP Phase 1 Construction Compliance Assurance (Design)	\$4,222,000
10142420	WWIP	SEP	Vine Street at Erkenbrecher Avenue Sewer Separation (Planning)	\$750,000
10190221	WWIP	ALW	Phase 2 WWIP Planning 2021 (Planning)	\$5,000,000
11142741	WWIP	SEP	CSO 488 490 I-75 Reconstruction Coordination (Design)	\$60,000
11530000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Design)	\$558,100
10199021	OTHER	ALW	Program Management and Support Services 2021 (Design)	\$6,500,000
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000
10230150	ASSET	REP	Addyston Creek and Sewer Rehab (Design)	\$50,000
10230655	ASSET	REP	Muddy Creek Road and Rosebud Drive Sewer Replacement (Planning)	\$68,000
10232025	ASSET	REP	3731 Glenmore Avenue Sewer Evaluation (Planning)	\$32,000
10240200	ASSET	REP	Harvey Ave-Hickman Ave Sewer Replacement (Design,Easement)	\$745,500
10240755	ASSET	REP	Victory Parkway at Ledgewood Drive Sewer Replacement (Design,Easement)	\$525,000
10240760	ASSET	REP	Highland and Burnet Sewer Replacement (Design,Easement)	\$366,350
10240775	ASSET	REP	Gilbert Avenue at Casino Sewer Replacement (Design,Easement)	\$502,700
10240820	ASSET	REP	Reading Road at Stewart Place Sewer Replacement (Design,Easement)	\$366,000
10240845	ASSET	REP	Taft Road & McMillan Street Sewer Replacement (Planning)	\$420,000
10240855	ASSET	REP	Connecticut Avenue Sewer Replacement (Design,Easement)	\$752,400
10241905	ASSET	SUP	Congress Run Stream Restoration and Bank Stabilization (Planning)	\$166,000
10242025	ASSET	REP	Davey Avenue to Hamilton Avenue Sewer Replacement (Design,Easement)	\$330,500
10242035	ASSET	REP	Reading Road - 12th Street to E Liberty Street Sewer Replacement (Design,Easement)	\$438,400
10242085	ASSET	PSE	Village Woods Pump Station and System Improvements (Design,Easement)	\$166,000
10242120	ASSET	REP	Elberon Avenue Sewer (Planning)	\$120,000
10242125	ASSET	REP	Sycamore Street Sewer (Planning)	\$180,000
10270220	ASSET	REP	Tusculum Avenue at Woodbridge Sewer Replacement (Design)	\$61,200
10272030	ASSET	REP	Ridge Avenue (HN 5053) Sewer Replacement (Design,Easement)	\$76,500
10272050	ASSET	PSE	Wayside Hills Pump Station Replacement (Planning)	\$150,000
10280241	ASSET	ALW	Hydraulic Modeling 2021 (Planning)	\$1,200,000
10281100	ASSET	FAC	LMWWTP Solids Disposal With Odor Control (Design)	\$5,505,825
10282021	ASSET	ALW	CIP Planning Projects 2021 (Planning)	\$1,000,000
10282221	ASSET	ALW	CIP Planning Asset Management Conveyance Projects 2021 (Planning)	\$1,100,000
11582000	ASSET	STY	Greater Cincinnati East Side SBU Mitigation Study (Planning)	\$1,000,000
33 Planning/Design/Easement Projects in 2021				\$ 38,121,857

FY 2021 MSD CIP Funding Request
Metropolitan Sewer District of Greater Cincinnati
Estimate of Construction
Detailed Project Estimated Cost (Exhibit B)

ID#	CIP#	Project Name	Location	Explanation/Description	Legislation Type	Resolution 1	Resolution 2	Resolution 3	Current Request	WWIP	AM	Proj Start	Proj End
10180121	NA	Main Sewer Renewal Program 2021	Throughout the MSD service area	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.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ 6,000,000.00	X		Jan 2021	Dec 2021
10180221	NA	Manhole Renewal Program 2021	Throughout the MSD service area	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.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ 973,300.00	X		Jan 2021	Dec 2021
10281321	NA	Prioritized Wastewater Collection System Improvements 2021	Throughout the MSD service area	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.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ 12,000,000.00	X		Jan 2021	Dec 2021
10280721	NA	Critical Asset Management Projects 2021	Throughout the MSD service area	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.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ 6,000,000.00	X		Jan 2021	Dec 2021
Total									\$ 24,973,300.00				

**FY 2021 MSD CIP Funding Request
Metropolitan Sewer District of Greater Cincinnati
Estimate of Construction
Detailed Project Estimated Cost (Exhibit B)**

ID#	CIP#	Project Name	Planning	Design	Pre-Construction Services	Miscellaneous Expense	Right Of Way	Construction	Contingency	Construction Services	Interest / Financing	Total
10180121	NA	Main Sewer Renewal Program 2021	\$ -	\$ -	\$ -	\$ -	\$ -	6,000,000.00	\$ -	\$ -	\$ -	6,000,000.00
10180221	NA	Manhole Renewal Program 2021	\$ -	\$ -	\$ -	\$ -	\$ -	873,000.00	\$ -	100,000.00	\$ -	973,000.00
10281321	NA	Prioritized Wastewater Collection System Improvements 2021	\$ -	\$ -	\$ -	\$ -	\$ -	10,000,000.00	\$ -	2,000,000.00	\$ -	12,000,000.00
10280721	NA	Critical Asset Management Projects 2021	\$ -	\$ -	\$ -	\$ -	\$ -	6,000,000.00	\$ -	\$ -	\$ -	6,000,000.00
Total											\$ 24,973,000.00	

Approved this _____ day of _____, 2020
Board of County Commissioners
Hamilton County, Ohio

Ryan Welsh, P.E.
Deputy Director, MSD
Hamilton County Sanitary Engineer
(for the purposes of the Metropolitan Sewer District of Greater Cincinnati
as authorized in the Resolution of February 28, 2007, Comm. Minutes, Vol. 305, Images 4190-4191)
City of Cincinnati Department of Sewers



2021 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

Project ID	Project Category	Project Type	Project Name	2021 Total Requested	Total Project Cost
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Planning)	\$550,000	\$9,258,586
10130280	WWIP	PSE	Addyston Pump Station Elimination (Planning)	\$159,382	\$3,335,893
10131021	WWIP	CSO	CSO 402-406 Wet Weather Improvements (Construction)	\$14,018,000	\$16,485,000
10140417	WWIP	ALW	WWIP Phase 1 Construction Compliance Assurance (Design)	\$4,222,000	\$6,968,000
10142200	WWIP	SEP	CSO 513 Sewer Separation (Construction)	\$3,802,700	\$4,638,011
10142420	WWIP	SEP	Vine Street at Erkenbrecher Avenue Sewer Separation (Planning)	\$750,000	\$26,700,000
10171641	WWIP	SEP	CSO 214 Partial Separation (Construction)	\$1,273,700	\$2,253,900
10172900	WWIP	FAC	LMWWTP Standby Power (Construction)	\$17,325,000	\$18,558,300
10180121	WWIP	ALW	Main Sewer Renewal Program 2021 (Construction)	\$6,000,000	\$6,000,000
10180221	WWIP	ALW	Manhole Renewal Program 2021 (Construction)	\$973,000	\$973,000
10190221	WWIP	ALW	Phase 2 WWIP Planning 2021 (Planning)	\$5,000,000	\$5,000,000
10270170	WWIP	CSO	CSO 83 and 472 Dynamic Underflow Control (Construction)	\$2,989,000	\$3,860,025
11142741	WWIP	SEP	CSO 488 490 I-75 Reconstruction Coordination (Design,Construction)	\$1,000,000	\$1,074,000
11530000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Design)	\$558,100	\$11,000,188
10199021	OTHER	ALW	Program Management and Support Services 2021 (Design)	\$6,500,000	\$6,500,000
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000	\$39,254,242
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000	\$30,000,000
10230130	ASSET	REP	Dry Weather Channel for SS 937 (Construction)	\$3,177,000	\$4,394,405
10230150	ASSET	REP	Addyston Creek and Sewer Rehab (Design)	\$50,000	\$819,283
10230655	ASSET	REP	Muddy Creek Road and Rosebud Drive Sewer Replacement (Planning)	\$68,000	\$735,000
10232015	ASSET	FAC	MUWWTP Thickening Replacement and Pumping Improvements (Construction)	\$3,350,000	\$3,860,000
10232025	ASSET	REP	3731 Glenmore Avenue Sewer Evaluation (Planning)	\$32,000	\$566,000



2021 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

Project ID	Project Category	Project Type	Project Name	2021 Total Requested	Total Project Cost
10240055	ASSET	FAC	MCWWTP Liquid Sludge Storage Tank Covers and Odor Control (Construction)	\$7,898,393	\$8,419,139
10240180	ASSET	REP	3934 Winding Way Sewer Replacement (Construction)	\$388,300	\$539,677
10240200	ASSET	REP	Harvey Ave-Hickman Ave Sewer Replacement (Design,Easement)	\$745,500	\$2,190,377
10240360	ASSET	PSE	Timbers Pump Station Elimination (Construction)	\$1,773,000	\$2,065,579
10240380	ASSET	CSO	CSO 005 Water Connection (Construction)	\$134,300	\$274,789
10240455	ASSET	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation (Construction)	\$344,833	\$962,379
10240495	ASSET	REP	Wahl Terrace Sewer Replacement (Construction)	\$658,400	\$921,054
10240545	ASSET	REP	Central Parkway Sewer Replacement (HN 2402) (Construction)	\$495,600	\$696,211
10240625	ASSET	FAC	MCWWTP Standby Power Distribution System Improvements (Construction)	\$3,733,000	\$4,197,000
10240697	ASSET	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Construction)	\$1,144,000	\$1,376,000
10240755	ASSET	REP	Victory Parkway at Ledgewood Drive Sewer Replacement (Design,Easement)	\$525,000	\$1,485,000
10240760	ASSET	REP	Highland and Burnet Sewer Replacement (Design,Easement)	\$366,350	\$2,485,050
10240775	ASSET	REP	Gilbert Avenue at Casino Sewer Replacement (Design,Easement)	\$502,700	\$5,427,400
10240820	ASSET	REP	Reading Road at Stewart Place Sewer Replacement (Design,Easement)	\$366,000	\$666,000
10240845	ASSET	REP	Taft Road & McMillan Street Sewer Replacement (Planning)	\$420,000	\$11,602,500
10240855	ASSET	REP	Connecticut Avenue Sewer Replacement (Design,Easement)	\$752,400	\$3,078,400
10241905	ASSET	SUP	Congress Run Stream Restoration and Bank Stabilization (Planning)	\$166,000	\$2,679,000
10242025	ASSET	REP	Davey Avenue to Hamilton Avenue Sewer Replacement (Design,Easement)	\$330,500	\$1,042,600
10242035	ASSET	REP	Reading Road - 12th Street to E Liberty Street Sewer Replacement (Design,Easement)	\$438,400	\$3,258,600



2021 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

Project ID	Project Category	Project Type	Project Name	2021 Total Requested	Total Project Cost
10242085	ASSET	PSE	Village Woods Pump Station and System Improvements (Design,Easement)	\$166,000	\$690,000
10242120	ASSET	REP	Elberon Avenue Sewer (Planning)	\$120,000	\$1,770,000
10242125	ASSET	REP	Sycamore Street Sewer (Planning)	\$180,000	\$2,935,000
10262005	ASSET	FAC	SCWWTP Thickening and Settlement Improvements (Construction)	\$950,000	\$1,270,000
10270175	ASSET	REP	East Hill Ave Sewer Replacement (Construction)	\$1,765,728	\$2,167,228
10270220	ASSET	REP	Tusculum Avenue at Woodbridge Sewer Replacement (Design)	\$61,200	\$310,200
10272030	ASSET	REP	Ridge Avenue (HN 5053) Sewer Replacement (Design,Easement)	\$76,500	\$441,400
10272050	ASSET	PSE	Wayside Hills Pump Station Replacement (Planning)	\$150,000	\$2,262,500
10280241	ASSET	ALW	Hydraulic Modeling 2021 (Planning)	\$1,200,000	\$1,200,000
10280721	ASSET	ALW	Critical Asset Management Projects 2021 (Construction)	\$6,000,000	\$6,000,000
10281100	ASSET	FAC	LMWWTP Solids Disposal With Odor Control (Design)	\$5,505,825	\$90,891,325
10281321	ASSET	ALW	Prioritized Wastewater Collection System Improvements 2021 (Construction)	\$12,000,000	\$12,000,000
10282021	ASSET	ALW	CIP Planning Projects 2021 (Planning)	\$1,000,000	\$1,000,000
10282221	ASSET	ALW	CIP Planning Asset Management Conveyance Projects 2021 (Planning)	\$1,100,000	\$1,100,000
10630000	ASSET	SUP	Muddy Creek FEMA Property Acquisition & Floodplain Reconfiguration (Construction)	\$500,000	\$700,000
11582000	ASSET	STY	Greater Cincinnati East Side SBU Mitigation Study (Planning)	\$1,000,000	\$1,000,000
57 CIP Projects for 2021				\$134,755,811	\$381,338,241

2021 WWIP Projects



2021 Projects

Metropolitan Sewer District of Greater Cincinnati

WWIP Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Planning)	\$550,000	\$0	\$550,000	13
10130280	WWIP	PSE	Addyston Pump Station Elimination (Planning)	\$159,382	\$0	\$159,382	14
10131021	WWIP	CSO	CSO 402-406 Wet Weather Improvements (Construction)	\$14,018,000	\$0	\$14,018,000	15
10140417	WWIP	ALW	WWIP Phase 1 Construction Compliance Assurance (Design)	\$4,222,000	\$0	\$4,222,000	16
10142200	WWIP	SEP	CSO 513 Sewer Separation (Construction)	\$3,802,700	\$0	\$3,802,700	17
10142420	WWIP	SEP	Vine Street at Erkenbrecher Avenue Sewer Separation (Planning)	\$750,000	\$0	\$750,000	18
10171641	WWIP	SEP	CSO 214 Partial Separation (Construction)	\$1,273,700	\$0	\$1,273,700	19
10172900	WWIP	FAC	LMWWTP Standby Power (Construction)	\$17,325,000	\$0	\$17,325,000	20
10180121	WWIP	ALW	Main Sewer Renewal Program 2021 (Construction)	\$6,000,000	\$0	\$6,000,000	21
10180221	WWIP	ALW	Manhole Renewal Program 2021 (Construction)	\$973,000	\$0	\$973,000	22
10190221	WWIP	ALW	Phase 2 WWIP Planning 2021 (Planning)	\$5,000,000	\$0	\$5,000,000	23
10270170	WWIP	CSO	CSO 83 and 472 Dynamic Underflow Control (Construction)	\$2,989,000	\$0	\$2,989,000	24
11142741	WWIP	SEP	CSO 488 490 I-75 Reconstruction Coordination (Design,Construction)	\$1,000,000	\$0	\$1,000,000	25
11530000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Design)	\$558,100	\$0	\$558,100	26
Total Cost for 14 WWIP CIP Projects				\$58,620,882	\$0	\$58,620,882	

2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Muddy Creek PSU & Force Main		
Project ID	10130161	CIP Number	10130161 CD Index # 216 PN# 08
Project Type	Pump Station Improvement/Elim	Sewer Number	

Purpose and Justification

This project is required by the Global Consent Decree as part of the West Branch Muddy Creek Bundle. This project will upgrade the Muddy Creek Pump Station to provide increased capacity. The flow will continue to be conveyed to the West Branch Muddy Creek Interceptor. This is associated with Index 216 in Attachment 2 of the Final WWIP.

Impact to Operating Budget

None

Description and Location

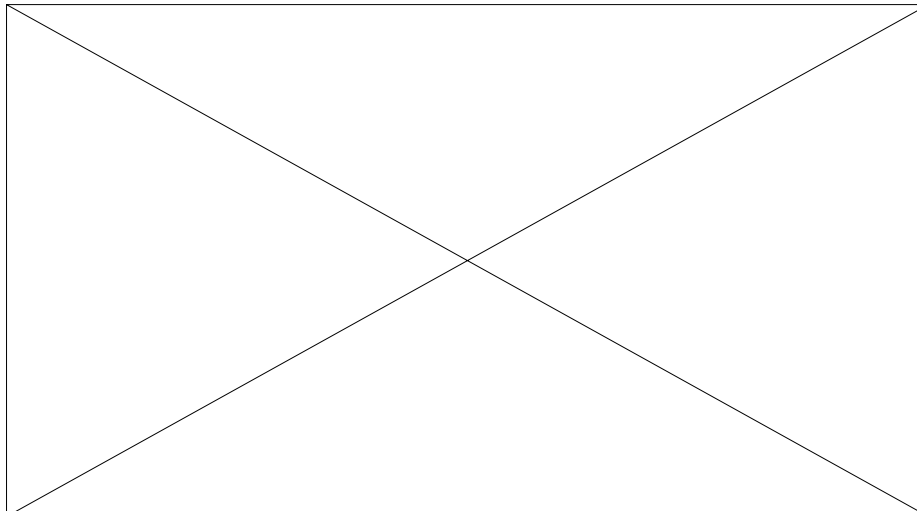
This project consists of the upgrade of the Muddy Creek Pump Station at 7513 Gracely Drive. Although the capacity of the pump station will be increased to a firm capacity of 10.5 MGD, the flows will continue to be conveyed to the West Branch Muddy Creek Interceptor. This project is located in the neighborhood of Saylor Park in the City of Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$250,594	\$0	\$550,000	\$0	\$550,000
Design	\$390,046	\$0	\$0	\$1,600,000	\$1,600,000
Pre-Construction Services	\$380,902	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$96,586	\$0	\$0	\$96,586	\$96,586
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$4,655,468	\$0	\$0	\$5,762,000	\$5,762,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$651,766	\$0	\$0	\$1,250,000	\$1,250,000
Interest / Financing	\$105,806	\$0	\$0	\$0	\$0
Total	\$6,531,168	\$0	\$550,000	\$8,708,586	\$9,258,586

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$550,000	\$1,696,586	\$7,012,000	\$0	\$0	\$9,258,586

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

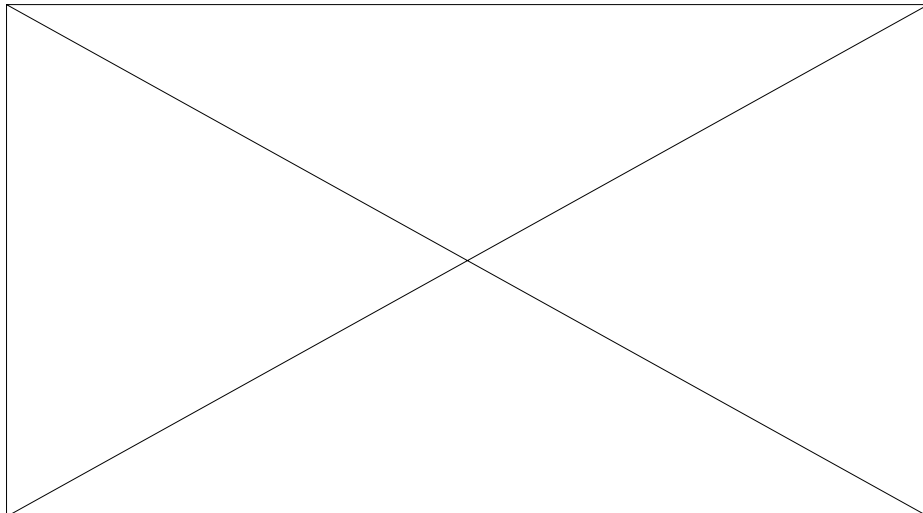
Department	Metropolitan Sewer District of Greater Cincinnati			
Project Title	Addyston Pump Station Elimination			
Project ID	10130280	CIP Number	10130280	CD Index #235 PN# 16
Project Type	Pump Station Improvement/Elim	Sewer Number		

Purpose and Justification This project will eliminate the aging Addyston Pump Station and provide inline storage using a flow control device that will limit the total flow into the Muddy Creek Pump Station to 10.5 MGD from the Muddy Creek Interceptor and Addyston Area. This is associated with Index 235 in Attachment 2 of the Final WWIP	Impact to Operating Budget None.
	Description and Location This project will eliminate the Addyston Pump Station by installation of approximately 2700 feet of 36-inch gravity sewer along US 50. This sewer will also serve as a storage pipe. This project is located in the Village of Addyston.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$159,382	\$0	\$159,382	\$0	\$159,382
Design	\$230,192	\$0	\$0	\$500,000	\$500,000
Pre-Construction Services	\$185,509	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$73,906	\$0	\$0	\$73,906	\$73,906
Right-of-Way	\$17,851	\$0	\$0	\$17,851	\$17,851
Construction	\$2,267,328	\$0	\$0	\$2,267,328	\$2,267,328
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$317,426	\$0	\$0	\$317,426	\$317,426
Interest / Financing	\$51,530	\$0	\$0	\$0	\$0
Total	\$3,303,124	\$0	\$159,382	\$3,176,511	\$3,335,893

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$159,382	\$591,757	\$0	\$0	\$2,584,754	\$3,335,893

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 402-406 Wet Weather Improvements		
Project ID	10131021	CIP Number	10131021 CD Index # 218-222
Project Type	CSO Improvement/Elim	Sewer Number	6746

Purpose and Justification

This project is required by the Wet Weather Consent Decree. It is listed in Index 218-222 of Attachment 2 to the Final WWIP as part of the West Branch Muddy Creek Bundle. The project will improve compliance with the Ohio EPA's Nine Minimum Controls Program whereby MSD is required to prevent river water from entering the collection system to the greatest extent possible.

