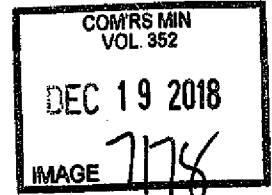


Ms. Driehaus moved to substitute the MSD 2019-2023 Capital Improvement Program resolution with a document recommended by the County Administrator 2nd by Mr. Monzel: 2 Yes and 1 Absent  
On motion of Ms. Driehaus, seconded by Mr. Monzel the following resolution was adopted by  
2 YES 1 ABSENT/EXCUSED

4  
**RESOLUTION APPROVING AND ADOPTING THE MSD 2019-2023 CAPITAL IMPROVEMENT PROGRAM FOR THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI, HAMILTON COUNTY OHIO, AS MODIFIED BY THE BOARD OF COUNTY COMMISSIONERS WITH CONDITIONS AND DIRECTIVES TO MSD**

**AND APPROPRIATING FUNDS THEREFOR**

**BY THE BOARD:**



**WHEREAS**, the Metropolitan Sewer District of Greater Cincinnati ("MSD") was created and exists as a County Sewer District under Chapter 6117 of the Ohio Revised Code; and,

**WHEREAS** the City of Cincinnati ("City"), by Ordinance of City Council adopted April 10, 1968, consented to be included in the county sewer district now known as the Metropolitan Sewer District of Greater Cincinnati; and,

**WHEREAS**, the Board of County Commissioners, Hamilton County, Ohio ("Board") is a party to an Agreement dated April 10, 1968, with the City pursuant to which the Board exercises authority and control as the statutory owner and principal of MSD, and the City provides certain management and operations services on its behalf; and,

**WHEREAS**, said Agreement, at Section V.3.a, provides that the City will prepare annually a Capital Improvement Program ("MSD CIP") and submit said program to the Board and that the Board will hold a public hearing thereon; and,

**WHEREAS**, said Agreement, at Section V.3.b, provides that the Board shall hold a public hearing on the MSD CIP as submitted and shall "adopt, or modify and adopt the capital improvement program for the sewer system"; and,

**WHEREAS**, the Interim Director of MSD has submitted to this Board, a Capital Improvement Program for the years 2019-2023; and,

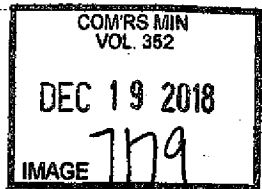
**WHEREAS**, this Board has reviewed said Fiscal Years ("FY") 2019-2023 MSD CIP as submitted by MSD; and,

**WHEREAS**, after legal advertisement, this Board did conduct public hearings on December 5, and December 19, 2019 on the FY 2019-2023 MSD CIP, at which hearings all persons desiring to ask questions and make statements were afforded such opportunity; and,

**WHEREAS**, this Board did, on December 19, 2018, conclude said public hearings on said FY 2019-2023 MSD CIP; and,

**WHEREAS**, this Board, finding the FY 2019-2023 MSD CIP requiring revisions and modifications, is directing MSD to incorporate Board directed revisions and modifications to the FY 2019-2023 MSD CIP, and represented in the attached Board Revised MSD CIP Book, dated December 18, 2018, and,

**WHEREAS**, by approving this Board Revised FY 2019-2023 MSD CIP, the Board also is specifically authorizing the preparation of detailed plans, specifications, estimates of costs,



and where appropriate, preparation of tentative assessments, subject to the conditions of the Board, for the projects contained and outlined in **Exhibit A**, for 2019, which are attached hereto and by reference made a part thereof, subject to the modifications, terms, conditions, and restrictions contained in this Resolution; and,

**WHEREAS**, by approving this Board Revised FY 2019–2023 MSD CIP, the Board also is specifically approving the detailed plans, specifications, and estimates of cost for the projects contained and outlined in **Exhibit B**, subject to the conditions of the Board, which are attached hereto and by reference made a part thereof; and,

**WHEREAS**, by approving this Board Revised FY 2019-2023 MSD CIP, the Board is specifically approving the use of Programmatic Contingency to cover needed contingency for all projects legislated, consistent with the requirements of Section 2405-2(A)(3), “Contingency” of the rules and regulations governing the design, construction, maintenance, operation and use of sanitary and combined sewers for MSD (“MSD Rules and Regulations”); and,

**WHEREAS**, by approving this Board Revised FY 2019-2023 MSD CIP, the Board is requiring that any project, when ordered constructed, have specific authorization and appropriation of funds through legislation passed by the Board, subject to the modifications, terms, conditions, and restrictions contained in this Resolution; and,

**WHEREAS**, by approving this Board Revised FY 2019–2023 MSD CIP, the Board is specifically approving the amounts for certain projects identified in **Exhibits A and B** with modifications as specified in this Resolution; and,

**WHEREAS**, where conflicts exist between this Resolution and any Exhibits attached hereto, this Resolution shall control; and,

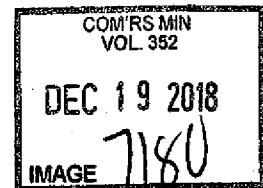
**WHEREAS**, by approving this Board Revised FY 2019–2023 MSD CIP, the Board is approving, in concept only, the submitted project list and total project cost estimates not contained in **Exhibits A or B**, and any such project not contained in these Exhibits, when ordered designed or constructed, will require specific authorization and appropriation of funds through legislation passed by the Board; and,

**WHEREAS**, the respective Project[s’] and Allowance[s’] activities as contained in **Exhibit A**, **Exhibit B**, or funds for use as Programmatic Contingency, are for the purpose of acquiring, constructing, and improving capital assets to be used in the operation and maintenance of the MSD, a County Sewer District under Chapter 6117 Revised Code of Ohio and in compliance with Section 133.01(Z) R.C.; and,

**WHEREAS**, it has been determined sufficient unappropriated funds are available for use by MSD to temporarily finance construction costs prior to the issuance of long-term revenue and/or special assessment bonds.

**NOW, THEREFORE BE IT RESOLVED**, the Board of County Commissioners of Hamilton County, Ohio does hereby:

**SECTION 1.** Approve and adopt the Board Revised FY 2019-2023 MSD CIP, which is inclusive of **Exhibits A and B and Programmatic Contingency** with conditions and as modified by the Board as illustrated in the attached Board Revised CIP Book.



**SECTION 2.** Authorize and direct the County Administrator on behalf of the Board of County Commissioners to ensure the required modifications outlined in this Resolution are completed and the conditions adhered.

**SECTION 3.** Adopt this Board Revised FY 2019-2023 MSD CIP as a five-year program incorporating projects and authorizing expenditures consistent with the County's Phase 2A plan submitted to the Consent Decree Regulators, including spending commitments for Bridge projects (as defined in the Regulator's June 29, 2018 letter). The Board Revised FY 2019-2023 MSD CIP is a directive from the Board by which MSD will develop and construct its capital projects for the next five years. By adopting the FY 2019-2023 MSD CIP with conditions and required modifications, the Board directs MSD to timely, cost effectively, and accurately implement the Program.

**SECTION 4.** Direct MSD to provide to the Board a revised FY 2019-2023 MSD CIP Book, no later than January 25, 2019, including project fact sheets, incorporating the modifications indicated in the Board Revised MSD CIP attached to this Resolution. County Administration, or its designee, will assist MSD by providing the necessary information to complete the revised FY 2019-2023 MSD CIP.

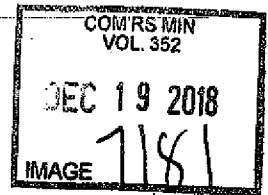
- a. In addition to modifications shown for each project, MSD will comply with the comments column, including but not limited to County Administration, or its designees, participating in scope and planning meetings.
- b. MSD will include fact sheets for all County required projects added to the FY 2019-2023 MSD CIP and shall provide modified fact sheets for projects modified by the County for either scope or budget. County Administration, or its designee, will assist and provide MSD necessary information to complete the revisions to the satisfaction of the County Administration.
- c. It may be necessary for MSD to modify each year's Asset Management ("AM") project list so the total CIP budget for the out-years is consistent with the County's projects, sequencing, scope, and annual targets for each year (2020-2023). County priority AM projects shall not be removed or modified. MSD will meet with County Administration, or its designees, to coordinate project details, as needed, and County Administration, or its designees, will assist and provide MSD necessary information.

**SECTION 5.** Direct for any capital Allowance funded expense exceeding \$100,000, from the Hydraulic Modeling, SBU Urgent Capacity Response, Critical Asset Management Projects 2019 and CIP Planning Asset Management Conveyance Projects 2019 Allowances, MSD will provide sufficient detailed information to justify the expense to County Administration, or its designees, for approval prior to the expenditure of any funds.

**SECTION 6.** Direct all previously authorized planning, design, engineering ("PDE") projects where funds have not been encumbered by date of adoption of this Resolution are automatically de-legislated, de-authorized and terminated unless expressly authorized by the Board.

**SECTION 7.** Direct all construction projects not funded and legislated during the year authorized by date of adoption of this Resolution are automatically de-legislated, de-authorized and terminated unless expressly authorized by the Board.

**SECTION 8.** Direct MSD to comply with all Board adopted MSD Rules and Regulations, and all



applicable Ohio laws in the expenditure of all funds and monies, including but not limited to Rule 2407 (Stormwater Separation) and Rule 2405-9 (Memorandum of Understanding).

- a. With regard to project 10142916 MLK Sewer Separation at Burnett Woods, included in the 2019 MSD CIP, the County understands this project will require a Memorandum of Understanding ("MOU") with either the University of Cincinnati or the City of Cincinnati. The funding allocated for this project is for a construction project not to be implemented by MSD.

**SECTION 9.** Direct all Allowance budgets are annual budgets and shall not be carried over into the new fiscal year unless approved in advance by the Board. Invoices submitted to MSD for work performed in 2018 should be submitted by January 31, 2019. Invoices submitted after January 2019 shall be funded from the 2019 MSD CIP funds.

**SECTION 10.** Direct building sewers shall not be considered by or included in the scope of work for Allowances for Main Sewer Renewal Program 2019 (10180119), Manhole Renewal Program 2019 (10180219), and Wastewater Collections High Risk Asset Renewal (10280519) unless expressly permitted by County Administration. MSD will provide quarterly reports to the County that detail the amount of spending to date for each Allowance account and certifies that spending is in compliance with this policy.

**SECTION 11.** Direct MSD to complete the BCE for the Stonebridge project (10230045) that provides alternative solutions consistent with the Muddy Creek Integrated Watershed Action Plan (IWAP); resolves the current overflow problems without pushing any additional overflow volume downstream; and explores upstream separation options.

**SECTION 12.** Direct the scope of work for the 2019 Building Sewer Renewal Allowance shall comply with Rule 2008 or any version modified by the Board. This Allowance is limited to repair of failed building sewers. MSD will provide a quarterly report identifying the number and cost of failed building sewer work performed each month.

**SECTION 13.** Direct the scope of work for the Emergency Sewer Repair Allowance will be expanded to include the repair of building sewer failures causing a public hazard. MSD will report quarterly to the County Administration, or its designee, spending for main sewers and building sewers.

**SECTION 14.** Acknowledge Hamilton County, Ohio (the "County") may be expected to pay and/or incur costs with respect to the Project ("Prior Capital Expenditures") on or after the date of this Resolution and prior to the issuance of the obligations (the "Obligations") which will finance the projects defined in Exhibits A, B, and for Programmatic Contingency.

**SECTION 15.** Approve the use of the Obligations in the maximum principal amount of fifty-eight million, five-hundred nine thousand, one hundred forty-eight dollars (\$58,509,148.00) to finance the costs of the Projects contained in Exhibits A, B, and for Programmatic Contingency, and declares its intent that any Prior Capital Expenditures made by the County will be made in anticipation of the issuance of such Obligations to reimburse said prior Capital Expenditures. This declaration is made pursuant to Treas. Reg. Section 1.150-2 or any successor thereto.

**SECTION 16.** Authorize and direct the County Administrator, the Director or Interim Director of the Metropolitan Sewer District, the Director of Finance of the City of Cincinnati, the County

DEC 19 2018

IMAGE 7182

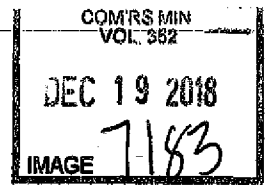
Auditor and/or US Bank, N.A., as Trustee, each as applicable to reimburse, not later than 18 months after the later of (i) the date the original expenditure was paid or (ii) the date the item was placed in service, only those Prior Capital Expenditures from Projects contained in **Exhibits A, B,** and Programmatic Contingency and made with respect to assets having a reasonably expected economic life of at least one year, and, in addition, eligible preliminary expenditures paid and incurred in connection with the Project from the Revenue Fund, Replacement and Improvement Account and/or the Surplus Account.

**SECTION 17.** Find and determine, consistent with the County's budgetary and financial circumstances, it does not have funds currently available and does not expect to have funds available in the future that may be allocated on a long-term basis, other than the proceeds of the Obligations, to finance the Prior Capital Expenditures from Projects contained in **Exhibits A, B,** and for Programmatic Contingency.

**SECTION 18.** Direct the County Administrator, the Director or Interim Director of the Metropolitan Sewer District, the Director of Finance of the City of Cincinnati, the County Auditor and/or US Bank, N.A., as Trustee, each as applicable, to take the following action at the time the Prior Capital Expenditures from Projects contained in **Exhibits A, B,** and for Programmatic Contingency are reimbursed from proceeds of the Obligations only if said reimbursement relieves the proceeds used for reimbursement from any restrictions imposed by both legal documents under which the Obligations were issued and applicable state law: (1) evidence the reimbursement on the books and records maintained with respect to the Obligations, and (2) identify either the actual prior expenditure to be reimbursed or, in the case of reimbursement of a fund or account, the fund or account from which the expenditure was paid.

**BE IT FURTHER RESOLVED** that:

1. The sum of fifty-eight million, five-hundred nine thousand, one hundred forty-eight dollars (\$58,509,148.00) currently existing in unappropriated funds available for use by the Metropolitan Sewer District in Capital Improvement Fund 704 maintained by the City of Cincinnati, and the Surplus Account held at US Bank is hereby appropriated to pay costs for planning, design, easement acquisition, and/or other related pre-construction activity costs incurred in connection with the Board Revised FY 2019-2023 MSD CIP as outlined in **Exhibit A,** the construction costs of projects as identified in **Exhibit B,** and for Programmatic Contingency.
2. Of the \$58,509,148.00 being appropriated, \$22,949,148.00 is to be used for either (a) planning activities and studies; (b) the preparation of detailed project plans, specifications, cost estimate; (c) project easement acquisition; or (d) a combination of only these project activities for 21 projects contained in and outlined in **Exhibit A.**
3. Of the \$58,509,148.00 being appropriated, \$29,700,000.00 is to be used for construction activities of only the six items contained in and outlined in **Exhibit B.**
4. Of the \$58,509,148.00 being appropriated, \$5,860,000.00 is for use for MSD Programmatic Contingency as per the requirements of 2405-2(A)(3), "Contingency" of the MSD Rules and Regulations.



**BE IT FURTHER RESOLVED** the books, records and proceedings of the County with respect to this Resolution shall be made reasonably available by the County, for inspection by the general public at the County's administrative office every business day during normal business hours commencing no later than 30 days after the passage of this resolution. Said books, records and proceedings of the County with respect to this Resolution will continue to be reasonably available to the general public until the date of issuance of the Obligations.

**BE IT FURTHER RESOLVED**, the Clerk of the Board be and hereby is authorized and directed to certify copies of this executed Resolution to Jeff Aluotto, County Administrator; Judi Boyko, Assistant County Administrator, Patrick A. Duhaney, Cincinnati City Manager, and Diana Christy, Interim Director of MSD;

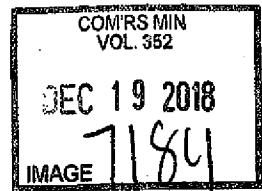
**BE IT FURTHER RESOLVED**, that this Board of County Commissioners hereby finds and determines that all formal actions relative to the adoption of this Resolution were taken in an open meeting of the Board of County Commissioners, and that all deliberations of this Board of County Commissioners and of its committees, if any, which resulted in formal action were taken in meetings open to the public, in full compliance with applicable legal requirements, including Section 121.22 of the Ohio Revised Code.

**ADOPTED** at a regularly scheduled meeting of the Board of County Commissioners of Hamilton County, Ohio this 19<sup>th</sup> day of December, 2018.

Ms. Driehaus YES

Mr. Monzel YES

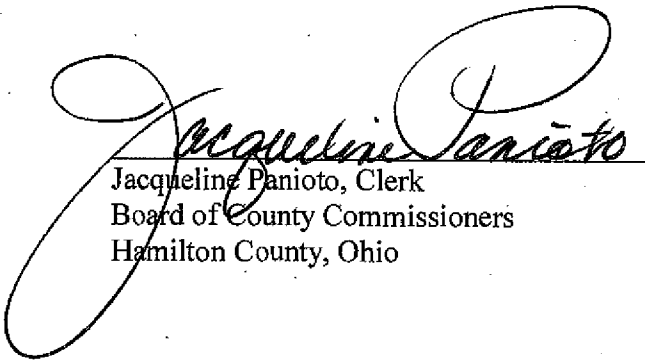
Mr. Portune ABSENT /  
EXCUSED

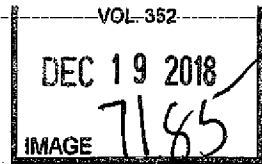


**CERTIFICATE OF CLERK**

**IT IS HEREBY CERTIFIED** the foregoing is a true and correct transcript of a resolution adopted by this Board of County Commissioners in session this 19 day of December 2018.

**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the official seal of Office of County Commissioners of Hamilton County, Ohio this 19 day of December, 2018.

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



**RESOLUTION AUTHORIZING THE PREPARATION OF  
DETAILED PLANS, SPECIFICATIONS, ESTIMATES OF COST,  
AND/OR OTHER RELEVANT DOCUMENTS FOR THE  
2019-2023 CAPITAL IMPROVEMENT PROGRAM OF**

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI**

**WHEREAS**, the Board of County Commissioners of Hamilton County, Ohio (the "Board") did, by resolution adopted on a date even herewith, approve the 2019-2023 Capital Improvement Program ("CIP") for the Metropolitan Sewer District of Greater Cincinnati ("MSD") as adopted and modified by the Board; and

**WHEREAS**, the Board wishes to proceed with the completion of detailed plans, specifications, other relevant documents, cost estimates, right-of-way activities, administrative and other miscellaneous activities associated with and necessary to the projects contained in **Exhibit A**, as adopted and modified by the Board, located in the Metropolitan Sewer District, attached hereto and by this reference incorporated herein.

**NOW, THEREFORE, BE IT RESOLVED**, by this Board of County Commissioners of Hamilton County, Ohio, that the Director or Interim Director of the Metropolitan Sewer District of Greater Cincinnati be, and he or she is hereby authorized and directed to complete preparation and submit forthwith, for the consideration and approval of this Board, detail plans, specifications, estimate of cost, and/or other relevant documents for projects contained in **Exhibit A**, as adopted and modified by the Board.

**BE IT FURTHER RESOLVED**, that this Board of County Commissioners hereby finds and determines that all formal actions relative to the adoption of this Resolution were taken in an open meeting of the Board of County Commissioners and that all deliberations of this Board of County Commissioners and of its committees, if any, which resulted in formal action were taken in meetings open to the public, in full compliance with applicable legal requirements, including Section 121.22 of the Ohio Revised Code.

**ADOPTED** at a regularly adjourned meeting of the Board of County Commissioners of Hamilton County, Ohio, this     day of December, 2018.

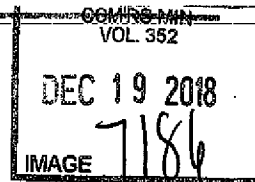
Ms. Driehaus YES

Mr. Monzel YES

Mr. Portune ABSENT

**EXCUSED**





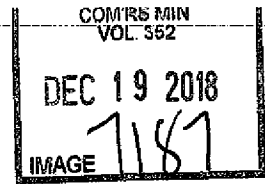
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**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the official seal of Office of County Commissioners of Hamilton County, Ohio this 19 day of December, 2018.

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



**RESOLUTION APPROVING THE DETAILED PLANS, SPECIFICATIONS, ESTIMATES OF COST, AND/OR OTHER RELEVANT DOCUMENTS FOR THE 2019 CAPITAL IMPROVEMENT PROGRAM EXHIBIT B, FOR**

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI**

**WHEREAS**, the Board of County Commissioners of Hamilton County, Ohio (the "Board") did, by resolution adopted on a date even herewith, approve the 2019 - 2023 Capital Improvement Program ("CIP") with conditions and modifications for the Metropolitan Sewer District of Greater Cincinnati ("MSD"); and

**WHEREAS**, said projects as contained in **Exhibit B**, as adopted and modified by the Board, are for the purpose of acquiring, constructing, and improving capital assets to be used in the operation and maintenance of the MSD, as operated by this Board under Chapter 6117 Revised Code of Ohio and in compliance with Section 133.01(Z) R.C.

**NOW, THEREFORE, BE IT RESOLVED**, by this Board of County Commissioners of Hamilton County, Ohio, that the aforesaid detailed plans, specifications estimate of cost, and/or other relevant documents for the sanitary sewer projects contained in **Exhibit B**, as adopted and modified by the Board, be, and the same are, hereby approved by this Board of County Commissioners.

**BE IT FURTHER RESOLVED**, that this Board of County Commissioners hereby finds and determines that all formal actions relative to the adoption of this Resolution were taken in an open meeting of the Board of County Commissioners and that all deliberations of this Board of County Commissioners and of its committees, if any, which resulted in formal action were taken in meetings open to the public, in full compliance with applicable legal requirements, including Section 121.22 of the Ohio Revised Code.

**ADOPTED** at a regularly adjourned meeting of the Board of County Commissioners of Hamilton County, Ohio, this 19 day of December, 2018.

Ms. Driehaus YES Mr. Monzel YES Mr. Portune ABSENT/EXCUSED

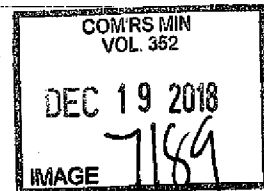


**CERTIFICATE OF CLERK**

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**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the official seal of Office of County Commissioners of Hamilton County, Ohio this 19 day of December, 2018.

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



**RESOLUTION DECLARING THE NECESSITY TO CONSTRUCT  
SEWER PROJECTS IDENTIFIED IN EXHIBIT B OF THE  
2019 CAPITAL IMPROVEMENT PLAN FOR**

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON, COUNTY, OHIO**

**AND DETERMINING TO PROCEED WITH THE IMPROVEMENTS**

**WHEREAS**, this Board of County Commissioners of Hamilton County, Ohio has heretofore approved a General Plan for the construction, maintenance, and operation of a sanitary sewer system in the Metropolitan Sewer District of Greater Cincinnati, Hamilton County, Ohio (the "Metropolitan Sewer District" or "MSD"); and

**WHEREAS**, the Board of County Commissioners of Hamilton County, Ohio did approve, on a date even herewith the detailed plans, specifications, estimates of cost, and/or other relevant documents for the sanitary sewer projects as contained in **Exhibit B** as adopted and modified by the Board, which is a part of the approved 2019-2023 MSD CIP as adopted and modified by the Board; and

**WHEREAS**, said projects as contained in **Exhibit B** as modified by the Board are for the purpose of acquiring, constructing, and improving capital assets to be used in the operation and maintenance of the MSD, as operated by this Board under Chapter 6117 Revised Code of Ohio and in compliance with Section 133.01(Z) R.C.

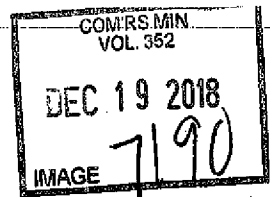
**NOW, THEREFORE, BE IT RESOLVED**, by the Board of County Commissioners of Hamilton County:

**SECTION 1.** That it is hereby declared necessary for the preservation and promotion of the public health and welfare to proceed with the construction of the sanitary sewer projects contained in **Exhibit B** as adopted and modified by the Board.

**SECTION 2.** That the construction of the projects contained in **Exhibit B** as adopted and modified by the Board, together with the necessary appurtenances thereto, shall be in accordance with the General Plan of sewerage of the Metropolitan Sewer District of Greater Cincinnati.

**SECTION 3.** The total estimated cost of construction, including engineering and incidental expenses, is more fully described in **Exhibit B** as adopted and modified by the Board.

**SECTION 4.** That to provide a means to pay for the said improvements contained in **Exhibit B** as adopted and modified by the Board, bonds and certificates of indebtedness in anticipation thereof may be issued in accordance with Chapters 6117 and 133 of the Ohio Revised Code which will be retired from unencumbered sewerage service charge revenues of the Metropolitan



Sewer District. No part of the cost of the said improvements shall be assessed against the benefited properties.

**SECTION 5.** That said projects as contained in **Exhibit B** as adopted and modified by the Board, together with the necessary appurtenances thereto, shall be located as more fully described under the "EXPLANATION/DESCRIPTION" and the "LOCATION" columns of each project in said Exhibit and of the materials set forth in the approved detailed plans, specifications, and/or other relevant documents.

**BE IT FURTHER RESOLVED,** that said projects as contained in **Exhibit B** as adopted and modified by the Board in the Metropolitan Sewer District, be and the same is hereby ordered to be constructed in accordance with the detailed plans, specifications, and/or other relevant documents heretofore adopted and approved by this Board, which hereby ratifies the same.