Impact to Operating Budget

None.

Description and Location

This project will provide the design and construction of improvements to existing CSO 402-406. The five CSO projects(10131020,10131040,10131060,10131080,and 10131100) have been combined into one project. Improvements include backflow prevention and regulator control modifications. This project is located in the Saylor Park Neighborhood of the City of Cincinnati, Hamilton County, Ohio.

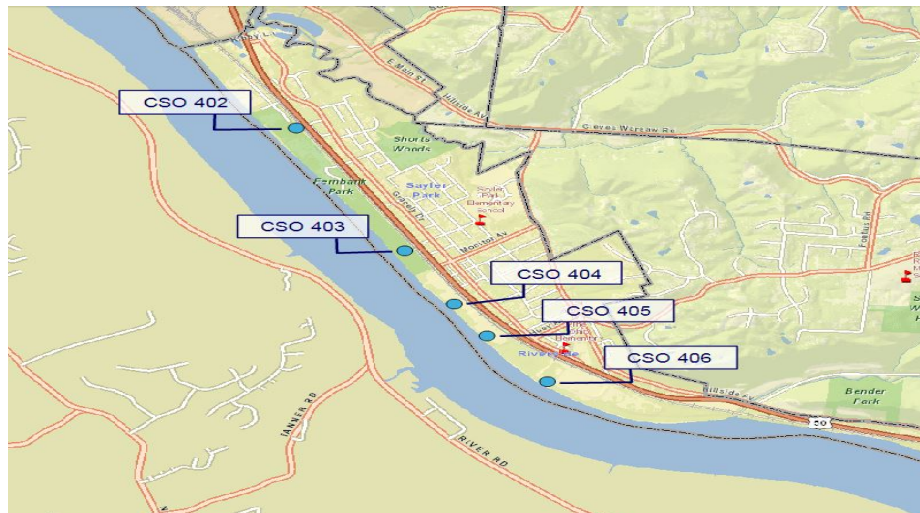
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$737,200	\$1,327,800	\$0	\$0	\$1,327,800
Pre-Construction Services	\$393,400	\$640,100	\$0	\$0	\$640,100
Miscellaneous Expense	\$138,100	\$282,000	\$0	\$0	\$282,000
Right-of-Way	\$122,000	\$217,100	\$0	\$0	\$217,100
Construction	\$10,452,700	\$0	\$13,668,000	\$0	\$13,668,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$1,041,300	\$0	\$350,000	\$0	\$350,000
Interest / Financing	\$563,200	\$0	\$0	\$0	\$0
Total	\$13,447,900	\$2,467,000	\$14,018,000	\$0	\$16,485,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$2,467,000	\$14,018,000	\$0	\$0	\$0	\$0	\$16,485,000

Prior Legislation Action

Dec 2017, Sep 2019



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	WWIP Phase 1 Construction Compliance Assurance		
Project ID	10140417	CIP Number	10140417 CD Index # 112
Project Type	Allowance	Sewer Number	6740

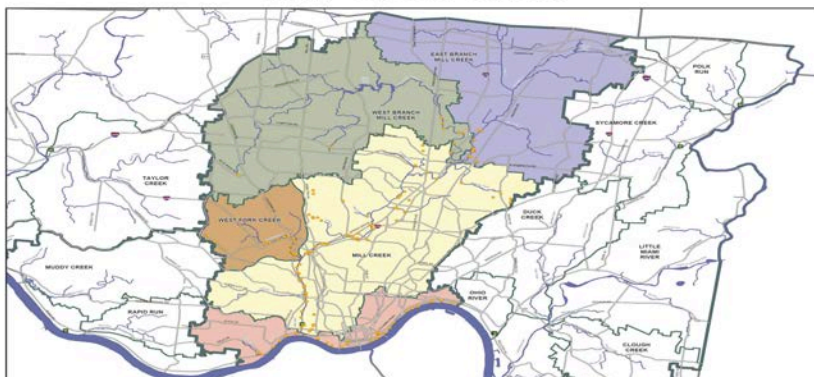
Purpose and Justification This is a consent decree requirement as agreed to in the submitted PCMP required by the WWIP.	Impact to Operating Budget None.
	Description and Location MSDGC must demonstrate compliance with the LMCP and other Wet Weather Improvement Program's (WWIP's) Performance Criteria applicable to combined sewer overflows (CSOs) by post-construction monitoring and modeling as part of the Post Construction Monitoring Plan (PCMP). This CIP is for the planning, flow monitoring, hydraulic modeling, and assistance with regulatory negotiations for that project.

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	\$2,746,000	\$4,222,000	\$0	\$6,968,000
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
Total	\$0	\$2,746,000	\$4,222,000	\$0	\$6,968,000

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$2,746,000	\$4,222,000	\$0	\$0	\$0	\$6,968,000

Prior Legislation Action
 Dec 2017, Feb 2020

Mill Creek Basin



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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	\$375,311	\$0	\$0	\$375,311
Pre-Construction Services	\$146,300	\$160,000	\$0	\$0	\$160,000
Miscellaneous Expense	\$97,500	\$40,000	\$0	\$0	\$40,000
Right-of-Way	\$0	\$210,000	\$0	\$0	\$210,000
Construction	\$2,568,700	\$50,000	\$3,738,000	\$0	\$3,788,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$254,300	\$0	\$64,700	\$0	\$64,700
Interest / Financing	\$127,200	\$0	\$0	\$0	\$0
Total	\$3,603,300	\$835,311	\$3,802,700	\$0	\$4,638,011

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$835,311	\$3,802,700	\$0	\$0	\$0	\$0	\$4,638,011

Prior Legislation Action

Dec 2017, Sep 2018, Mar 2019, Aug 2019, Jan 2020, Jun 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Vine Street at Erkenbrecher Avenue Sewer Separation		
Project ID	10142420	CIP Number	10142420 CD Index #74, 112
Project Type	Sewer Separation	Sewer Number	

Purpose and Justification

The nominated project is an opportunity to address multiple extreme risk sewer assets in the area. It will address capacity issues in the sewer system via strategic sewer separation. Additionally, through coordination with the zoo it will achieve net-zero on-site water usage. This will have a positive impact on the flow in the sewer system and reduce overflows. Based on existing information, the pipes are candidates for rehabilitation. The project will further evaluate and investigate the sewers in this area for structural condition as well as capacity. Alternatives analysis will be conducted and evaluated to provide the best course of action in the project area.

Impact to Operating Budget

Description and Location

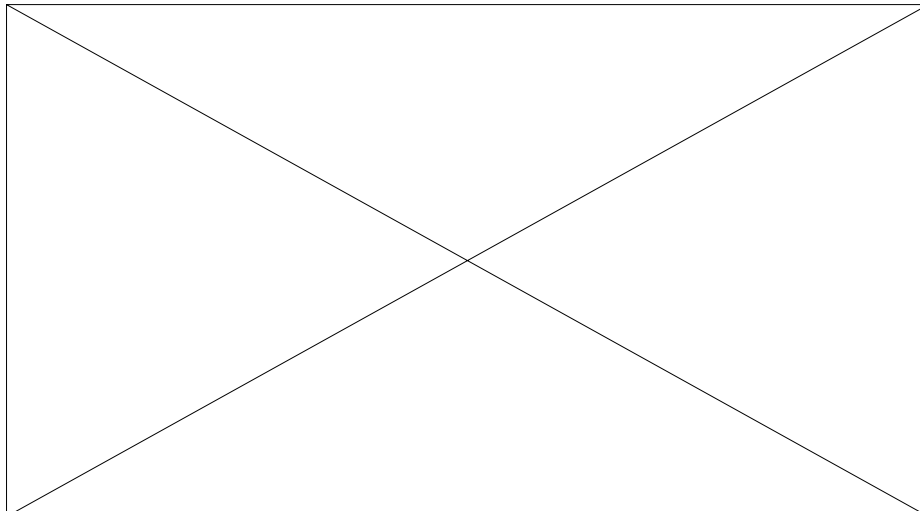
The nominated project is located in the vicinity of Vine Street and Erkenbrecher Avenue, within Clifton and Corryville neighborhoods, in the City of Cincinnati. It will be conducted in coordination with Cincinnati Zoo. The project area includes many extreme risk combined sewer lines. The planning effort will include several activities such as, CCTV inspection, condition assessment, flow monitoring, model updates, alternatives analysis. Based on the data, information, and the analysis a BCE will be developed.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$750,000	\$0	\$750,000	\$0	\$750,000
Design	\$1,500,000	\$0	\$0	\$1,500,000	\$1,500,000
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$1,200,000	\$0	\$0	\$1,200,000	\$1,200,000
Right-of-Way	\$750,000	\$0	\$0	\$750,000	\$750,000
Construction	\$20,000,000	\$0	\$0	\$20,000,000	\$20,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$2,500,000	\$0	\$0	\$2,500,000	\$2,500,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$26,700,000	\$0	\$750,000	\$25,950,000	\$26,700,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$750,000	\$3,450,000	\$0	\$0	\$22,500,000	\$26,700,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 214 Partial Separation		
Project ID	10171641	CIP Number	10171641 CD Index #188R
Project Type	Sewer Separation	Sewer Number	6744

Purpose and Justification

The project is required by the Wet Weather Consent Decree. Per the Consent Decree, CSO 214 remaining overflow volume during the typical year shall be 57.4 MG or less. This project will strategically separate the drainage to CSO 214 to reduce the flows to CSO 214 regulator.

Impact to Operating Budget

None.

Description and Location

This project involves strategic separation of approximately 55 acres of CSO 214 sewer shed. Existing inlets in a ravine to the CSO sewer will be plugged or elevated to allow large flows to enter the combined sewers for events greater than the Typical Year. The existing storm outlet will be improved to convey storm flow from CSO 214 directly to Yononte Creek, which is a tributary to Duck Creek. Additional modeling to be performed by MSD, Bridge project to be completed by end of 2020. This project is located in Columbia Township, Hamilton County, Ohio.

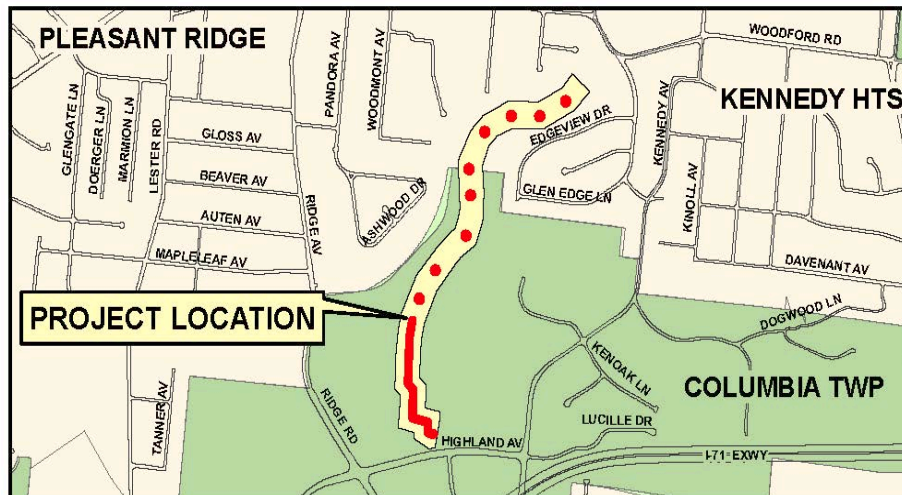
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$278,000	\$0	\$0	\$278,000
Pre-Construction Services	\$0	\$110,000	\$0	\$0	\$110,000
Miscellaneous Expense	\$0	\$112,200	\$0	\$0	\$112,200
Right-of-Way	\$0	\$480,000	\$0	\$0	\$480,000
Construction	\$2,403,000	\$0	\$1,233,700	\$0	\$1,233,700
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$315,000	\$0	\$40,000	\$0	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$2,718,000	\$980,200	\$1,273,700	\$0	\$2,253,900

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$980,200	\$1,273,700	\$0	\$0	\$0	\$0	\$2,253,900

Prior Legislation Action

Dec 2017



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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 WWIP.

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	\$1,033,300	\$0	\$0	\$1,033,300
Pre-Construction Services	\$160,652	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$94,722	\$200,000	\$0	\$0	\$200,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$4,417,919	\$0	\$15,400,000	\$0	\$15,400,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$823,340	\$0	\$1,925,000	\$0	\$1,925,000
Interest / Financing	\$100,407	\$0	\$0	\$0	\$0
Total	\$5,972,396	\$1,233,300	\$17,325,000	\$0	\$18,558,300

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$1,233,300	\$17,325,000	\$0	\$0	\$0	\$18,558,300

Prior Legislation Action
Jan 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

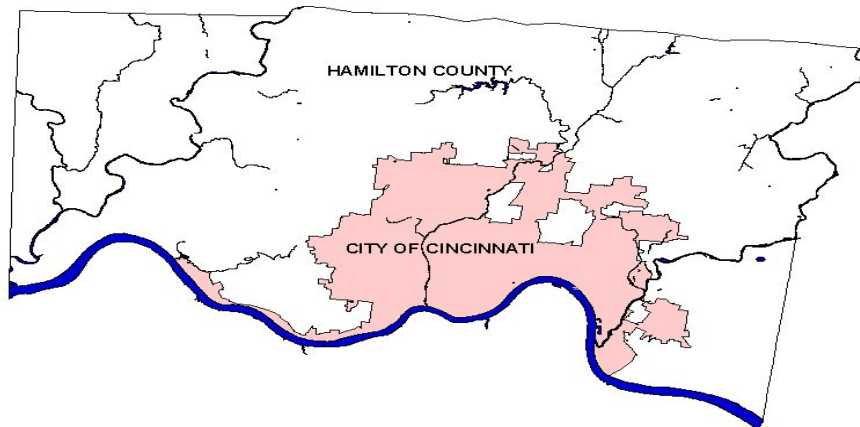
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Main Sewer Renewal Program 2021		
Project ID	10180121	CIP Number	10180121 CD Index #000
Project Type	Allowance	Sewer Number	

<p>Purpose and Justification</p> <p>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.</p>	<p>Impact to Operating Budget</p> <p>None.</p>
	<p>Description and Location</p> <p>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, and jack-and-boring. 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.</p>

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	\$10,000,000	\$0	\$6,000,000	\$0	\$6,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$3,000,000	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$13,000,000	\$0	\$6,000,000	\$0	\$6,000,000

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$6,000,000	\$0	\$0	\$0	\$0	\$6,000,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Manhole Renewal Program 2021		
Project ID	10180221	CIP Number	10180221 CD Index #000
Project Type	Allowance	Sewer Number	

Purpose and Justification

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.

Impact to Operating Budget

None.

Description and Location

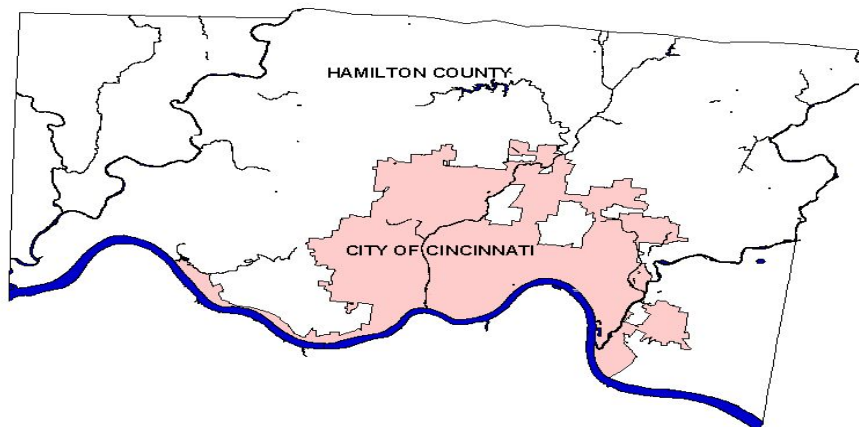
This program provides a cost effective method of rehabilitating structurally deteriorated manholes throughout the system. Manhole rehab projects are prioritized based on their risk ranking relative to structural condition and the likelihood and consequence of failure. The scope of work for the program will include manhole repairs, replacement manholes and adjustments and chimney repairs necessary in conjunction with paving projects.

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	\$873,000	\$0	\$873,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$100,000	\$0	\$100,000	\$0	\$100,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$1,300,000	\$0	\$973,000	\$0	\$973,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$973,000	\$0	\$0	\$0	\$0	\$973,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Phase 2 WWIP Planning 2021		
Project ID	10190221	CIP Number	10190221 CD Index #
Project Type	Allowance	Sewer Number	7048

<p>Purpose and Justification</p> <p>MSD will track work comprised of planning and preparation activities associated with Phase 2 of the District's Wet Weather Improvement Plan.</p>	<p>Impact to Operating Budget</p>
	<p>Description and Location</p> <p>This funding will provide ongoing support for the technical evaluations and support for the capital program, regulatory and affordability needs for the Phase 2A program.</p>

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$5,000,000	\$0	\$5,000,000
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
Total	\$0	\$0	\$5,000,000	\$0	\$5,000,000

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$5,000,000	\$0	\$0	\$0	\$0	\$5,000,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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

Purpose and Justification

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.

Impact to Operating Budget

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.

Description and Location

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.

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
Total	\$2,839,810	\$871,025	\$2,989,000	\$0	\$3,860,025

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$871,025	\$2,989,000	\$0	\$0	\$0	\$0	\$3,860,025

Prior Legislation Action

Dec 2014, Mar 2015, Oct 2015, Dec 2016, Aug 2017, Jan 2019



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 488/490 I-75 Reconstruction Coordination		
Project ID	11142741	CIP Number	CD Index #453R
Project Type	Sewer Separation	Sewer Number	6408

Purpose and Justification

The MSD ODOT collaboration represent a rare opportunity to reduce CSOs, perform asset management, improve water quality, and position the service area for future growth in I-75 corridor. These improvements are being coordinated not only with ODOT, but DOTE, Public Services, City Planning, and other City departments and neighborhood stakeholders. Numerous agreements are complete or in development, with some projects are in construction, in the context of goals stated in the Revive Cincinnati report.

Impact to Operating Budget

None.

Description and Location

CSO 488 I-75 Reconstruction Coordination will coordinate highway separations, stormwater crossings of I-75, water quality improvements, and asset management improvements critical to CSO 488 sewershed with ODOT's I-75 reconstruction. The project is located in the Carthage 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	\$0	\$28,000	\$0	\$0	\$28,000
Pre-Construction Services	\$0	\$39,000	\$0	\$0	\$39,000
Miscellaneous Expense	\$0	\$6,000	\$60,000	\$0	\$66,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$1,558,000	\$0	\$900,000	\$0	\$900,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$55,000	\$0	\$40,000	\$0	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$1,613,000	\$73,000	\$1,000,000	\$0	\$1,073,000

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$73,000	\$1,000,000	\$0	\$0	\$0	\$1,073,000

Prior Legislation Action
Jul 2014



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Upper Muddy Creek Interceptor Replacement		
Project ID	11530000	CIP Number	11530000 CD Index #233, 234 PN# 06
Project Type	Sewer Replacement	Sewer Number	6281

Purpose and Justification

The project will replace the upper portion of the Muddy Creek Interceptor that was originally installed around 1929 and 1935. The existing sewer is aging and deteriorating and needs to be relocated. The project will also increase available underflow capacity from CSO 522, the Werk & Westbourne EHRT, CSO 198, and CSO 518 to mitigate overflows presently caused by surcharging from entering Muddy Creek.

Impact to Operating Budget

None.

Description and Location

The project consist of installing approximately 3,300 LF of 30-inch sewer from south of the Werk & Westbourne EHRT (near Werk Road and Westbourne Drive) to the intersection of Muddy Creek Road and Westbourne Drive and approximately 2,300 LF of 36-inch sewer from the intersection of Westbourne Drive and Muddy Creek Road west to near CSO 518. The project may include regulator improvements at CSO 198 and CSO 518. This project is located in Green Township.

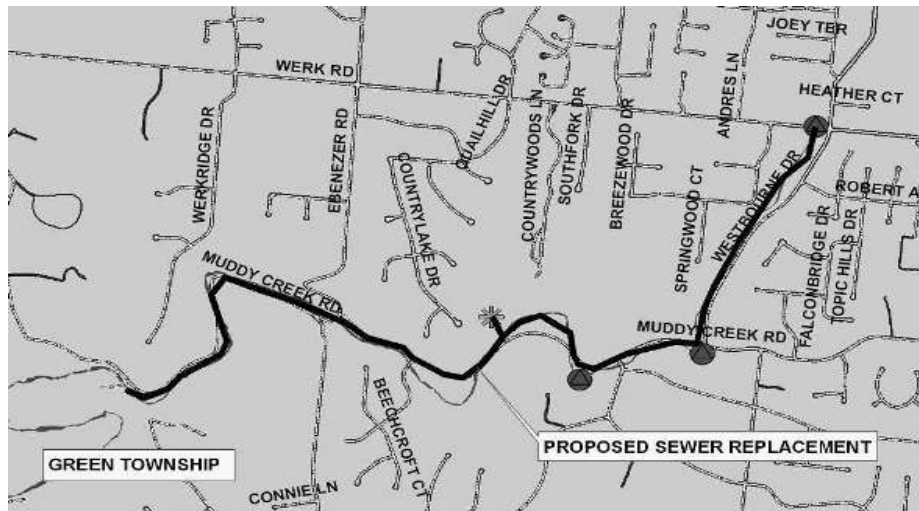
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$98,960	\$0	\$0	\$98,960
Design	\$1,186,900	\$1,206,534	\$558,100	\$0	\$1,764,634
Pre-Construction Services	\$1,437,400	\$1,437,400	\$0	\$0	\$1,437,400
Miscellaneous Expense	\$346,700	\$247,740	\$0	\$0	\$247,740
Right-of-Way	\$524,400	\$524,400	\$0	\$0	\$524,400
Construction	\$23,956,500	\$0	\$0	\$6,662,000	\$6,662,000
Program Management	\$0	\$145,054	\$0	\$0	\$145,054
Construction Services	\$320,400	\$0	\$0	\$120,000	\$120,000
Interest / Financing	\$2,994,600	\$0	\$0	\$0	\$0
Total	\$30,766,900	\$3,660,088	\$558,100	\$6,782,000	\$11,000,188

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$3,660,088	\$558,100	\$0	\$0	\$6,782,000	\$0	\$11,000,188

Prior Legislation Action

Dec 2011, Jan 2014, May 2014, Mar 2015



2021 ASSET Projects



2021 Projects

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
10230130	ASSET	REP	Dry Weather Channel for SS 937 (Construction)	\$3,177,000	\$0	\$3,177,000	30
10230150	ASSET	REP	Addyston Creek and Sewer Rehab (Design)	\$50,000	\$0	\$50,000	31
10230655	ASSET	REP	Muddy Creek Road and Rosebud Drive Sewer Replacement (Planning)	\$68,000	\$0	\$68,000	32
10232015	ASSET	FAC	MUWWTP Thickening Replacement and Pumping Improvements (Construction)	\$3,350,000	\$0	\$3,350,000	33
10232025	ASSET	REP	3731 Glenmore Avenue Sewer Evaluation (Planning)	\$32,000	\$0	\$32,000	34
10240055	ASSET	FAC	MCWWTP Liquid Sludge Storage Tank Covers and Odor Control (Construction)	\$7,898,393	\$0	\$7,898,393	35
10240180	ASSET	REP	3934 Winding Way Sewer Replacement (Construction)	\$388,300	\$0	\$388,300	36
10240200	ASSET	REP	Harvey Ave-Hickman Ave Sewer Replacement (Design,Easement)	\$745,500	\$0	\$745,500	37
10240360	ASSET	PSE	Timbers Pump Station Elimination (Construction)	\$1,773,000	\$0	\$1,773,000	38
10240380	ASSET	CSO	CSO 005 Water Connection (Construction)	\$134,300	\$0	\$134,300	39
10240455	ASSET	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation (Construction)	\$344,833	\$0	\$344,833	40
10240495	ASSET	REP	Wahl Terrace Sewer Replacement (Construction)	\$658,400	\$0	\$658,400	41
10240545	ASSET	REP	Central Parkway Sewer Replacement (HN 2402) (Construction)	\$495,600	\$0	\$495,600	42
10240625	ASSET	FAC	MCWWTP Standby Power Distribution System Improvements (Construction)	\$3,733,000	\$0	\$3,733,000	43
10240697	ASSET	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Construction)	\$1,144,000	\$0	\$1,144,000	44
10240755	ASSET	REP	Victory Parkway at Ledgewood Drive Sewer Replacement (Design,Easement)	\$525,000	\$0	\$525,000	45
10240760	ASSET	REP	Highland and Burnet Sewer Replacement (Design,Easement)	\$366,350	\$0	\$366,350	46
10240775	ASSET	REP	Gilbert Avenue at Casino Sewer Replacement (Design,Easement)	\$502,700	\$0	\$502,700	47
10240820	ASSET	REP	Reading Road at Stewart Place Sewer Replacement (Design,Easement)	\$366,000	\$0	\$366,000	48
10240845	ASSET	REP	Taft Road & McMillan Street Sewer Replacement (Planning)	\$420,000	\$0	\$420,000	49
10240855	ASSET	REP	Connecticut Avenue Sewer Replacement (Design,Easement)	\$752,400	\$0	\$752,400	50
10241905	ASSET	SUP	Congress Run Stream Restoration and Bank Stabilization (Planning)	\$166,000	\$0	\$166,000	51
10242025	ASSET	REP	Davey Avenue to Hamilton Avenue Sewer Replacement (Design,Easement)	\$330,500	\$0	\$330,500	52
10242035	ASSET	REP	Reading Road - 12th Street to E Liberty Street Sewer Replacement (Design,Easement)	\$438,400	\$0	\$438,400	53



2021 Projects

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
10242085	ASSET	PSE	Village Woods Pump Station and System Improvements (Design,Easement)	\$166,000	\$0	\$166,000	54
10242120	ASSET	REP	Elberon Avenue Sewer (Planning)	\$120,000	\$0	\$120,000	55
10242125	ASSET	REP	Sycamore Street Sewer (Planning)	\$180,000	\$0	\$180,000	56
10262005	ASSET	FAC	SCWWTP Thickening and Settlement Improvements (Construction)	\$950,000	\$0	\$950,000	57
10270175	ASSET	REP	East Hill Ave Sewer Replacement (Construction)	\$1,765,728	\$0	\$1,765,728	58
10270220	ASSET	REP	Tusculum Avenue at Woodbridge Sewer Replacement (Design)	\$61,200	\$0	\$61,200	59
10272030	ASSET	REP	Ridge Avenue (HN 5053) Sewer Replacement (Design,Easement)	\$76,500	\$0	\$76,500	60
10272050	ASSET	PSE	Wayside Hills Pump Station Replacement (Planning)	\$150,000	\$0	\$150,000	61
10280241	ASSET	ALW	Hydraulic Modeling 2021 (Planning)	\$1,200,000	\$0	\$1,200,000	62
10280721	ASSET	ALW	Critical Asset Management Projects 2021 (Construction)	\$6,000,000	\$0	\$6,000,000	63
10281100	ASSET	FAC	LMWWTP Solids Disposal With Odor Control (Design)	\$5,505,825	\$0	\$5,505,825	64
10281321	ASSET	ALW	Prioritized Wastewater Collection System Improvements 2021 (Construction)	\$12,000,000	\$0	\$12,000,000	65
10282021	ASSET	ALW	CIP Planning Projects 2021 (Planning)	\$1,000,000	\$0	\$1,000,000	66
10282221	ASSET	ALW	CIP Planning Asset Management Conveyance Projects 2021 (Planning)	\$1,100,000	\$0	\$1,100,000	67
10630000	ASSET	SUP	Muddy Creek FEMA Property Acquisition & Floodplain Reconfiguration (Construction)	\$500,000	\$0	\$500,000	68
11582000	ASSET	STY	Greater Cincinnati East Side SBU Mitigation Study (Planning)	\$1,000,000	\$0	\$1,000,000	69
Total Cost for 40 ASSET Projects				\$59,634,929	\$0	\$59,634,929	

2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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 WWTP during dry weather. This project is located in Green Township, Hamilton County, Ohio.

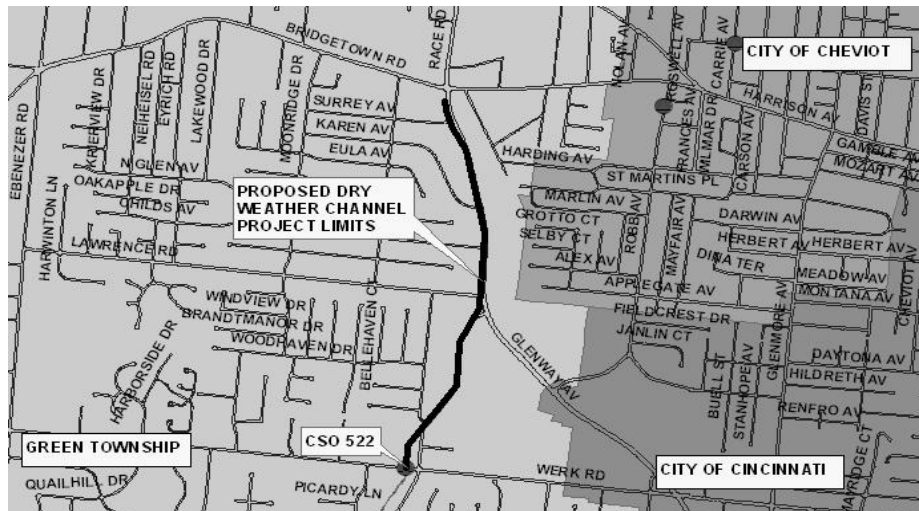
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$120,011	\$0	\$0	\$120,011
Design	\$244,900	\$290,700	\$0	\$0	\$290,700
Pre-Construction Services	\$67,300	\$67,300	\$0	\$0	\$67,300
Miscellaneous Expense	\$42,500	\$42,500	\$0	\$616,500	\$659,000
Right-of-Way	\$65,700	\$65,700	\$0	\$0	\$65,700
Construction	\$1,701,000	\$0	\$3,127,000	\$0	\$3,127,000
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
Total	\$2,219,400	\$600,905	\$3,177,000	\$616,500	\$4,394,405

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$600,905	\$3,177,000	\$616,500	\$0	\$0	\$0	\$4,394,405

Prior Legislation Action

May 2013, May 2014, Mar 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Addyston Creek and Sewer Rehab		
Project ID	10230150	CIP Number	CD Index #000
Project Type	Sewer Replacement	Sewer Number	6453

Purpose and Justification

The West Fork Muddy Creek is unstable and has shifted causing damage to the 12-inch diameter sewer from manhole 11801005 to manhole 11801001 and manhole 11810112. Pipe segment 11801003-11801002 fell away from the hillside due to erosion in August 2011. Manhole 11801002 collapsed in July 2010 and was repaired. The sewer segments further south of this segment are protected by a vertical retaining wall that has fallen away and needs to be repaired.

Impact to Operating Budget

None.

Description and Location

The Addyston Creek and Sewer Rehab project, is located along the West Fork Muddy Creek between Church Street and 1st Street, in the Village of Addyston, in the Muddy Creek Basin. The project will construct a new 21-inch diameter sewer on the East side of the West Fork Muddy Creek, fill seal, and abandon the existing 8-inch and 18-inch diameter sewer and replace the fallen retaining wall on the West side of the West Fork Muddy Creek.

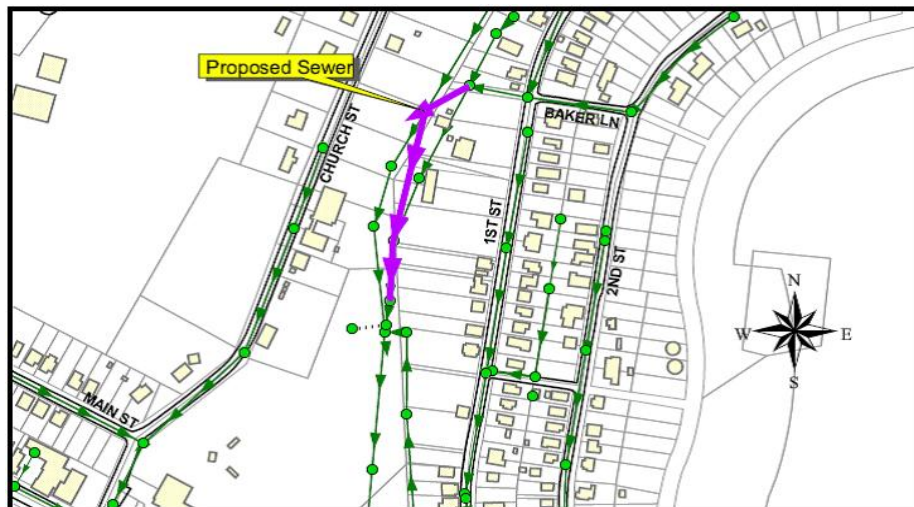
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$31,942	\$0	\$0	\$31,942
Design	\$73,000	\$98,923	\$50,000	\$0	\$148,923
Pre-Construction Services	\$27,900	\$56,800	\$0	\$0	\$56,800
Miscellaneous Expense	\$74,500	\$57,500	\$0	\$0	\$57,500
Right-of-Way	\$14,944	\$43,544	\$0	\$0	\$43,544
Construction	\$464,400	\$0	\$0	\$452,000	\$452,000
Program Management	\$0	\$3,574	\$0	\$0	\$3,574
Construction Services	\$46,900	\$0	\$0	\$25,000	\$25,000
Interest / Financing	\$5,800	\$0	\$0	\$0	\$0
Total	\$707,444	\$292,283	\$50,000	\$477,000	\$819,283

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$292,283	\$50,000	\$477,000	\$0	\$0	\$0	\$819,283

Prior Legislation Action

Dec 2013, May 2014, Nov 2014, Nov 2015, Dec 2017



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Muddy Creek Road and Rosebud Drive Sewer Replacement		
Project ID	10230655	CIP Number	10230655 CD Index #000
Project Type	Sewer Replacement	Sewer Number	6771

Purpose and Justification

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. Additional high risk sewers exist within the project scope. Modeling indicates capacity issues for local sewer segments at the intersection of Rosebud Dr & Muddy Creek Rd, but a parallel interceptor just to the south appears to have capacity to accept additional flow. Multiple sewer complaints in the area reinforce the suspected capacity issues.

Impact to Operating Budget

None

Description and Location

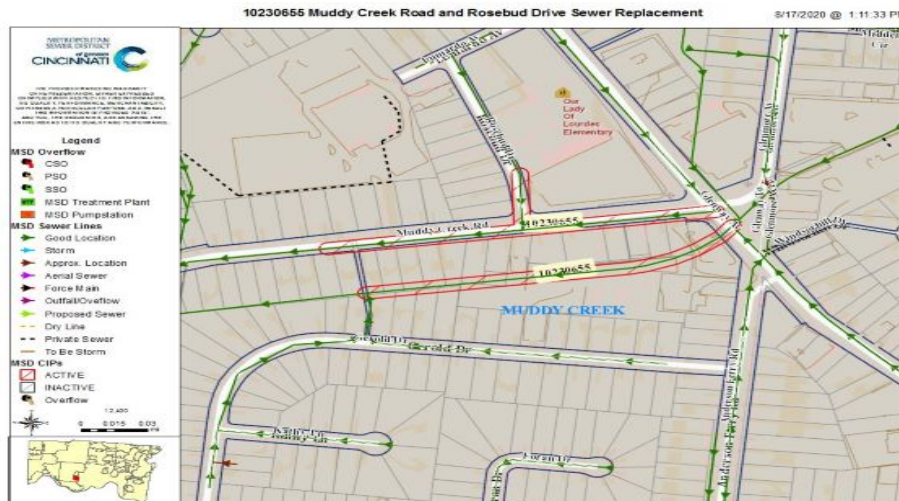
The project will replace or rehab structurally deficient, 24" VCP sewers, as well as investigate the feasibility and possible construction of a relief sewer to a nearby interceptor.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$68,000	\$0	\$68,000
Design	\$86,000	\$0	\$0	\$86,000	\$86,000
Pre-Construction Services	\$15,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$120,000	\$0	\$0	\$120,000	\$120,000
Right-of-Way	\$7,500	\$0	\$0	\$9,000	\$9,000
Construction	\$400,000	\$0	\$0	\$400,000	\$400,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$52,000	\$0	\$0	\$52,000	\$52,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$680,500	\$0	\$68,000	\$667,000	\$735,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$68,000	\$215,000	\$0	\$0	\$452,000	\$735,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	MUWWTP Thickening Replacement and Pumping Improvements		
Project ID	10232015	CIP Number	10232015 CD Index #
Project Type	Treatment Facility	Sewer Number	6982

Purpose and Justification

This project was identified as a priority project in MSD's Solids Handling Master Plan and is intended to address failing assets at the plant. The existing gravity belt thickeners have reached the end of their useful life and will be replaced as part of this project. Thickening building modifications are required to accommodate the replacement equipment. Additionally, waste activated sludge (WAS) at the facility is double pumped and improvements will be made to eliminate this double pumping when replacing pumps.

Impact to Operating Budget

None

Description and Location

This project will include the replacement of existing gravity belt thickeners, thickening building modifications to accommodate replacement equipment, new polymer skid and bulk storage, odor control, and feed pumps. It will also eliminate waste activated sludge (WAS) double pumping when replacing pumps and replace aging primary sludge pumps and controls. This project is located within the MUWWTP in the Saylor Park neighborhood of the City of Cincinnati.

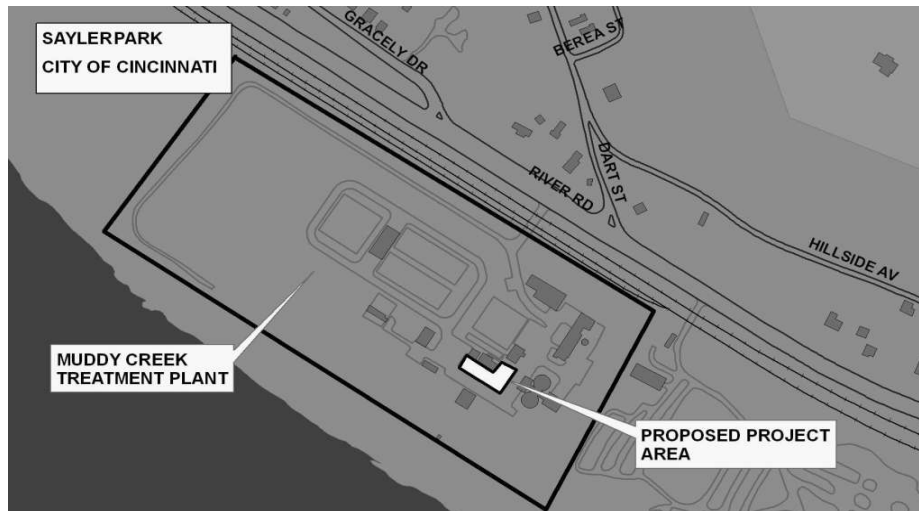
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$67,634	\$0	\$0	\$67,634
Design	\$325,000	\$402,366	\$0	\$0	\$402,366
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$40,000	\$40,000	\$0	\$0	\$40,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$1,929,000	\$0	\$3,000,000	\$0	\$3,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$239,000	\$0	\$350,000	\$0	\$350,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$2,533,000	\$510,000	\$3,350,000	\$0	\$3,860,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$510,000	\$3,350,000	\$0	\$0	\$0	\$0	\$3,860,000

Prior Legislation Action

Feb 2020, Apr 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	3731 Glenmore Avenue Sewer Evaluation		
Project ID	10232025	CIP Number	10232025 CD Index #N/A
Project Type	Sewer Replacement	Sewer Number	7045

Purpose and Justification

In 2011 WWC nominated 9 pipe segments for structural condition, capacity, and location beneath a structure. Previous planning efforts recommended CIPP Lining, but WWC has requested re-evaluation of that recommendation. The planning project is to evaluate alternatives to address the condition and location of the sewer.