**BE IT FURTHER RESOLVED,** that this Board of County Commissioners hereby finds and determines that all formal actions relative to the adoption of this Resolution were taken in an open meeting of the Board of County Commissioners and that all deliberations of this Board of County Commissioners and of its committees, if any, which resulted in formal action were taken in meetings open to the public, in full compliance with applicable legal requirements, including Section 121.22 of the Ohio Revised Code.

**ADOPTED** at a regularly adjourned meeting of the Board of County Commissioners of Hamilton County, Ohio, this day of December, 2018.

Ms. Driehaus YES

Mr. Monzel YES

Mr. Portune ABSENT/EXCUSED



**CERTIFICATE OF CLERK**

**IT IS HEREBY CERTIFIED** the foregoing is a true and correct transcript of a resolution adopted by this Board of County Commissioners in session this 19 day of December 2018.

**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed the official seal of Office of County Commissioners of Hamilton County, Ohio this 19 day of December, 2018.

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



**CERTIFICATE OF CLERK**

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



**RESOLUTION AUTHORIZING THE CITY MANAGER TO ADVERTISE FOR BIDS**

**WHEREAS**, on a date even herewith this Board of County Commissioners of Hamilton County, Ohio ("Board"), determined to proceed with the construction of projects as contained in **Exhibit B** as adopted and modified by the Board, which is a part of the approved 2019-2023 Capital Improvement Program for the Metropolitan Sewer District of Greater Cincinnati ("MSD") as adopted and modified by the Board, in accordance with the detailed plans, specifications, estimate of cost, and/or other relevant documents, heretofore approved and ratified; and

**WHEREAS**, said projects as contained in **Exhibit B** as adopted and modified by the Board are for the purpose of acquiring, constructing, and improving capital assets to be used in the operation and maintenance of the MSD, as operated by this Board under Chapter 6117 Revised Code of Ohio and in compliance with Section 133.01(Z) R.C.; and

**WHEREAS**, it is deemed advisable to proceed at once with the next legislative step required by law, which is the offering of said contract for competitive bidding.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of County Commissioners of Hamilton County, Ohio, that the City Manager of Cincinnati, Ohio, is hereby authorized to proceed at once, at the earliest possible time, in accordance with the pertinent competitive bidding procedures and requirements, to advertise the contract for said projects as contained in **Exhibit B** as adopted and modified by the Board, in the Metropolitan Sewer District of Greater Cincinnati.

**BE IT FURTHER RESOLVED**, that this Board of County Commissioners hereby finds and determines that all formal actions relative to the adoption of this Resolution were taken in an open meeting of the Board of County Commissioners and that all deliberations of this Board of County Commissioners and of its committees, if any, which resulted in formal action were taken in meetings open to the public, in full compliance with applicable legal requirements, including Section 121.22 of the Ohio Revised Code.

**ADOPTED** at a regularly adjourned meeting of the Board of County Commissioners of Hamilton County, Ohio, this day of December, 2018.

Ms. Driehaus YES Mr. Monzel YES Mr. Portune ABSENT/EXCUSED



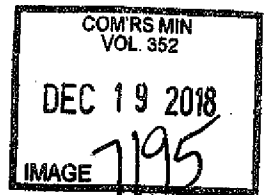
# Metropolitan Sewer District of Greater Cincinnati



## Capital Budget and Capital Improvement Program Year 2019

Board Revised CIP Book - December 18, 2018

Wednesday, November 28, 2018



The Board of Commissioners, Hamilton County has revised the 2019-2023 Capital Improvements Plan (CIP) Book that MSD provided to the County on November 28, 2018. These modifications are necessary to reflect the County's guidance and direction to MSD to provide a document consistent with the County's Phase 2A Plan. This Board revised CIP Book will be attached to the 2019-2023 CIP budget legislation to be authorized by the Board of County Commissioners.

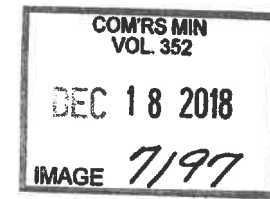
The table below presents the high level summary of CIP budget categories and associated budget values that are represented in this County revised CIP Book.

Total WWIP in CIP:	\$74,639,270
Total Asset Management in CIP:	\$54,472,925
Program Contingency:	\$5,860,000
Grand Total County CIP Budget:	\$134,972,195

Attachment 1 is a detailed summary of project level budget information contained in this Board revised CIP Book. This Attachment 1 includes the rationale for projects not authorized in the 2019 budget, and also identifies those projects that require project fact sheets to be produced by MSD in its preparation of a revised CIP Book. County Administration will assist MSD in its CIP Book update by providing any required information supplemental to that contained in Attachment 1.



Project ID	CIP Type	Project Type	Projects by Program	County's 2019 CIP PDE Cost Allocation	County's 2019 CIP Construction Budget	County's 2019 CIP Total Budget for MSD	County Comments
			<b>TOTAL ALL PROJECTS</b>	\$ 28,809,148	\$ 106,163,047	\$ 134,972,185	
			<b>TOTAL WWIP PROJECTS &amp; WWIP ALLOWANCES</b>	\$ 10,895,000	\$ 83,744,270	\$ 74,639,270	
			<b>WWIP PROJECTS</b>	\$ 25,000	\$ 55,764,270	\$ 55,789,270	
10130042	WWIP	REP	Upper Muddy Creek Interceptor - Bridge Phase	\$ -	\$ 7,717,070	\$ 7,717,070	County added this project to 2019. Deferred from 2018. The Board will direct MSD how project is to proceed.
40130566	WWIP	FAC	McGrWWTP EHRT and Pump Station Upgrade	\$ 5,383,762	\$ -	\$ 5,383,762	MSD didn't adjust project schedule to align with the County Phase 2A.
40130740	WWIP	FAC	West & Westbourne EHRT Facility	\$ -	\$ 400,000	\$ 400,000	MSD has not provided requested information.
10130850	WWIP	CSO	Muddy Creek Westbourne HRT Phase A Improvements	\$ -	\$ 5,171,300	\$ 5,171,300	
40140447	WWIP	ALW	LMCPR Construction- Compliance Assurance	\$ 1,700,000	\$ -	\$ 1,700,000	MSD has not provided requested information.
10142200	WWIP	SEP	CSO 513 Sewer Separation	\$ -	\$ 2,687,000	\$ 2,687,000	
10142220	WWIP	SEP	CSO 514 - Smalley Grating (WWIP Index 232)	\$ -	\$ 1,345,100	\$ 1,345,100	County added this project to 2019 to comply with the intent of the Bridge spending goals for this project. <u>MSD to provide project fact sheet.</u>
10142916	WWIP	SEP	MLK Sewer Separation at Burnett Woods	\$ 25,000	\$ 75,000	\$ 100,000	This construction project is not being implemented by MSD. Requires a funding agreement with third party. No BCE or other technical support data has been provided. Total project cost and terms of MOU with third party is presently unknown.
10144887	WWIP	FAC	Mill Creek WWTP High Rate Treatment Facility Diversion Structure	\$ -	\$ 7,863,000	\$ 7,863,000	MSD now estimates this Bridge project will cost more than the estimated cost identified when the Bridge was originally prepared. This is based upon the latest information obtained through the progressive design-build project by means of contractor proposed costs. The County's Phase 2A plan includes an additional project to complete construction of the facility not completed by the Bridge.
10170812	WWIP	FAC	LMWWTP Electrical Improvements Phase A	\$ -	\$ 2,880,000	\$ 2,880,000	



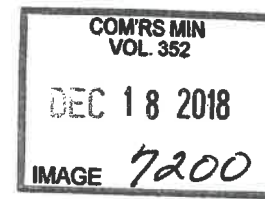
Project ID	CIP Type	Project Type	Projects by Program	County's 2019 CIP PDE Cost Allocation	County's 2019 CIP Construction Budget	County's 2019 CIP Total Budget for MSD	County Comments
10170813	WWIP	FAC	LMWWTP Preliminary Treatment Improvements Phase A	\$ -	\$ 18,194,000	\$ 18,194,000	
10171540	WWIP	REG	CSO 135 Elimination	\$ -	\$ 575,300	\$ 575,300	
10171560	WWIP	REG	CSO 43 Elimination	\$ -	\$ 414,400	\$ 414,400	
10171641	WWIP	SEP	CSO 214 Partial Separation	\$ -	\$ 2,326,300	\$ 2,326,300	
10472940	WWIP	SRG	Mt. Washington Source-Control Implementation	\$ 1,853,497	\$ -	\$ 1,853,497	Individual property SBU prevention devices are understood to be implemented in 2019 under the SBU operating budget, as normal program activity. Refer to SBU Urgent Capacity Response Program 2019 allowance. The necessary funding for this project can be utilized from SBU Urgent Capacity Response allowance.
10230640	WWIP	CSO	CSO 408 and 413 HW DW Protection	\$ -	\$ 3,397,200	\$ 3,397,200	
10270170	WWIP	CSO	CSO 83 and 472 Dynamic Underflow Control	\$ -	\$ 3,118,600	\$ 3,118,600	
			<b>WWIP ALLOWANCES</b>	<b>\$ 10,870,000</b>	<b>\$ 7,980,000</b>	<b>\$ 18,850,000</b>	
10180119	WWIP	ALW	Main Sewer Renewal Program 2019	<del>\$ -</del> \$ -	<del>\$ 2,000,000</del> \$ 6,000,000	<del>\$ 2,000,000</del> \$ 6,000,000	County increased the allowance budget by \$4.0M to establish a budget for 2019 that is similar to the County Phase 2A Plan. The County's budget provides a combined total budget of \$20.0M for main sewer allowances (Main Sewer Renewal, WWC High Risk Renewal, and Emergency Sewer Repairs). If followed, this will provide 85% of the total sewer allowance budgets for main sewers and 15% for building sewers in 2019. <u>MSD to provide updated project fact sheet.</u> For 2019 CIP Exhibit B, MSD is to modify the project Explanation/Description adding: "The scope of work does not include addressing building sewers."
10180219	WWIP	ALW	Manhole Renewal Program 2019	<del>\$ -</del> \$ -	<del>\$ 1,300,000</del> \$ 700,000	<del>\$ 1,300,000</del> \$ 700,000	County reduced budget to \$700,000 to match historical spending for this allowance. No justification was provided to support funds above historical level. MSD to <u>provide updated project fact sheet.</u>
10190219	WWIP	ALW	Phase 2 WWIP Planning 2019	\$ 1,000,000	\$ -	\$ 1,000,000	
10190319	WWIP	ALW	Home Sewer Treatment System Eliminations 2019	<del>\$ 350,000</del> \$ 670,000	<del>\$ -</del> \$ 1,280,000	<del>\$ 350,000</del> \$ 1,950,000	County added funding to provide design and construction budgets for projects consistent with MSD average annual allocations for assessment projects. MSD didn't provide any budget capacity for design and construction of local sewer assessment and lateral assessment projects. <u>MSD to provide updated project fact sheet.</u> This project should not be included in the 2019 CIP Exhibit B for construction funding.



Project ID	CIP Type	Project Type	Projects by Program	County's 2019 CIP PDE Cost Allocation	County's 2019 CIP Construction Budget	County's 2019 CIP Total Budget for MSD	County Comments
10192019	WWIP	ALW	SBU Urgent Capacity Response Program 2019	\$ 2,000,000	\$ -	\$ 2,000,000	MSD proposed all funding in Construction and Construction Services categories, which is not the County's intent for this allowance. MSD is to provide a revised fact sheet to show allocation of \$500,000 in Planning, and \$1.5M in Right-of-Way. The scope of this work is defined as: "This program will focus on identifying and planning broader long-term project solutions for multiple affected properties to address surface flooding and sewer back up problems, and in addition, where possible, CSO reduction. This allowance will be used to evaluate historic problem areas including, but not limited to, the Mt. Washington area." This project should be included in the 2019 CIP Exhibit A and not in Exhibit B.
10199019	WWIP	ALW	Program Management and Support Services 2019	\$ 3,500,000	\$ -	\$ 3,500,000	
10199119	WWIP	ALW	Hamilton County Utility Oversight and Coordination 2019	\$ 3,700,000	\$ -	\$ 3,700,000	County added this project to the CIP. MSD to provide project fact sheet.
			<b>TOTAL AM PROJECTS</b>	\$ 12,054,148	\$ 42,418,777	\$ 54,472,925	
			<b>AM PROJECTS</b>	\$ 8,754,148	\$ 19,418,777	\$ 28,172,925	
<del>40430043</del>	AM	GSG	GSO-522-Dynamic-Underflow Control	<del>\$ 351,000</del>	<del>\$ 477,000</del>	<del>\$ 828,000</del>	This is a City Phase 2A project and is not in the County's Phase 2A plan. County doesn't support this project.
10230045	AM	REP	Stonebridge Sewer Relief	\$ 337,000	\$ -	\$ 337,000	MSD to coordinate with the direction provided in the 2019-2023 CIP Budget Resolution.
10230130	AM	REP	Dry Weather Channel for SS 937	\$ -	\$ 3,213,000	\$ 3,213,000	
10230150	AM	REP	Addyston Creek and Sewer Rehab	\$ -	\$ 468,400	\$ 468,400	
10230660	AM	SRC	Delhi Twp Rapid Run Intergovernmental Flood Control Project Phase 3	\$ 1,191,648	\$ -	\$ 1,191,648	
<del>40230665</del>	AM	FAG	Lower Muddy Creek Storage Basin	<del>\$ 2,620,000</del>	<del>\$ -</del>	<del>\$ 2,620,000</del>	This is a City Phase 2A project and is not in the County's Phase 2A plan. County doesn't support this project. Related to City's proposed Upper Muddy Creek Interceptor project.
10240055	AM	FAC	MCWWTP Liquid Sludge Storage Tank Covers and odor Control	\$ -	\$ 5,349,650	\$ 5,349,650	



Project ID	CIP Type	Project Type	Projects by Program	County's 2019 CIP PDE Cost Allocation	County's 2019 CIP Construction Budget	County's 2019 CIP Total Budget for MSD	County Comments
10240180	AM	REP	3934 Winding Way Sewer Replacement	\$ 15,000	\$ 388,300	\$ 403,300	
<del>10240360</del>	<del>AM</del>	<del>PSE</del>	<del>Timbers Pump Station Elimination</del>	<del>\$ -</del>	<del>\$ 1,417,500</del>	<del>\$ 1,417,500</del>	MSD has not provided requested information.
10240365	AM	<del>REP</del> SEP	Quebec Road Sewer Replacement	\$ -	\$ 428,600	\$ 428,600	This project is separating stormwater from the combined sewers and is subject to Rule Section 2407. County requires more information prior to construction legislation authorization.
10240380	AM	CSO	CSO 005 Water Connection	\$ -	\$ 144,700	\$ 144,700	
10240426	AM	PSE	Pleasant Run Pump Station Upgrades	\$ 1,675,000	\$ -	\$ 1,675,000	County requests a meeting with MSD to discuss and obtain information that has not been provided to date. Proposed planning costs increased 97% from \$850k to \$1.675M between August 2018 and October 2018.
10240430	AM	REP	Berkley Avenue Sewer Replacement	\$ -	\$ 728,860	\$ 728,860	
10240455	AM	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation	\$ -	\$ 550,900	\$ 550,900	
10240473	AM	PSE	Bahama Gardens Pump Station Upgrade	\$ -	\$ 811,700	\$ 811,700	
10240550	AM	REP	Pardee Alley Sewer Replacement	\$ -	\$ 240,000	\$ 240,000	
10240590	AM	FAC	Mill Creek WWTP Main Substation Improvements	\$ -	\$ 3,748,642	\$ 3,748,642	
10240625	AM	FAC	MCWWTP Standby Power Distribution System Improvements	\$ 464,000	\$ -	\$ 464,000	
10240697	AM	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements	\$ 232,000	\$ -	\$ 232,000	
10240710	AM	STY	Fitzpatrick Sewer Cleaning and Rehabilitation	\$ 120,000	\$ -	\$ 120,000	
10240715	AM	FAC	MCWWTP Solids Handling Process & Odor Control Planning	\$ 425,000	\$ -	\$ 425,000	This project is the District Wide Solids Handling Master Plan. Final project prioritization list deliverable is due March 2019.



Project ID	CIP Type	Project Type	Projects by Program	County's 2019 CIP PDE Cost Allocation	County's 2019 CIP Construction Budget	County's 2019 CIP Total Budget for MSD	County Comments
1024XXX	AM	FAC	SSO 700 STF Disinfection Improvements	\$ 400,000	\$ -	\$ 400,000	County added this project to 2019 to provide design budget to address the facility disinfection for this Bridge project. MSD to provide project fact sheet. Final scope of design needs to be refined and reviewed by the County prior to task order issued to design consultant.
10270026	AM	PSE	Gamarge Canyon Pump Station	<del>\$ 140,000</del>	<del>\$ -</del>	<del>\$ 140,000</del>	MSD is requested to revisit the BCE. MSD's project request is for design funds, but the estimated construction cost has increased by 126% compared to the original BCE. The pump station is ranked as a low priority in MSD's pump station prioritization plan. County authorized replacement of three pumps in November 2018.
10270125	AM	REP	Portsmouth Avenue Sewer Replacement	\$ -	\$ 387,625	\$ 387,625	
10270165	AM	REP	Delta and Greist Sewer Replacement	\$ 20,000	\$ -	\$ 20,000	
10270175	AM	REP	East Hill Ave Sewer Replacement	\$ -	\$ 1,663,900	\$ 1,663,900	
10272025	AM	REP	Wasson Ravine Sewer Replacement	\$ 669,000	\$ -	\$ 669,000	
10272035	AM	FAC	Little Miami Solids Disposal System w/ Odor Control	<del>\$ 3,205,500</del>	<del>\$ -</del>	<del>\$ 3,205,500</del>	County is replacing this project with a District Wide Solids Handling Master Plan project (placeholder) outlined below.
1028XXX	AM	FAC	Solids Handling Improvements - District Wide Placeholder - Per Master Plan	\$ 3,205,500	\$ 1,294,500	\$ 4,500,000	County added this project. This funding will advance the outcomes of the anticipated deliverable in March 2019 from the District Wide Solids Handling Master Plan. MSD to provide project fact sheet. See note in MSD project ID 10272035.
			<b>AM ALLOWANCES</b>	<b>\$ 3,300,000</b>	<b>\$ 23,000,000</b>	<b>\$ 26,300,000</b>	
10280239	AM	ALW	Hydraulic Modeling	\$ 1,200,000	\$ -	\$ 1,200,000	
10280319	AM	ALW	Emergency Sewer Repairs (2019)	<del>\$ -</del> \$ -	<del>\$ 5,000,000</del> \$ 7,000,000	<del>\$ 5,000,000</del> \$ 7,000,000	County added \$2.0M increasing the allowance budget to \$7.0M. MSD to provide updated fact sheet. For 2019 CIP Exhibit B, MSD is to modify the project Explanation/Description adding: "If a building sewer failure causes a sinkhole hazard in the roadway, then this allowance can be used to repair the roadway public hazard."
10280609	AM	ALW	Building Sewer Renewal (2019)	<del>\$ -</del> \$ -	<del>\$ 5,000,000</del> \$ 3,000,000	<del>\$ 5,000,000</del> \$ 3,000,000	County reduced the allowance budget to \$3.0M. MSD to provide updated fact sheet. For 2019 CIP Exhibit B, replace the Explanation/Description with: "This allowance is dedicated to addressing structurally failed privately owned building sewers located within the public right-of-way in accordance with MSD Rule Section 2008. Rule Section 2008 could potentially be revised in 2019.
10280719	AM	ALW	Critical Asset Management Projects 2019	\$ -	\$ 6,000,000	\$ 6,000,000	



Project ID	CIP Type	Project Type	Projects by Program	County's 2019 CIP PDE Cost Allocation	County's 2019 CIP Construction Budget	County's 2019 CIP Total Budget for MSD	County Comments
10281319	AM	ALW	Prioritized Wastewater Collection System Improvements	<del>\$ -</del>	<del>\$ 7,000,000</del>	<del>\$ 7,000,000</del>	The funds for this allowance should be included under the 10280519 Wastewater Collections High Risk Asset Renewal allowance consistent with the approved 2018 CIP budget. See allowance added below. For 2019 CIP Exhibit B, remove this allowance from the exhibit in it's entirety.
10280519	AM	ALW	<i>WWC High Risk Asset Renewal (2019)</i>	\$ -	\$ 7,000,000	\$ 7,000,000	County added this project. MSD to provide fact sheet for this allowance. See comment above under "Prioritized Wastewater Collections System Improvements". For 2019 CIP Exhibit B, add this allowance to the exhibit in it's entirety. The Explanation/Description shall read: "This project will allow MSDGC to replace entire high risk assets or portions of system assets that are currently unable, or anticipated to be unable to meet their defined level of service. This project is necessary to cost effectively extend asset life while protecting and preserving public health and the environment. The scope of work does not include addressing building sewers."
10282019	AM	ALW	CIP Planning Projects 2019	\$ 1,000,000	\$ -	\$ 1,000,000	
10282219	AM	ALW	CIP Planning Asset Management Conveyance Projects 2019	\$ 1,100,000	\$ -	\$ 1,100,000	
			<b>OTHER</b>	<b>\$ 5,860,000</b>	<b>\$ -</b>	<b>\$ 5,860,000</b>	
13090000	OTHER	PRG	Programmatic Contingency	<del>\$ 10,000,000</del> \$ 5,860,000	<del>\$ -</del> \$ -	<del>\$ 10,000,000</del> \$ 5,860,000	By Rule 2405-2.A.7, the 2019 cash flow is necessary to calculate the programmatic contingency amount. MSD has not provided a cash flow, so the 2019 CIP budget values were substituted to calculate the amount.
			<b>Totals:</b>	<b>\$ 28,809,148</b>	<b>\$ 106,163,047</b>	<b>\$ 134,972,195</b>	

	County's 2019 CIP for MSD
Total WWIP in CIP	\$ 74,639,270
Total Asset Management in CIP	\$ 54,472,925
Program Contingency	\$ 5,860,000
<b>Grand Total County Monitor Recommended CIP Budget</b>	<b>\$ 134,972,195</b>
Total PDE (non-allowances)	\$ 8,779,148
Total PDE (allowances)	\$ 14,170,000
Total Const. (budgeted - not appropriated)	\$ 76,463,047
Total Const. (appropriated)	\$ 29,700,000
Programmatic Contingency	\$ 5,860,000
<b>Grand Total 2019 CIP BUDGET</b>	<b>\$ 134,972,195</b>
Appropriated with 2019 CIP	\$ 58,509,148



County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2020 Budget	Total Project Cost	Notes
<b>2020 CIP - WWIP Projects</b>							
X	10130566	WWIP	FAC	Muddy Creek WWTP EHRF and Pump Station Upgrade - (Construction)	\$37,308,119	\$37,308,119	<sup>(2)</sup> Move construction of Pump Station from year 2020 to 2022, as per County Phase 2A.
X	1013XXXX	WWIP	FAC	Muddy Creek WWTP Pump Station (for EHRF) (Design)	\$9,897,400	\$52,306,600	Added project to be consistent with County Phase 2A Plan.
X	10131021	WWIP	CSO	CSO 402-406 Wet Weather Improvements (Construction)	\$18,614,634 \$14,639,900	\$18,614,634 \$14,639,900	Cost change to be consistent with County Phase 2A Plan.
X	10132900	WWIP	GSO	GSO 198 Partial Separation Phase 1 - (Planning, Design, Easement)	\$969,757	\$969,757	Replace MSD project with County Phase 2A project.
X	10132905	WWIP	GSO	GSO 198 Partial Separation Phase 2 - (Planning, Design, Easement)	\$969,757	\$969,757	Replace MSD project with County Phase 2A project.
X	1013290X	WWIP	CSO	CSO 198 Partial Separation / SBU Mitigation (Planning, Design, Easement)	\$2,468,500	\$13,409,200	Combine MSD project into one project, so all planning and design to start in 2020 as per County Phase 2A.
X	10140417	WWIP	ALW	LMCPR Construction Compliance Assurance (Design)	\$2,400,000	\$2,400,000	Deleted - Not a County Phase 2A project and considered an operations expense.
X	10142220	WWIP	SEP	GSO 514 Sewer Separation (Construction)	\$1,345,400	\$1,345,400	Bridge project: move into 2019 to be consistent with anticipated spending as per Regulator Letter dated June 29, 2018.
X	10143920	WWIP	SEP	GSO 194 High Point Sewer Separation (Construction)	\$85,500	\$85,500	Deleted - Not a County Phase 2A project.
X	10143940	WWIP	SEP	GSO 195 Westwood Northern Sewer Separation - (Construction)	\$502,600	\$502,600	Deleted - Not a County Phase 2A project.
X	10144888	WWIP	FAC	Mill Creek WWTP Raw Sewage Pump Station (Design)	\$5,953,659	\$5,953,659	Move from year 2020 to 2022, as per County Phase 2A.
X	1014XXXX	WWIP	FAC	Mill Creek CEPT (Pump Station) - complete diversion chamber (design)	\$1,332,800	\$6,850,500	Added project to be consistent with County Phase 2A Plan.
X	10172900	WWIP	FAC	LMWWTP Standby Power (Design)	\$630,730 \$1,289,200	\$630,730 \$6,626,300	Cost change to be consistent with County Phase 2A Plan.
X	1017XXXX	WWIP	SEP	LMWWTP Standby Power & Duke Rider (Construction)	\$1,237,200	\$1,237,200	Added project to be consistent with County Phase 2A Plan.
X	10172905	WWIP	FAC	LMWWTP Electrical Feeders (Construction)	\$1,000,000	\$1,000,000	Deleted - Not a County Phase 2A project.
X	10172916	WWIP	FAC	LMWWTP Solids Handling Improvements (Design)	\$1,550,358	\$1,550,358	Deleted - Not a County Phase 2A project.
X	10172940	WWIP	SRG	ML Washington Source Control Implementation - (Construction)	\$8,146,503	\$8,146,503	Move construction from 2020 to 2023 to be consistent with County Phase 2A.
X	10180420	WWIP	ALW	Main Sewer Renewal Program 2020 (Construction)	\$2,000,000	\$2,000,000	Replace MSD named project with County Phase 2A project below.
X	10180120	WWIP	ALW	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,086,800	\$5,086,800	Cost change to be consistent with County Phase 2A Plan.
X	10180220	WWIP	ALW	Manhole Renewal Program 2020 (Construction)	\$1,300,000	\$1,300,000	Replace MSD named project with County Phase 2A project below.