Impact to Operating Budget

Description and Location

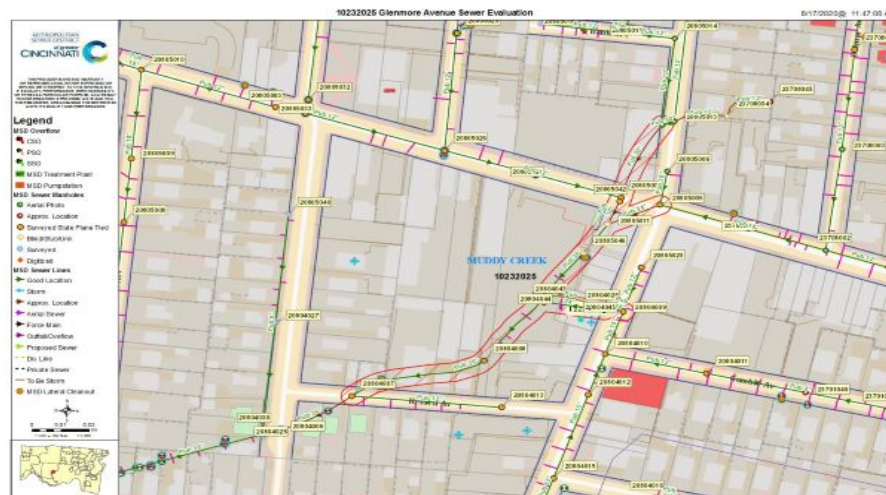
The project is located in Green Township, Hamilton County, near the intersection of Glenmore Avenue and Harrison Avenue. Planning efforts include CCTV inspection, local flow monitoring, model updates, alternatives analysis, and development of a BCE with recommendation. The project includes approximately 975 feet of 24 to 36 inch sewer.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$66,000	\$0	\$32,000	\$0	\$32,000
Design	\$83,000	\$0	\$0	\$83,000	\$83,000
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$71,000	\$0	\$0	\$71,000	\$71,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$380,000	\$0	\$0	\$380,000	\$380,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$600,000	\$0	\$32,000	\$534,000	\$566,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$32,000	\$154,000	\$0	\$0	\$380,000	\$566,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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.

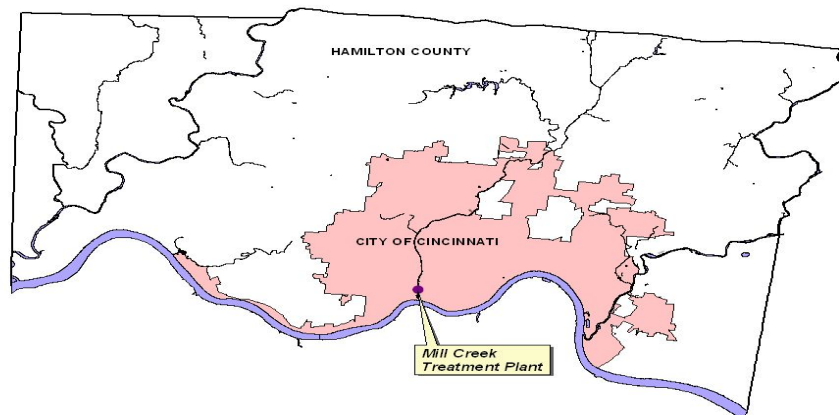
Description and Location

This project will provide an engineering design for new covers for existing sludge holding tanks A1 and A2. The scope will include demolition of the existing covers, design of the new covers, 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	\$7,473,393	\$0	\$7,473,393
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$718,000	\$0	\$425,000	\$0	\$425,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$4,668,000	\$520,746	\$7,898,393	\$0	\$8,419,139

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$520,746	\$7,898,393	\$0	\$0	\$0	\$8,419,139

Prior Legislation Action
Dec 2017, Aug 2019, Jul 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	3934 Winding Way Sewer Replacement		
Project ID	10240180	CIP Number	2008-42 CD Index #000
Project Type	Sewer Replacement	Sewer Number	6250

Purpose and Justification

This project will abandon a severely deteriorated sewer and redirect one house connection. The abandoned sewer will be filled and sealed.

Impact to Operating Budget

None.

Description and Location

This project will abandon 652 feet of deteriorated 12" and 18" combined sewer and relocate the lateral serving 3934 Winding Way to the Winding Way combined sewer.

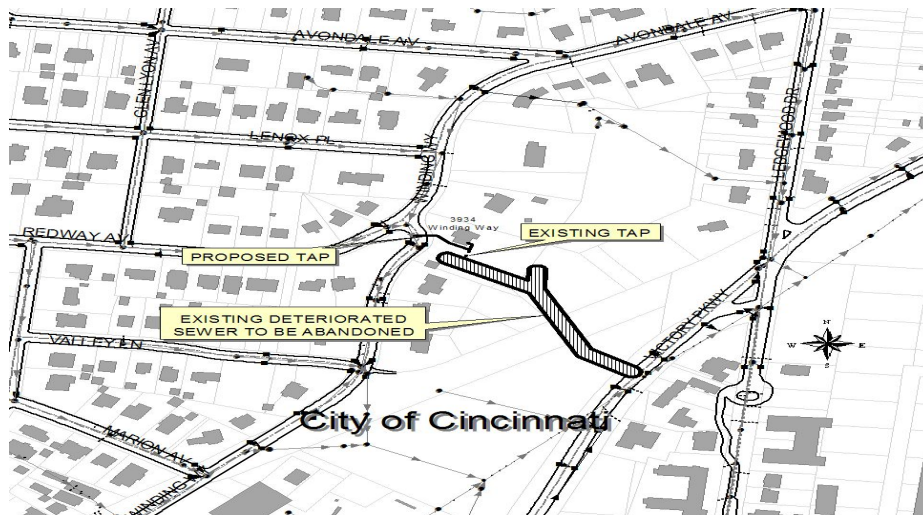
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$2,189	\$0	\$0	\$2,189
Design	\$10,400	\$0	\$0	\$0	\$0
Pre-Construction Services	\$2,800	\$78,500	\$0	\$0	\$78,500
Miscellaneous Expense	\$5,200	\$28,700	\$0	\$0	\$28,700
Right-of-Way	\$34,300	\$39,400	\$0	\$0	\$39,400
Construction	\$73,300	\$0	\$337,800	\$0	\$337,800
Program Management	\$0	\$2,588	\$0	\$0	\$2,588
Construction Services	\$38,000	\$0	\$50,500	\$0	\$50,500
Interest / Financing	\$800	\$0	\$0	\$0	\$0
Total	\$164,800	\$151,377	\$388,300	\$0	\$539,677

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$151,377	\$388,300	\$0	\$0	\$0	\$0	\$539,677

Prior Legislation Action

Dec 2007, Dec 2009, May 2014, Nov 2014, Jan 2019, Feb 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Harvey Ave-Hickman Ave Sewer Replacement		
Project ID	10240200	CIP Number	2008-45 CD Index #
Project Type	Sewer Replacement	Sewer Number	6647

Purpose and Justification

The purpose of this project is to replace a deteriorated 24" sewer and reduce maintenance costs. This project will also increase capacity and facilitate redevelopment in the area near Jewish Hospital.

Impact to Operating Budget

None

Description and Location

This project is located in Reading Road, Ridgeway Avenue, and Harvey Avenue in the Cincinnati neighborhood of Avondale. This project will construct about 4000 feet of sewer and abandon an existing deteriorated 24" sewer.

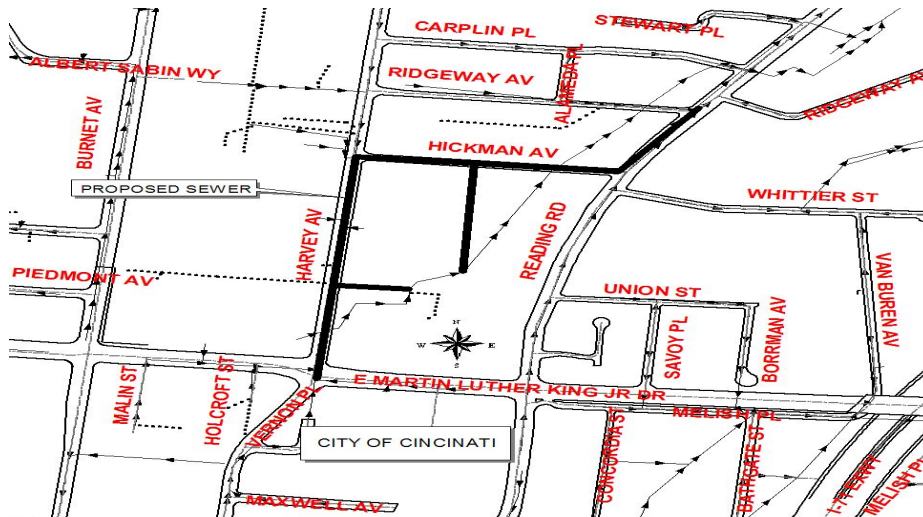
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$190,000	\$0	\$250,000	\$0	\$250,000
Pre-Construction Services	\$109,600	\$4,308	\$500	\$0	\$4,808
Miscellaneous Expense	\$390,000	\$0	\$390,000	\$0	\$390,000
Right-of-Way	\$105,000	\$176	\$105,000	\$0	\$105,176
Construction	\$1,660,200	\$0	\$0	\$1,400,000	\$1,400,000
Program Management	\$0	\$394	\$0	\$0	\$394
Construction Services	\$262,700	\$0	\$0	\$40,000	\$40,000
Interest / Financing	\$86,700	\$0	\$0	\$0	\$0
Total	\$2,804,200	\$4,878	\$745,500	\$1,440,000	\$2,190,378

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$4,878	\$745,500	\$0	\$0	\$1,440,000	\$0	\$2,190,378

Prior Legislation Action

Dec 2007, May 2014, Aug 2017, Apr 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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

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.

Impact to Operating Budget

None.

Description and Location

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.

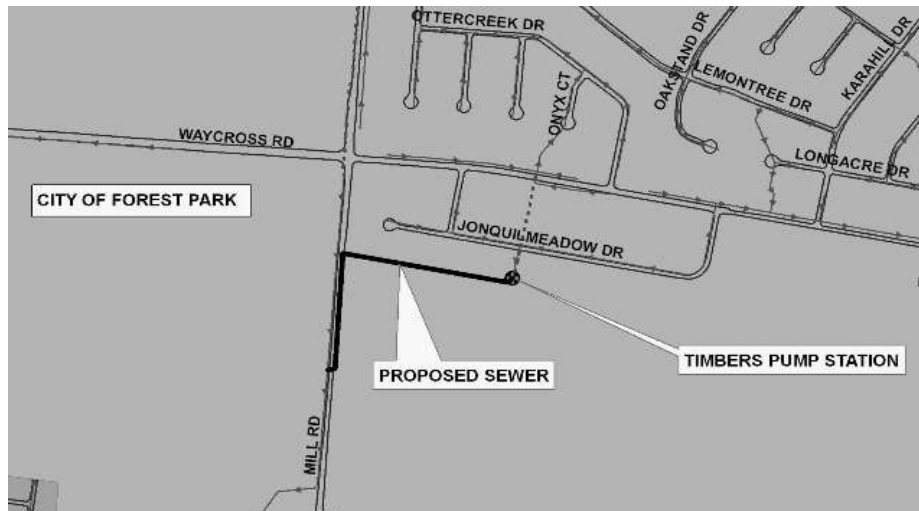
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$5,262	\$0	\$0	\$5,262
Design	\$166,500	\$0	\$0	\$0	\$0
Pre-Construction Services	\$41,200	\$207,700	\$0	\$0	\$207,700
Miscellaneous Expense	\$51,000	\$51,000	\$0	\$0	\$51,000
Right-of-Way	\$21,900	\$21,900	\$0	\$0	\$21,900
Construction	\$1,371,100	\$0	\$1,773,000	\$0	\$1,773,000
Program Management	\$0	\$6,718	\$0	\$0	\$6,718
Construction Services	\$64,500	\$0	\$0	\$0	\$0
Interest / Financing	\$22,400	\$0	\$0	\$0	\$0
Total	\$1,738,600	\$292,580	\$1,773,000	\$0	\$2,065,580

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$292,580	\$1,773,000	\$0	\$0	\$0	\$0	\$2,065,580

Prior Legislation Action

Dec 2012, May 2014, Nov 2014



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 005 Water Connection		
Project ID	10240380	CIP Number	10240380 CD Index #000
Project Type	CSO Improvement/Elim	Sewer Number	6334

Purpose and Justification

This CSO facility allows combined sewage to overflow into the Mill Creek at times when the capacity of the 24-inch underflow pipe has been exceeded. The facility was recently upgraded with Real Time Control in order to take advantage of storage capacity in the existing Lick Run Trunk Sewer. MSD has discovered that using the CSO chamber for storage results in a substantial buildup of sediment. This project will provide a safe and effective means for cleaning and removal of sediment at the CSO facility, which is necessary in order to stay in compliance with the CSO NPDES permit.

Impact to Operating Budget

None.

Description and Location

MSD proposes to construct a permanent water service connection from the 8" water main on Queen City Ave. 270 linear feet of 6-inch ductile iron pipe water service, one Railroad crossing, a water cannon, a yard hydrant with 2.5-inch diameter house connection hose and other appurtenance. During design it was determined any connection to the 36" water main on site would be temporary because water main is to be relocated as part of the Lick Run Valley Conveyance System, therefore the service lateral was extended to the nearest active main. This project is located in the South Fairmount neighborhood of the City of Cincinnati, Hamilton County, Ohio.

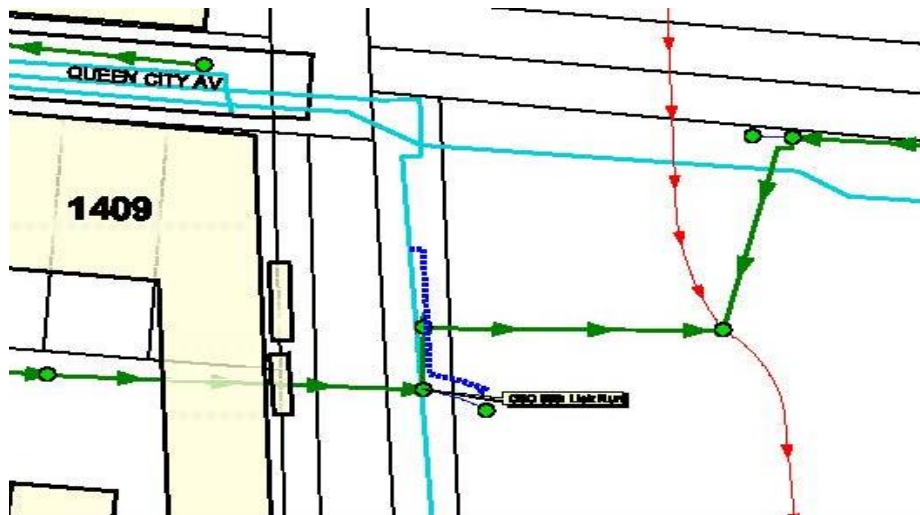
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$17,261	\$0	\$0	\$17,261
Design	\$17,300	\$0	\$0	\$0	\$0
Pre-Construction Services	\$1,800	\$64,000	\$0	\$0	\$64,000
Miscellaneous Expense	\$7,300	\$7,300	\$0	\$0	\$7,300
Right-of-Way	\$0	\$50,000	\$0	\$0	\$50,000
Construction	\$60,400	\$0	\$124,300	\$0	\$124,300
Program Management	\$0	\$1,928	\$0	\$0	\$1,928
Construction Services	\$10,600	\$0	\$10,000	\$0	\$10,000
Interest / Financing	\$300	\$0	\$0	\$0	\$0
Total	\$97,700	\$140,489	\$134,300	\$0	\$274,789

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$140,489	\$134,300	\$0	\$0	\$0	\$0	\$274,789

Prior Legislation Action

May 2013, May 2014, Aug 2016, Oct 2016, Feb 2017, Feb 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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.

Description and Location

This project includes upsizing 680 linear feet of combined sewer to a 24 inch diameter pipe, installation of 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

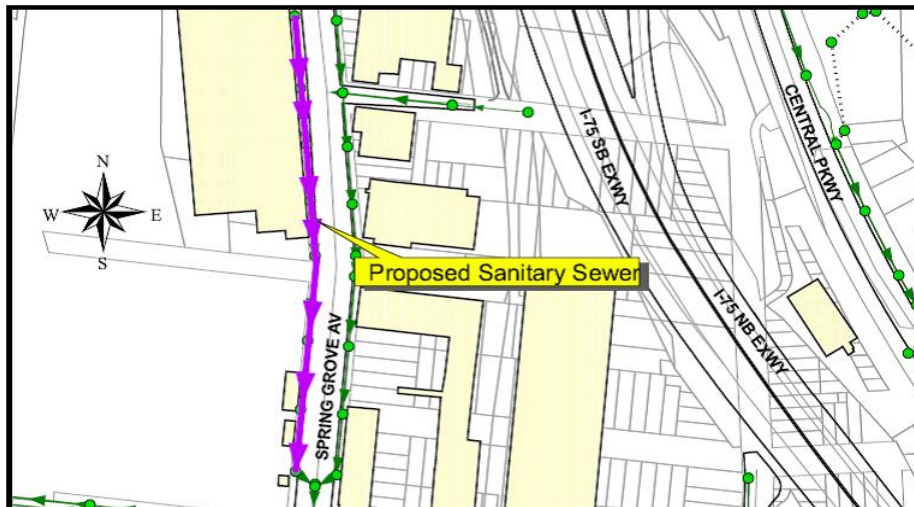
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$14,991	\$0	\$0	\$14,991
Design	\$81,400	\$93,125	\$0	\$0	\$93,125
Pre-Construction Services	\$30,400	\$30,400	\$0	\$0	\$30,400
Miscellaneous Expense	\$15,900	\$12,225	\$0	\$0	\$12,225
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$506,200	\$455,100	\$344,833	\$0	\$799,933
Program Management	\$0	\$1,704	\$0	\$0	\$1,704
Construction Services	\$34,700	\$10,000	\$0	\$0	\$10,000
Interest / Financing	\$4,400	\$0	\$0	\$0	\$0
Total	\$673,000	\$617,545	\$344,833	\$0	\$962,378

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$617,545	\$344,833	\$0	\$0	\$0	\$0	\$962,378

Prior Legislation Action

Dec 2013, May 2014, Dec 2017, Jul 2019, Feb 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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.

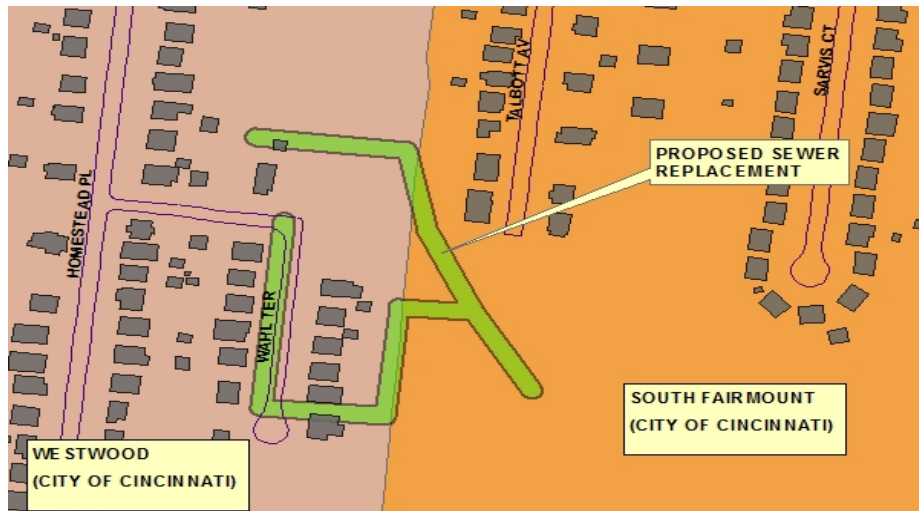
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$10,303	\$0	\$0	\$10,303
Design	\$99,400	\$79,700	\$0	\$0	\$79,700
Pre-Construction Services	\$43,000	\$53,900	\$0	\$0	\$53,900
Miscellaneous Expense	\$112,400	\$29,800	\$0	\$0	\$29,800
Right-of-Way	\$323,000	\$87,800	\$0	\$0	\$87,800
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
Total	\$1,370,300	\$262,654	\$658,400	\$0	\$921,054

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$262,654	\$658,400	\$0	\$0	\$0	\$0	\$921,054

Prior Legislation Action

May 2014, Mar 2016, Nov 2019



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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	

Purpose and Justification

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.

Impact to Operating Budget

None.

Description and Location

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 Viaduct, in the City of Cincinnati, Hamilton County, Ohio.

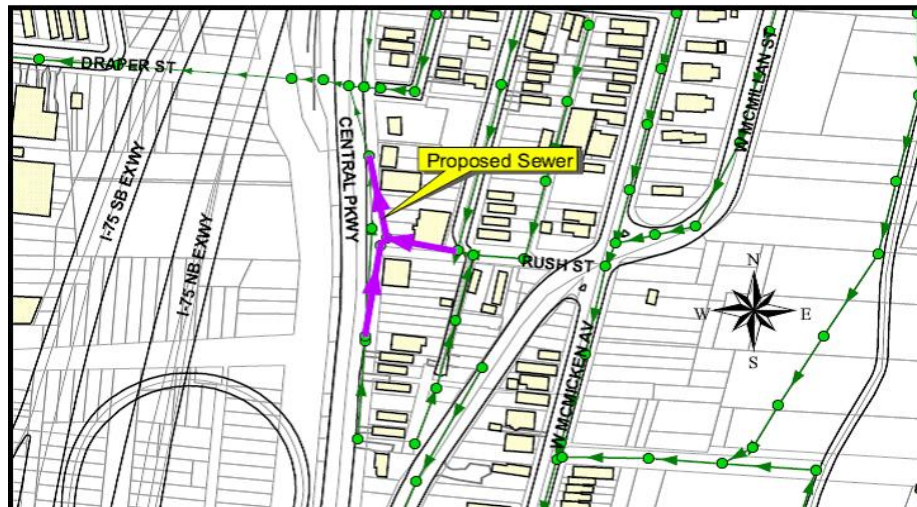
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$28,210	\$0	\$0	\$28,210
Design	\$54,900	\$54,900	\$0	\$0	\$54,900
Pre-Construction Services	\$18,100	\$58,100	\$0	\$0	\$58,100
Miscellaneous Expense	\$43,300	\$43,300	\$0	\$0	\$43,300
Right-of-Way	\$12,900	\$12,900	\$0	\$0	\$12,900
Construction	\$302,200	\$0	\$485,600	\$0	\$485,600
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
Total	\$475,300	\$200,611	\$495,600	\$0	\$696,211

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$200,611	\$495,600	\$0	\$0	\$0	\$0	\$696,211

Prior Legislation Action

May 2014, Dec 2014, Apr 2017



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	MCWWTP Standby Power Distribution System Improvements		
Project ID	10240625	CIP Number	10240625 CD Index #000
Project Type	Treatment Facility	Sewer Number	6866

Purpose and Justification

The MCWWTP Standby Power project will upgrade critical distribution assets at MCWWTP to improve reliability and maintainability of the standby power system. The standby power system project includes replacement of standby engine-generator, copper bus distribution system, and local process area transfer switches and power panels. This will limit risk to MSDGC operations during power outage at MCWWTP.

Impact to Operating Budget

None

Description and Location

The Project will increase the reliability of MCWWTP's current standby power distribution system at 1600 Gest Street, Cincinnati, OH 45204. This project is in the Lower Price Hill neighborhood of the City of Cincinnati.

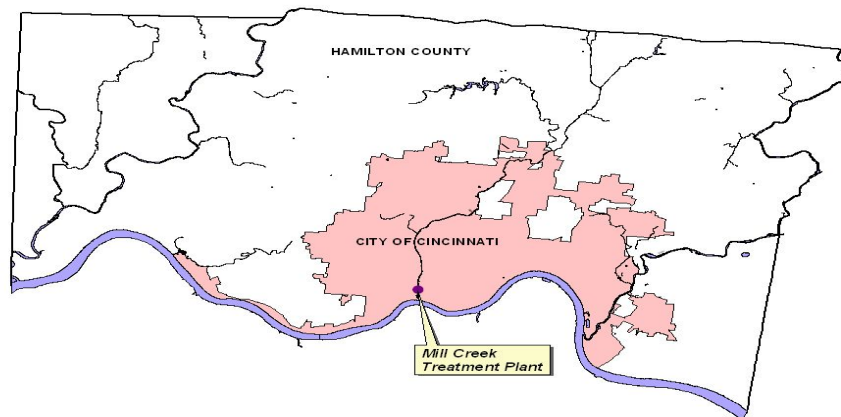
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$344,000	\$344,000	\$0	\$0	\$344,000
Pre-Construction Services	\$75,000	\$75,000	\$0	\$0	\$75,000
Miscellaneous Expense	\$45,000	\$45,000	\$0	\$0	\$45,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$3,424,000	\$0	\$3,424,000	\$0	\$3,424,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$309,000	\$0	\$309,000	\$0	\$309,000
Interest / Financing	\$129,000	\$0	\$0	\$0	\$0
Total	\$4,326,000	\$464,000	\$3,733,000	\$0	\$4,197,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$464,000	\$3,733,000	\$0	\$0	\$0	\$0	\$4,197,000

Prior Legislation Action

Jan 2019



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Mill Creek 4.16 kV & 13.2 kV Loop Improvements		
Project ID	10240697	CIP Number	10240697 CD Index #000
Project Type	Treatment Facility	Sewer Number	6867

Purpose and Justification

The project will improve the critical MSD owned high and medium voltage assets within the existing 4.16kV and 13.2kV distribution loop systems at MCWWTP to increase the reliability and reduce the high risk of failure. Assets to be replaced include equipment operating past the end of useful life, equipment no longer supported by manufacturer and equipment operating at risk of failure.

Impact to Operating Budget

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.

Description and Location

The Project will upgrade the existing at-risk 4.16kV and 13.2kV distribution loop equipment not currently being planned for replacement with other projects in MCWWTP. This project is in the Lower Price Hill neighborhood of the City of Cincinnati.

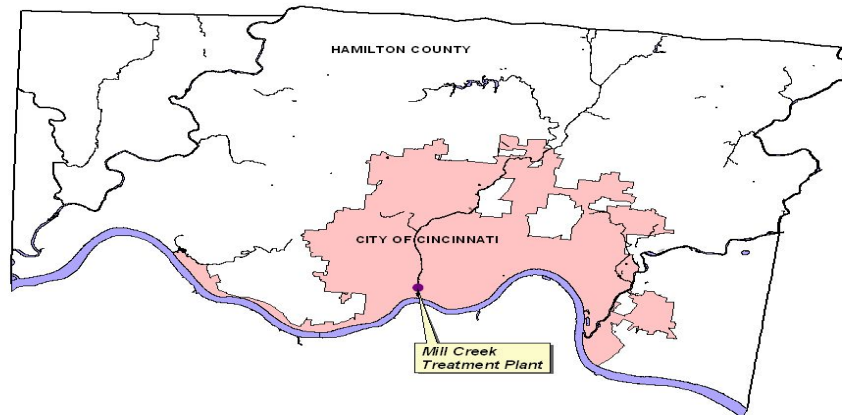
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$117,000	\$117,000	\$0	\$0	\$117,000
Pre-Construction Services	\$75,000	\$75,000	\$0	\$0	\$75,000
Miscellaneous Expense	\$40,000	\$40,000	\$0	\$0	\$40,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$1,044,000	\$0	\$1,044,000	\$0	\$1,044,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$100,000	\$0	\$100,000	\$0	\$100,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$1,376,000	\$232,000	\$1,144,000	\$0	\$1,376,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$232,000	\$1,144,000	\$0	\$0	\$0	\$0	\$1,376,000

Prior Legislation Action

Jan 2019



2021 Capital Budget and Capital Improvement Program

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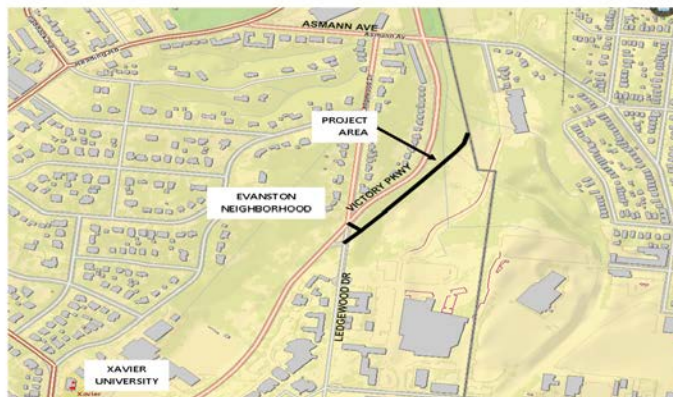
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Victory Parkway at Ledgewood Drive Sewer Replacement		
Project ID	10240755	CIP Number	10240755 CD Index #
Project Type	Sewer Replacement	Sewer Number	6688

Purpose and Justification MSD Collection has assigned a structural risk bin score of 19 (high) to one of the segments included in the evaluation, and has recommended a BCE.	Impact to Operating Budget None.
	Description and Location Planning effort to address structural defects in a 120" Brick sewer. Sewer segments 37709015-37716021 and 37716021-37716006 are included in the planned evaluation.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$150,000	\$0	\$250,000	\$0	\$250,000
Pre-Construction Services	\$32,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$270,000	\$0	\$270,000	\$0	\$270,000
Right-of-Way	\$0	\$0	\$5,000	\$0	\$5,000
Construction	\$920,000	\$0	\$0	\$920,000	\$920,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$110,000	\$0	\$0	\$40,000	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$1,482,000	\$0	\$525,000	\$960,000	\$1,485,000

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$525,000	\$0	\$0	\$960,000	\$0	\$1,485,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

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Purpose and Justification MSD Collection has assigned a structural risk bin score of 25 (severe) to one of the segments included in the evaluation, and has recommended a BCE.	Department Metropolitan Sewer District of Greater Cincinnati
	Project Title Highland and Burnet Sewer Replacement
Impact to Operating Budget None.	Project ID 10240760 CIP Number 10240760 CD Index #
	Project Type Sewer Replacement Sewer Number 6689
Description and Location Planning effort to address structural defects in a 21" VCP sewer running beneath multiple residences. Sewer segments 33615060-33615059, 33615059-33615047, 33615047-33615046, 33615046-33614003, 33614003-33614002, 33614002-33611024, 33611024-33611025, 33611025-33611075, and 33611075-33611027 are included in the planned evaluation.	

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$270,000	\$0	\$183,500	\$0	\$183,500
Pre-Construction Services	\$73,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$610,000	\$0	\$77,850	\$0	\$77,850
Right-of-Way	\$105,000	\$0	\$105,000	\$0	\$105,000
Construction	\$2,100,000	\$0	\$0	\$2,100,000	\$2,100,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$250,000	\$0	\$0	\$18,700	\$18,700
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$3,408,000	\$0	\$366,350	\$2,118,700	\$2,485,050

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$366,350	\$0	\$0	\$2,118,700	\$0	\$2,485,050

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Gilbert Avenue at Casino Sewer Replacement		
Project ID	10240775	CIP Number	10240775 CD Index #
Project Type	Sewer Replacement	Sewer Number	6694

Purpose and Justification

The project includes three segments that have been requested for a BCE by the WWC Gravity Sewer Asset Management system with structural risks of 20, 24, and 24. These three segments and all others included in the project will be investigated to determine how to address structural and capacity concerns.

Impact to Operating Budget

None.

Description and Location

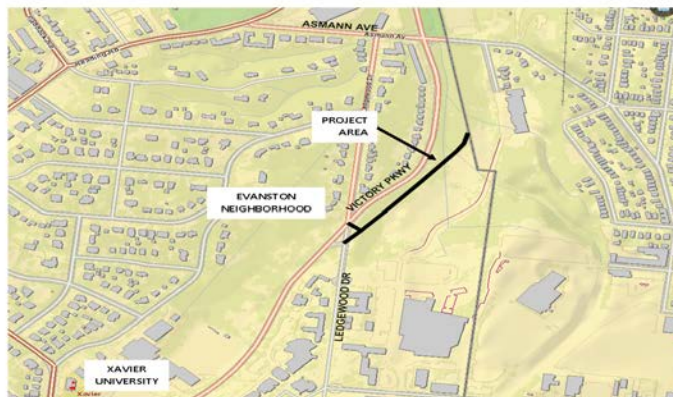
Project to address 8"-114" combined sewer pipe installed in 1881 in deteriorating condition and possible capacity concerns. Many of the segments are under or in close proximity to the casino. Segments include 33515063-33515035, 33603063-33514051, 33515035-33510057, 33510057-33510106, 33515045-33515044, 33515040-33515063, 33514051-33515045, 33515042-33515040, 33515041-33515042, 33515039-33515040, 33515062-33515045, 33515061-33515062, and 33515044-33515042

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$520,000	\$0	\$322,600	\$0	\$322,600
Pre-Construction Services	\$180,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$1,500,000	\$0	\$105,100	\$0	\$105,100
Right-of-Way	\$75,000	\$0	\$75,000	\$0	\$75,000
Construction	\$4,900,000	\$0	\$0	\$4,900,000	\$4,900,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$610,000	\$0	\$0	\$24,700	\$24,700
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$7,785,000	\$0	\$502,700	\$4,924,700	\$5,427,400

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$502,700	\$0	\$0	\$4,924,700	\$0	\$5,427,400

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Reading Road at Stewart Place Sewer Replacement		
Project ID	10240820	CIP Number	10240820 CD Index #
Project Type	Sewer Replacement	Sewer Number	6707

Purpose and Justification

The BCER pipe segment was last inspected by CCTV in 2010. The inspection identified infiltration, fractures, and a broken pipe. The WWC GSAM asset management system identified the segment, with structural risk bin score of 23, for lining rehabilitation, however the pipe is located beneath a commercial structure located at 3328 Reading Road. 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 6-20, but would also potentially need to be relocated in the sewer alignment changes.

Impact to Operating Budget

None.

Description and Location

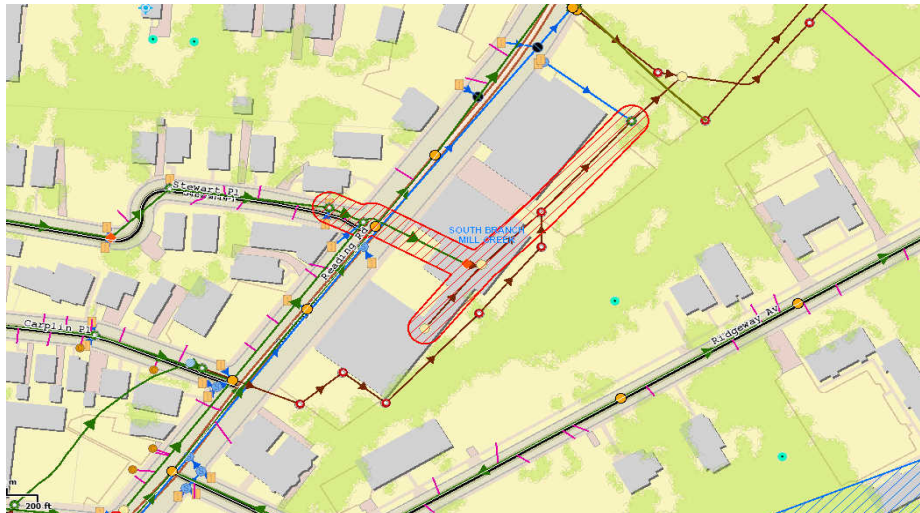
Planning efforts include CCTV inspection, alternatives analysis, and development of a BCE with recommendation. Pipe segment 33812041-36909017 is approximately 108 feet of 39-inch combined sewer installed in 1913. Additional segments included in the planning analysis are: 33812017-33812018-33812022-33812041-36909017-36909016, and 33812040-33812047-33812041

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$51,000	\$0	\$0	\$0	\$0
Design	\$61,000	\$0	\$240,000	\$0	\$240,000
Pre-Construction Services	\$9,800	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$81,000	\$0	\$81,000	\$0	\$81,000
Right-of-Way	\$45,000	\$0	\$45,000	\$0	\$45,000
Construction	\$290,000	\$0	\$0	\$290,000	\$290,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$34,000	\$0	\$0	\$10,000	\$10,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$571,800	\$0	\$366,000	\$300,000	\$666,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$366,000	\$0	\$0	\$300,000	\$0	\$666,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Taft Road & McMillan Street Sewer Replacement		
Project ID	10240845	CIP Number	10240845 CD Index #000
Project Type	Sewer Replacement	Sewer Number	6775

Purpose and Justification

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 25 and a segment under structures. 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.

Impact to Operating Budget

None

Description and Location

The project will replace or rehab structurally deficient, 52" stone sewer located under or near residential structures, and investigate the feasibility and possible construction of a new alignment to provide relief to the local sewer main.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$420,000	\$0	\$420,000
Design	\$710,000	\$0	\$0	\$710,000	\$710,000
Pre-Construction Services	\$270,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$2,200,000	\$0	\$0	\$2,200,000	\$2,200,000
Right-of-Way	\$142,500	\$0	\$0	\$142,500	\$142,500
Construction	\$7,200,000	\$0	\$0	\$7,200,000	\$7,200,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$930,000	\$0	\$0	\$930,000	\$930,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$11,452,500	\$0	\$420,000	\$11,182,500	\$11,602,500

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$0	\$420,000	\$3,052,500	\$0	\$8,130,000	\$0
						\$11,602,500

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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

Purpose and Justification

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.

Impact to Operating Budget

None

Description and Location

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.

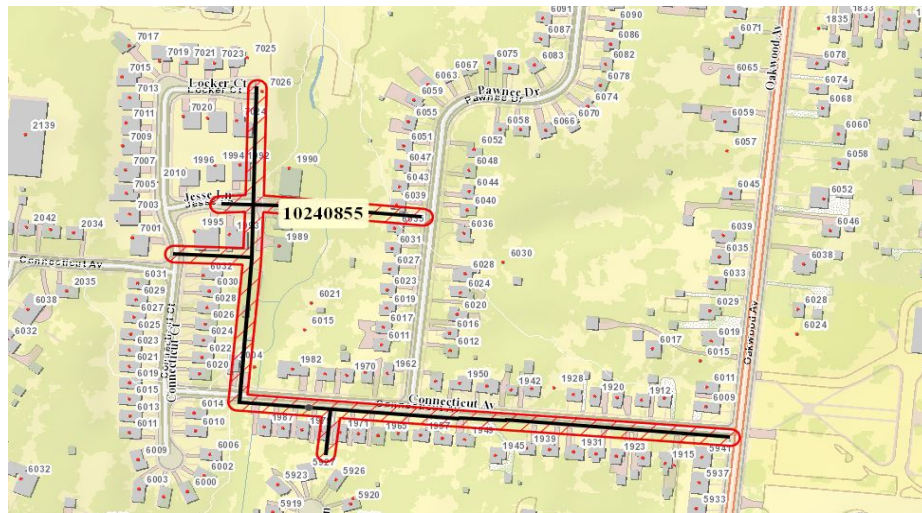
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$220,000	\$0	\$0	\$220,000
Design	\$290,000	\$0	\$488,400	\$0	\$488,400
Pre-Construction Services	\$78,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$650,000	\$0	\$144,000	\$0	\$144,000
Right-of-Way	\$120,000	\$0	\$120,000	\$0	\$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
Total	\$3,508,000	\$220,000	\$752,400	\$2,106,000	\$3,078,400

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total	
	\$220,000	\$752,400	\$0	\$2,106,000	\$0	\$0	\$3,078,400

Prior Legislation Action

Jan 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Congress Run Stream Restoration and Bank Stabilization		
Project ID	10241905	CIP Number	10241905 CD Index #PN#38
Project Type	Supplemental Environmental Prj	Sewer Number	6843

Purpose and Justification

Congress Run is a tributary stream to Mill Creek located in the Hartwell neighborhood of the City of Cincinnati that runs along the MSD- Wastewater Collection Division (WWC) facility. The stream was modified during the construction of WWC in the 1970s which altered the hydraulics of the stream. This project will alleviate the issues created by the original modifications so that stream bank erosion no longer poses a threat to the existing MSD infrastructure. Modifications will include: bank stabilization, creek restoration, and replacement of sewers located underneath the creek.