<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec.4.c.

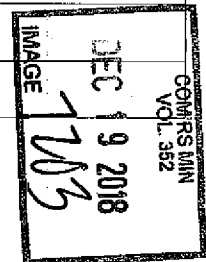
<sup>(2)</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.

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County Indicated Priority <sup>[1]</sup>	Project ID	CIP Type	Project Type	Project Name	2020 Budget	Total Project Cost	Notes
X	10180220	WWIP	ALW	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,017,400	\$1,017,400	<sup>[2]</sup> Cost change to be consistent with County Phase 2A Plan.
X	10190320	WWIP	ALW	Home Sewer Treatment System Eliminations 2020 (Planning, Design, Construction)	\$350,000 \$2,180,100	\$350,000 \$2,180,100	Cost change to be consistent with County Phase 2A Plan.
X	10192020	WWIP	ALW	SBU Urgent Capacity Response Program 2020 (Construction)	\$2,000,000 \$436,100	\$2,000,000 \$436,100	Cost change to be consistent with County Phase 2A Plan.
	10199020	WWIP	ALW	Program Management and Support Services 2020 (Design)	\$3,500,000	\$3,500,000	
X	<del>10230022</del>	<del>WWIP</del>	<del>SEP</del>	<del>GSO 410 Stream Separation (Planning, Design)</del>	<del>\$402,902</del>	<del>\$402,902</del>	<del>Deleted - Not a County Phase 2A project.</del>
X	10230140	WWIP	SEP	Addyston Extraneous Stormwater Removal (Planning, Design, Easement)	\$991,764 \$1,601,400	\$991,764 \$1,601,400	Cost change to be consistent with County Phase 2A Plan.
X	10270190	WWIP	SEP	Columbia Square Development Separation (Construction)	\$478,000	\$478,000	Bridge project.
X	<del>11230840</del>	<del>WWIP</del>	<del>REP</del>	<del>GSO 415 and GSO 416 Source Control (Design)</del>	<del>\$480,683</del>	<del>\$480,683</del>	<del>Deleted - Not a County Phase 2A project.</del>
X	<del>11530000</del>	<del>WWIP</del>	<del>REP</del>	<del>Upper Muddy Creek Interceptor Replacement (Design)</del>	<del>\$692,039</del>	<del>\$692,039</del>	<del>Deleted - Not a County Phase 2A project.</del>
X	10199120	WWIP	ALW	Hamilton County Utility Oversight & Coordination	\$3,963,548	\$3,963,548	2019 funding level escalated to year 2020.
X	1014XXXX	WWIP	FAC	SSO 700 Facility Disinfection Improvements (Construction) (Placeholder)	\$1,100,000	\$1,500,000	Bridge project. Design added to 2019 CIP.
<b>Total Cost for 23 WWIP Projects in 2020-</b>					<b>\$91,272,102</b>	<b>\$91,272,102</b>	
<b>Sub-Total Cost for 14 WWIP Projects in 2020:</b>					<b>\$50,228,348</b>	<b>\$114,833,048</b>	

2020 ASSET MANAGEMENT Projects

10222000	AM	FAC	Taylor Creek WWTP Grit Facility Upgrades (Planning)	\$151,900	\$151,900	
10230090	AM	PSE	Barrington Hills, Barrington Hills BLK. F. Gil Volz, and Kirkridge Acres P.S. Eliminations (Construction)	\$7,396,900	\$7,396,900	Project approval dependent on increase to CFS downstream.
10240320	AM	REP	Wilder Avenue Sewer Replacement (Construction)	\$505,000	\$505,000	
10240426	AM	PSE	Pleasant Run Pump Station Upgrades (Design, Easement)	\$2,741,000	\$2,741,000	Acceptable after questions properly addressed in 2019 CIP.
10240525	AM	REP	Victory Parkway Sewer Rehabilitation (Construction)	\$343,300	\$343,300	
10240640	AM	FAC	Mill Creek Solids Handling Improvements & Odor Control (Planning)	\$100,000	\$100,000	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
10240697	AM	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Construction)	\$1,144,000	\$1,144,000	
10240710	AM	STY	Fitzpatrick Sewer Cleaning and Rehabilitation (Construction)	\$2,732,000	\$2,732,000	



<sup>[1]</sup> Refer to 2019-2023 CIP Resolution, Sec.4.c.

<sup>[2]</sup> County revisions to MSD's information is shown in *italicized text* or ~~strikethrough text~~.

County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2020 Budget	Total Project Cost	Notes
	10240870	AM	REP	911 McPherson Avenue Sewer Replacement (Design,Easement)	\$488,000	\$488,000	
X	<del>40244999</del>	AM	REG	<del>Mill Creek GSO Dynamic Underflow Control Improvements (Planning, Design)</del>	<del>\$884,000</del>	<del>\$884,000</del>	<sup>(2)</sup> No information provided which shows benefit for dollar spent.
	10280240	AM	ALW	Hydraulic Modeling 2020 (Planning)	\$1,200,000	\$1,200,000	
X	10280320	AM	ALW	Emergency Sewer Repairs 2020 (Construction)	<del>\$5,000,000</del> \$4,500,000	<del>\$5,000,000</del> \$4,500,000	Cost adjusted to bring budget to within County Phase 2A affordability target.
	10280505	AM	PSE	Pump Station Telemetry System Upgrades (Construction)	\$5,465,200	\$5,465,200	
X	10280610	AM	ALW	Building Sewer Renewal Program 2020 (Construction)	<del>\$5,000,000</del> \$1,500,000	<del>\$5,000,000</del> \$1,500,000	Cost adjusted to bring budget to within County Phase 2A affordability target.
	10280720	AM	ALW	Critical Asset Management Projects 2020 (Design, Construction)	\$6,000,000	\$6,000,000	
X	<del>40281329</del>	AM	ALW	<del>Prioritized Wastewater Collection System Improvements 2020 (Construction)</del>	<del>\$7,000,000</del>	<del>\$7,000,000</del>	This should be Wastewater Collections High Risk Asset Renewal 2020 (Construction). See allowance added below.
X	10280520	AM	ALW	NWC High Risk Asset Renewal 2020 (Construction)	\$4,500,000	\$4,500,000	Added to replace above allowance. Use scope definition from authorized 2018 CIP.
	10282020	AM	ALW	CIP Planning Projects 2020 (Planning)	\$1,000,000	\$1,000,000	
	10282220	AM	ALW	Asset Management Conveyance Projects 2020 (Planning,Design,Construction) (Placeholder)	\$21,100,000	\$21,100,000	
	1024xxxx	AM	ALW	District-Wide Solids Handling Master Plan (Placeholder)	\$2,500,000	\$2,500,000	Placeholder project must be consistent with approved DWSHMP prioritized projects deliverable.
<b>Total Cost for 18 ASSET Projects in 2020-</b>					<b>\$68,248,300</b>	<b>\$68,248,300</b>	
<b>Sub-Total Cost for 18 Asset Management Projects for 2020:</b>					<b>\$63,367,300</b>	<b>\$63,367,300</b>	
	13090000	OTHER	PRG	Programmatic Contingency (Design)	<del>\$10,000,000</del> \$5,190,000	<del>\$10,000,000</del> \$5,190,000	By Rule 2405.A.7, the 2020 cashflow is necessary to calculate the Programmatic Contingency amount. Since no cashflow has been provided, the 2020 CIP budget values were substituted into the formula.
<b>Projects Adjustment Budget (Placeholder):</b>					<b>-\$3,738,898</b>		MSD to prioritize projects to cut costs by this amount to bring within annual budget consistent with County Phase 2A Target 2020 CIP Total.
<b>Grand Totals for 41 Projects in 2020-</b>					<b>\$169,529,402</b>	<b>\$169,529,402</b>	

<sup>(3)</sup> 2020 ASSET MGMT. SUB-TOTAL: \$64,818,402

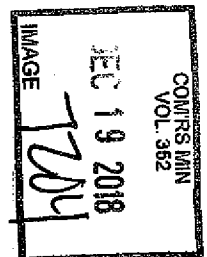
2020 WWIP SUB-TOTAL: \$50,228,348

County Phase 2A Target - 2020 CIP TOTAL: \$115,046,750

<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec.4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.

<sup>(3)</sup> Includes Programmatic Contingency and Projects Adjustment Budget costs.



County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2021 Budget	Total Project Cost	Notes
<b>2021 CIP - WWIP Projects</b>							
X	40130164	WWIP	PSE	Muddy Creek PSU & Force Main (Planning)	\$250,594	\$250,594	<sup>(2)</sup> Deleted - Not a County Phase 2A project.
X	40130566	WWIP	FAC	Muddy Creek WWTP EHRT and Pump Station Upgrade (Construction)	\$37,308,149	\$37,308,149	Move construction of EHRT from year 2021 to 2023, as per County Phase 2A.
X	40432940	WWIP	GSO	GSO 223, 408, 541, 654 Partial Separation (Planning)	\$550,000	\$550,000	Deleted - Not a County Phase 2A project.
X	40440447	WWIP	ALW	LMCPR Construction Compliance Assurance (Design)	\$1,950,000	\$1,950,000	Deleted - Not a County Phase 2A project and considered an operations expense.
X	10170176	WWIP	REP	Stanley Ave Lateral Relocations (Construction)	\$155,400	\$155,400	Completion of WWIP Phase 1.
X	40472945	WWIP	FAC	LMWWTP Solids Handling Improvements (Construction)	\$47,231,318	\$47,231,318	Deleted - Not a County Phase 2A project.
X	40480424	WWIP	ALW	Main Sewer Renewal Program 2021 (Construction)	\$2,000,000	\$2,000,000	Replace MSD named project with County Phase 2A project below.
X	10180121	WWIP	ALW	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,264,900	\$5,264,900	Cost change to be consistent with County Phase 2A Plan.
X	40480224	WWIP	ALW	Manhole Renewal Program 2021 (Construction)	\$1,300,000	\$1,300,000	Replace MSD named project with County Phase 2A project below.
X	10180221	WWIP	ALW	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,053,000	\$1,053,000	Cost change to be consistent with County Phase 2A Plan.
X	10190321	WWIP	ALW	Home Sewer Treatment System Eliminations 2021 (Planning, Design, Construction)	\$350,000 \$2,256,400	\$350,000 \$2,256,400	Cost change to be consistent with County Phase 2A Plan.
X	10192021	WWIP	ALW	SBU Urgent Capacity Response Program 2021 (Construction)	\$2,000,000 \$451,300	\$2,000,000 \$451,300	Cost change to be consistent with County Phase 2A Plan.
	10199021	WWIP	ALW	Program Management and Support Services 2021 (Design)	\$3,500,000	\$3,500,000	
	11042801	WWIP	SRC	North Fairmount Bioswale Project (Construction)	\$381,000	\$381,000	
X	44242846	WWIP	SEP	GSO 12 Sewer Separation Phase A.4b - Colerain to Spring Grove Avenue (Construction)	\$7,085,400	\$7,085,400	Deleted - Not a County Phase 2A project
X	44530000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Construction)	\$5,586,726	\$5,586,726	Deleted - Not a County Phase 2A project
X	1017XXXX	WWIP	FAC	Little Miami WWTP PS Upgrades for EHRT (Part 1) (Design)	\$5,116,800	\$27,041,800	Added project to be consistent with County Phase 2A Plan.
X	1013XXXX	WWIP	FAC	Muddy Creek WWTP EHRT (Design)	\$10,243,800	\$54,137,500	Added project to be consistent with County Phase 2A Plan.
X	1014XXXX	WWIP	FAC	Mill Creek CEPT (Pump Station) - complete diversion chamber (Construction)	\$5,517,700	\$6,850,500	Added project to be consistent with County Phase 2A Plan.
X	10172940	WWIP	SEP	Mt. Washington Source Control Implementation (Design)	\$1,276,700	\$13,409,200	Added project to be consistent with County Phase 2A Plan.

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<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

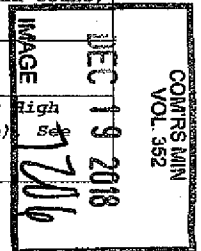
<sup>(2)</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.

County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2021 Budget	Total Project Cost	Notes
X	10199121	WWIP	ALW	Hamilton County Utility Oversight & Coordination	\$4,102,281	\$4,102,281	<sup>(2)</sup> 2019 funding level escalated to year 2021.
Total Cost for 14 WWIP Projects in 2021:					\$79,648,257	\$79,648,257	
Sub-Total Cost for 11 WWIP Projects in 2021:					\$39,319,281	\$118,603,281	

2021 ASSET MANAGEMENT Projects							
	10222000	AM	FAC	Taylor Creek WWTP Grit Facility Upgrades (Design)	\$279,900	\$279,900	
	10230054	AM	FAC	Muddy Creek WWTP Disinfection Upgrades (Planning, Design)	\$791,600	\$791,600	Acceptable if project scope is coordinated with WWTP EHRT planning.
	10230125	AM	PSE	East Branch Muddy Creek Pump Station Upgrades (Construction)	\$2,308,100	\$2,308,100	Acceptable if project scope is coordinated with WWTP EHRT planning.
	10240271	AM	CSO	Lower Mill Creek HW DW Protection (Construction)	\$1,392,000	\$1,392,000	
	10240625	AM	FAC	MCWWTP Standby Power Distribution System Improvements (Construction)	\$3,862,000	\$3,862,000	
	10240640	AM	FAC	Mill Creek Solids Handling Improvements & Odor Control (Design)	\$5,566,700	\$5,566,700	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
X	10241990	AM	REG	Mill Creek CSO Dynamic Underflow Control Improvements (Construction)	\$6,772,290	\$6,772,290	No information provided which shows benefit for dollar spent.
	10252005	AM	FAC	Polk Run WWTP Grit Facility Upgrades (Planning)	\$160,600	\$160,600	
X	10270026	AM	PSE	Garnage Canyon Pump Station Elimination (Construction)	\$1,300,954	\$1,300,954	Not currently recommended for design in 2019 CIP.
	10270165	AM	REP	Delta and Greist Sewer Replacement (Construction)	\$1,241,700	\$1,241,700	
	10272020	AM	FAC	Little Miami WWTP NPW System Upgrade (Planning, Design)	\$1,069,000	\$1,069,000	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
	10272035	AM	FAC	Little Miami Solids Disposal System with Odor Control (Construction) (Placeholder)	<del>\$35,350,900</del> \$30,667,246	<del>\$35,350,900</del> \$30,667,246	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP). Budget reduced to reach total budget target below for 2021.
	10280241	AM	ALW	Hydraulic Modeling 2021 (Planning)	\$1,200,000	\$1,200,000	
X	10280321	AM	ALW	Emergency Sewer Repair 2021 (Construction)	<del>\$5,000,000</del> \$4,500,000	<del>\$5,000,000</del> \$4,500,000	Cost adjusted to bring budget to within County Phase 2A affordability target.
	10280721	AM	ALW	Critical Asset Management Projects 2021 (Design, Construction)	\$6,000,000	\$6,000,000	
X	10281324	AM	ALW	Prioritized Wastewater Collection System Improvements 2021 (Construction)	\$7,000,000	\$7,000,000	This should be Wastewater Collections High Risk Asset Renewal 2021 (Construction) allowance added below.

<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in Italicized text or strikethrough text.



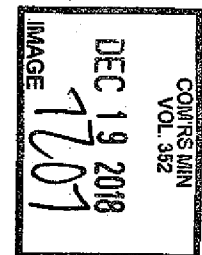
County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2021 Budget	Total Project Cost	Notes
X	10280521	AM	ALW	NWC High Risk Asset Renewal 2021 (Construction)	\$4,500,000	\$4,500,000	<sup>(2)</sup> Added to replace above allowance. Use scope definition from authorized 2018 CIP.
	1028xxxx	AM	ALW	Building Sewer Repairs 2021 (Construction)	\$1,500,000	\$1,500,000	Added to CIP. Use scope definition from authorized 2018 CIP.
	10282021	AM	ALW	CIP Planning Projects 2021 (Planning)	\$1,000,000	\$1,000,000	
	10282221	AM	ALW	Asset Management Conveyance Projects 2021 (Planning, Design, Construction)	\$1,100,000	\$1,100,000	
<b>Total Cost for 18 ASSET Projects in 2021-</b>					<b>\$81,395,654</b>	<b>\$81,395,654</b>	
<b>Sub-Total Cost for 17 Asset Management Projects for 2021:</b>					<b>\$67,138,846</b>	<b>\$67,138,846</b>	
	13090000	OTHER	PRG	Programmatic Contingency (Design)	<del>\$10,000,000</del> \$6,400,000	<del>\$10,000,000</del> \$6,400,000	By Rule 2405.A.7, the 2021 cashflow is necessary to calculate the Programmatic Contingency amount. Since no cashflow has been provided, the 2021 CIP budget values were substituted into the formula.
				<b>Projects Adjustment Budget (Placeholder):</b>	<b>-\$6,465,827</b>		MSD to prioritize projects to cut costs by this amount to bring within annual budget consistent with County Phase 2A Target 2021 CIP Total.
<b>Grand Totals for 32 Projects in 2021-</b>					<b>\$174,043,911</b>	<b>\$174,043,911</b>	

<sup>(3)</sup> 2021 ASSET MGMT. SUB-TOTAL: \$67,073,019  
 2021 WWIP SUB-TOTAL: \$39,319,281  
**County Phase 2A Target - 2021 CIP TOTAL: \$106,392,300**

<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in Italicized text or strikethrough text.

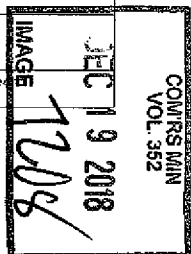
<sup>(3)</sup> Includes Programmatic Contingency and Projects Adjustment Budget costs.



County Indicated Priority <sup>[1]</sup>	Project ID	CIP Type	Project Type	Project Name	2022 Budget	Total Project Cost	Notes
<b>2022 CIP - WWIP Projects</b>							
X	10190161	WWIP	PSE	Muddy-Creek-PSU & Force Main (Design)	\$867,534	\$867,534	<sup>[2]</sup> Deleted - Not a County Phase 2A project.
X	10132900	WWIP	GSO	GSO 108 Partial Separation Phase 1 (Construction)	\$3,394,530	\$3,394,530	Combine two phases into one project and move construction from 2022 to 2023 to be consistent with County Phase 2A.
X	10132905	WWIP	GSO	GSO 108 Partial Separation Phase 2 (Construction)	\$3,394,530	\$3,394,530	Combine two phases into one project and move construction from 2022 to 2023 to be consistent with County Phase 2A.
X	10132910	WWIP	GSO	GSO 223, 408, 641, 654 Partial Separation (Design)	\$800,000	\$800,000	Deleted - Not a County Phase 2A project.
X	10140417	WWIP	ALW	LMGPR Construction Compliance Assurance (Design)	\$850,000	\$850,000	Deleted - Not a County Phase 2A project and considered an operations expense.
X	10142910	WWIP	SRG	Ludlow Run Sustainable Source Control - Phase 3- (Planning)	\$412,778	\$412,778	Deleted - Not a County Phase 2A project. Planning performed under Urgent Capacity Response allowance below.
X	10144888	WWIP	FAC	Mill Creek WAWTP Raw Sewage Pump Station (Construction)	\$74,146,344	\$74,146,344	Deleted - Construction of this project is not a County Phase 2A project.
X	1014XXXX	WWIP	FAC	Mill Creek CEPT (Pump Station) (Design)	\$7,388,400	\$46,961,553	Added project to be consistent with County Phase 2A Plan.
X	10172900	WWIP	FAC	LMWWTP Standby Power (Construction)	\$5,341,666 \$5,337,100	\$5,341,666 \$6,626,300	Cost change to be consistent with County Phase 2A Plan.
X	10172930	WWIP	FAC	LMWWTP Four Mile Pump Station Improvements (Design)	\$1,675,040	\$1,675,040	Move design of this project from 2022 to 2021 to be consistent with County Phase 2A project LMWWTP PS Upgrades for EHRT (Part 1).
X	1017XXXX	WWIP	FAC	LMWWTP Pump Station Upgrades for EHRT (Part 1) (Construction)	\$21,925,000	\$27,041,800	Added project to be consistent with County Phase 2A Plan.
X	10180122	WWIP	ALW	Main Sewer Renewal Program 2022 (Construction)	\$2,000,000	\$2,000,000	Replace MSD named project with County Phase 2A project below.
X	10180122	WWIP	ALW	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,449,200	\$5,449,200	Cost change to be consistent with County Phase 2A Plan.
X	10180222	WWIP	ALW	Manhole Renewal Program 2022 (Construction)	\$1,300,000	\$1,300,000	Replace MSD named project with County Phase 2A project below.
X	10180222	WWIP	ALW	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,089,900	\$1,089,900	Cost change to be consistent with County Phase 2A Plan.
X	10190322	WWIP	ALW	Home Sewer Treatment System Eliminations 2022 (Planning, Design, Construction)	\$350,000 \$2,335,400	\$350,000 \$2,335,400	Cost change to be consistent with County Phase 2A Plan.
X	10192022	WWIP	ALW	SBU Urgent Capacity Response Program 2022 (Construction)	\$2,000,000 \$467,100	\$2,000,000 \$467,100	Cost change to be consistent with County Phase 2A Plan.
	10199022	WWIP	ALW	Program Management and Support Services 2022 (Design)	\$3,500,000	\$3,500,000	
X	10230022	WWIP	SEP	GSO 440 Stream Separation (Construction)	\$1,628,350	\$1,628,350	Deleted - Not a County Phase 2A project

<sup>[1]</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>[2]</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.



County Indicated Priority <sup>[1]</sup>	Project ID	CIP Type	Project Type	Project Name	2022 Budget	Total Project Cost	Notes
X	10230440	WWIP	SEP	Addyston-Extraneous Stormwater Removal (Construction)	\$5,476,164	\$5,476,164	<sup>[2]</sup> Move construction from 2022 to 2023 to be consistent with County Phase 2A.
X	10199122	WWIP	ALW	Hamilton County Utility Oversight & Coordination	\$4,245,871	\$4,245,871	2019 funding level escalated to year 2022.
X	1013XXX	WWIP	FAC	Muddy Creek WWTP Pump Station (for EHRT) (Construction)	\$42,409,200	\$52,306,600	Added project to be consistent with County Phase 2A Plan.
X	1013XXX	WWIP	SEW	East Branch Muddy Creek Interceptor (Part 1) - Based on Integrated Planning Results (Planning)	\$778,500	\$11,077,100	Added project to be consistent with County Phase 2A Plan.
Total Cost for 16 WWIP Projects in 2022-					\$407,136,933	\$407,136,933	
Sub-Total Cost for 11 WWIP Projects in 2022:					\$94,925,671	\$161,100,824	

2022 ASSET MANAGEMENT Projects							
	10221255	AM	PSE	TCWWTP (Wesselman) PS Improvements (Planning, Design)	\$603,200	\$603,200	County needs the condition assessment results to confirm project need.
X	10230665	AM	FAC	Lower Muddy Creek Storage Basin (Construction)	\$12,300,000	\$12,300,000	Deleted - Not a County Phase 2A project.
	10240426	AM	PSE	Pleasant Run Pump Station Upgrades (Construction)	\$18,421,000	\$18,421,000	Acceptable after questions properly addressed in 2019 CIP.
	10242020	AM	FAC	Mill Creek WWTP Disinfection Improvement (Planning, Design)	\$2,071,600	\$2,071,600	Project must be coordinated with new E. Coli permit limits.
	10252000	AM	FAC	Polk Run WWTP Clarifier Upgrades (Planning)	\$341,000	\$341,000	
	10252005	AM	FAC	Polk Run WWTP Grit Facility Upgrades (Design)	\$286,600	\$286,600	
	10262000	AM	FAC	Sycamore Creek Sludge Improvements (Planning)	\$570,823	\$570,823	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
	10272025	AM	REP	Wasson Ravine Sewer Replacement (Construction)	\$2,115,000	\$2,115,000	
	10280242	AM	ALW	Hydraulic Modeling 2022 (Planning)	\$1,200,000	\$1,200,000	
X	10280322	AM	ALW	Emergency Sewer Repair 2022 (Construction)	\$5,000,000 \$4,500,000	\$5,000,000 \$4,500,000	Cost adjusted to bring budget to within County Phase 2A affordability target.
X	10280612	AM	ALW	Building Sewer Renewal Program 2022 (Construction)	\$5,000,000 \$1,500,000	\$5,000,000 \$1,500,000	Cost adjusted to bring budget to within County Phase 2A affordability target.
	10280722	AM	ALW	Critical Asset Management Projects 2022 (Design, Construction)	\$6,000,000	\$6,000,000	
X	10284322	AM	ALW	Prioritized Wastewater Collection System Improvements 2022 (Construction)	\$7,000,000	\$7,000,000	This should be Wastewater Collections Risk Asset Renewal 2022 (Construction) allowance added below.

<sup>[1]</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>[2]</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.