Impact to Operating Budget

None

Description and Location

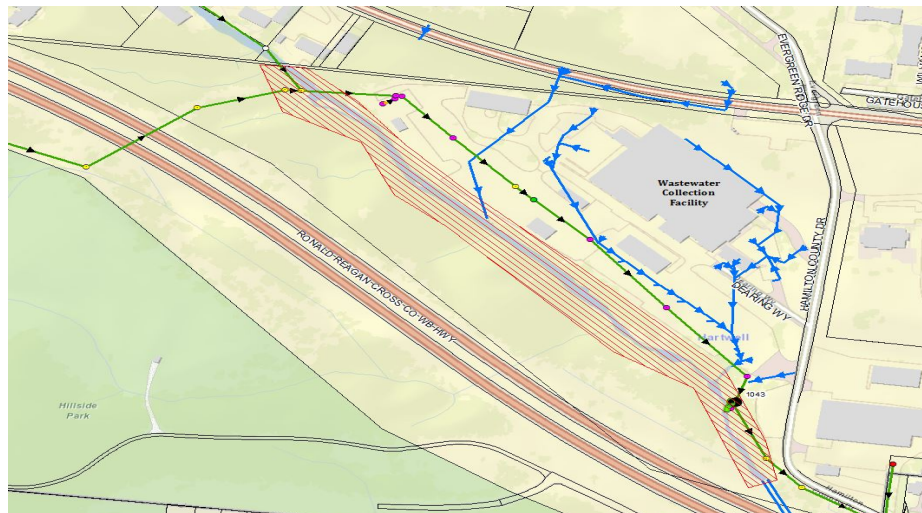
This project will provide a solution to mitigate the erosion issues, stabilize the stream, protect existing infrastructure. Severe erosion poses a threat to the existing WWC facility and multiple sewers and building lateral crossings in the area of the project. Previous efforts to reinforce existing infrastructure from further erosion were unsuccessful. This project will be focused on MSD owned infrastructure

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$166,000	\$0	\$166,000
Design	\$0	\$0	\$0	\$276,000	\$276,000
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$20,000	\$20,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$2,008,000	\$2,008,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$209,000	\$209,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$166,000	\$2,513,000	\$2,679,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$166,000	\$296,000	\$2,217,000	\$0	\$0	\$2,679,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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	

Purpose and Justification

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.

Impact to Operating Budget

None

Description and Location

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 pre-planning level.

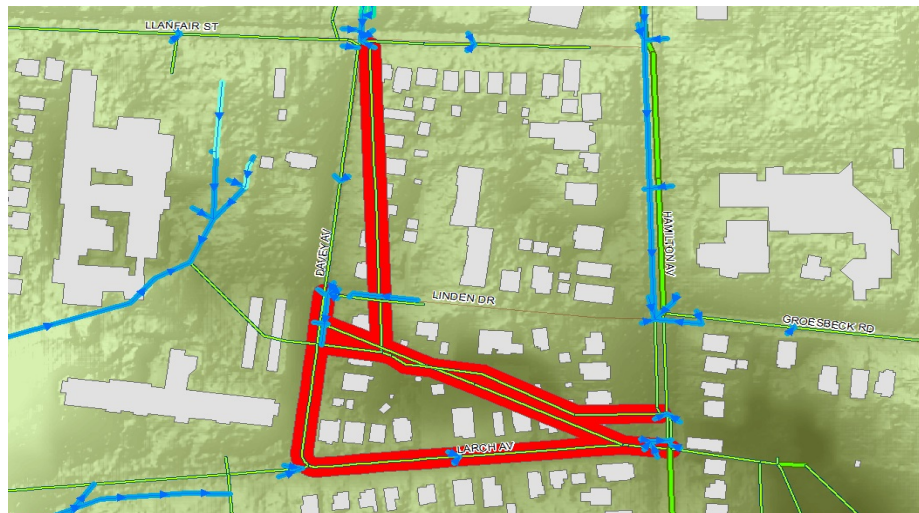
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$76,000	\$199,000	\$0	\$0	\$199,000
Design	\$98,000	\$0	\$148,500	\$0	\$148,500
Pre-Construction Services	\$18,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$150,000	\$0	\$96,000	\$0	\$96,000
Right-of-Way	\$86,000	\$0	\$86,000	\$0	\$86,000
Construction	\$500,000	\$0	\$0	\$500,000	\$500,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$62,000	\$0	\$0	\$13,100	\$13,100
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$990,000	\$199,000	\$330,500	\$513,100	\$1,042,600

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$199,000	\$330,500	\$0	\$0	\$513,100	\$0	\$1,042,600

Prior Legislation Action

Jan 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Reading Road - 12th Street to E Liberty Street Sewer Replacement		
Project ID	10242035	CIP Number	10242035 CD Index #PN# 38
Project Type	Sewer Replacement	Sewer Number	6851

Purpose and Justification

The pipe segments in this project have structural and capacity issues. According to the hydraulic model some segments are surcharged as frequently as the 6-month design storm. The pipe segments to be evaluated also have structural deficiencies; some exhibit shape loss and are in risk of collapse. Failure of these segments would disrupt service and likely cause sewer backups upstream of the collapse.

Impact to Operating Budget

Description and Location

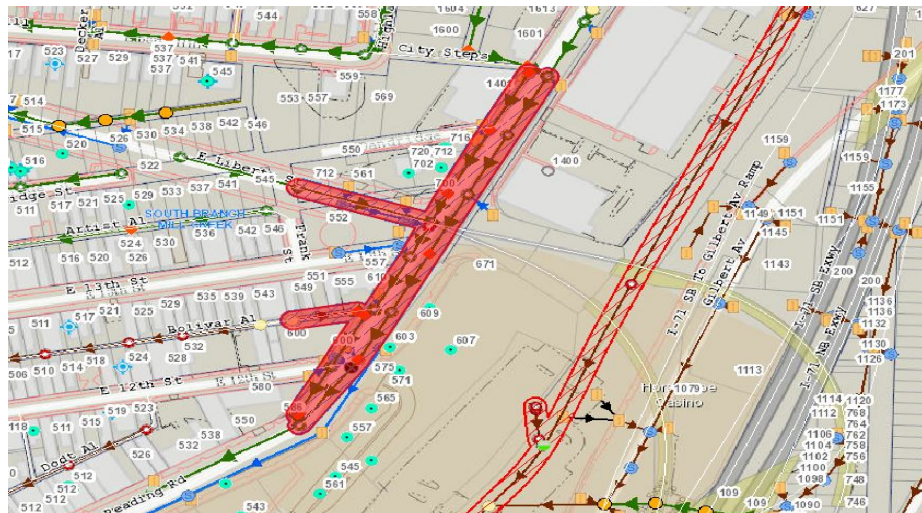
This project addresses approximately 2,000 linear feet of 18-inch vitrified clay pipe installed prior to 1900. These segments, in the Pendleton neighborhood of the City of Cincinnati, will be evaluated for rehabilitation or replacement. All project costs and descriptions are pre-planning level.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$160,000	\$0	\$0	\$0	\$0
Design	\$240,000	\$0	\$240,000	\$0	\$240,000
Pre-Construction Services	\$63,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$520,000	\$0	\$98,400	\$0	\$98,400
Right-of-Way	\$30,000	\$0	\$100,000	\$0	\$100,000
Construction	\$1,800,000	\$0	\$0	\$2,780,200	\$2,780,200
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$220,000	\$0	\$0	\$40,000	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$3,033,000	\$0	\$438,400	\$2,820,200	\$3,258,600

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$438,400	\$0	\$0	\$2,820,200	\$0	\$3,258,600

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati			
Project Title	Village Woods Pump Station and System Improvements			
Project ID	10242085	CIP Number	10242085	CD Index #
Project Type	Pump Station Improvement/Elim	Sewer Number	6967	

Purpose and Justification

The project will increase velocities within a force main serving the neighborhood in order to maintain sewer service capacity and pump efficiency. Currently, sediment collects in the force main, and the velocities are too low to appropriately self-clean. The current system creates undue risk and maintenance.

Impact to Operating Budget

None

Description and Location

The project is located within the Village Woods subdivision, in the East Branch Mill Creek watershed and the City of Sharonville. The project will reduce sediment accumulation within an existing force main serving the neighborhood. The project is related to the original pump station and force main installation, sewer number 3077.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$58,000	\$0	\$86,000	\$0	\$86,000
Pre-Construction Services	\$9,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$31,000	\$0	\$50,000	\$0	\$50,000
Right-of-Way	\$15,000	\$0	\$30,000	\$0	\$30,000
Construction	\$310,000	\$0	\$0	\$454,000	\$454,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$30,000	\$0	\$0	\$70,000	\$70,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$453,000	\$0	\$166,000	\$524,000	\$690,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$166,000	\$0	\$0	\$524,000	\$0	\$690,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Elberon Avenue Sewer		
Project ID	10242120	CIP Number	10242120 CD Index #
Project Type	Sewer Replacement	Sewer Number	6974

Purpose and Justification

The project area includes 4 BCER segments on Elberon Avenue with structural risk bin scores of 19, 25, 25, and 25. Condition assessments identified numerous structural defects in these pipes including multiple fractures and cracks. The pipes are candidates for lining, however the hydraulic model indicates surcharging in events as small as the 6-month storm. The project will evaluate the sewers in this area for structural condition as well as capacity.

Impact to Operating Budget

None

Description and Location

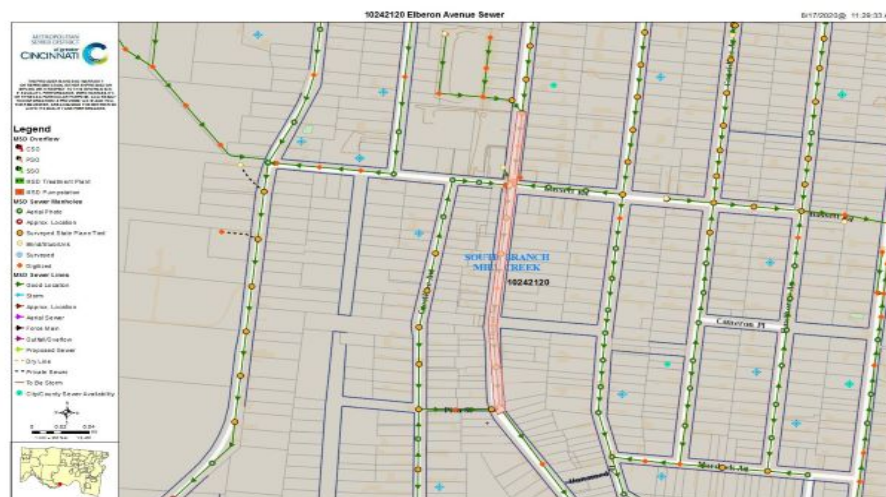
The project is located in the City of Cincinnati, East Price Hill, on Elberon Avenue generally between house numbers 411 and 528 Elberon Avenue. Planning efforts include CCTV inspection, flow monitoring, model updates, alternatives analysis, cost estimating, and development of a BCE with recommendation. The project area includes approximately 1,286 feet of 18-30 inch diameter sewer.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$120,000	\$0	\$120,000
Design	\$160,000	\$0	\$0	\$500,000	\$500,000
Pre-Construction Services	\$34,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$290,000	\$0	\$0	\$125,000	\$125,000
Right-of-Way	\$15,000	\$0	\$0	\$15,000	\$15,000
Construction	\$890,000	\$0	\$0	\$890,000	\$890,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$120,000	\$0	\$0	\$120,000	\$120,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$1,509,000	\$0	\$120,000	\$1,650,000	\$1,770,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$120,000	\$640,000	\$0	\$0	\$1,010,000	\$1,770,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati			
Project Title	SCWWTP Thickening and Settlement Improvements			
Project ID	10262005	CIP Number	10262005	CD Index #
Project Type	Treatment Facility	Sewer Number	6983	

Purpose and Justification

This project was identified as a priority project in MSD's Solids Handling Master Plan and addresses failing assets and operational issues with the solids handling facilities and associated odor control at the SCWWTP. To expand thickening capacity and provide more flexible operations, the existing gravity thickener #2 needs to be put back in service as a gravity thickener and covered. The sludge withdrawal pumps have reached the end of their useful lives and need replaced. Modifications on the aeration tanks are needed to address foam trapping in the liquid stream to improve operation and sludge settleability.

Impact to Operating Budget

None

Description and Location

This project will place the gravity thickener #2 back into service as a gravity thickener, cover the tank and connect it to the existing odor control system. The sludge withdrawal pumps will be replaced and modifications on the aeration tanks will be made to address foam trapping in the liquid stream. This project is located within the SCWWTP in Sycamore Township of Hamilton County.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$34,413	\$0	\$0	\$34,413
Design	\$190,000	\$265,587	\$0	\$0	\$265,587
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$20,000	\$20,000	\$0	\$0	\$20,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$308,000	\$0	\$800,000	\$0	\$800,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$38,500	\$0	\$150,000	\$0	\$150,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$556,500	\$320,000	\$950,000	\$0	\$1,270,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$320,000	\$950,000	\$0	\$0	\$0	\$0	\$1,270,000

Prior Legislation Action

Feb 2020, Apr 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	East Hill Ave Sewer Replacement		
Project ID	10270175	CIP Number	10270175 CD Index #
Project Type	Sewer Replacement	Sewer Number	6657

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.

Impact to Operating Budget

None.

Description and Location

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.

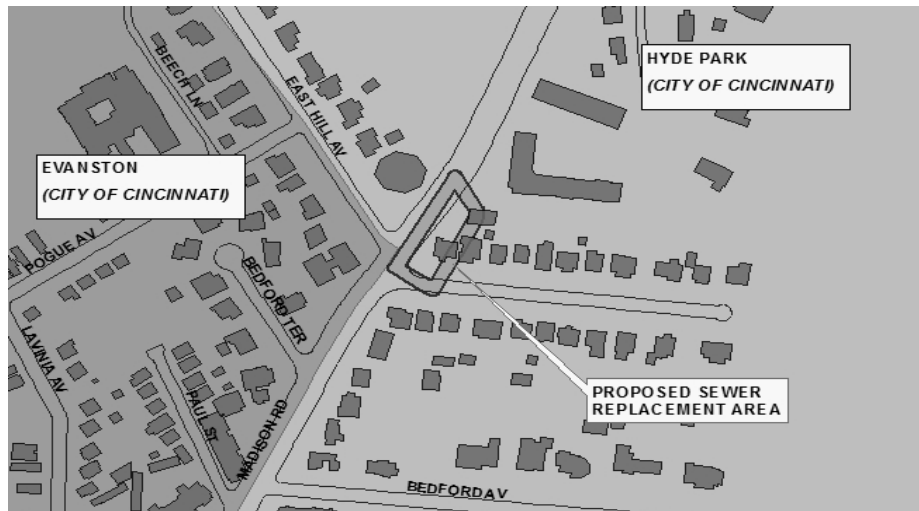
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$177,100	\$177,100	\$0	\$0	\$177,100
Pre-Construction Services	\$42,500	\$79,700	\$0	\$0	\$79,700
Miscellaneous Expense	\$43,500	\$43,500	\$0	\$0	\$43,500
Right-of-Way	\$16,600	\$101,200	\$0	\$0	\$101,200
Construction	\$1,416,800	\$0	\$1,725,728	\$0	\$1,725,728
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$48,700	\$0	\$40,000	\$0	\$40,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$1,745,200	\$401,500	\$1,765,728	\$0	\$2,167,228

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$401,500	\$1,765,728	\$0	\$0	\$0	\$0	\$2,167,228

Prior Legislation Action

Dec 2014, Jun 2017, Mar 2019



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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

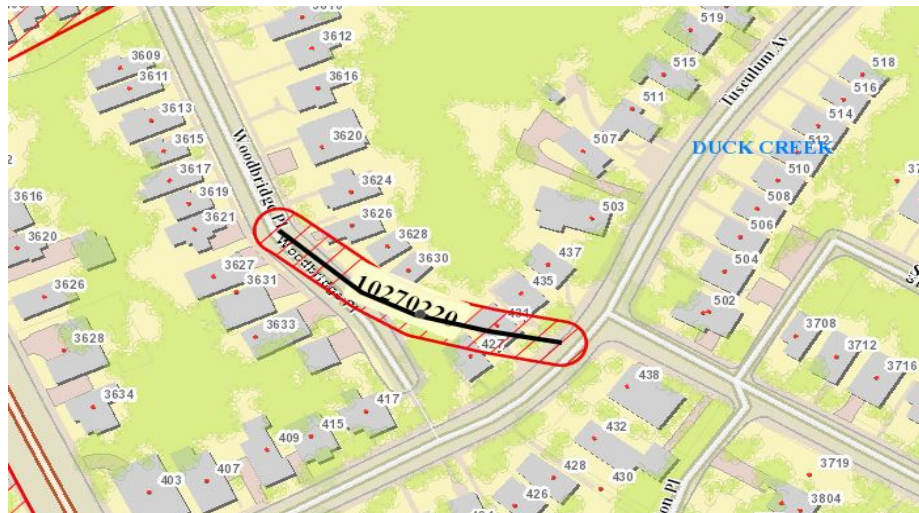
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$162,000	\$0	\$0	\$162,000
Design	\$74,000	\$0	\$25,200	\$0	\$25,200
Pre-Construction Services	\$12,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$100,000	\$0	\$36,000	\$0	\$36,000
Right-of-Way	\$45,000	\$0	\$0	\$0	\$0
Construction	\$340,000	\$0	\$0	\$84,000	\$84,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$42,000	\$0	\$0	\$3,000	\$3,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$613,000	\$162,000	\$61,200	\$87,000	\$310,200

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$162,000	\$61,200	\$0	\$0	\$87,000	\$0	\$310,200

Prior Legislation Action

Jan 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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

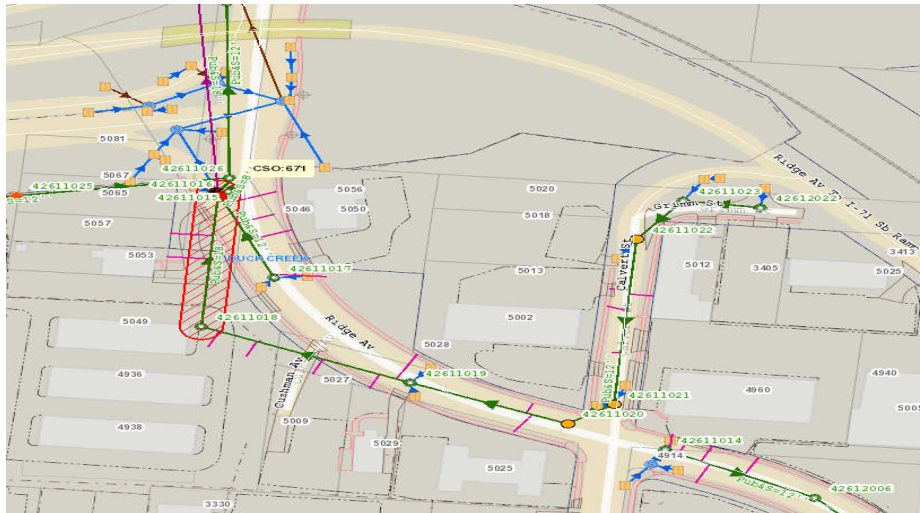
Description and Location

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.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$44,800	\$147,000	\$0	\$0	\$147,000
Design	\$34,000	\$0	\$49,100	\$0	\$49,100
Pre-Construction Services	\$10,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$36,000	\$0	\$0	\$0	\$0
Right-of-Way	\$15,000	\$0	\$27,400	\$0	\$27,400
Construction	\$120,000	\$0	\$0	\$212,300	\$212,300
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$15,000	\$0	\$0	\$5,600	\$5,600
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$274,800	\$147,000	\$76,500	\$217,900	\$441,400

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$147,000	\$76,500	\$0	\$0	\$217,900	\$0
						\$441,400

Prior Legislation Action
Jan 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Wayside Hills Pump Station Replacement		
Project ID	10272050	CIP Number	10272050 CD Index #
Project Type	Pump Station Improvement/Elim	Sewer Number	6948

Purpose and Justification

The project area includes 0.35 MGD pump station, a 4 inch 1840 foot long force main, with 7 air release valves and manholes. Condition assessments identified significant structural issues with the wet well, valve vault, and power source equipment with a risk score of 16.65 and a RUL score (Remaining Useful Life score) of 0. The Wet well was installed in 1990. The Pump Station services around 100 homes which will increase the consequences if this pump station should fail.

Impact to Operating Budget

None

Description and Location

The project is located in Anderson Township, Hamilton County at 5783 Shady Hollow Ln. in the California watershed of the Little Miami Basin. The project is to replace and rehab Wayside Pump Station, force main, and other appurtenances.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$150,000	\$0	\$150,000
Design	\$210,000	\$0	\$0	\$210,000	\$210,000
Pre-Construction Services	\$49,000	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$410,000	\$0	\$0	\$410,000	\$410,000
Right-of-Way	\$22,500	\$0	\$0	\$22,500	\$22,500
Construction	\$1,300,000	\$0	\$0	\$1,300,000	\$1,300,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$170,000	\$0	\$0	\$170,000	\$170,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$2,161,500	\$0	\$150,000	\$2,112,500	\$2,262,500

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$150,000	\$0	\$642,500	\$0	\$0	\$792,500

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Hydraulic Modeling 2021		
Project ID	10280241	CIP Number	CD Index #000
Project Type	Allowance	Sewer Number	

Purpose and Justification

This project will provide hydraulic, hydrologic, and treatment process modeling services to be used to support MSD's long-range planning needs, and to meet MSD's SSO and CSO monitoring requirements.

Impact to Operating Budget

None.

Description and Location

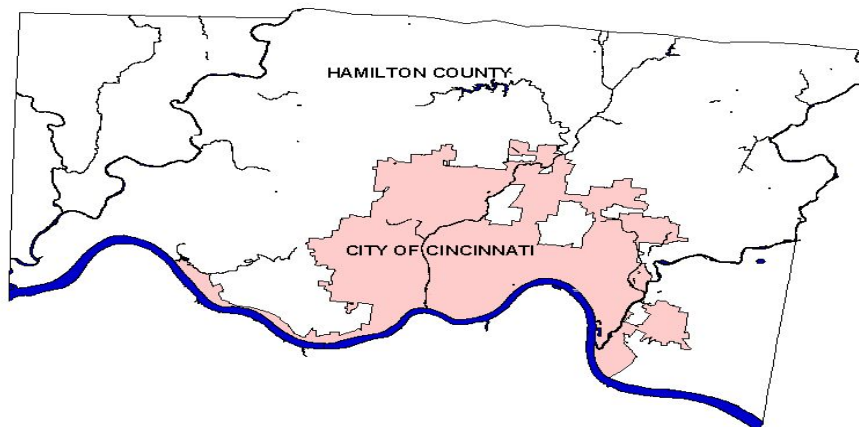
Sewer modeling is used to assist in the planning and design process and is required as part of the Global Consent Decree and MSD's CSO NPDES permit. MSD is committed to ensuring its system-wide model meets the latest standards and provides the best available tool for assessing, planning, and designing MSD's infrastructure. Work completed for specific projects will be charged to project IDs. This allowance will be used to incorporate project specific model changes into the System-Wide Model for each of MSD's seven sewersheds. Prior legislation was funded for the Hydraulic Model Program under various Project IDs.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$1,000,000	\$0	\$1,200,000	\$0	\$1,200,000
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
Total	\$1,000,000	\$0	\$1,200,000	\$0	\$1,200,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$1,200,000	\$0	\$0	\$0	\$0	\$1,200,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

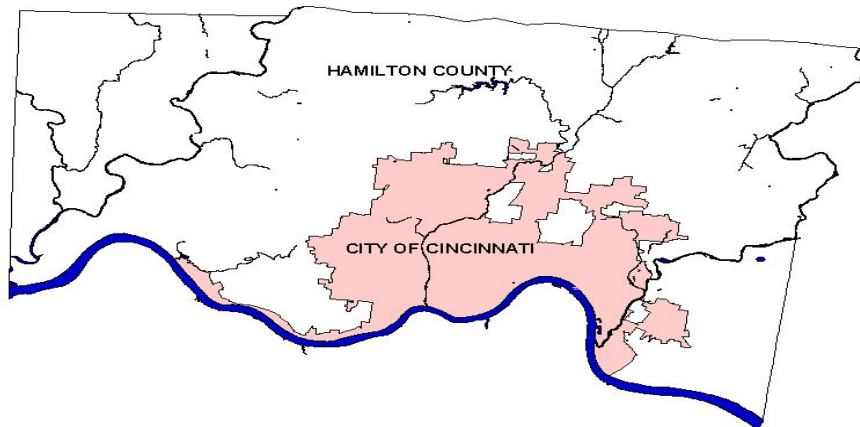
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Critical Asset Management Projects 2021		
Project ID	10280721	CIP Number	10280721 CD Index #000
Project Type	Allowance	Sewer Number	

<p>Purpose and Justification</p> <p>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.</p>	<p>Impact to Operating Budget</p> <p>None.</p>
<p>Description and Location</p> <p>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.</p>	

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
Total	\$0	\$0	\$6,000,000	\$0	\$6,000,000

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$6,000,000	\$0	\$0	\$0	\$0	\$6,000,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	LMWWTP Solids Disposal With Odor Control		
Project ID	10281100	CIP Number	10281100 CD Index #
Project Type	Treatment Facility	Sewer Number	6914

Purpose and Justification

This project was identified as a priority project in MSD's Solids Handling Master Plan. The project will diversify MSD's solids handling management, decrease the reliance on landfills for sludge disposal and also allow for revenue opportunities associated with the processing of high strength waste (HSW) and sale of biogas.

Impact to Operating Budget

None

Description and Location

This project will address critical solids handling, disposal and odor control needs at Little Miami WWTP. The project includes digestion facilities and supporting structures, biogas conditioning, waste gas burner, high strength waste (HSW) and liquid sludge receiving facilities, sludge dewatering facilities, and odor control for associated processes. This project is located within the Little Miami WWTP in the East End neighborhood of the City of Cincinnati.

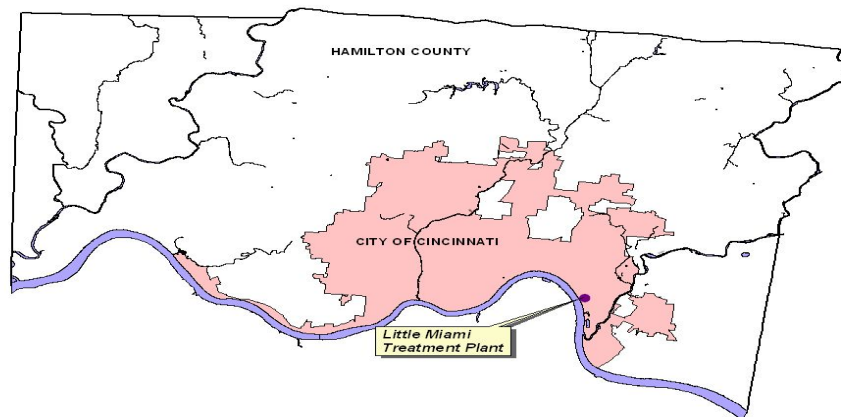
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$856,325	\$0	\$0	\$856,325
Design	\$2,402,500	\$3,666,175	\$5,433,825	\$0	\$9,100,000
Pre-Construction Services	\$586,800	\$586,800	\$0	\$0	\$586,800
Miscellaneous Expense	\$216,200	\$216,200	\$72,000	\$0	\$288,200
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$78,560,000	\$78,560,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$1,500,000	\$1,500,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
Total	\$3,205,500	\$5,325,500	\$5,505,825	\$80,060,000	\$90,891,325

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$5,325,500	\$5,505,825	\$80,060,000	\$0	\$0	\$0	\$90,891,325

Prior Legislation Action

Jan 2019, Feb 2020, Apr 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Prioritized Wastewater Collection System Improvements 2021		
Project ID	10281321	CIP Number	CD Index #000
Project Type	Allowance	Sewer Number	

Purpose and Justification

MSD proposes to use the single “Prioritized Wastewater Collection System Improvements” allowance to fund all planned and reactive improvements to publically owned asset classes that comprise the wastewater collection system – excluding work specifically covered in other Consent Decree specified allowances (Main Sewer Renewal and Manhole Renewal) and the structural renewal and or improvement of Privately-owned Building Sewers (Building Sewer Renewal) consistent with MSD’s Rules and Regulations.

Impact to Operating Budget

None.

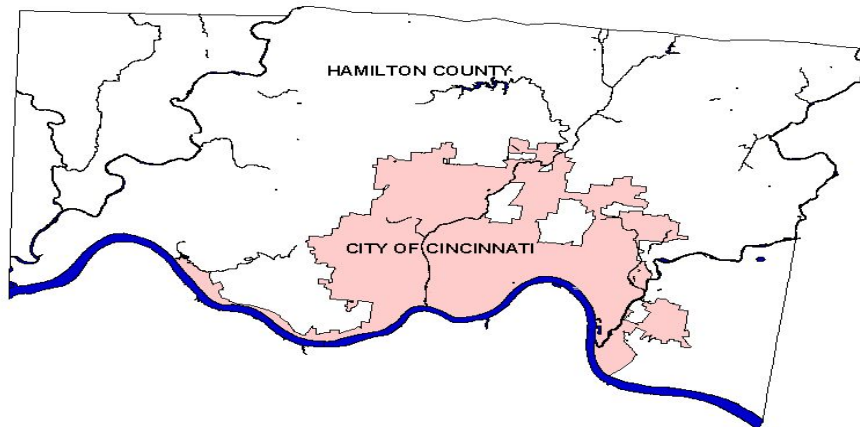
Description and Location

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

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	\$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
Total	\$0	\$0	\$12,000,000	\$0	\$12,000,000

5 Year Projected Legislation	2021	2022	2023	2024	2025	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$12,000,000	\$0	\$0	\$0	\$0	\$12,000,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CIP Planning Projects 2021		
Project ID	10282021	CIP Number	CD Index #000
Project Type	Allowance	Sewer Number	

Purpose and Justification This project will provide capital funding to support planning CIP projects.	Impact to Operating Budget None.
	Description and Location This project provides appropriated funds for the resources necessary for the planning of capital projects for advancement to the design phase.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$1,000,000	\$0	\$1,000,000
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
Total	\$0	\$0	\$1,000,000	\$0	\$1,000,000

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati				
Project Title	CIP Planning Asset Management Conveyance Projects 2021				
Project ID	10282221	CIP Number	10282221	CD Index #	
Project Type	Allowance	Sewer Number	6875		

Purpose and Justification	Impact to Operating Budget
	Description and Location

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$2,500,000	\$0	\$1,100,000	\$0	\$1,100,000
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
Total	\$2,500,000	\$0	\$1,100,000	\$0	\$1,100,000

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$1,100,000	\$0	\$0	\$0	\$0	\$1,100,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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

The Muddy Creek Floodprone Property Acquisition Project will reduce flood risk and damage to community residents and repeatable SBU liability. The full application has been submitted to FEMA to acquire and demolish up to 31 residential structures along Muddy Creek Road in Cincinnati and Green Township within the floodway and floodplain and obtain 4 property that is currently vacant. The total budget is \$4,744,410, of which 25% is split between the state and local dollars and FEMA provides 75%. The project will provide space for passive, green solutions such as wetland and floodplain restoration and vegetated open spaces for more effective stormwater management in a combined sewer area.

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	\$200,000	\$0	\$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
Total	\$700,000	\$200,000	\$500,000	\$0	\$700,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$200,000	\$500,000	\$0	\$0	\$0	\$0	\$700,000

Prior Legislation Action

Jan 2020



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Greater Cincinnati East Side SBU Mitigation Study		
Project ID	11582000	CIP Number	11582000 CD Index #N/A
Project Type	Study	Sewer Number	7044

Purpose and Justification

The current SBU program installs prevention systems for homes with repeated SBUs. However, the program is not cost-effective given the volume of complaints and issues stemming from the east side of Greater Cincinnati. In addition, the current program does not address related SBU problems such as sewer capacity or combined sewer overflow (CSO) volumes. A planning study is required to identify solutions for high risk SBU neighborhoods, and evaluate options to improve sewer capacity and decrease CSO volumes.

Impact to Operating Budget

Description and Location

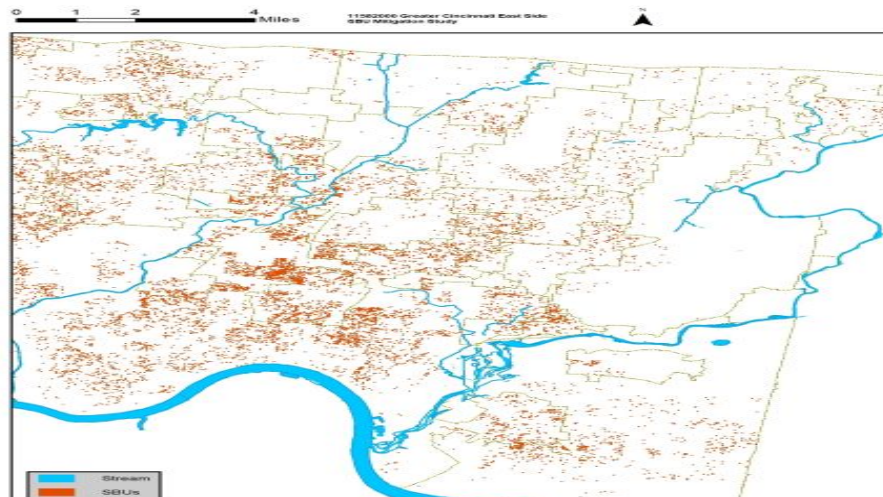
The project will conduct a planning study and alternatives to identify cost-effective, regional solutions for chronic sewer backups (SBUs) in neighborhoods and municipalities located on the east side of Greater Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$1,000,000	\$0	\$1,000,000	\$0	\$1,000,000
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
Total	\$1,000,000	\$0	\$1,000,000	\$0	\$1,000,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000

Prior Legislation Action



2021 OTHER Projects



2021 Projects

Metropolitan Sewer District of Greater Cincinnati

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
10199021	OTHER	ALW	Program Management and Support Services 2021 (Design)	\$6,500,000	\$0	\$6,500,000	72
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000	\$0	\$5,000,000	73
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000	\$0	\$5,000,000	74
Total Cost for 3 OTHER Projects				\$16,500,000	\$0	\$16,500,000	

2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Program Management and Support Services 2021		
Project ID	10199021	CIP Number	10199021 CD Index #000
Project Type	Allowance	Sewer Number	

<p>Purpose and Justification</p> <p>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.</p>	<p>Impact to Operating Budget</p> <p>None.</p>
	<p>Description and Location</p> <p>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, as a % of the CIP, is consistent with average National Program Management Fees, per CMAA.</p>

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	\$5,400,000	\$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
Total	\$5,400,000	\$0	\$6,500,000	\$0	\$6,500,000

5 Year Projected Legislation						
Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$0	\$6,500,000	\$0	\$0	\$0	\$0	\$6,500,000

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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	\$14,254,242	\$5,000,000	\$20,000,000	\$39,254,242
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
Total	\$50,000,000	\$14,254,242	\$5,000,000	\$20,000,000	\$39,254,242

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$14,254,242	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$39,254,242

Prior Legislation Action



2021 Capital Budget and Capital Improvement Program

Monday, August 17, 2020

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: WVE 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 or prior 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	\$5,000,000	\$5,000,000	\$20,000,000	\$30,000,000
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
Total	\$0	\$5,000,000	\$5,000,000	\$20,000,000	\$30,000,000

5 Year Projected Legislation

Prior Legislation	2021	2022	2023	2024	2025	Project Total
\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$30,000,000

Prior Legislation Action

Jan 2020





2022 CIP
Metropolitan Sewer District of Greater Cincinnati
WWIP Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Design)	\$1,696,586	\$0	\$1,696,586
10130280	WWIP	PSE	Addyston Pump Station Elimination (Design,Easement)	\$591,757	\$0	\$591,757
10142420	WWIP	SEP	Vine Street at Erkenbrecher Avenue Sewer Separation (Design,Easement)	\$3,450,000	\$0	\$3,450,000
10180122	WWIP	ALW	Main Sewer Renewal Program 2022 (Construction)	\$6,000,000	\$0	\$6,000,000
10180222	WWIP	ALW	Manhole Renewal Program 2022 (Construction)	\$973,300	\$0	\$973,300
10190222	WWIP	ALW	Phase 2 WWIP Planning 2022 (Planning)	\$5,000,000	\$0	\$5,000,000
11142745	WWIP	SEP	CSO 488 Strategic Sewer Separation Phase A (Construction)	\$6,398,850	\$0	\$6,398,850
11242844	WWIP	SEP	CSO 12 Sewer Separation Outfall to Mill Creek (Design,Easement)	\$2,688,775	\$0	\$2,688,775
Total Cost for 8 WWIP Projects in 2022				\$26,799,268	\$0	\$26,799,268



2022 CIP

Metropolitan Sewer District of Greater Cincinnati

OTHER Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10199022	OTHER	ALW	Program Management and Support Services 2022 (Design)	\$5,500,000	\$0	\$5,500,000
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000	\$0	\$5,000,000
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000	\$0	\$5,000,000
Total Cost for 3 OTHER Projects in 2022				\$15,500,000	\$0	\$15,500,000



2022 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10222005	AM	PSE	Colerain-Bevis Pump Station Replacement (Planning)	\$310,000	\$0	\$310,000
10230054	AM	FAC	Muddy Creek WWTP Disinfection Upgrades (Planning,Design)	\$740,000	\$0	\$740,000
10230130	AM	REP	Dry Weather Channel for SS 937 (Design)	\$616,500	\$0	\$616,500
10230150	AM	REP	Addyston Creek and Sewer Rehab (Construction)	\$477,000	\$0	\$477,000
10230170	AM	REP	Harrison Avenue North and South Hydraulic Improvements (Planning)	\$290,000	\$0	\$290,000
10230655	AM	REP	Muddy Creek Road and Rosebud Drive Sewer Replacement (Design,Easement)	\$215,000	\$0	\$215,000
10232005	AM	REP	Benz Avenue (HN 1111) Sewer Replacement (Planning)	\$29,000	\$0	\$29,000
10232025	AM	REP	3731 Glenmore Avenue Sewer Evaluation (Design)	\$154,000	\$0	\$154,000
10240320	AM	REP	Wilder Avenue Sewer Replacement (Construction)	\$679,700	\$0	\$679,700
10240330	AM	REP	Otte Avenue Sewer Replacement (Construction)	\$797,600	\$0	\$797,600
10240500	AM	REP	Yoast Avenue Sewer Improvements (Construction)	\$102,900	\$0	\$102,900
10240720	AM	REP	Valleyview Court Sewer Replacement (Design,Easement)	\$300,000	\$0	\$300,000
10240725	AM	REP	Shaffer Avenue Sewer Replacement (Design,Easement)	\$311,200	\$0	\$311,200
10240735	AM	REP	De Votie Avenue Sewer Replacement (Design,Easement)	\$326,500	\$0	\$326,500
10240740	AM	REP	Tennessee Avenue (HN 1754) Sewer Replacement (Design,Easement)	\$350,000	\$0	\$350,000
10240750	AM	REP	Seton Avenue (HN 916) Sewer Replacement (Design,Easement)	\$210,000	\$0	\$210,000
10240780	AM	REP	Galbraith Rd to Sheldon Avenue Sewer Replacement (Design,Easement)	\$258,100	\$0	\$258,100
10240795	AM	REP	Central to McMicken at Stark St Sewer Replacement (Design,Easement)	\$442,200	\$0	\$442,200
10240810	AM	REP	Overlook Avenue near Glenway Ave Sewer Replacement (Design,Easement)	\$275,000	\$0	\$275,000
10240835	AM	CSO	CSO 488 Access Lane (Construction)	\$68,000	\$0	\$68,000
10240845	AM	REP	Taft Road & McMillan Street Sewer Replacement (Design,Easement)	\$3,052,500	\$0	\$3,052,500
10240850	AM	FAC	Mill Creek WWTP Outfall Improvements (Design)	\$447,000	\$0	\$447,000
10241905	AM	SUP	Congress Run Stream Restoration and Bank Stabilization (Design)	\$296,000	\$0	\$296,000