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County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2022 Budget	Total Project Cost	Notes
X	10280522	AM	ALW	<i>WVC High Risk Asset Renewal 2022 (Construction)</i>	<i>\$4,500,000</i>	<i>\$4,500,000</i>	<sup>(2)</sup> Added to replace above allowance. Use scope definition from authorized 2018 CIP.
	10282022	AM	ALW	CIP Planning Projects 2022 (Planning)	\$1,000,000	\$1,000,000	
	10282222	AM	ALW	Asset Management Conveyance Projects 2022 (Planning, Design, Construction)	\$21,100,000	\$21,100,000	
<b>Total Cost for 15 ASSET Projects in 2022-</b>					<b>\$83,000,223</b>	<b>\$83,000,223</b>	
<b>Sub-Total Cost for 14 Asset Management Projects for 2022:</b>					<b>\$64,209,223</b>	<b>\$64,209,223</b>	
	13090000	OTHER	PRG	Programmatic Contingency (Design)	<del>\$10,000,000</del> \$7,210,000	<del>\$10,000,000</del> \$7,210,000	By Rule 2405.A.7, the 2022 cashflow is necessary to calculate the Programmatic Contingency amount. Since no cashflow has been provided, the 2022 CIP budget values were substituted into the formula.
<b>Projects Adjustment Budget (Placeholder):</b>					<b>-\$1,320,794</b>		MSD to prioritize projects to cut costs to bring within annual budget consistent with County Phase 2A Target 2022 CIP Total.
<b>Grand Totals for 31 Projects in 2022-</b>					<b>\$200,146,156</b>	<b>\$200,146,156</b>	

<sup>(3)</sup> 2022 ASSET MGMT. SUB-TOTAL: \$70,098,429

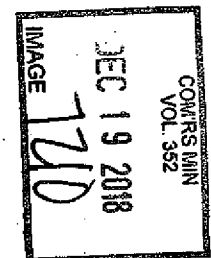
2022 WWIP SUB-TOTAL: \$94,925,671

County Phase 2A Target - 2022 CIP TOTAL: \$165,024,100

<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.

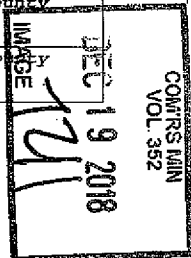
<sup>(3)</sup> Includes Programmatic Contingency and Projects Adjustment Budget costs.



County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2023 Budget	Total Project Cost	Notes
<b>2023 WWIP Projects</b>							
X	10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Construction)	\$5,413,040	\$5,413,040	<sup>(2)</sup> Deleted - Not a County Phase 2A project.
X	10131006	WWIP	SEW	East Branch Muddy Creek Interceptor (Part 1) - Based on Integrated Planning Results (includes 10131000,2,3,4) (Design,Easement)	\$8,063,148 \$1,667,800	\$8,063,148 \$11,077,100	Cost change to be consistent with County Phase 2A Plan.
X	10132916	WWIP	GSO	GSO 411, 412, 413, 414 Separation (Planning)	\$660,827	\$660,827	Deleted - Not a County Phase 2A project.
X	10140000	WWIP	SSO	SSO 1048 Conveyance Sewer Ph 1 (Design)	\$450,870	\$450,870	Deleted - Not a County Phase 2A project.
X	10140020	WWIP	SSO	SSO 1048 Conveyance Sewer Phase 2 (Design)	\$375,348	\$375,348	Deleted - Not a County Phase 2A project.
X	10140080	WWIP	SSO	SSO 587 Conveyance Sewer (Design)	\$275,637	\$275,637	Deleted - Not a County Phase 2A project.
X	10142380	WWIP	REG	GSO 539 Improvements (Design,Easement)	\$700,000	\$700,000	Deleted - Not a County Phase 2A project.
X	10142010	WWIP	SRG	Ludlow Run Sustainable Source Control - Phase 3 (Design,Easement)	\$2,326,532	\$2,326,532	Deleted - Not a County Phase 2A project.
X	10171761	WWIP	SEP	CSO 552 Stormwater Removal (Planning,Design,Easement)	\$637,054 \$518,600	\$637,054 \$518,600	Cost change to be consistent with County Phase 2A Plan.
X	10172930	WWIP	FAC	LMWWTP Four Mile Pump Station Improvements (Construction)	\$19,004,414	\$19,004,414	Move construction from 2023 to 2022 to be consistent with County Phase 2A.
X	10172935	WWIP	FAC	LMWWTP Little Miami Pump Station Improvements Upgrades for EHRT (Part 2) (Design)	\$1,366,999 \$4,398,200	\$1,366,999 \$27,158,900	Cost change to be consistent with County Phase 2A Plan.
X	10180123	WWIP	ALW	Main Sewer Renewal Program 2023 (Construction)	\$2,000,000	\$2,000,000	Replace MSD named project with County Phase 2A project below.
X	10180123	WWIP	ALW	Sewer Relining (Trenchless Technology) Program (Construction)	\$5,639,900	\$5,639,900	Cost change to be consistent with County Phase 2A Plan.
X	10180223	WWIP	ALW	Manhole Renewal Program 2023 (Construction)	\$1,300,000	\$1,300,000	Replace MSD named project with County Phase 2A project below.
X	10180223	WWIP	ALW	Manhole Rehabilitation (Trenchless Technology) Program (Construction)	\$1,128,000	\$1,128,000	Cost change to be consistent with County Phase 2A Plan.
X	10190323	WWIP	ALW	Home Sewer Treatment System Eliminations 2023 (Planning, Design, Construction)	\$360,000 \$2,417,100	\$360,000 \$2,417,100	Cost change to be consistent with County Phase 2A Plan.
X	10192023	WWIP	ALW	SBU Urgent Capacity Response Program 2023 (Construction)	\$2,000,000 \$483,500	\$2,000,000 \$483,500	Cost change to be consistent with County Phase 2A Plan.
	10199023	WWIP	ALW	Program Management and Support Services 2023 (Design)	\$3,500,000	\$3,500,000	
X	11230840	WWIP	REP	GSO 415 and GSO 416 Source Control (Construction)	\$3,703,340	\$3,703,340	Deleted - Not a County Phase 2A project.
X	11540040	WWIP	REP	Mt Airy Receiving Sewer Upgrade (Design,Easement)	\$720,850	\$720,850	Deleted - Not a County Phase 2A project.
X	1013XXXX	WWIP	FAC	Muddy Creek WWTP EHRT (Construction)	\$43,893,700	\$54,137,500	Added project to be consistent with County Phase 2A Plan.
X	10130140	WWIP	SEP	Addyston Extraneous Stormwater Removal (Construction)	\$7,097,600	\$8,699,000	Added project to be consistent with County Phase 2A Plan.

<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.

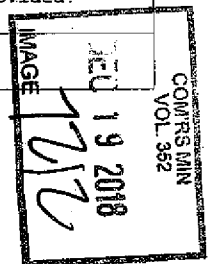


County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2023 Budget	Total Project Cost	Notes
X	1013290X	WWIP	SEP	CSO 198 Partial Separation/SBU Mitigation (Construction)	\$10,940,700	\$13,409,200	<sup>(2)</sup> Added project to be consistent with County Phase 2A Plan.
X	10172940	WWIP	SEP	Mt. Washington Source Control Implementation (Construction)	\$10,940,700	\$13,409,200	Added project to be consistent with County Phase 2A Plan.
X	10199123	WWIP	ALW	Hamilton County Utility Oversight & Coordination	\$4,394,488	\$4,394,488	2019 funding level escalated to year 2023.
<b>Total Cost for 18 WWIP Projects in 2023:</b>					<b>\$52,846,987</b>	<b>\$52,846,987</b>	
<b>Sub-Total Cost for 13 WWIP Projects in 2023:</b>					<b>\$97,020,288</b>	<b>\$145,971,488</b>	

2023 ASSET MANAGEMENT Projects							
	10222000	AM	FAC	Taylor Creek WWTP Grit Facility Upgrades (Construction)	\$1,220,400	\$1,220,400	
	10230054	AM	FAC	Muddy Creek WWTP Disinfection Upgrades (Construction)	\$2,628,400	\$2,628,400	Acceptable if project scope is coordinated with WWTP EHRT planning.
X	10240610	AM	FAC	MCWWTP Primary Sludge Pumping Improvements (Design)	\$1,494,300	\$1,494,300	Deleted. This is a WWIP project after Phase 2A.
	10240615	AM	FAC	Mill Creek WWTP Primary Settling and Primary Skimmings Thickening Building Odor Control (Design)	\$433,100	\$433,100	Acceptable, if beneficial to offsite odor reduction and benefit can be quantified.
	10240640	AM	FAC	Mill Creek Solids Handling Improvements & Odor Control (Construction)	\$37,070,000	\$37,070,000	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
	10250040	AM	FAC	Polk Run WWTP Effluent Pumping Improvements (Planning)	\$219,216	\$219,216	County needs the condition assessment results to confirm project need.
	10250042	AM	FAC	Polk Run WWTP Admin Bldg Improvements (Planning)	\$43,000	\$43,000	County needs the condition assessment results to confirm project need.
	10252000	AM	FAC	Polk Run WWTP Clarifier Upgrades (Design)	\$736,000	\$736,000	
	10252010	AM	FAC	Polk Run Odor Control and Sludge Improvements (Planning)	\$530,000	\$530,000	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
	10262000	AM	FAC	Sycamore Creek Sludge Improvements (Design)	\$1,881,402	\$1,881,402	Subject to change. Project must be consistent with District-Wide Solids Handling Master Plan (DWSHMP).
	10270007	AM	SEW	Dry Run Area Sewers Phase 2 Contract RB (Design, Construction)	\$7,187,500	\$7,187,500	Acceptable if determined to be a priority for the County.
	10280243	AM	ALW	Hydraulic Modeling 2023 (Planning)	\$1,200,000	\$1,200,000	
X	10280323	AM	ALW	Emergency Sewer Repair 2023 (Construction)	<del>\$6,000,000</del> \$4,500,000	<del>\$6,000,000</del> \$4,500,000	Cost adjusted to bring budget to within County Phase 2A affordability target.
X	10280602	AM	REG	District-Wide Regulator Control Enhancements (Design)	<del>\$500,000</del>	<del>\$500,000</del>	Project benefits have not been provided.
	10280723	AM	ALW	Critical Asset Management Projects 2023 (Design, Construction)	\$6,000,000	\$6,000,000	

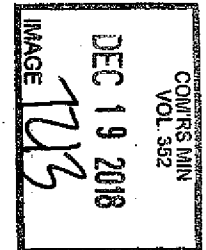
<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in italicized text or strikethrough text.



County Indicated Priority <sup>(1)</sup>	Project ID	CIP Type	Project Type	Project Name	2023 Budget	Total Project Cost	Notes
X	10281323	AM	ALW	Prioritized Wastewater Collection System Improvements 2023 (Construction)	\$7,000,000	\$7,000,000	<sup>(2)</sup> This should be Wastewater Collections High Risk Asset Renewal 2023 (Construction). See allowance added below.
X	10280522	AM	ALW	WWC High Risk Asset Renewal 2023 (Construction)	\$4,500,000	\$4,500,000	Added to replace above allowance. Use scope definition from authorized 2018 CIP.
X	1028xxxx	AM	ALW	Building Sewer Repairs 2021 (Construction)	\$1,500,000	\$1,500,000	Added to CIP. Use scope definition from authorized 2018 CIP.
	10282023	AM	ALW	CIP Planning Projects 2023 (Planning)	\$1,000,000	\$1,000,000	
	10282223	AM	ALW	Asset Management Conveyance Projects 2023 (Planning, Design, Construction)	\$1,100,000	\$1,100,000	
<b>Total Cost for 18 ASSET Projects in 2023-</b>					<b>\$75,243,318</b>	<b>\$75,243,318</b>	
<b>Sub-Total Cost for 17 Asset Management Projects for 2023:</b>					<b>\$71,749,018</b>	<b>\$71,749,018</b>	
	13090000	OTHER	PRG	Programmatic Contingency (Design)	<del>\$10,000,000</del> \$9,780,000	<del>\$10,000,000</del> \$9,780,000	By Rule 2405.A.7, the 2023 cashflow is necessary to calculate the Programmatic Contingency amount. Since no cashflow has been provided, the 2023 CIP budget values were substituted into the formula.
<b>Projects Adjustment Budget (Placeholder):</b>					<b>-\$8,854,456</b>		MSD to prioritize projects to cut costs to bring within annual budget consistent with County Phase 2A Target 2023 CIP Total.
<b>Grand Totals for 36 Projects in 2023-</b>					<b>\$138,090,305</b>	<b>\$138,090,305</b>	

<sup>(3)</sup> 2023 ASSET MGMT. SUB-TOTAL: \$72,674,562  
 2023 WWIP SUB-TOTAL: \$97,020,288  
 County Phase 2A Target - 2023 CIP TOTAL: \$169,694,850



<sup>(1)</sup> Refer to 2019-2023 CIP Resolution, Sec. 4.c.

<sup>(2)</sup> County revisions to MSD's information is shown in Italicized text or strikethrough text.

<sup>(3)</sup> Includes Programmatic Contingency and Projects Adjustment Budget costs.

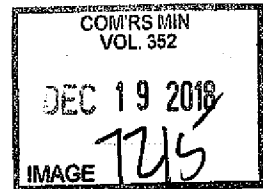
**Metropolitan Sewer District of Greater Cincinnati  
Capital Budget and Capital Improvement Program  
Year 2019**



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## Glossary of Terms



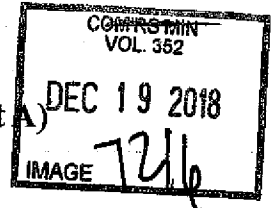
<u>Abbreviation</u>	<u>Description</u>
ALW	Allowance
BOCC	Board of County Commissioners, Hamilton County, OH
CDOTE	Cincinnati Department of Transportation & Engineering
CEHRT	Chemically Enhanced High Rate Treatment
CIP	Capital Improvement
CSO	Combined Sewer Overflow; discharge from a combined sewer collection system.
EPA	Environmental Protection Agency
ESP	Early Success Project
FAC	Treatment Facility
HA	Highly Active SSOs (HASSOs)
HNS	Home Numbers
HSTS	Home Sewage Treatment Systems
HW/DW	High Water, Dry Weather, refers to a specific type of CSO, the condition that occurs when the interceptor sewer floods from area rivers or creeks back-flowing into a CSO structure, resulting in extraneous waters that cause a combined discharge further down the collection system
ITS	IT Systems
IWAP	Integrated Watershed Action Plan
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
REP	Sewer Replacement
SBU	Sewer Back Up (aka WIB Water-In-Basement)
SCADA	Supervisory Control and Data Acquisition
SEP	Sewer Separation
SEW	New Sewer
SMU	Stormwater Management Utility
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



## 2019 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
<del>10130566</del>	<del>WWIP</del>	<del>FAC</del>	<del>Muddy Creek WWTP EHRT and Pump Station Upgrade (Planning, Design)</del>	<del>\$5,383,762</del>
10140417	WWIP	ALW	LMCPR Construction Compliance Assurance (Design)	\$1,700,000
10142916	WWIP	SEP	MLK Sewer Separation at Burnett Woods (Design)	\$25,000
<del>10172940</del>	<del>WWIP</del>	<del>SRC</del>	<del>Mt Washington Source Control Implementation (Planning, Design, Easement)</del>	<del>\$1,853,497</del>
10190219	WWIP	ALW	Phase 2 WWIP Planning 2019 (Planning)	\$1,000,000
10190319	WWIP	ALW	Home Sewer Treatment System Eliminations 2019 (Planning, Design, Easement)	\$670,000 <del>\$350,000</del>
10199019	WWIP	ALW	Program Management and Support Services 2019 (Design)	\$3,500,000
<del>10130043</del>	<del>ASSET</del>	<del>CSO</del>	<del>CSO 522 Dynamic Underflow Control (Design, Easement)</del>	<del>\$351,000</del>
10230045	ASSET	REP	Stonebridge Sewer Relief (Design, Easement)	\$337,000
10230660	ASSET	SRC	Delhi Twp Rapid Run Intergovernmental Flood Control Project Phase 3 (Design, Easement)	\$1,191,648
<del>10230665</del>	<del>ASSET</del>	<del>FAC</del>	<del>Lower Muddy Creek Storage Basin (Planning, Design, Easement)</del>	<del>\$2,620,000</del>
10240180	ASSET	REP	3934 Winding Way Sewer Replacement (Design)	\$15,000
10240426	ASSET	PSE	Pleasant Run Pump Station Upgrades (Planning)	\$1,675,000
10240625	ASSET	FAC	MCWWTP Standby Power Distribution System Improvements (Design)	\$464,000
10240697	ASSET	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Design)	\$232,000
10240710	ASSET	STY	Fitzpatrick Sewer Cleaning and Rehabilitation (Design)	\$120,000
10240715	ASSET	FAC	MCWWTP Solids Handling Process & Odor Control Planning Bundle (Planning)	\$425,000
<del>10270026</del>	<del>ASSET</del>	<del>PSE</del>	<del>Camargo Canyon Pump Station Elimination (Design, Easement)</del>	<del>\$140,000</del>
10270165	ASSET	REP	Delta and Greist Sewer Replacement (Design)	\$20,000
10272025	ASSET	REP	Wasson Ravine Sewer Replacement (Design, Easement)	\$669,000
<del>10272035</del>	<del>ASSET</del>	<del>FAC</del>	<del>Little Miami Solids Disposal System with Odor Control (Design)</del>	<del>\$3,205,500</del>
10280239	ASSET	ALW	Hydraulic Modeling 2019 (Planning)	\$1,200,000
10282019	ASSET	ALW	CIP Planning Projects 2019 (Planning)	\$1,000,000
10282219	ASSET	ALW	CIP Planning Asset Management Conveyance Projects 2019 (Planning)	\$1,100,000
<del>24 Planning/Design/Easement Projects in 2019</del>				<del>\$ 28,577,407</del>
Add:				
10192019	WWIP	ALW	SBU Urgent Capacity Response Program 2019 (Planning, Easement)	\$2,000,000
10199119	WWIP	ALW	Hamilton County Utility Oversight and Coordination - 2019 (Design)	\$3,700,000
1024####	ASSET	FAC	SSO 700 STF Disinfection Improvements (Design)	\$400,000
1028####	ASSET	FAC	Solids Handling Improvements - District Wide Placeholder - Per Master Plan (Design, Construction)	\$3,205,500

21 CIP Projects for 2019

\$22,949,148

FY 2019 MSD CIP Funding Request  
Metropolitan Sewer District of Greater Cincinnati  
Estimate of Construction  
Detailed Project Estimated Cost (Exhibit B)

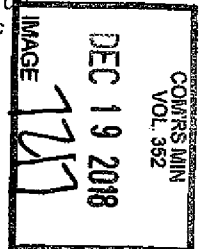
ID#	CIP#	Project Name	Location	Explanation/Description	Legislation Type	Resolution 1	Resolution 2	Resolution 3	Current Request	WWIP	AM	Proj Start	Proj End	
10180119	NA	Main Sewer Renewal Program 2019	Throughout the MSD service area	Throughout the District, this program funds the "trenchless" internal rehabilitation of failing portions of existing main sewer segments using "trenchless" cured-in-place "point liners" prior to complete structural failure as a cost effective alternative to open-cut (excavation) point repairs. The sewer segments to be addressed under this program are identified through standardized visual PACP condition assessments, and dynamically prioritized by risk through MSD's Integrated Gravity Sewer Asset Management Program.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ <del>2,000,000.00</del> \$ 6,000,000	X		Jan 2019	Dec 2019	
Add: The scope of work does not include addressing building sewers.														
10180219	NA	Manhole Renewal Program 2019	Throughout the MSD service area	Throughout the District, this program supports the renewal of structurally deficient manholes in the MSD wastewater collection system, and the installation of new manholes to support operation and maintenance of the wastewater collection system. The scope of work for the program will include manhole repairs, replacements, new installations, and casting adjustments and chimney repairs completed in conjunction with municipal paving projects.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ <del>3,300,000.00</del> \$ 700,000	X		Jan 2019	Dec 2019	
<del>10190219</del>	<del>NA</del>	<del>SBU Urgent Capacity Response Program 2019</del>	<del>Throughout the MSD service area</del>	<del>This capital fund will be used to purchase specific SBU properties that have no alternative engineering solution and will not otherwise be solved by a planned construction project. Properties selected and recommended for acquisition will be selected by a systematic method and must be specifically approved by Board of County Commissioners prior to fund expenditure.</del>	<del>Const</del>	<del>Approve - plans/ specs/ cost est.</del>	<del>Necessity/ Proceed</del>	<del>Authorize - advertise and bid</del>	<del>\$ 3,000,000.00</del>	<del>X</del>		<del>Jan 2019</del>	<del>Dec 2019</del>	
10280319	NA	Emergency Sewer Repairs 2019	Throughout the MSD service area	Throughout the District, this program funds emergency sewer system repair projects using MSD personnel and competitively bid as-needed sewer repair contracts. This project allows MSD to quickly and efficiently restore and maintain interrupted service, while mitigating the risk of additional damages or losses.	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ <del>5,000,000.00</del> \$ 7,000,000		X	Jan 2019	Dec 2019	
Refer to note 1 below.														
10280609	NA	Building Sewer Renewal Program 2019	Throughout the MSD service area	<del>Throughout the District, this program supports the structural renewal and repair of the portion privately owned building sewers within the public right-of-way and/or within dedicated main sewer easements to cost effectively extend asset life while protecting public safety, health and the environment. The scope of this project will include the installation of inspection ports on building sewers at the public right-of-way line or dedicated public sewer easement line to facilitate trenchless structural renewal and building sewer flow monitoring.</del>	Const	Approve - plans/ specs/ cost est.	Necessity/ Proceed	Authorize - advertise and bid	\$ <del>5,000,000.00</del> \$ 3,000,000		X	Jan 2019	Dec 2019	
Refer to note 2 below.														
10280719	NA	Critical Asset Management Projects 2019	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 2019	Dec 2019	
<del>10281319</del>	<del>NA</del>	<del>Prioritized Wastewater Collection System Improvements 2019</del>	<del>Throughout the MSD service area</del>	<del>Throughout the District, this program will fund the prioritized renewal and improvement of assets comprising the wastewater collection system consistent with MSD's integrated asset management framework to maintain acceptable levels of service at the lowest asset life cycle cost prior to complete failure.</del>	<del>Const</del>	<del>Approve - plans/ specs/ cost est.</del>	<del>Necessity/ Proceed</del>	<del>Authorize - advertise and bid</del>	<del>\$ 7,000,000.00</del>	<del>X</del>		<del>Jan 2019</del>	<del>Dec 2019</del>	
Refer to note 3 below.														
									Total	\$ <del>20,300,000.00</del>				
										\$ 29,700,000				

**Notes:**

1. For the 10280319 Emergency Sewer Repairs 2019, to the Description, add: "If a building sewer failure causes a sinkhole hazard in the roadway, then this allowance can be used to repair roadway public hazard."

2. For the 10280609 Building Sewer Renewal Program 2019, replace the description with: "This allowance is dedicated to addressing structurally failed privately owned building sewers located within the public right-of-way in accordance with MSD Rule Section 2008. Rule Section 2008 could potentially be revised in 2019."

3. Replace 10281319 Prioritized Wastewater Collection System Improvements 2019 with "10280519 WWC High Risk Asset Renewal (2019)". The description for the replacement allowance 10280519 is: "This project will allow MSDGC to replace entire high risk assets or portions of system assets that are currently unable, or anticipated to be unable to meet their defined level of service. This project is necessary to cost effectively extend asset life while protecting and preserving public health and the environment. The scope of work does not include addressing building sewers."



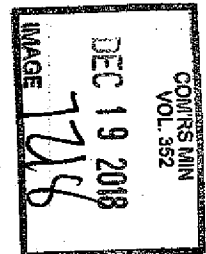


**FY 2019 MSD CIP Funding Request**  
**Metropolitan Sewer District of Greater Cincinnati**  
**Estimate of Construction**  
**Detailed Project Estimated Cost (Exhibit B)**

ID#	CIP#	Project Name	Planning	Design	Pre-Construction Services	Miscellaneous Expense	Right Of Way	Construction	Contingency	Construction Services	Interest/ Financing	Total	
10180119	NA	Main Sewer Renewal Program 2019	\$	\$	\$	\$	\$	\$5,400,000 <del>1,000,000.00</del>	\$	\$600,000 <del>200,000.00</del>	\$	\$6,000,000 <del>2,000,000.00</del>	
10180219	NA	Manhole Renewal Program 2019	\$	\$	\$	\$	\$	\$650,000 <del>1,200,000.00</del>	\$	\$50,000 <del>100,000.00</del>	\$	\$700,000 <del>1,300,000.00</del>	
<del>10190019</del>	NA	<del>SSO Urgent Capacity Response Program 2019</del>	\$	\$	\$	\$	\$	<del>1,250,000.00</del>	\$	<del>250,000.00</del>	\$	<del>2,000,000.00</del>	
10280319	NA	Emergency Sewer Repairs 2019	\$	\$	\$	\$	\$	\$6,650,000 <del>1,250,000.00</del>	\$	\$350,000 <del>250,000.00</del>	\$	\$7,000,000 <del>1,000,000.00</del>	
10280609	NA	Building Sewer Renewal Program 2019	\$	\$	\$	\$	\$	\$2,850,000 <del>1,250,000.00</del>	\$	\$150,000 <del>250,000.00</del>	\$	\$3,000,000 <del>5,000,000.00</del>	
10280719	NA	Critical Asset Management Projects 2019	\$	\$	\$	\$	\$	6,000,000.00	\$	\$	\$	6,000,000.00	
<del>10280319</del>	NA	<del>Prioritized Wastewater Collection System Improvements 2019</del>	\$	\$	\$	\$	\$	6,000,000.00	\$	1,000,000.00	\$	7,000,000.00	
											<b>Total</b>	\$	<del>28,200,000.00</del> <b>\$29,700,000</b>

Approved this \_\_\_\_\_ day of \_\_\_\_\_, 2018  
 Board of County Commissioners  
 Hamilton County, Ohio.

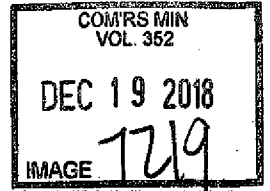
Patrick Arnette, P.E.  
 Deputy Director, MSD  
 Hamilton County Sanitary Engineer  
 (for the purposes of the Metropolitan Sewer District of Greater Cincinnati  
 as authorized in the Resolution of February 28, 2007, Comm. Minutes, Vol. 305, Images 4190-41911)  
 City of Cincinnati Department of Sewers





2019 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

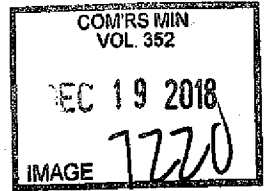


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2019 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

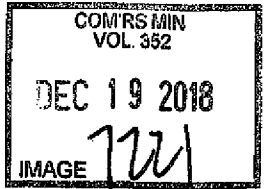


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2019 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

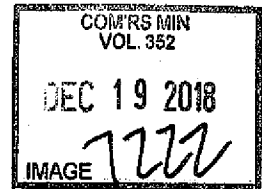


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2019 CIP Projects

Metropolitan Sewer District of Greater Cincinnati

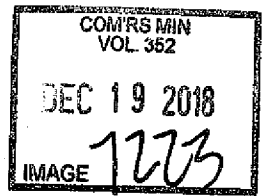


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2019 CIP Projects

Metropolitan Sewer District of Greater Cincinnati



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## 2019 CIP Projects

### Metropolitan Sewer District of Greater Cincinnati

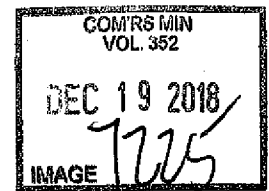


Project ID	Project Category	Project Type	Project Name	2019 Total Requested	Total Project Cost
<del>10130566</del>	<del>WWIP</del>	<del>FAC</del>	<del>Muddy Creek WWTP EHRT and Pump Station Upgrade (Planning, Design)</del>	<del>-\$5,383,762</del>	<del>-\$80,027,369</del>
<del>10130740</del>	<del>WWIP</del>	<del>FAC</del>	<del>Werk &amp; Westbourne EHRT Facility (Construction)</del>	<del>-\$400,000</del>	<del>-\$44,054,721</del>
10130850	WWIP	CSO	Muddy Creek Westbourne HRT Phase A Improvements (Construction)	\$5,171,300	\$5,780,200
<del>10140417</del>	<del>WWIP</del>	<del>ALW</del>	<del>LMCPR Construction Compliance Assurance (Design)</del>	<del>-\$1,700,000</del>	<del>-\$6,900,000</del>
10142200	WWIP	SEP	CSO 513 Sewer Separation (Construction)	\$2,687,000	\$3,227,000
10142916	WWIP	SEP	MLK Sewer Separation at Burnett Woods (Design, Construction)	\$100,000	\$100,000
10144887	WWIP	FAC	Mill Creek WWTP High Rate Treatment Facility Diversion Structure (Construction)	\$7,863,000	\$10,571,726
10170812	WWIP	FAC	Little Miami WWTP Electrical Improvements Phase A (Construction)	\$2,880,000	\$3,383,800
10170813	WWIP	FAC	LMWWTP Preliminary Treatment Improvements Phase A (Construction)	\$18,194,000	\$19,411,800
10171540	WWIP	REG	CSO 135 Elimination (Construction)	\$575,300	\$738,500
10171560	WWIP	REG	CSO 43 Elimination (Construction)	\$414,400	\$575,200
10171641	WWIP	SEP	CSO 214 Partial Separation (Construction)	\$2,326,300	\$3,306,500
<del>10172940</del>	<del>WWIP</del>	<del>SRC</del>	<del>Mt Washington Source Control Implementation (Planning, Design, Easement)</del>	<del>-\$1,853,497</del>	<del>-\$10,000,000</del>
10180119	WWIP	ALW	Main Sewer Renewal Program 2019 (Construction)	\$6,000,000	<del>-\$2,000,000</del>
10180219	WWIP	ALW	Manhole Renewal Program 2019 (Construction)	\$700,000	<del>-\$1,300,000</del>
10190219	WWIP	ALW	Phase 2 WWIP Planning 2019 (Planning)	\$1,000,000	\$1,000,000
10190319	WWIP	ALW	Home Sewer Treatment System Eliminations 2019 (Planning, Design, Easement) Construction)	\$1,950,000	<del>-\$350,000</del>
10192019	WWIP	ALW	SBU Urgent Capacity Response Program 2019 (Construction) (Planning, Easement)	\$2,000,000	\$2,000,000
10199019	WWIP	ALW	Program Management and Support Services 2019 (Design)	\$3,500,000	\$3,500,000
10230640	WWIP	CSO	CSO 408 and 413 HW DW Protection (Construction)	\$3,397,200	\$4,190,100



## 2019 CIP Projects

### Metropolitan Sewer District of Greater Cincinnati



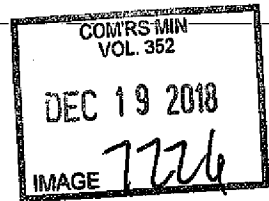
Project ID	Project Category	Project Type	Project Name	2019 Total Requested	Total Project Cost
10270170	WWIP	CSO	CSO 83 and 472 Dynamic Underflow Control (Construction)	\$3,118,600	\$3,889,625
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$5,860,000	<del>\$10,000,000</del> \$59,841,656
<del>10130043</del>	<del>ASSET</del>	<del>CSO</del>	<del>CSO 522 Dynamic Underflow Control (Design,Easement,Construction)</del>	<del>\$828,000</del>	<del>\$828,000</del>
10230045	ASSET	REP	Stonebridge Sewer Relief (Design,Easement)	\$337,000	\$786,000
10230130	ASSET	REP	Dry Weather Channel for SS 937 (Construction)	\$3,213,000	\$3,768,105
10230150	ASSET	REP	Addyston Creek and Sewer Rehab (Construction)	\$468,400	\$760,683
10230660	ASSET	SRC	Delhi Twp Rapid Run Intergovernmental Flood Control Project Phase 3 (Design,Easement)	\$1,191,648	\$1,191,648
<del>10230665</del>	<del>ASSET</del>	<del>FAC</del>	<del>Lower Muddy Creek Storage Basin (Planning,Design,Easement)</del>	<del>\$2,620,000</del>	<del>\$14,920,000</del>
10240055	ASSET	FAC	MCWWTP Liquid Sludge Storage Tank Covers and Odor Control (Construction)	\$5,349,650	\$5,799,650
10240180	ASSET	REP	3934 Winding Way Sewer Replacement (Design,Construction)	\$403,300	\$539,677
<del>10240360</del>	<del>ASSET</del>	<del>PSE</del>	<del>Timbers Pump Station Elimination (Construction)</del>	<del>\$1,417,500</del>	<del>\$1,710,079</del>
10240365	ASSET	REP	Quebec Road Sewer Replacement (Construction)	\$428,600	\$555,656
10240380	ASSET	CSO	CSO 005 Water Connection (Construction)	\$144,700	\$285,189
10240426	ASSET	PSE	Pleasant Run Pump Station Upgrades (Planning)	\$1,675,000	\$22,837,000
10240430	ASSET	REP	Berkley Avenue Sewer Replacement (Construction)	\$728,860	\$996,181
10240455	ASSET	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation (Construction)	\$550,900	\$703,346
10240473	ASSET	PSE	Bahama Gardens Pump Station Upgrade (Construction)	\$811,700	\$987,900
10240550	ASSET	REP	Pardee Alley Sewer Replacement-Oswald Al to 200' north (Construction)	\$240,000	\$408,353
10240590	ASSET	FAC	Mill Creek WWTP Main Substation Improvements (Construction)	\$3,748,642	\$10,867,818
10240625	ASSET	FAC	MCWWTP Standby Power Distribution System Improvements (Design)	\$464,000	\$4,326,000





## 2019 CIP Projects

### Metropolitan Sewer District of Greater Cincinnati



Project ID	Project Category	Project Type	Project Name	2019 Total Requested	Total Project Cost
10240697	ASSET	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Design)	\$232,000	\$1,376,000
10240710	ASSET	STY	Fitzpatrick Sewer Cleaning and Rehabilitation (Design)	\$120,000	\$2,852,000
10240715	ASSET	FAC	MCWWTP Solids Handling Process & Odor Control Planning Bundle (Planning)	\$425,000	\$2,265,000
<del>10270026</del>	<del>ASSET</del>	<del>PSE</del>	<del>Camargo Canyon Pump Station Elimination (Design, Easement)</del>	<del>\$140,000</del>	<del>\$1,641,321</del>
10270125	ASSET	REP	Portsmouth Avenue Sewer Replacement (Construction)	\$387,625	\$532,698
10270165	ASSET	REP	Delta and Greist Sewer Replacement (Design)	\$20,000	\$1,597,915
10270175	ASSET	REP	East Hill Ave Sewer Replacement (Construction)	\$1,663,900	\$1,975,600
10272025	ASSET	REP	Wasson Ravine Sewer Replacement (Design, Easement)	\$669,000	\$2,784,000
<del>10272035</del>	<del>ASSET</del>	<del>FAC</del>	<del>Little Miami Solids Disposal System with Odor Control (Design)</del>	<del>\$3,205,500</del>	<del>\$38,556,400</del>
10280239	ASSET	ALW	Hydraulic Modeling 2019 (Planning)	\$1,200,000	\$1,200,000
10280319	ASSET	ALW	Emergency Sewer Repairs 2019 (Construction)	\$7,000,000	<del>\$5,000,000</del>
10280609	ASSET	ALW	Building Sewer Renewal Program 2019 (Construction)	\$3,000,000	<del>\$5,000,000</del>
10280719	ASSET	ALW	Critical Asset Management Projects 2019 (Construction)	\$6,000,000	\$6,000,000
<del>10281319</del> 10280519	ASSET	ALW	<del>Prioritized Wastewater Collection System Improvements 2019 (Construction)</del> WWC High Risk Asset Renewal 2019 (Construction)	\$7,000,000	\$7,000,000
10282019	ASSET	ALW	CIP Planning Projects 2019 (Planning)	\$1,000,000	\$1,000,000
10282219	ASSET	ALW	CIP Planning Asset Management Conveyance Projects 2019 (Planning)	\$1,100,000	\$1,100,000
<del>56 CIP Projects for 2019</del>				<del>\$133,998,284</del>	<del>\$418,300,416</del>
Add:					
10130042	WWIP	REP	Upper Muddy Creek Interceptor - Bridge Phase (Construction)	\$7,717,070	
10142220	WWIP	SEP	CSO 514 - Smalley Grating (WWIP Index 232) (Construction)	\$1,345,100	
10199119	WWIP	ALW	Hamilton County Utility Oversight and Coordination - 2019 (Design)	\$3,700,000	
1024####	ASSET	FAC	SSO 700 STF Disinfection Improvements (Design)	\$400,000	
1028####	ASSET	FAC	Solids Handling Improvements - District Wide Placeholder - Per Master Plan (Design, Construction)	\$4,500,000	
52 CIP Projects for 2019				\$134,972,195	

DEC 19 2018

IMAGE

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ANNUAL CIP LEGISLATION ASSUMPTIONS

**The purpose of this page is to provide readers with very broad and high-level assumptions pertaining to the MSD annual CIP legislation. For all in-depth assumptions the reader should refer to the MSD Financial Analysis Manual.**

**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, by MSD personnel or by consultant contract.

**Design**

The cost for detailed design during the design phase either by MSD personnel or by consultant contract.

**Pre Construction Services**

The cost of project manager and other personnel costs performing support functions during the planning and design phases.

**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 utility relocations if not handled during construction.

**Right of Way**

The cost of easement acquisition by City Real Estate 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 if required for project.

**Construction Services**

The cost of project management, construction management, construction inspection, field engineering and other personnel costs performing support function during the construction phase.

**Interest/Financing**

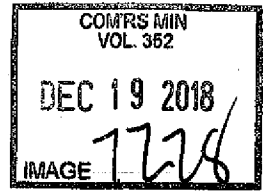
The cost of interest charged prior to the asset being placed in service. This is only applied to projects that have a prospective borrowing, such as the projects financed through the OEPA low interest loan program.

**2020 - 2023 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 high level information is presented herein is for order of magnitude budget forecasting purposes only.

**Legislated Costs**

Legislated costs include costs that have been previously legislated prior to the drafting of this document. Remaining legislation anticipated to be approved during 2018 are excluded from the total legislated amount.



# 2019 WWIP Projects

DEC 19 2018  
 IMAGE 729



2019 Projects  
 Metropolitan Sewer District of Greater Cincinnati  
 WWIP Projects

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
<del>10130566</del>	<del>WWIP</del>	<del>FAC</del>	<del>Muddy Creek WWTP EHRT and Pump Station Upgrade (Planning, Design)</del>	<del>\$5,383,762</del>	<del>\$0</del>	<del>\$5,383,762</del>	<del>18</del>
<del>10130740</del>	<del>WWIP</del>	<del>FAC</del>	<del>Werk &amp; Westbourne EHRT Facility (Construction)</del>	<del>-\$400,000</del>	<del>\$0</del>	<del>-\$400,000</del>	<del>19</del>
10130850	WWIP	CSO	Muddy Creek Westbourne HRT Phase A Improvements (Construction)	\$5,171,300	\$0	\$5,171,300	20
<del>10140417</del>	<del>WWIP</del>	<del>ALW</del>	<del>LMCPR Construction Compliance Assurance (Design)</del>	<del>-\$1,700,000</del>	<del>\$0</del>	<del>-\$1,700,000</del>	<del>21</del>
10142200	WWIP	SEP	CSO 513 Sewer Separation (Construction)	\$2,687,000	\$0	\$2,687,000	22
10142916	WWIP	SEP	MLK Sewer Separation at Burnett Woods (Design, Construction)	\$100,000	\$0	\$100,000	23
10144887	WWIP	FAC	Mill Creek WWTP High Rate Treatment Facility Diversion Structure (Construction)	\$7,863,000	\$0	\$7,863,000	24
10170812	WWIP	FAC	Little Miami WWTP Electrical Improvements Phase A (Construction)	\$2,880,000	\$0	\$2,880,000	25
10170813	WWIP	FAC	LMWWTP Preliminary Treatment Improvements Phase A (Construction)	\$18,194,000	\$0	\$18,194,000	26
10171540	WWIP	REG	CSO 135 Elimination (Construction)	\$575,300	\$0	\$575,300	27
10171560	WWIP	REG	CSO 43 Elimination (Construction)	\$414,400	\$0	\$414,400	28
10171641	WWIP	SEP	CSO 214 Partial Separation (Construction)	\$2,326,300	\$0	\$2,326,300	29
<del>10172940</del>	<del>WWIP</del>	<del>SRC</del>	<del>Mt Washington Source Control Implementation (Planning, Design, Easement)</del>	<del>-\$1,853,497</del>	<del>\$0</del>	<del>-\$1,853,497</del>	<del>30</del>
10180119	WWIP	ALW	Main Sewer Renewal Program 2019 (Construction)	<del>\$2,000,000</del>	\$0	<del>\$2,000,000</del> \$6,000,000	31
10180219	WWIP	ALW	Manhole Renewal Program 2019 (Construction)	<del>-\$1,300,000</del>	\$0	<del>-\$1,300,000</del> \$700,000	32
10190219	WWIP	ALW	Phase 2 WWIP Planning 2019 (Planning)	\$1,000,000	\$0	\$1,000,000	33
10190319	WWIP	ALW	Home Sewer Treatment System Eliminations 2019 (Planning, Design, Easement)	<del>-\$350,000</del>	\$0	<del>-\$350,000</del> \$1,950,000	34
10192019	WWIP	ALW	SBU Urgent Capacity Response Program 2019 (Construction)	\$2,000,000	\$0	\$2,000,000	35
10199019	WWIP	ALW	Program Management and Support Services 2019 (Design)	\$3,500,000	\$0	\$3,500,000	36
10230640	WWIP	CSO	CSO 408 and 413 HW DW Protection (Construction)	\$3,397,200	\$0	\$3,397,200	37
10270170	WWIP	CSO	CSO 83 and 472 Dynamic Underflow Control (Construction)	\$3,118,600	\$0	\$3,118,600	38
<b>Total Cost for 21 WWIP CIP Projects</b>				<del>-\$66,214,359</del>	<del>\$0</del>	<del>-\$66,214,359</del>	
Add:							
10130042	WWIP	REP	Upper Muddy Creek Interceptor - Bridge Phase (Construction)			\$7,717,070	
10142220	WWIP	SEP	CSO 514 - Smalley Grating (WWIP Index 232) (Construction)			\$1,345,100	
10189119	WWIP	ALW	Hamilton County Utility Oversight and Coordination 2019 (Design)			\$3,700,000	

20 CIP Projects for 2019

\$74,639,270

# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Muddy Creek WWTP EHRT and Pump Station Upgrade		
Project ID	10130566	CIP Number	10130566
Project Type	Treatment Facility		

**Not Authorized**

N# 04

## Purpose and Justification

The MuCWWTP Raw Sewage Pump Station (PS) was originally a 15 MGD PS and has been expanded through multiple capital improvement projects. The PS is overcrowded and maintenance is difficult. Some of the pumps have significant vibration and fail frequently. The grinders are undersized and are bypassed during high flows. Its firm capacity is below other plant processes. The influent screens do not have firm capacity and are downstream of the raw sewage pumps and should be located upstream of the pumps. The inclusion of a high rate treatment facility will provide ability to treat the increased flows during wet weather events. This is associated with Index 215 in Attachment 2 of the Final WWIP.

## Impact to Operating Budget

None.

## Description and Location

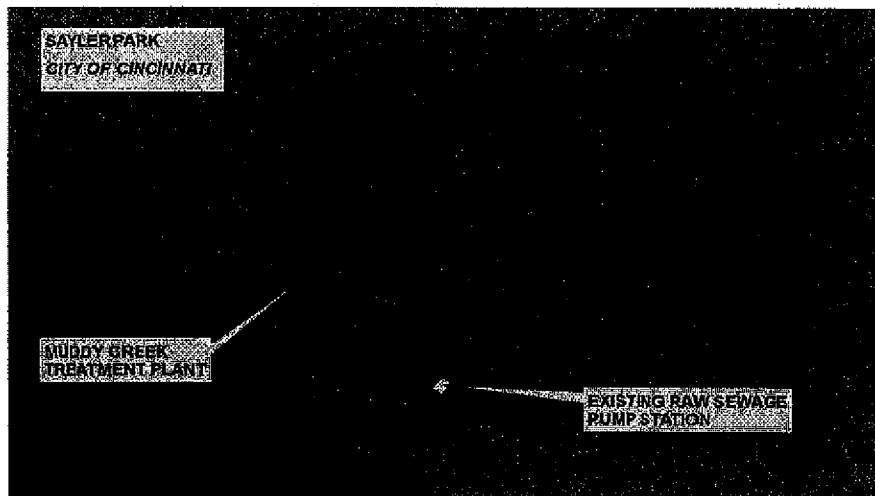
This project includes the planning, design and construction of a raw sewage and pumping facility to serve the Muddy Creek Wastewater Treatment Plant and a potential future high rate treatment facility. The planning will look at the benefits and challenges of continuing to use the existing Pump Station. It is anticipated that the pump station and high rate treatment facility will be located within treatment plant, which is located in the Saylor Park neighborhood of the City of Cincinnati.

COMERS MIN  
VOL. 352  
DEC 19 2018  
1130  
IMAGE

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$1,500,000	\$24,602	\$1,500,000	\$0	\$1,524,602
Design	\$2,884,924	\$0	\$2,884,924	\$0	\$2,884,924
Pre-Construction Services	\$648,838	\$0	\$648,838	\$0	\$648,838
Miscellaneous Expense	\$350,000	\$0	\$350,000	\$0	\$350,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$6,488,368	\$0	\$0	\$64,883,686	\$64,883,686
Program Management	\$0	\$2,767	\$0	\$0	\$2,767
Construction Services	\$17,667,008	\$0	\$0	\$6,488,370	\$6,488,370
Interest / Financing	\$3,244,182	\$0	\$0	\$3,244,182	\$3,244,182
<b>Total</b>	<b>\$32,783,320</b>	<b>\$27,369</b>	<b>\$5,383,762</b>	<b>\$74,616,238</b>	<b>\$80,027,369</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$27,369	\$37,308,119	\$37,308,119	\$0	\$0	\$80,027,369

**Prior Legislation Action**  
May 2014



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

COM'RS MIN VOL. 352  
DEC 19 2018  
IMAGE 7231

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Werk & Westbourne EHRT Facility

Project ID 10130740 CIP Number  
Project Type Treatment Facility

**Not Authorized**

## Purpose and Justification

This project is required by the Global Consent Decree. This project will remediate frequent health, odor, and aesthetic problems in the neighboring area caused by wet weather discharges from Combined Sewer Overflow (CSO) 522. The project will greatly improve the quality of water being discharged to Schaible Creek during wet weather events. The Werk & Westbourne Enhanced High Rate Treatment (EHRT) facility will serve as a demonstration to assess the effectiveness of EHRT technology for this specific application.

## Impact to Operating Budget

MSD utilizes 0.75% of the construction budget to estimate operating costs for future revenue requirement projections. This impact is considered to begin two years after construction legislation.

## Description and Location

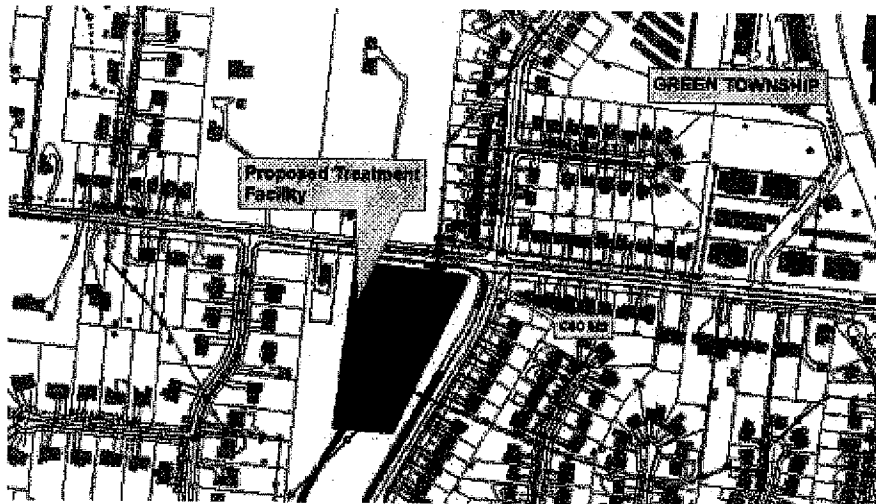
This project includes construction of a 35 million gallon per day chemically enhanced high rate treatment facility to provide storage, settling, and screening of combined sewage discharges from CSO 522 located at the intersection of Werk Road and Westbourne Drive in the Muddy Creek basin in Green Township, Hamilton County, Ohio.

The original project cost equals the WWIP estimate escalated to current schedule.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$1,982,904	\$1,265,525	\$0	\$0	\$1,265,525
Design	\$1,982,904	\$7,276,228	\$0	\$0	\$7,276,228
Pre-Construction Services	\$1,189,742	\$305,541	\$0	\$0	\$305,541
Miscellaneous Expense	\$828,015	\$297,500	\$0	\$0	\$297,500
Right-of-Way	\$501,756	\$563,100	\$0	\$0	\$563,100
Construction	\$20,383,574	\$26,024,499	\$0	\$0	\$26,024,499
Program Management	\$0	\$597,214	\$0	\$0	\$597,214
Construction Services	\$2,070,037	\$6,117,213	\$400,000	\$0	\$6,517,213
Interest / Financing	\$1,035,013	\$1,207,900	\$0	\$0	\$1,207,900
<b>Total</b>	<b>\$29,973,945</b>	<b>\$43,654,720</b>	<b>\$400,000</b>	<b>\$0</b>	<b>\$44,054,720</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$43,654,720	\$400,000	\$0	\$0	\$0	\$0	\$0	\$44,054,720

**Prior Legislation Action**  
Oct 2000, Dec 2006, Jan 2007, Dec 2009, Dec 2010, Mar 2011, Jan 2014, May 2014, Mar 2015, Jul 2015, Dec 2015, Mar 2016, May 2017, Aug 2017, Mar



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Muddy Creek @ Westbourne HRT Phase A Improvements

Project ID 10130850 CIP Number 10130850 CD Index # 236  
Project Type CSO Improvement/Elim Sewer Number 6958

## Purpose and Justification

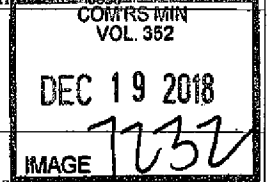
This project provides for initial improvements to the Muddy Creek at Westbourne HRT facility. This CSO High Rate Treatment facility was originally constructed as a gravity settling, screening and disinfection system with passive diversion into the facility via fixed wall and stop logs. As part of the WWIP this facility is to be upgraded to Enhanced High Rate Settling. The City of Cincinnati and Hamilton County have committed to make initial improvements to this facility to advance this WWIP project. In addition, improvements to the diversion chamber will be installed to reduce potential upstream impacts to residents. Refer to index 236 of Attachment 2 of the Final WWIP.