2022 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10242020	AM	FAC	Mill Creek WWTP Disinfection Improvement (Planning,Design)	\$1,907,200	\$0	\$1,907,200
10242030	AM	REP	Dorchester Avenue at Highland Avenue Sewer Replacement (Design,Easement)	\$240,350	\$0	\$240,350
10242050	AM	REP	Glenmary Ave and Vine Street Sewer Improvements (Planning)	\$300,000	\$0	\$300,000
10242080	AM	REP	Fenton Avenue (HN 1336) Sewer Relocation (Planning)	\$110,000	\$0	\$110,000
10242090	AM	REP	Donna Lane & Ester Marie Drive Sewer Relocation and Rehab (Planning)	\$86,000	\$0	\$86,000
10242105	AM	REP	Loth Street (HN 2272) Sewer Relocation and Rehab (Planning)	\$160,000	\$0	\$160,000
10242110	AM	REP	Central Avenue and W 9th Street Sewer (Planning)	\$130,000	\$0	\$130,000
10242115	AM	REP	Central Avenue (HN 1964) Sewer (Planning)	\$45,000	\$0	\$45,000
10242120	AM	REP	Elberon Avenue Sewer (Design,Easement)	\$640,000	\$0	\$640,000
10242125	AM	REP	Sycamore Street Sewer (Design,Easement)	\$825,000	\$0	\$825,000
10242140	AM	FAC	MCWWTP Dewatering Building Odor Control (Construction)	\$7,965,000	\$0	\$7,965,000
10242150	AM	FAC	Daly Road Treatment Facility Modifications (Construction)	\$443,100	\$0	\$443,100
10242155	AM	REP	Morrison Avenue Sewer Replacement (Planning)	\$140,000	\$0	\$140,000
10252020	AM	FAC	PRWWTP Sludge Storage Tank with Odor Control (Construction)	\$2,410,000	\$0	\$2,410,000
10270110	AM	REP	Linwood Avenue Sewer Replacement (Construction)	\$799,500	\$0	\$799,500
10270155	AM	REP	Paxton Avenue Sewer Rehabilitation (Design,Easement)	\$239,400	\$0	\$239,400
10270165	AM	REP	Delta and Greist Sewer Replacement (Construction)	\$683,437	\$0	\$683,437
10270185	AM	REP	Paxton Ave at Linwood Ave Sewer Replacement (Construction)	\$394,155	\$0	\$394,155
10270225	AM	REP	Elsmere Avenue from Slane to Lafayette Sewer Replacement (Design,Easement)	\$496,300	\$0	\$496,300
10272045	AM	REP	Celeron Avenue Sewer Rehabilitation (Planning)	\$150,000	\$0	\$150,000
10280242	AM	ALW	Hydraulic Modeling 2022 (Planning)	\$1,200,000	\$0	\$1,200,000
10280722	AM	ALW	Critical Asset Management Projects 2022 (Construction)	\$6,000,000	\$0	\$6,000,000
10281100	AM	FAC	LMWWTP Solids Disposal With Odor Control (Construction)	\$80,060,000	\$0	\$80,060,000



2022 CIP
Metropolitan Sewer District of Greater Cincinnati
ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10281322	AM	ALW	Prioritized Wastewater Collection System Improvements 2022 (Construction)	\$12,000,000	\$0	\$12,000,000
10282022	AM	ALW	CIP Planning Projects 2022 (Planning)	\$1,000,000	\$0	\$1,000,000
10282222	AM	ALW	CIP Planning Asset Management Conveyance Projects 2022 (Planning)	\$1,100,000	\$0	\$1,100,000
Total Cost for 49 ASSET Projects in 2022				\$130,272,642	\$0	\$130,272,642
Grand Totals for 60 Projects in 2022				\$172,571,910	\$0	\$172,571,910



2023 CIP
Metropolitan Sewer District of Greater Cincinnati
WWIP Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Construction)	\$7,012,000	\$0	\$7,012,000
10130566	WWIP	FAC	Muddy Creek WWTP EHRT and Pump Station Upgrade (Construction)	\$106,000,000	\$0	\$106,000,000
10142910	WWIP	SRC	Ludlow Run Sustainable Source Control (Design,Easement)	\$1,952,233	\$0	\$1,952,233
10172940	WWIP	SRC	Mt Washington Source Control Implementation (Construction)	\$9,708,000	\$0	\$9,708,000
10180123	WWIP	ALW	Main Sewer Renewal Program 2023 (Construction)	\$6,000,000	\$0	\$6,000,000
10180223	WWIP	ALW	Manhole Renewal Program 2023 (Construction)	\$973,300	\$0	\$973,300
10190223	WWIP	ALW	Phase 2 WWIP Planning 2023 (Planning)	\$5,000,000	\$0	\$5,000,000
Total Cost for 7 WWIP Projects in 2023				\$136,645,533	\$0	\$136,645,533



2023 CIP

Metropolitan Sewer District of Greater Cincinnati

OTHER Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10199023	OTHER	ALW	Program Management and Support Services 2023 (Design)	\$4,500,000	\$0	\$4,500,000
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000	\$0	\$5,000,000
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000	\$0	\$5,000,000
Total Cost for 3 OTHER Projects in 2023				\$14,500,000	\$0	\$14,500,000



2023 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10222005	AM	PSE	Colerain-Bevis Pump Station Replacement (Design,Easement)	\$1,935,000	\$0	\$1,935,000
10230045	AM	REP	Stonebridge Relief Sewer (Construction)	\$4,962,255	\$0	\$4,962,255
10230090	AM	PSE	Barrington Hills, Barrington Hills BLK. F, Gil Volz, and Kirkridge Acres P.S. Eliminations (Construction)	\$7,652,400	\$0	\$7,652,400
10230160	AM	REP	Glenway Avenue at Parkcrest Lane Sewer (Planning)	\$83,000	\$0	\$83,000
10240271	AM	CSO	Lower Mill Creek HW DW Protection (Construction)	\$1,392,000	\$0	\$1,392,000
10240426	AM	PSE	Pleasant Run Pump Station Upgrades (Construction)	\$17,656,000	\$0	\$17,656,000
10240445	AM	REP	Colton Lane Sewer Replacement (Design)	\$144,000	\$0	\$144,000
10240560	AM	REP	Schulte Drive Sewer Replacement (Construction)	\$485,600	\$0	\$485,600
10240765	AM	REP	Fyffe Avenue Sewer (Planning)	\$76,000	\$0	\$76,000
10240790	AM	REP	Clifton Avenue at Parker Street Sewer Replacement (Planning)	\$370,000	\$0	\$370,000
10240800	AM	REP	4511 Reading Road Sewer (Planning)	\$210,000	\$0	\$210,000
10240815	AM	REP	150 Caldwell Drive Sewer (Planning)	\$39,000	\$0	\$39,000
10240855	AM	REP	Connecticut Avenue Sewer Replacement (Construction)	\$2,106,000	\$0	\$2,106,000
10240870	AM	REP	911 McPherson Avenue Sewer Replacement (Construction)	\$1,024,000	\$0	\$1,024,000
10240875	AM	REP	Ledgewood Ave Sewer Replacement (Design,Easement)	\$1,100,000	\$0	\$1,100,000
10241905	AM	SUP	Congress Run Stream Restoration and Bank Stabilization (Construction)	\$2,217,000	\$0	\$2,217,000
10242050	AM	REP	Glenmary Ave and Vine Street Sewer Improvements (Design,Easement)	\$1,872,500	\$0	\$1,872,500
10242055	AM	REP	Queen City Avenue (HN 2047) Sewer Rehabilitation (Design,Easement)	\$308,000	\$0	\$308,000
10242110	AM	REP	Central Avenue and W 9th Street Sewer (Design,Easement)	\$555,000	\$0	\$555,000
10242115	AM	REP	Central Avenue (HN 1964) Sewer (Design,Easement)	\$135,500	\$0	\$135,500
10242130	AM	FAC	MCWWTP Primary Settling Electrical Equipment Replacement (Planning)	\$120,000	\$0	\$120,000
10250040	AM	FAC	Polk Run WWTP Effluent Pumping Improvements (Planning)	\$219,216	\$0	\$219,216
10270007	AM	SEW	Dry Run Area Sewers Phase 2 Contract RB (Design,Construction)	\$6,684,500	\$0	\$6,684,500
10270026	AM	PSE	Camargo Canyon Pump Station Elimination (Construction)	\$1,178,400	\$0	\$1,178,400



2023 CIP
Metropolitan Sewer District of Greater Cincinnati
ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10272025	AM	REP	Wasson Ravine Sewer Replacement (Construction)	\$2,115,000	\$0	\$2,115,000
10272050	AM	PSE	Wayside Hills Pump Station Replacement (Design,Easement)	\$642,500	\$0	\$642,500
10280243	AM	ALW	Hydraulic Modeling 2023 (Planning)	\$1,200,000	\$0	\$1,200,000
10280723	AM	ALW	Critical Asset Management Projects 2023 (Construction)	\$6,000,000	\$0	\$6,000,000
10281323	AM	ALW	Prioritized Wastewater Collection System Improvements 2023 (Construction)	\$12,000,000	\$0	\$12,000,000
10282023	AM	ALW	CIP Planning Projects 2023 (Planning)	\$1,000,000	\$0	\$1,000,000
10282223	AM	ALW	CIP Planning Asset Management Conveyance Projects 2023 (Planning)	\$1,100,000	\$0	\$1,100,000
Total Cost for 31 ASSET Projects in 2023				\$76,582,871	\$0	\$76,582,871
Grand Totals for 41 Projects in 2023				\$227,728,404	\$0	\$227,728,404



2024 CIP
Metropolitan Sewer District of Greater Cincinnati
WWIP Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10142910	WWIP	SRC	Ludlow Run Sustainable Source Control (Construction)	\$11,266,414	\$0	\$11,266,414
10180124	WWIP	ALW	Main Sewer Renewal Program 2024 (Construction)	\$6,000,000	\$0	\$6,000,000
10180224	WWIP	ALW	Manhole Renewal Program 2024 (Construction)	\$973,300	\$0	\$973,300
10190224	WWIP	ALW	Phase 2 WWIP Planning 2024 (Planning)	\$5,000,000	\$0	\$5,000,000
11242844	WWIP	SEP	CSO 12 Sewer Separation Outfall to Mill Creek (Construction)	\$26,050,956	\$0	\$26,050,956
11530000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Construction)	\$6,782,000	\$0	\$6,782,000
Total Cost for 6 WWIP Projects in 2024				\$56,072,670	\$0	\$56,072,670



2024 CIP

Metropolitan Sewer District of Greater Cincinnati

OTHER Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10199024	OTHER	ALW	Program Management and Support Services 2024 (Design)	\$3,500,000	\$0	\$3,500,000
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000	\$0	\$5,000,000
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000	\$0	\$5,000,000
Total Cost for 3 OTHER Projects in 2024				\$13,500,000	\$0	\$13,500,000



2024 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10230054	AM	FAC	Muddy Creek WWTP Disinfection Upgrades (Construction)	\$2,628,400	\$0	\$2,628,400
10230160	AM	REP	Glenway Avenue at Parkcrest Lane Sewer (Design,Easement)	\$320,000	\$0	\$320,000
10230170	AM	REP	Harrison Avenue North and South Hydraulic Improvements (Design,Easement)	\$955,000	\$0	\$955,000
10232005	AM	REP	Benz Avenue (HN 1111) Sewer Replacement (Design,Easement)	\$92,000	\$0	\$92,000
10240200	AM	REP	Harvey Ave-Hickman Ave Sewer Replacement (Construction)	\$1,440,000	\$0	\$1,440,000
10240465	AM	REP	Hosea Street Sewer Replacement (Design,Easement)	\$359,700	\$0	\$359,700
10240525	AM	REP	Victory Parkway Sewer Rehabilitation (Construction)	\$1,949,000	\$0	\$1,949,000
10240600	AM	FAC	Mill Creek WWTP Electrical Arc Flash Protection (Planning)	\$500,000	\$0	\$500,000
10240720	AM	REP	Valleyview Court Sewer Replacement (Construction)	\$734,000	\$0	\$734,000
10240725	AM	REP	Shaffer Avenue Sewer Replacement (Construction)	\$907,400	\$0	\$907,400
10240735	AM	REP	De Votie Avenue Sewer Replacement (Construction)	\$588,000	\$0	\$588,000
10240740	AM	REP	Tennessee Avenue (HN 1754) Sewer Replacement (Construction)	\$320,000	\$0	\$320,000
10240750	AM	REP	Seton Avenue (HN 916) Sewer Replacement (Construction)	\$328,000	\$0	\$328,000
10240755	AM	REP	Victory Parkway at Ledgewood Drive Sewer Replacement (Construction)	\$960,000	\$0	\$960,000
10240760	AM	REP	Highland and Burnet Sewer Replacement (Construction)	\$2,118,700	\$0	\$2,118,700
10240775	AM	REP	Gilbert Avenue at Casino Sewer Replacement (Construction)	\$4,924,700	\$0	\$4,924,700
10240780	AM	REP	Galbraith Rd to Sheldon Avenue Sewer Replacement (Construction)	\$413,800	\$0	\$413,800
10240790	AM	REP	Clifton Avenue at Parker Street Sewer Replacement (Design,Easement)	\$2,340,000	\$0	\$2,340,000
10240800	AM	REP	4511 Reading Road Sewer (Design,Easement)	\$1,000,000	\$0	\$1,000,000
10240810	AM	REP	Overlook Avenue near Glenway Ave Sewer Replacement (Construction)	\$238,000	\$0	\$238,000
10240815	AM	REP	150 Caldwell Drive Sewer (Design,Easement)	\$93,000	\$0	\$93,000
10240820	AM	REP	Reading Road at Stewart Place Sewer Replacement (Construction)	\$300,000	\$0	\$300,000



2024 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10240845	AM	REP	Taft Road & McMillan Street Sewer Replacement (Construction)	\$8,130,000	\$0	\$8,130,000
10242025	AM	REP	Davey Avenue to Hamilton Avenue Sewer Replacement (Construction)	\$513,100	\$0	\$513,100
10242030	AM	REP	Dorchester Avenue at Highland Avenue Sewer Replacement (Construction)	\$1,516,100	\$0	\$1,516,100
10242035	AM	REP	Reading Road - 12th Street to E Liberty Street Sewer Replacement (Construction)	\$2,820,200	\$0	\$2,820,200
10242080	AM	REP	Fenton Avenue (HN 1336) Sewer Relocation (Design,Easement)	\$435,000	\$0	\$435,000
10242085	AM	PSE	Village Woods Pump Station and System Improvements (Construction)	\$524,000	\$0	\$524,000
10242090	AM	REP	Donna Lane & Ester Marie Drive Sewer Relocation and Rehab (Design,Easement)	\$295,000	\$0	\$295,000
10242105	AM	REP	Loth Street (HN 2272) Sewer Relocation and Rehab (Design,Easement)	\$732,000	\$0	\$732,000
10242130	AM	FAC	MCWWTP Primary Settling Electrical Equipment Replacement (Design)	\$280,000	\$0	\$280,000
10242135	AM	REP	Mill Creek Interceptors Rehabilitation (Construction)	\$4,300,000	\$0	\$4,300,000
10242155	AM	REP	Morrison Avenue Sewer Replacement (Design,Easement)	\$590,000	\$0	\$590,000
10250040	AM	FAC	Polk Run WWTP Effluent Pumping Improvements (Design)	\$466,566	\$0	\$466,566
10270155	AM	REP	Paxton Avenue Sewer Rehabilitation (Construction)	\$1,734,200	\$0	\$1,734,200
10270220	AM	REP	Tusculum Avenue at Woodbridge Sewer Replacement (Construction)	\$87,000	\$0	\$87,000
10270225	AM	REP	Elsmere Avenue from Slane to Lafayette Sewer Replacement (Construction)	\$806,000	\$0	\$806,000
10272030	AM	REP	Ridge Avenue (HN 5053) Sewer Replacement (Construction)	\$217,900	\$0	\$217,900
10272045	AM	REP	Celeron Avenue Sewer Rehabilitation (Design,Easement)	\$735,000	\$0	\$735,000
10280244	AM	ALW	Hydraulic Modeling 2024 (Planning)	\$1,200,000	\$0	\$1,200,000
10280724	AM	ALW	Critical Asset Management Projects 2024 (Construction)	\$6,000,000	\$0	\$6,000,000
10281324	AM	ALW	Prioritized Wastewater Collection System Improvements 2024 (Construction)	\$12,000,000	\$0	\$12,000,000
10282024	AM	ALW	CIP Planning Projects 2024 (Planning)	\$1,000,000	\$0	\$1,000,000
10282224	AM	ALW	CIP Planning Asset Management Conveyance Projects 2024 (Planning)	\$1,100,000	\$0	\$1,100,000
Total Cost for 44 ASSET Projects in 2024				\$68,991,766	\$0	\$68,991,766



2024 CIP
Metropolitan Sewer District of Greater Cincinnati
ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
Grand Totals for 53 Projects in 2024				\$138,564,436	\$0	\$138,564,436



2025 CIP
Metropolitan Sewer District of Greater Cincinnati
WWIP Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130280	WWIP	PSE	Addyston Pump Station Elimination (Construction)	\$2,584,754	\$0	\$2,584,754
10142420	WWIP	SEP	Vine Street at Erkenbrecher Avenue Sewer Separation (Construction)	\$22,500,000	\$0	\$22,500,000
10180125	WWIP	ALW	Main Sewer Renewal Program 2025 (Construction)	\$6,000,000	\$0	\$6,000,000
10180225	WWIP	ALW	Manhole Renewal Program 2025 (Construction)	\$973,300	\$0	\$973,300
10190225	WWIP	ALW	Phase 2 WWIP Planning 2025 (Planning)	\$5,000,000	\$0	\$5,000,000
10199025	WWIP	ALW	Program Management and Support Services 2025 (Design)	\$3,500,000	\$0	\$3,500,000
Total Cost for 6 WWIP Projects in 2025				\$40,558,054	\$0	\$40,558,054



2025 CIP

Metropolitan Sewer District of Greater Cincinnati

OTHER Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,000,000	\$0	\$5,000,000
13099999	OTHER	ALW	MSD LABOR (Design)	\$5,000,000	\$0	\$5,000,000
Total Cost for 2 OTHER Projects in 2025				\$10,000,000	\$0	\$10,000,000



2025 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10230655	AM	REP	Muddy Creek Road and Rosebud Drive Sewer Replacement (Construction)	\$452,000	\$0	\$452,000
10232010	AM	FAC	MUWWTP Outfall Manhole Repair (Design)	\$225,000	\$0	\$225,000
10232025	AM	REP	3731 Glenmore Avenue Sewer Evaluation (Construction)	\$380,000	\$0	\$380,000
10240445	AM	REP	Colton Lane Sewer Replacement (Construction)	\$218,200	\$0	\$218,200
10240465	AM	REP	Hosea Street Sewer Replacement (Construction)	\$2,453,400	\$0	\$2,453,400
10240640	AM	FAC	MCWWTP Dewatering Building Improvements (Design)	\$1,288,000	\$0	\$1,288,000
10240765	AM	REP	Fyffe Avenue Sewer (Design,Easement)	\$264,000	\$0	\$264,000
10240785	AM	REP	Clifton Avenue from MLK to Howell Sewer Replacement (Design,Easement)	\$1,610,000	\$0	\$1,610,000
10240795	AM	REP	Central to McMicken at Stark St Sewer Replacement (Construction)	\$1,712,900	\$0	\$1,712,900
10240875	AM	REP	Ledgewood Ave Sewer Replacement (Construction)	\$2,460,000	\$0	\$2,460,000
10242020	AM	FAC	Mill Creek WWTP Disinfection Improvement (Construction)	\$8,372,500	\$0	\$8,372,500
10242120	AM	REP	Elberon Avenue Sewer (Construction)	\$1,010,000	\$0	\$1,010,000
10242125	AM	REP	Sycamore Street Sewer (Construction)	\$1,930,000	\$0	\$1,930,000
10242130	AM	FAC	MCWWTP Primary Settling Electrical Equipment Replacement (Construction)	\$1,030,000	\$0	\$1,030,000
10280245	AM	ALW	Hydraulic Modeling 2025 (Planning)	\$1,200,000	\$0	\$1,200,000
10280725	AM	ALW	Critical Asset Management Projects 2025 (Construction)	\$6,000,000	\$0	\$6,000,000
10281325	AM	ALW	Prioritized Wastewater Collection System Improvements 2025 (Construction)	\$12,000,000	\$0	\$12,000,000
10282025	AM	ALW	AM CIP Conveyance Planning 2025 (Planning)	\$1,000,000	\$0	\$1,000,000
10282225	AM	ALW	CIP Planning Asset Management Conveyance Projects 2025 (Planning)	\$1,100,000	\$0	\$1,100,000
Total Cost for 19 ASSET Projects in 2025				\$44,706,000	\$0	\$44,706,000
Grand Totals for 27 Projects in 2025				\$95,264,054	\$0	\$95,264,054