## Impact to Operating Budget

None.

## Description and Location

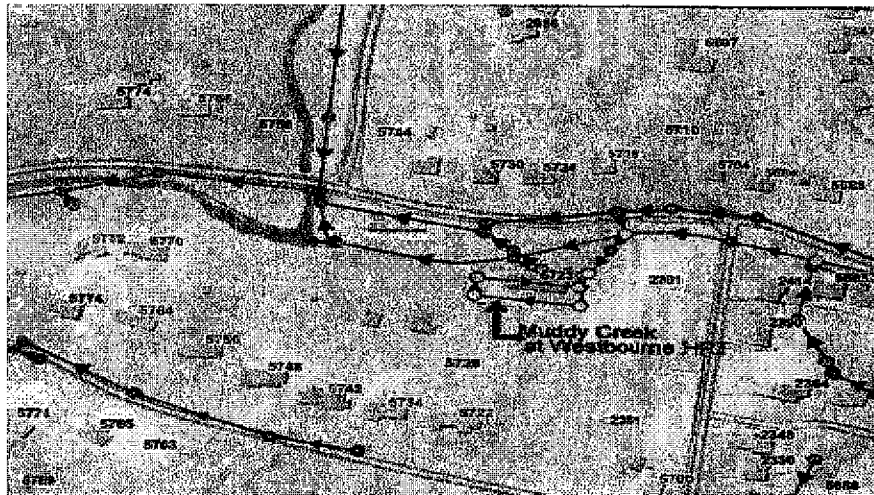
This project consists of the installation of regulating diversion device in the existing diversion chamber and new fine screening system upstream of the settling tanks along with necessary conveyance channels, odor control, isolation gates and screenings washing, conveying and handling systems. This project is located at 5723 Muddy Creek Road in Green 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	\$363,125	\$443,125	\$0	\$0	\$443,125
Pre-Construction Services	\$123,800	\$123,800	\$0	\$0	\$123,800
Miscellaneous Expense	\$41,975	\$41,975	\$0	\$0	\$41,975
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$4,125,500	\$0	\$4,125,500	\$0	\$4,125,500
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$845,800	\$0	\$845,800	\$0	\$845,800
Interest / Financing	\$200,000	\$0	\$200,000	\$0	\$200,000
<b>Total</b>	<b>\$5,700,200</b>	<b>\$608,900</b>	<b>\$5,171,300</b>	<b>\$0</b>	<b>\$5,780,200</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$608,900	\$5,171,300	\$0	\$0	\$0	\$0	\$5,780,200

**Prior Legislation Action**  
Dec 2017, Jun 2018, Oct 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title LM CPR Construction Compliance Assurance

Project ID 10140417 CIP Number 10140417  
 Project Type Allowance

**Not Authorized**

## 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 will complete the construction of the projects for the revised original Lower Mill Creek Partial Remedy (LM CPR) by the end of 2018. MSDGC must demonstrate compliance with the 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.

COM'RS MIN VOL. 352  
 DEC 19 2018  
 IMAGE 1733

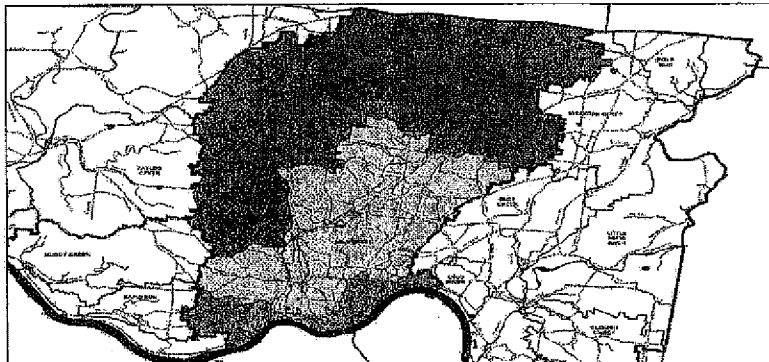
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$300,000	\$1,700,000	\$4,900,000	\$6,900,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$300,000</b>	<b>\$1,700,000</b>	<b>\$4,900,000</b>	<b>\$6,900,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$300,000	\$1,700,000	\$2,100,000	\$1,950,000	\$850,000	\$0
						\$6,900,000

## Prior Legislation Action.

Dec 2017

Mill Creek Basin





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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	

## Purpose and Justification

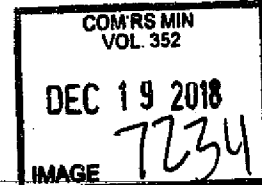
This project is required by the Wet Weather Consent Decree. It is listed in Index 231 of Attachment 2 to the Final WWIP. The project is necessary reduce overflows tributary to CSO 513.

## 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.

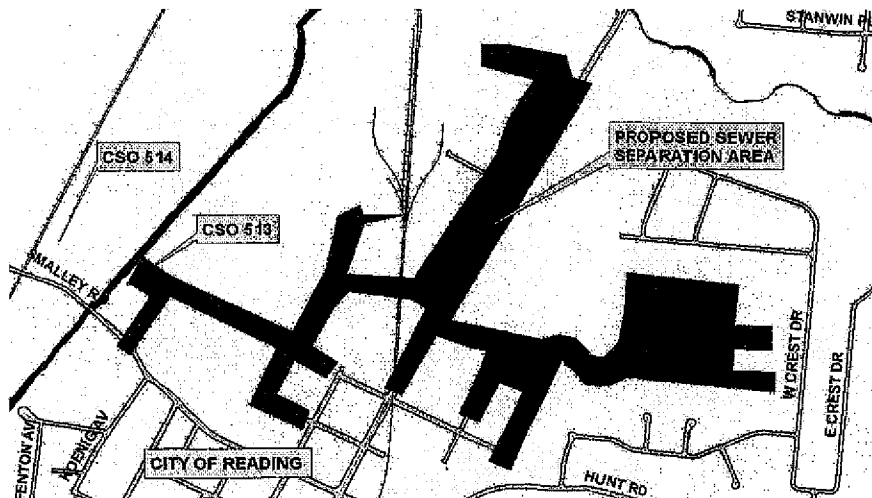


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$198,900	\$0	\$0	\$0	\$0
Design	\$210,400	\$230,000	\$0	\$0	\$230,000
Pre-Construction Services	\$146,300	\$160,000	\$0	\$0	\$160,000
Miscellaneous Expense	\$97,500	\$50,000	\$0	\$0	\$50,000
Right-of-Way	\$0	\$50,000	\$0	\$0	\$50,000
Construction	\$2,568,700	\$50,000	\$2,438,182	\$0	\$2,488,182
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$254,300	\$0	\$248,818	\$0	\$248,818
Interest / Financing	\$127,200	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$3,603,300</b>	<b>\$540,000</b>	<b>\$2,687,000</b>	<b>\$0</b>	<b>\$3,227,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$540,000	\$0	\$0	\$0	\$0	\$3,227,000
	\$2,687,000					

## Prior Legislation Action

Dec 2017, Sep 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	MLK Sewer Separation at Burnett Woods		
Project ID	10142916	CIP Number	10142916 CD Index #453R
Project Type	Sewer Separation	Sewer Number	6889

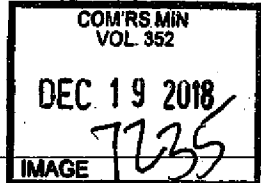
## Purpose and Justification

Significant separation has already been completed by UC and additional opportunities exist for CSO reduction upstream of CSO 12 between 6-20 MG (typical year).

## Impact to Operating Budget

## Description and Location

Design Build for approximately 150-200' stormsewer underneath Martin Luther King Blvd to be coordinated with MLK repaving and UC West Campus Parks Burnett Woods Project.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$15,000	\$0	\$15,000	\$0	\$15,000
Pre-Construction Services	\$5,000	\$0	\$5,000	\$0	\$5,000
Miscellaneous Expense	\$5,000	\$0	\$5,000	\$0	\$5,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$75,000	\$0	\$75,000	\$0	\$75,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$100,000</b>	<b>\$0</b>	<b>\$100,000</b>	<b>\$0</b>	<b>\$100,000</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000

Prior Legislation Action

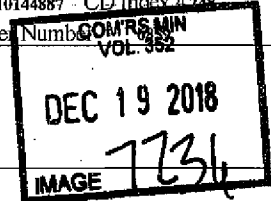


# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Mill Creek WWTP High Rate Treatment Facility Diversion Structure

Project ID 10144887 CIP Number 10144887 - CD Index #248  
 Project Type Treatment Facility Sewer Number COMRS MIN VOL. 352



## Purpose and Justification

The current WWTP pump station dates to the 1950's and the lack of ability to isolate the influent diversion chamber and wet well is a known risk. Also, in order to construct a high rate treatment facility at the Mill Creek WWTP site, a new pump station must be constructed. Recent physical scale model and CFD studies have shown that there is no other way to increase plant pumping capacity. A BCE completed in 2016 recommending a new pump station and additional pumping capacity for an HRTF identified the need for a new diversion chamber. In addition, the BCE indicates a new pump station that can serve the treatment plant as well as a future HRTF would be more cost effective per gallon pumped.

## Impact to Operating Budget

None

## Description and Location

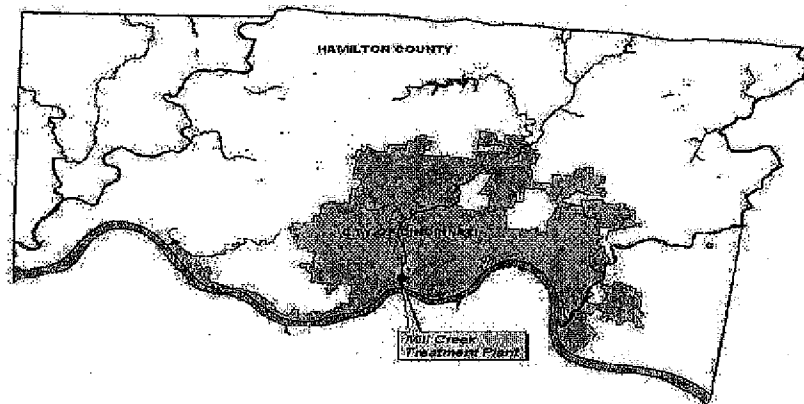
This project will construct a new diversion chamber to be connected to the Mill Creek Interceptor and Auxiliary Interceptor. This is the first phase of construction necessary to construct a new pump station with the ability to service the WWTP and a high rate treatment facility (HRTF) at the Mill Creek WWTP. Construction will require rerouting of plant utilities and possible demolition of structures. Design and construction of the future phases, i.e. the pump station and HRTF, will proceed in separate capital projects.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$250,000	\$271,726	\$0	\$0	\$271,726
Pre-Construction Services	\$70,000	\$70,000	\$0	\$0	\$70,000
Miscellaneous Expense	\$80,000	\$80,000	\$0	\$0	\$80,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$7,150,000	\$1,287,000	\$7,863,000	\$0	\$9,150,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$700,000	\$700,000	\$0	\$0	\$700,000
Interest / Financing	\$300,000	\$300,000	\$0	\$0	\$300,000
<b>Total</b>	<b>\$8,550,000</b>	<b>\$2,708,726</b>	<b>\$7,863,000</b>	<b>\$0</b>	<b>\$10,571,726</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$2,708,726	\$0	\$0	\$0	\$0	\$10,571,726
	\$7,863,000	\$0	\$0	\$0	\$0	\$10,571,726

## Prior Legislation Action

Dec 2017, Jun 2018, Jul 2018, Oct 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Little Miami WWTP Electrical Improvements Phase A

Project ID 10170812 CIP Number 10170812 CD-Index #195  
 Project Type Treatment Facility Sewer Number 6790

## Purpose and Justification

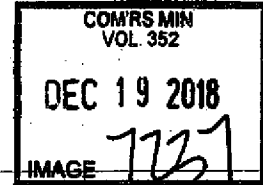
The existing medium-voltage electrical equipment has exceeded its useful life and needs to be replaced. Replacement of this electrical equipment will also establish an electrical backbone for the implementation of the subsequent projects that come out of the Little Miami WWTP Bundle. Reference index 195 of Attachment 2 of the Final WWIP.

## 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

This project involves the replacement of existing medium-voltage electrical equipment at the Little Miami PS to increase capacity and reliability. The Little Miami WWTP is located in the East End neighborhood in the City of Cincinnati.

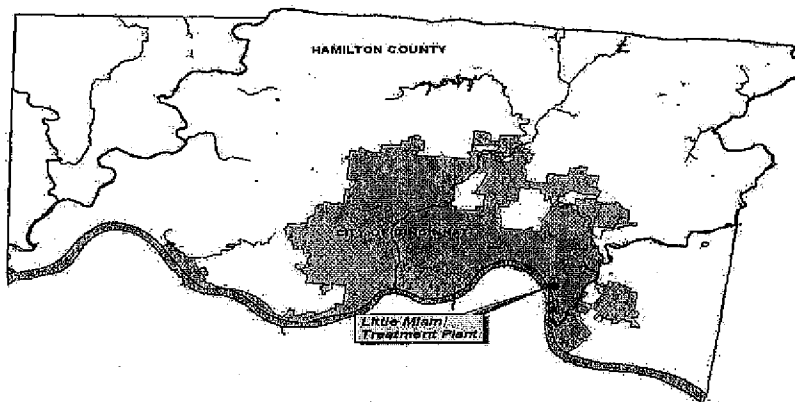


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$987,000	\$327,000	\$0	\$0	\$327,000
Pre-Construction Services	\$296,900	\$126,800	\$0	\$0	\$126,800
Miscellaneous Expense	\$0	\$50,000	\$0	\$0	\$50,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$14,843,000	\$0	\$2,318,000	\$0	\$2,318,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$1,335,900	\$0	\$475,000	\$0	\$475,000
Interest / Financing	\$565,800	\$0	\$87,000	\$0	\$87,000
<b>Total</b>	<b>\$18,028,600</b>	<b>\$503,800</b>	<b>\$2,880,000</b>	<b>\$0</b>	<b>\$3,383,800</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$503,800	\$2,880,000	\$0	\$0	\$0	\$3,383,800

## Prior Legislation Action

Dec 2017, Jun 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title LMWWTP Preliminary Treatment Improvements Phase A

Project ID 10170813 CIP Number 10170813 CD Index # 195 197  
 Project Type Treatment Facility Sewer Number 6791

## Purpose and Justification

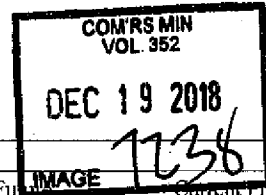
The ex. screens need to be replaced to reduce O&M associated with blinding issues. The ex. grit tanks need to be replaced due to antiquated technology and difficulty in obtaining parts. An improved grit removal facility will also better protect downstream assets.

## 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

This project includes improvements to the medium screens downstream of the influent pumps and replacement of the grit tanks with tray type grit removal facilities. The Little Miami WWTP is located in the East End neighborhood in the City of Cincinnati. Reference Index 197 of Attachment 2 of the Final WWIP.

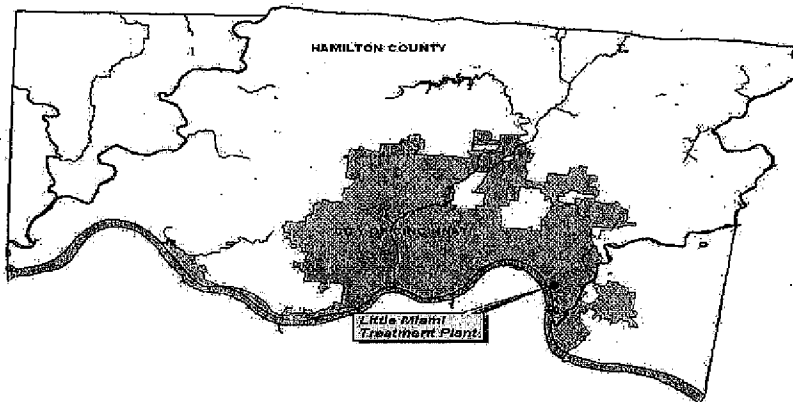


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$766,200	\$0	\$0	\$766,200
Pre-Construction Services	\$0	\$351,600	\$0	\$0	\$351,600
Miscellaneous Expense	\$0	\$100,000	\$0	\$0	\$100,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$11,751,500	\$0	\$14,643,000	\$0	\$14,643,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$2,356,000	\$0	\$3,002,000	\$0	\$3,002,000
Interest / Financing	\$435,000	\$0	\$549,000	\$0	\$549,000
<b>Total</b>	<b>\$14,542,500</b>	<b>\$1,217,800</b>	<b>\$18,194,000</b>	<b>\$0</b>	<b>\$19,411,800</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$1,217,800	\$0	\$0	\$0	\$0	\$19,411,800
	\$18,194,000	\$0	\$0	\$0	\$0	

## Prior Legislation Action

Dec 2017, Jun 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 135 Elimination		
Project ID	10171540	CIP Number	10171540 CD Index # 185
Project Type	Regulator Improvement	Sewer Number	6742

**Purpose and Justification**  
 This project will make regulator improvements to CSO 135. The existing regulatory has maintenance issues associated with its grating and the CSO outfall pipe is in disrepair and a portion of the pipe is collapsed. This project is required by the Wet Weather Consent Decree. It is listed in Index 185 of Attachment 2 to the Final WWIP as part of the Upper Duck Bundle.

**Impact to Operating Budget**  
 None.

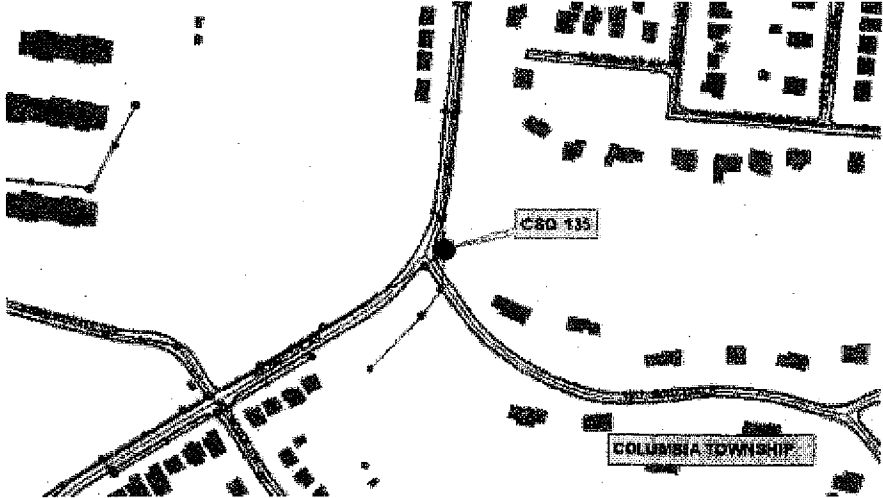
**Description and Location**  
 This project is intended to make improvements to CSO 135. The June 2009 submittal Project Description Design calls for regulator improvements. This project will replace the 265-foot of 24-inch outfall pipe and install a new headwall with a riprap lined outlet. This project is located in Columbia Township.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$18,900	\$75,000	\$0	\$0	\$75,000
Pre-Construction Services	\$14,700	\$32,000	\$0	\$0	\$32,000
Miscellaneous Expense	\$9,800	\$36,200	\$0	\$0	\$36,200
Right-of-Way	\$0	\$20,000	\$0	\$0	\$20,000
Construction	\$257,700	\$0	\$512,600	\$0	\$512,600
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$25,500	\$0	\$62,700	\$0	\$62,700
Interest / Financing	\$12,800	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$339,400</b>	<b>\$163,200</b>	<b>\$575,300</b>	<b>\$0</b>	<b>\$738,500</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$163,200	\$0	\$0	\$0	\$0	\$738,500
Current Legislation	\$575,300	\$0	\$0	\$0	\$0	\$738,500

**Prior Legislation Action**  
 Dec 2017



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 43 Elimination		
Project ID	10171560	CIP Number	10171560 CD Index #186
Project Type	Regulator Improvement	Sewer Number	6743

## Purpose and Justification

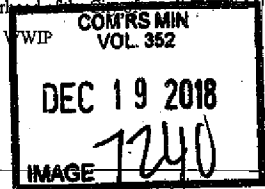
This project will make improvements to CSO 43. This project is required by the Wet Weather Consent Decree. It is listed in Index 186 of Attachment 2 to the Final WWIP as part of the Upper Duck Bundle.

## Impact to Operating Budget

None.

## Description and Location

This project is intended to make improvements to CSO 43. The June 2009 submittal Project Description Design calls for regulator improvements. MSD will examine this and other alternatives to address this problem. This project is located on Charloe St. just east of Saguin St. in the Madisonville neighborhood of Cincinnati, Hamilton County, Ohio. Reference Index #186 of Attachment 2 of final WWIP

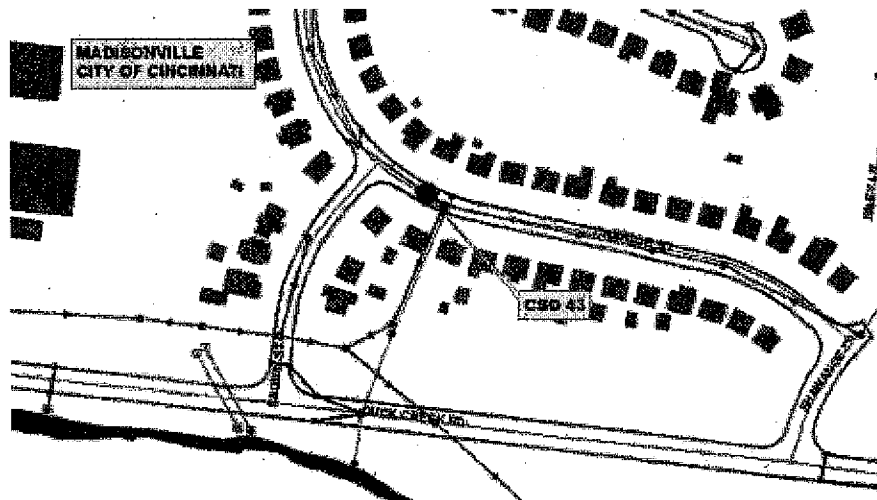


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$18,900	\$75,000	\$0	\$0	\$75,000
Pre-Construction Services	\$15,300	\$32,000	\$0	\$0	\$32,000
Miscellaneous Expense	\$10,200	\$30,800	\$0	\$0	\$30,800
Right-of-Way	\$6,000	\$23,000	\$0	\$0	\$23,000
Construction	\$266,700	\$0	\$356,900	\$0	\$356,900
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$26,400	\$0	\$57,500	\$0	\$57,500
Interest / Financing	\$13,200	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$356,700</b>	<b>\$160,800</b>	<b>\$414,400</b>	<b>\$0</b>	<b>\$575,200</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$160,800	\$414,400	\$0	\$0	\$0	\$575,200

## Prior Legislation Action

Dec 2017



# 2019 Capital Budget and Capital Improvement Program

—Wednesday, November 28, 2018

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

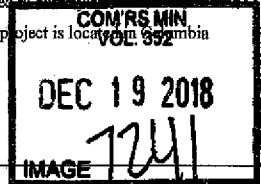
The project is required by the Wet Weather Consent Decree.

## Impact to Operating Budget

None.

## Description and Location

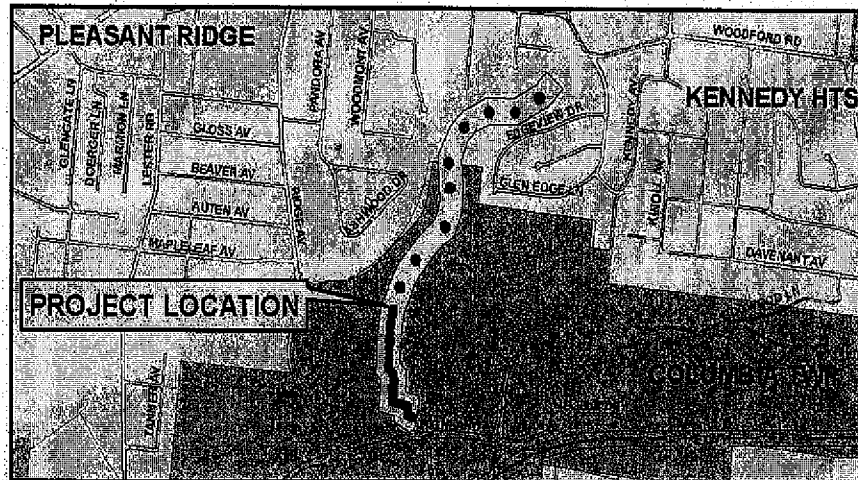
This project involves strategic separation of approximately 55 acres of CSO 214 sewer shed. Existing inlets in a ravine to the CSO sewer will be plugged or elevated to allow large flows to enter the combined sewers for events greater than the Typical Year. The existing storm outlet will be improved to allow CSO 214 directly to Yononte Creek, which is a tributary to Duck Creek. 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	\$2,088,000	\$0	\$2,088,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$315,000	\$0	\$238,300	\$0	\$238,300
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,718,000</b>	<b>\$980,200</b>	<b>\$2,326,300</b>	<b>\$0</b>	<b>\$3,306,500</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$980,200	\$2,326,300	\$0	\$0	\$0	\$0
						\$3,306,500

**Prior Legislation Action**  
Dec 2017





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Mt Washington Source Control Implementation		
Project ID	10172940	CIP Number	10172940
Project Type	Source Control		
Impact to Operating Budget	None		
Description and Location	This project implements recommended Mt Washington Source Control Project. This project is located in the Little Miami sewer service area in the East Basin within the City of Cincinnati's Mt. Washington neighborhood.		

**Not Authorized as Proposed  
see 10192019 - SBU Urgent  
Capacity Response Program 2019**

COMRS MIN  
VOL 352  
DEC 19 2018  
IMAGE 7242

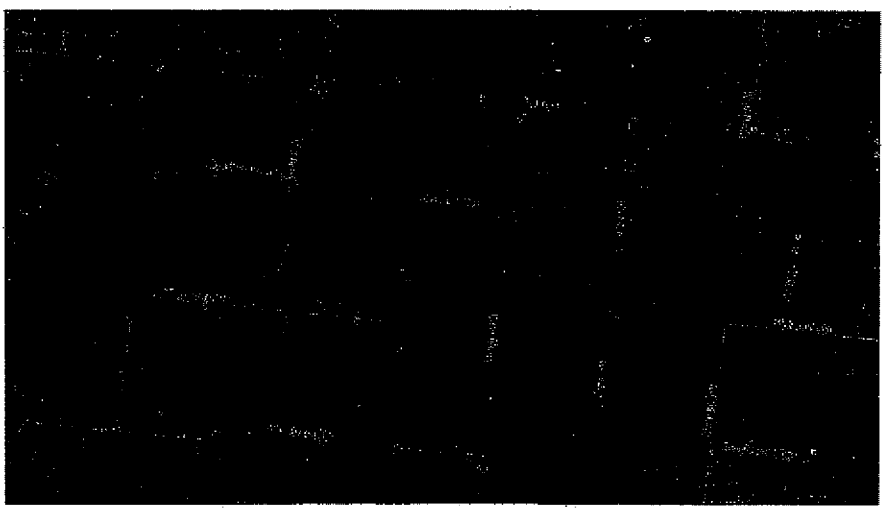
**Purpose and Justification**

The purpose of the project is to prevent sewer backups (SBU), as well as provide reduction of annual overflow volume at CSO 182. As planning progresses, estimates of CSO reduction due to source control BMPs will be calculated. The planning effort will also evaluate the CSO 182 sewer shed for other source control opportunities and generate estimates for CSO reduction. It is anticipated that source control implementation will eliminate the need for the Berkshire HRT facility, or at least significantly reduce the required capacity necessary to meet WWIP remaining overflow goals for CSO 182.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$332,300	\$0	\$332,300	\$0	\$332,300
Design	\$541,925	\$0	\$541,925	\$0	\$541,925
Pre-Construction Services	\$265,143	\$0	\$265,143	\$0	\$265,143
Miscellaneous Expense	\$114,129	\$0	\$114,129	\$0	\$114,129
Right-of-Way	\$600,000	\$0	\$600,000	\$0	\$600,000
Construction	\$7,291,418	\$0	\$0	\$7,291,418	\$7,291,418
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$689,371	\$0	\$0	\$689,371	\$689,371
Interest / Financing	\$165,714	\$0	\$0	\$165,714	\$165,714
<b>Total</b>	<b>\$10,000,000</b>	<b>\$0</b>	<b>\$1,853,497</b>	<b>\$8,146,503</b>	<b>\$10,000,000</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$0	\$1,853,497	\$8,146,503	\$0	\$0	\$0	\$10,000,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Main Sewer Renewal Program 2019  
 Project ID 10180119 CIP Number 10180119 CD Index # 000  
 Project Type Allowance Sewer Number 6860

## Purpose and Justification

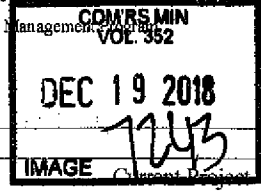
Formerly known as the "Trenchless Technology Sewer Rehabilitation Allowance" this program supports the cost-effective rehabilitation of failing portions of existing main sewers using "trenchless" cured-in-place "point liners" prior to complete structural failure. Departing from recent practice, MSD is now managing the manhole-to-manhole full segment trenchless renewal of main sewer segments through stand-alone fixed-scope CIP projects outside the scope of this Allowance.

## Impact to Operating Budget

None  
 MSD to submit new Fact Sheet showing budget of \$6,000,000.

## Description and Location

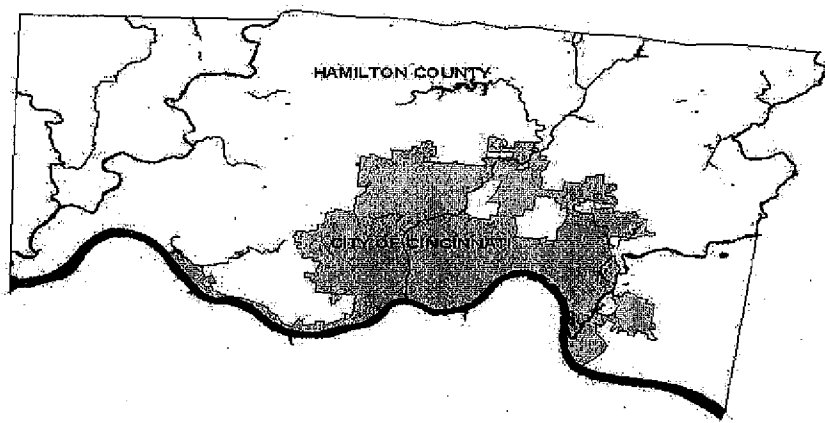
Throughout the District, this program funds the "trenchless" internal rehabilitation of failing portions of existing main sewer segments using "trenchless" cured-in-place "point liners" prior to complete structural failure as a cost effective alternative to open-cut (excavation) point repairs. The sewer segments to be addressed under this program are identified through standardized visual PACP condition assessments and dynamically prioritized by risk through MSD's integrated Gravity Sewer Asset Management.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$1,800,000	\$0	<del>-\$1,800,000</del> \$5,400,000	\$0	<del>-\$1,800,000</del>
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$200,000	\$0	<del>-\$200,000</del> \$600,000	\$0	<del>-\$200,000</del>
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,000,000</b>	<b>\$0</b>	<b><del>-\$2,000,000</del> \$6,000,000</b>	<b>\$0</b>	<b><del>-\$2,000,000</del></b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	<del>\$2,000,000</del>	\$0	\$0	\$0	\$0	<del>-\$2,000,000</del>

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title **Manhole Renewal Program 2019**  
 Project ID **10180219** CIP Number **10180219** CD Index # **600**  
 Project Type **Allowance** Sewer Number **6861**

## Purpose and Justification

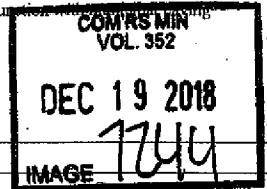
Formerly known as the "Trenchless Technology Manhole Rehabilitation Allowance", this program supports the cost-effective renewal of structurally deficient manholes and the installation of new manholes to support operation and maintenance of the wastewater collection system.

## Impact to Operating Budget

None.  
 MSD to submit new Fact Sheet showing budget of \$700,000.

## Description and Location

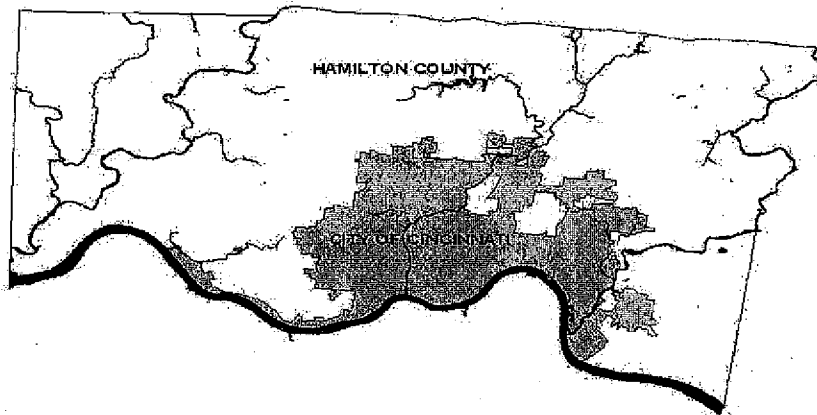
Throughout the District, this program supports the renewal of structurally deficient manholes in the MSD wastewater collection system, and the installation of new manholes to support operation and maintenance of the wastewater collection system. The scope of work for the program will include manhole repairs, replacements, new installations, and casting adjustments and chimney repairs completed in conjunction with other 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	<del>-\$1,200,000</del> \$650,000	\$0	<del>-\$1,200,000</del>
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$100,000	\$0	<del>-\$100,000</del> \$50,000	\$0	<del>-\$100,000</del>
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,300,000</b>	<b>\$0</b>	<b><del>-\$1,300,000</del></b> \$700,000	<b>\$0</b>	<b><del>-\$1,300,000</del></b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	<del>-\$1,300,000</del>	\$0	\$0	\$0	\$0	<del>-\$1,300,000</del>

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Phase 2 WWIP Planning 2019		
Project ID	10190219	CIP Number	10190219 - CD Index #
Project Type	Allowance	Sewer Number	6902

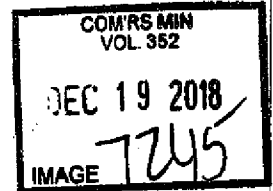
## Purpose and Justification

Previously funded from Program Management and CIP planning, MSD will track work comprised of planning and preparation activities associated with Phase 2 of the District's Wet Weather Improvement Plan.

## Impact to Operating Budget

## Description and Location

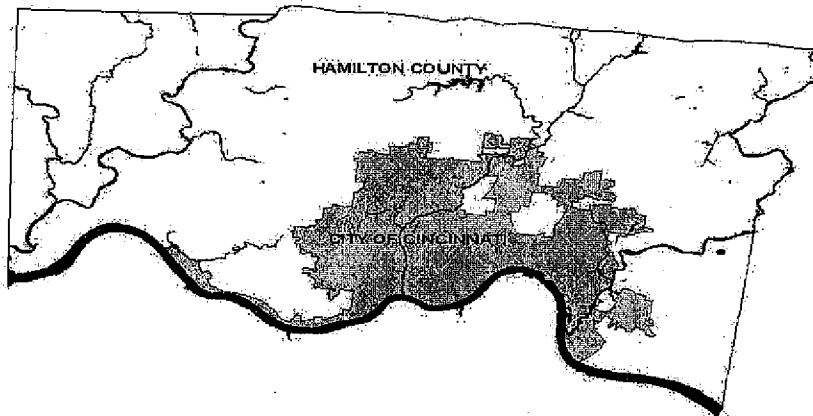
This funding will provide ongoing support for the technical evaluations and support for the capital program, regulatory and affordability needs for the Phase 2A program.



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
<b>Total</b>	<b>\$1,000,000</b>	<b>\$0</b>	<b>\$1,000,000</b>	<b>\$0</b>	<b>\$1,000,000</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Home Sewer Treatment System Eliminations 2019		
Project ID	10190319	CIP Number	10190319 CD Index # 000
Project Type	Allowance	Sewer Number	6862

## Purpose and Justification

This program is identified in the Global Consent Decree. This program will provide public funding for planning and petition services in support of various local sewer projects and sewer lateral projects. The local sewer projects and sewer lateral projects will convert Home Sewage Treatment Systems (HSTS) to sewer service thereby reducing the discharge of pollutants to WWIP watersheds. Failing or improperly functioning HSTS are a source of pollutants that has been linked to dry weather bacterial exceedances.

## Impact to Operating Budget

None.

MSD to submit new Fact Sheet showing budget of \$1,950,000.

## Description and Location

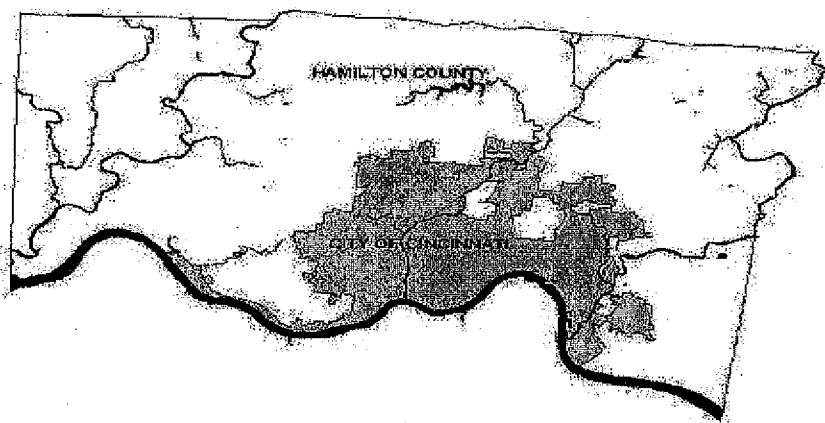
This program supports the overall HSTS Elimination Program in all watersheds. Work under this allowance is performed on an as-needed basis dependent upon requests from property owners and other stakeholders for petitions and related information. Funded activities include responding to stakeholder inquiries; planning and developing petitions; managing the petition process and communicating petition results; planning for local sewers; planning, design and easement acquisition of sewer laterals; preparing and managing annual final assessment process for authorization of local sewer and sewer lateral assessment projects; and management of annual final assessment process.

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Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$300,000	\$0	\$300,000	\$0	\$300,000
Design	\$0	\$0	<del>\$0</del> \$320,000	\$0	<del>\$0</del>
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$25,000	\$0	\$25,000	\$0	\$25,000
Right-of-Way	\$25,000	\$0	\$25,000	\$0	\$25,000
Construction	\$0	\$0	<del>\$0</del> \$1,024,000	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	<del>\$0</del> \$256,000	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$350,000</b>	<b>\$0</b>	<b><del>-\$350,000</del></b> <b>\$1,950,000</b>	<b>\$0</b>	<b><del>-\$350,000</del></b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	<del>-\$350,000</del>					<del>-\$350,000</del>

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title SBU Urgent Capacity Response Program 2019

Project ID 10192019 CIP Number 10192019 CD Index #  
 Project Type Allowance Sewer Number 6896

## Purpose and Justification

This project will be used to address sewer back up problems as indicated in the project description and in accordance with the Consent Decree and MSDGC policy, and Board of County Commissioner approval.

## Impact to Operating Budget

None  
 MSD to submit new Fact Sheet with \$2,000,000 budget as shown.

## Description and Location

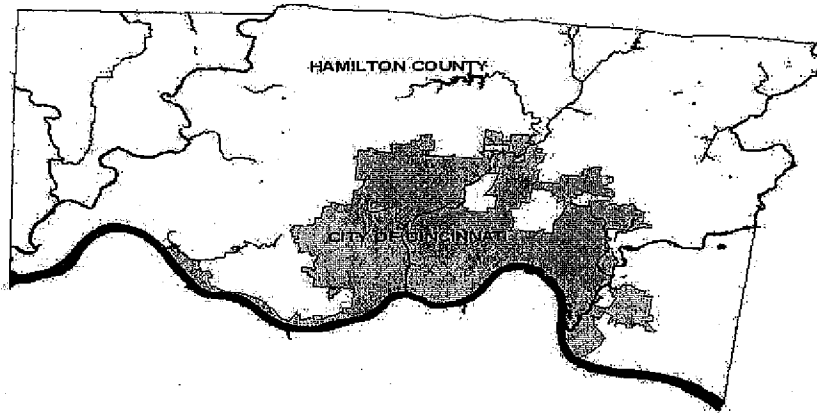
This capital fund will be used to purchased specific SBU properties that have no alternative engineering solution and will not otherwise be solved by a planned construction project. Properties selected and recommended for acquisition will be selected by a systematic method and must be specifically approved by Board of County Commissioners prior to fund expenditure.

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Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	<del>\$0</del> \$500,000	\$0	\$500,000 <del>\$0</del>
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	<del>\$0</del> \$1,500,000	\$0	\$1,500,000 <del>\$0</del>
Construction	\$2,000,000	\$0	<del>\$1,750,000</del>	\$0	<del>\$1,750,000</del>
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$250,000	\$0	<del>\$250,000</del>	\$0	<del>\$250,000</del>
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,250,000</b>	<b>\$0</b>	<b>\$2,000,000</b>	<b>\$0</b>	<b>\$2,000,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$2,000,000	\$0	\$0	\$0	\$0	\$2,000,000

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Program Management and Support Services 2019		
Project ID	10199019	CIP Number	10199019 CD-Index # 000
Project Type	Allowance	Sewer Number	6863

## Purpose and Justification

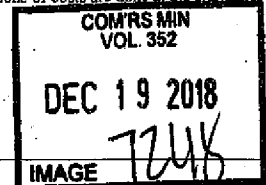
This project supports the internal efforts, supplemental staff and professional services necessary to carry out the Wet Weather Program. The activities will include project and program scheduling, project estimating, project controls, risk management efforts, program communications and outreach services.

## Impact to Operating Budget

None.

## Description and Location

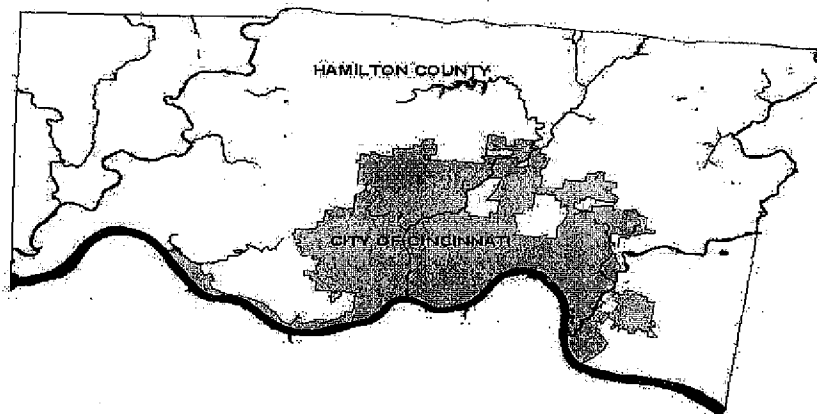
The MSD wet weather program management team includes both internal personnel and supplemental outside professional consultants to manage and report on the multiple projects in planning, design, and construction phases. Funding is necessary to encumber contracts for the program. Allocations of costs are done at the end of the year to applicable 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	\$3,000,000	\$0	\$3,500,000	\$0	\$3,500,000
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$3,000,000</b>	<b>\$0</b>	<b>\$3,500,000</b>	<b>\$0</b>	<b>\$3,500,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$3,500,000	\$0	\$0	\$0	\$0	\$3,500,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CSO 408 and 413 HW DW Protection		
Project ID	10230640	CIP Number	10230640 CD Index # 238 239
Project Type	CSO Improvement/Elim	Sewer Number	6745

## Purpose and Justification

This project is required by the Wet Weather Consent Decree. CSO 408 and CSO 413 are in the High Water Dry Weather (HW DW) program and require upgrading in accordance with Indices 238 and 239 of Attachment 2 of the Final WWIP. The outfalls for CSO 408 and CSO 413 are submerged preventing regular inspection and allowing potential intrusion of river water into the collection system. An upgrade to both outfalls will address these concerns.

## Impact to Operating Budget

None

## Description and Location

This project will upgrade the outfalls for CSO 408 and CSO 413 for improved high water dry weather control. This project is located in the River Road sewer shed of the Muddy Creek Basin and the Riverside neighborhood of the City of Cincinnati.

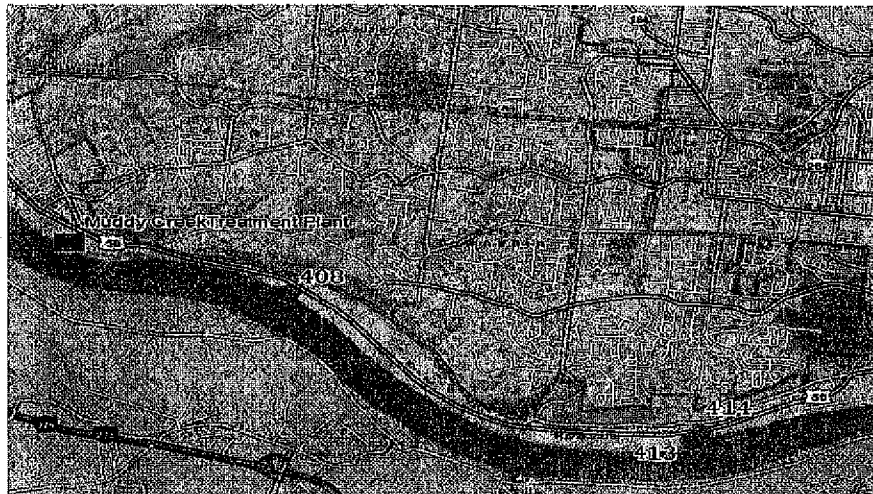


Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$225,800	\$475,600	\$0	\$0	\$475,600
Pre-Construction Services	\$64,300	\$105,700	\$0	\$0	\$105,700
Miscellaneous Expense	\$87,200	\$94,500	\$0	\$0	\$94,500
Right-of-Way	\$108,100	\$117,100	\$0	\$0	\$117,100
Construction	\$1,531,200	\$0	\$3,097,200	\$0	\$3,097,200
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$73,200	\$0	\$300,000	\$0	\$300,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,089,800</b>	<b>\$792,900</b>	<b>\$3,397,200</b>	<b>\$0</b>	<b>\$4,190,100</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$792,900	\$0	\$0	\$0	\$0	\$4,190,100
	\$3,397,200					

## Prior Legislation Action

Dec 2017, May 2018





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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

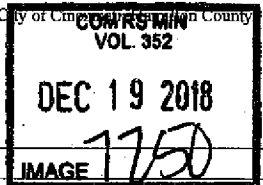
This project will provide a cost effective strategy to reduce combined sewer overflows through operational controls. Additionally, this project will provide information to be used to support MSD's needs to collect data to provide cost effective and innovative solutions for the Federal Consent Decree. 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.

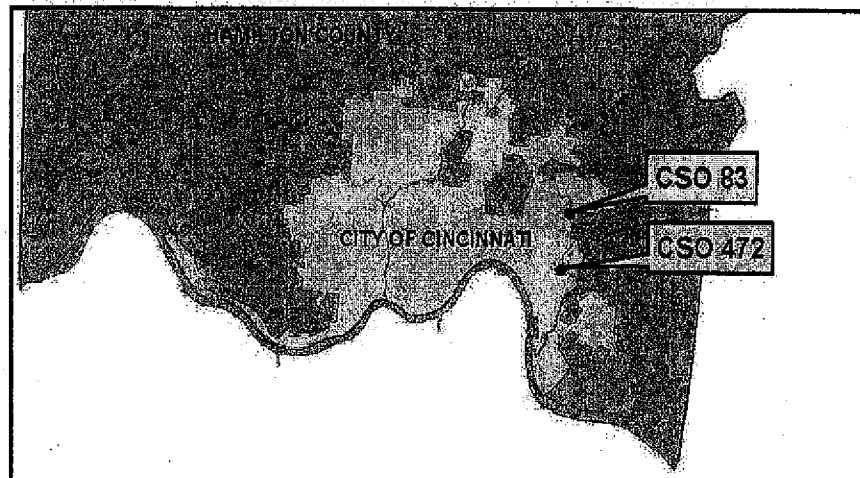


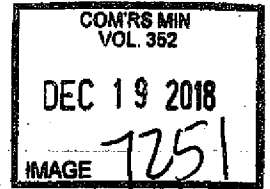
Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$267,000	\$469,025	\$0	\$0	\$469,025
Pre-Construction Services	\$72,000	\$72,000	\$0	\$0	\$72,000
Miscellaneous Expense	\$65,000	\$65,000	\$0	\$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	\$379,600	\$0	\$379,600
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,839,810</b>	<b>\$771,025</b>	<b>\$3,118,600</b>	<b>\$0</b>	<b>\$3,889,625</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$771,025	\$3,118,600	\$0	\$0	\$0	\$3,889,625

## Prior Legislation Action

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





# 2019 ASSET Projects



2019 Projects

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

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Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
<del>10130043</del>	<del>ASSET</del>	<del>CSO</del>	<del>CSO 522 Dynamic Underflow Control (Design, Easement, Construction)</del>	<del>\$828,000</del>	\$0	<del>\$828,000</del>	<del>42</del>
10230045	ASSET	REP	Stonebridge Sewer Relief (Design, Easement) (Planning, Design, Easement)	\$337,000	\$0	\$337,000	43
10230130	ASSET	REP	Dry Weather Channel for SS 937 (Construction)	\$3,213,000	\$0	\$3,213,000	44
10230150	ASSET	REP	Addyston Creek and Sewer Rehab (Construction)	\$468,400	\$0	\$468,400	45
10230660	ASSET	SRC	Delhi Twp Rapid Run Intergovernmental Flood Control Project Phase 3 (Design, Easement)	\$1,191,648	\$0	\$1,191,648	46
<del>10230665</del>	<del>ASSET</del>	<del>FAC</del>	<del>Lower Muddy Creek Storage Basin (Planning, Design, Easement)</del>	<del>\$2,620,000</del>	\$0	<del>\$2,620,000</del>	<del>47</del>
10240055	ASSET	FAC	MCWWTP Liquid Sludge Storage Tank Covers and Odor Control (Construction)	\$5,349,650	\$0	\$5,349,650	48
10240180	ASSET	REP	3934 Winding Way Sewer Replacement (Design, Construction)	\$403,300	\$0	\$403,300	49
<del>10240360</del>	<del>ASSET</del>	<del>PSE</del>	<del>Timbers Pump Station Elimination (Construction)</del>	<del>\$1,417,500</del>	\$0	<del>\$1,417,500</del>	<del>50</del>
10240365	ASSET	REP	Quebec Road Sewer Replacement (Construction)	\$428,600	\$0	\$428,600	51
10240380	ASSET	CSO	CSO 005 Water Connection (Construction)	\$144,700	\$0	\$144,700	52
10240426	ASSET	PSE	Pleasant Run Pump Station Upgrades (Planning)	\$1,675,000	\$0	\$1,675,000	53
10240430	ASSET	REP	Berkley Avenue Sewer Replacement (Construction)	\$728,860	\$0	\$728,860	54
10240455	ASSET	REP	Spring Grove Avenue Sewer Replacement and Rehabilitation (Construction)	\$550,900	\$0	\$550,900	55
10240473	ASSET	PSE	Bahama Gardens Pump Station Upgrade (Construction)	\$811,700	\$0	\$811,700	56
10240550	ASSET	REP	Pardee Alley Sewer Replacement-Oswald Al to 200' north (Construction)	\$240,000	\$0	\$240,000	57
10240590	ASSET	FAC	Mill Creek WWTP Main Substation Improvements (Construction)	\$3,748,642	\$0	\$3,748,642	58
10240625	ASSET	FAC	MCWWTP Standby Power Distribution System Improvements (Design)	\$464,000	\$0	\$464,000	59
10240697	ASSET	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Design)	\$232,000	\$0	\$232,000	60
10240710	ASSET	STY	Fitzpatrick Sewer Cleaning and Rehabilitation (Design)	\$120,000	\$0	\$120,000	61
10240715	ASSET	FAC	MCWWTP Solids Handling Process & Odor Control Planning Bundle (Planning)	\$425,000	\$0	\$425,000	62
<del>10270026</del>	<del>ASSET</del>	<del>PSE</del>	<del>Camargo Canyon Pump Station Elimination (Design, Easement)</del>	<del>\$140,000</del>	\$0	<del>\$140,000</del>	<del>63</del>
10270125	ASSET	REP	Portsmouth Avenue Sewer Replacement (Construction)	\$387,625	\$0	\$387,625	64



**2019 Projects**  
**Metropolitan Sewer District of Greater Cincinnati**  
**ASSET Projects**

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total	Page
10270165	ASSET	REP	Delta and Greist Sewer Replacement (Design)	\$20,000	\$0	\$20,000	65
10270175	ASSET	REP	East Hill Ave Sewer Replacement (Construction)	\$1,663,900	\$0	\$1,663,900	66
10272025	ASSET	REP	Wasson Ravine Sewer Replacement (Design, Easement)	\$669,000	\$0	\$669,000	67
<del>10272035</del>	<del>ASSET</del>	<del>FAC</del>	<del>Little Miami Solids Disposal System with Odor Control (Design)</del>	<del>-\$3,205,500</del>	<del>\$0</del>	<del>-\$3,205,500</del>	<del>68</del>
10280239	ASSET	ALW	Hydraulic Modeling 2019 (Planning)	\$1,200,000	\$0	\$1,200,000	69
10280319	ASSET	ALW	Emergency Sewer Repairs 2019 (Construction)	<del>-\$5,000,000</del> \$7,000,000	\$0	<del>-\$5,000,000</del> \$7,000,000	70
10280609	ASSET	ALW	Building Sewer Renewal Program 2019 (Construction)	<del>-\$5,000,000</del> \$3,000,000	\$0	<del>-\$5,000,000</del> \$3,000,000	71
10280719	ASSET	ALW	Critical Asset Management Projects 2019 (Construction)	\$6,000,000	\$0	\$6,000,000	72
<del>10281319</del>	<del>ASSET</del>	<del>ALW</del>	<del>Prioritized Wastewater Collection System Improvements 2019 (Construction)</del>	<del>-\$7,000,000</del>	<del>\$0</del>	<del>-\$7,000,000</del>	<del>73</del>
10282019	ASSET	ALW	CIP Planning Projects 2019 (Planning)	\$1,000,000	\$0	\$1,000,000	74
10282219	ASSET	ALW	CIP Planning Asset Management Conveyance Projects 2019 (Planning)	\$1,100,000	\$0	\$1,100,000	75
<b>Total Cost for 34 ASSET Projects</b>				<b>-\$57,783,925</b>	<b>\$0</b>	<b>-\$57,783,925</b>	

Add:

1024####	ASSET	FAC	SSO 700 STF Disinfection Improvements (Design)			\$400,000
1028####	ASSET	FAC	WWC High Risk Asset Renewal 2019 (Design, Construction)			\$7,000,000
1028####	ASSET	ALW	Solids Handling Improvements - District Wide Placeholder - Per Master Plan (Design, Construction)			\$4,500,000

31 CIP Projects for 2019

\$54,472,925

# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title CSO 522 Dynamic Underflow Control

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IMAGE

7254

**Not Authorized**

Project ID 10130043 CIP Number 101300  
 Project Type CSO Improvement/Elim

## Purpose and Justification

The project will provide a cost effective strategy to reduce combined sewer overflows through operational controls. Additionally, the project will provide information to be used to support MSD's needs to collect data to comply with the Federal Consent Decree, a desire to demonstrate water quality management at the lowest cost to ratepayers, and a goal to be on the forefront of water management practices. Note: This is a pre-planning estimate, that will be updated upon the completion of the BCE, slated for end of 2018.

## Impact to Operating Budget

None

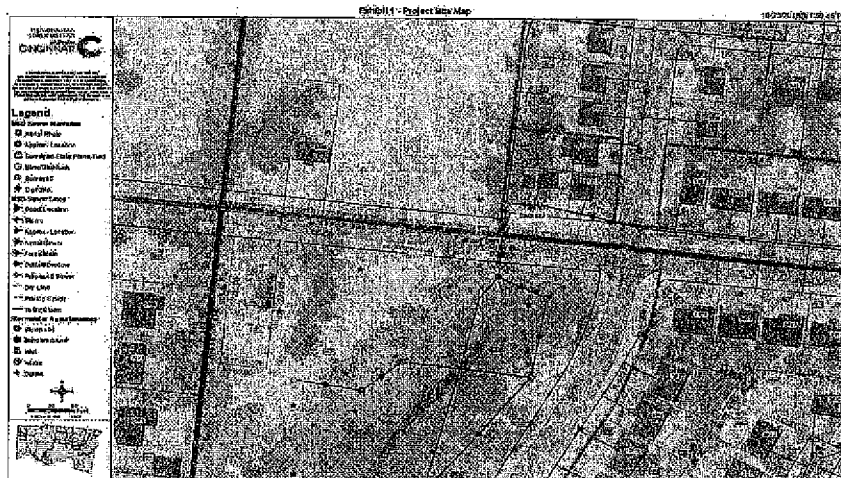
## Description and Location

The project is for Dynamic Underflow Control at CSO 522, which will include modifications to CSO 522 that provide for automated control of flows from Combined Sewer 937 into the Upper Muddy Creek Interceptor. The proposed improvements consist of replacement of the underflow pipe, replacement of the regulator, addition of level sensors, and telemetry equipment. This project is related to Index 234 of Attachment 2 of the WWIP and its associated projects (Including 10130042 UMCI Phase B). The project is located in the Muddy Creek basin at the intersection of Werk Road and Westbourne Drive in Green 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	\$250,000	\$0	\$250,000	\$0	\$250,000
Pre-Construction Services	\$26,000	\$0	\$26,000	\$0	\$26,000
Miscellaneous Expense	\$45,000	\$0	\$45,000	\$0	\$45,000
Right-of-Way	\$30,000	\$0	\$30,000	\$0	\$30,000
Construction	\$430,000	\$0	\$430,000	\$0	\$430,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$47,000	\$0	\$47,000	\$0	\$47,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$828,000</b>	<b>\$0</b>	<b>\$828,000</b>	<b>\$0</b>	<b>\$828,000</b>

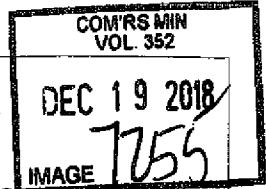
5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$828,000	\$0	\$0	\$0	\$0	\$828,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018



Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Stonebridge Sewer Relief

Project ID 10230045 CIP Number 10230045 CD Index #  
 Project Type Sewer Replacement Sewer Number 6881

## Purpose and Justification

This project will eliminate overflowing manholes downstream of the Harwinton Place Sewer Replacement project. Three manholes located on the property of the Stonebridge Condominium Complex overflow relatively frequently. These overflows are highly visible and are a source of frequent complaints. Local residents are concerned about human exposure and the water and soil quality.

## Impact to Operating Budget

None

## Description and Location

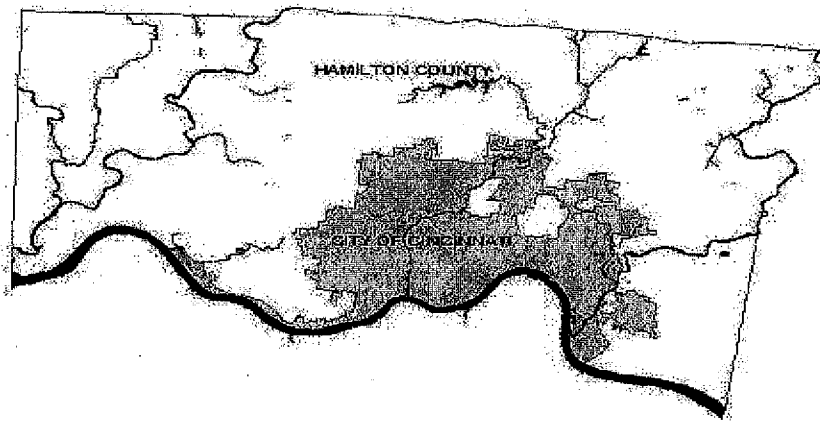
This project will use an engineered alternative to eliminate overflowing manholes as stated in the purpose and justification. This project is located in Green Township, Hamilton County, Ohio

MSD to submit new Fact Sheet showing modified budget and in accordance with direction provided in 2019-2023 CIP Budget Resolution.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$187,000	\$0	-\$0-\$30,000	\$0	\$0
Design	\$71,000	\$0	\$71,000	\$0	\$71,000
Pre-Construction Services	\$57,000	\$0	<del>\$57,000</del> \$27,000	\$0	\$57,000
Miscellaneous Expense	\$41,000	\$0	\$41,000	\$0	\$41,000
Right-of-Way	\$168,000	\$0	\$168,000	\$0	\$168,000
Construction	\$407,000	\$0	\$0	\$407,000	\$407,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$42,000	\$0	\$0	\$42,000	\$42,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$973,000</b>	<b>\$0</b>	<b>\$337,000</b>	<b>\$449,000</b>	<b>\$786,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$337,000	\$0	\$0	\$0	\$0	\$337,000

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

COMRS MIN VOL. 352  
DEC 19 2018  
IMAGE 7256

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Dry Weather Channel for SS 937

Project ID 10230130 CIP Number CD Index # 000  
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.

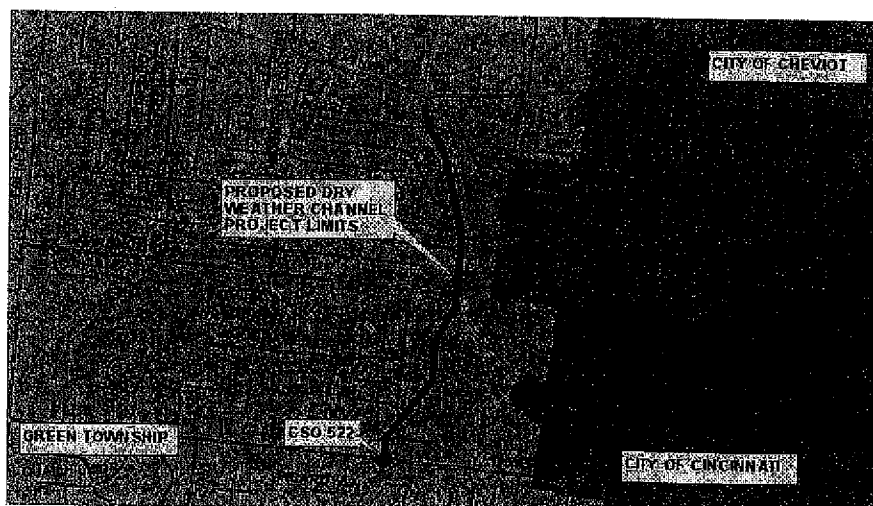
## Description and Location

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	\$244,900	\$0	\$0	\$244,900
Pre-Construction Services	\$67,300	\$67,300	\$0	\$0	\$67,300
Miscellaneous Expense	\$42,500	\$42,500	\$0	\$0	\$42,500
Right-of-Way	\$65,700	\$65,700	\$0	\$0	\$65,700
Construction	\$1,701,000	\$0	\$2,995,000	\$0	\$2,995,000
Program Management	\$0	\$14,694	\$0	\$0	\$14,694
Construction Services	\$70,000	\$0	\$218,000	\$0	\$218,000
Interest / Financing	\$28,000	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,219,400</b>	<b>\$555,105</b>	<b>\$3,213,000</b>	<b>\$0</b>	<b>\$3,768,105</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$555,105	\$0	\$0	\$0	\$0	\$3,768,105
	\$3,213,000					

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



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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IMAGE 7251

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

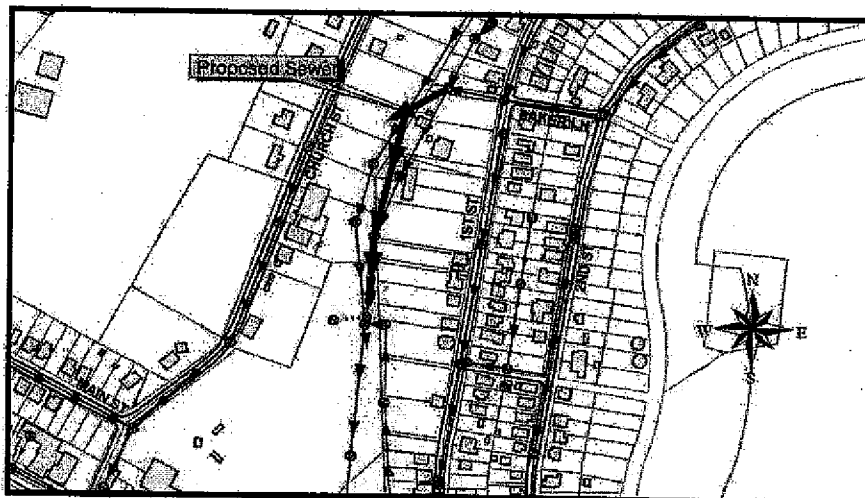
The Addyston Creek and Sewer Rehab project, is located along the West Fork Muddy Creek between Church Street and 1st Street, in the Village of Addyston, in the Muddy Creek Basin. The project will construct a new 21-inch diameter sewer on the East side of the West Fork Muddy Creek, fill seal, and abandon 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	\$0	\$0	\$98,923
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	\$407,400	\$0	\$407,400
Program Management	\$0	\$3,574	\$0	\$0	\$3,574
Construction Services	\$46,900	\$0	\$61,000	\$0	\$61,000
Interest / Financing	\$5,800	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$707,444</b>	<b>\$292,283</b>	<b>\$468,400</b>	<b>\$0</b>	<b>\$760,683</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$292,283	\$468,400	\$0	\$0	\$0	\$0	\$760,683

## Prior Legislation Action

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





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title **Delhi Twp Rapid Run Intergovernmental Flood Control Project  
Phase 3**

Project ID **10230660** CIP Number **10230660** CD Index #  
Project Type **Source Control** Sewer Number

6836 COMRS MIN  
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7258  
IMAGE

## Purpose and Justification

The first two phases of this project are complete and resulted in the removal of 17 flood-prone properties. Phase 3 will complete the Rapid Run flood mitigation project and will provide green space for a more naturalized floodway during heavy rain events. Additionally, the project will reduce the threat of financial hardship and risk of danger to the impacted property owners and will result in a reduced financial burden on rate-payers by removing properties subject to frequent sewer backups.

## Impact to Operating Budget

None

## Description and Location

This project is phase 3 of a joint effort between Delhi Township Public Works and the Metropolitan Sewer District of Greater Cincinnati to complete a flood mitigation program along Rapid Run Road. Phase 3 will complete the program by acquiring 24 properties along Rapid Run Road and demolishing the residential buildings on the properties. The project is contingent upon award of OEMA and FEMA grants through the Hazard Mitigation Assistance Program. The project budget represents MSD's contribution to the local match requirement for the grant and involves property acquisition and related activities. MSD's labor will be captured under pre-construction services in this 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	\$200,000	\$0	\$200,000	\$0	\$200,000
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$991,648	\$0	\$991,648	\$0	\$991,648
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,191,648</b>	<b>\$0</b>	<b>\$1,191,648</b>	<b>\$0</b>	<b>\$1,191,648</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$1,191,648	\$0	\$0	\$0	\$0	\$1,191,648

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Lower Muddy Creek Storage Basin

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IMAGE 1759

Project ID 10230665 CIP Number 10230665  
Project Type Treatment Facility

**Not Authorized**

## Purpose and Justification

The purpose of this project is to provide relief to the Muddy Creek Interceptor specifically to control manhole overflows under current conditions and when the Upper Muddy Creek Interceptor is replaced with a larger diameter sewer. This project will also aim to reduce, minimize, or eliminate overflows from the Muddy Creek Pump Station during Typical Year. Additionally, this project could have positive impacts on SSOs (692, 697, and 675A) surrounding the Muddy Creek Pump Station.

## Impact to Operating Budget

## Description and Location

This project will construct a surface storage basin to capture backflows from the Muddy Creek Pump Station and the additional flows from the future upsizing of the Upper Muddy Creek Interceptor.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$540,000	\$0	\$540,000	\$0	\$540,000
Design	\$760,000	\$0	\$760,000	\$0	\$760,000
Pre-Construction Services	\$200,000	\$0	\$200,000	\$0	\$200,000
Miscellaneous Expense	\$120,000	\$0	\$120,000	\$0	\$120,000
Right-of-Way	\$1,000,000	\$0	\$1,000,000	\$0	\$1,000,000
Construction	\$10,000,000	\$0	\$0	\$10,000,000	\$10,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$2,050,000	\$0	\$0	\$2,050,000	\$2,050,000
Interest / Financing	\$250,000	\$0	\$0	\$250,000	\$250,000
<b>Total</b>	<b>\$14,920,000</b>	<b>\$0</b>	<b>\$2,620,000</b>	<b>\$12,300,000</b>	<b>\$14,920,000</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$0	\$2,620,000	\$0	\$0	\$12,300,000	\$0	\$14,920,000

**Prior Legislation Action**

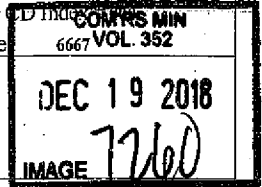


# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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

Project ID 10240055 CIP Number 10240055  
Project Type Treatment Facility Sewer Number



## 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

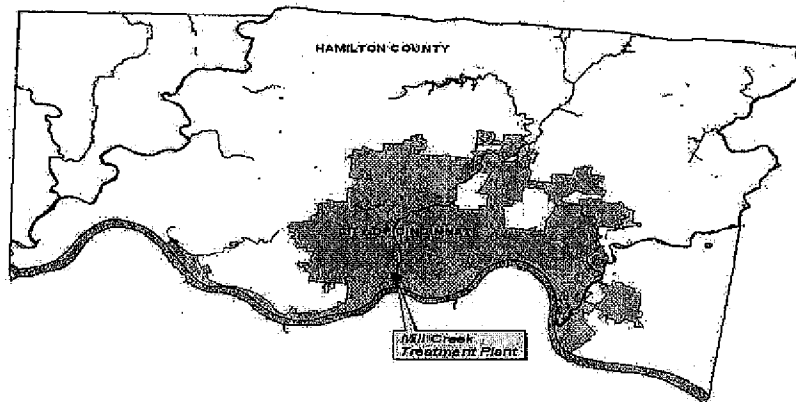
This project will provide an engineering design for new covers for existing sludge holding tanks A1 and A2. The scope will include demolition of the existing covers, design of the new covers, and a new odor control system to capture and treat odorous air from the two tanks. All necessary Structural, 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	\$340,000	\$0	\$0	\$340,000
Pre-Construction Services	\$70,000	\$70,000	\$0	\$0	\$70,000
Miscellaneous Expense	\$40,000	\$40,000	\$0	\$0	\$40,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$3,500,000	\$0	\$4,330,000	\$0	\$4,330,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$718,000	\$0	\$887,650	\$0	\$887,650
Interest / Financing	\$0	\$0	\$132,000	\$0	\$132,000
<b>Total</b>	<b>\$4,668,000</b>	<b>\$450,000</b>	<b>\$5,349,650</b>	<b>\$0</b>	<b>\$5,799,650</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$450,000	\$5,349,650	\$0	\$0	\$0	\$0	\$0	\$5,799,650

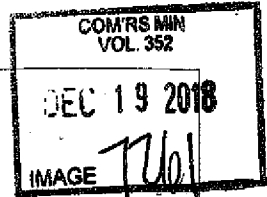
## Prior Legislation Action

Dec 2017



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018



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

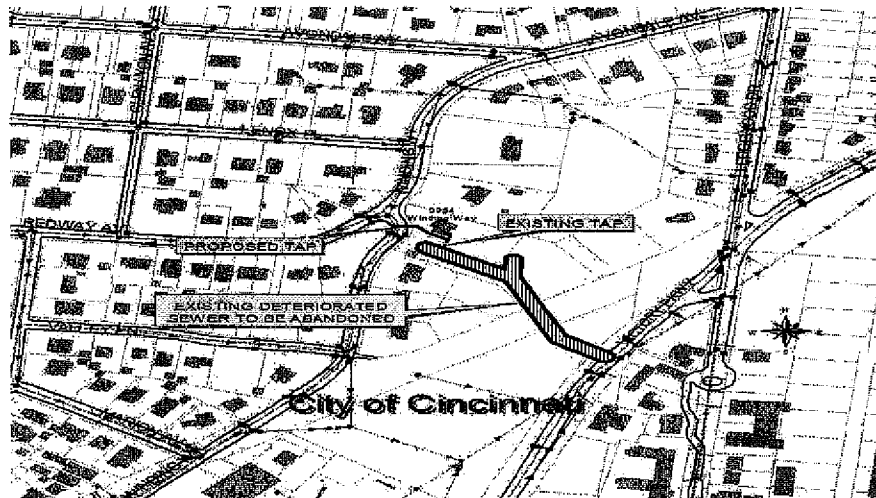
This project will abandon 652 feet of deteriorated 12" and 18" combined sewer and relocate the lateral serving 3934 Winding Way to the Winding Way combined sewer.

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	\$13,700	\$15,000	\$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
<b>Total</b>	<b>\$164,800</b>	<b>\$136,377</b>	<b>\$403,300</b>	<b>\$0</b>	<b>\$539,677</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$136,377	\$403,300	\$0	\$0	\$0	\$539,677

### Prior Legislation Action

Dec 2007, Dec 2009, May 2014, Nov 2014



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title **Timbers Pump Station Elimination**

Project ID **10240360** CIP Number 10240360  
Project Type **Pump Station Improvement/Elim**

**Impact to Operating Budget**  
None.

**Not Authorized**

## 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.

## Description and Location

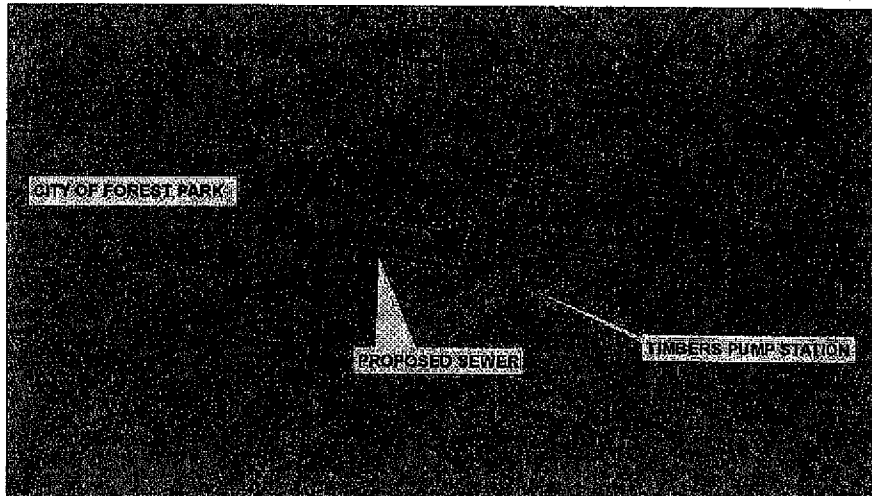
This project includes construction of approximately 1,600 feet of 8-inch diameter gravity sewer via a jack-and-bore alignment through the Winton Woods Park. The pump station is located in City of Forest Park, Hamilton County, Ohio.

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IMAGE TUVZ

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	\$1,257,000	\$0	\$1,257,000
Program Management	\$0	\$6,718	\$0	\$0	\$6,718
Construction Services	\$64,500	\$0	\$160,500	\$0	\$160,500
Interest / Financing	\$22,400	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,738,600</b>	<b>\$292,580</b>	<b>\$1,417,500</b>	<b>\$0</b>	<b>\$1,710,080</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$292,580	\$0	\$0	\$0	\$0	\$1,710,080
	\$1,417,500					

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



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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IMAGE 7263

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Quebec Road Sewer Replacement

Project ID 10240365 CIP Number 10240365 CD Index # 000  
Project Type Sewer Replacement Sewer Number 6252

### Purpose and Justification

The purpose of this project is to replace failing segments of a sewer along Quebec Road. The segments in question are cracking, being pulled apart by root intrusion, and in generally poor shape. Replacement is required to reduce the likelihood of collapse and failure of the pipe and to reduce the frequency of sewage backups and emergency repairs. This project will be coordinated with the downstream Quebec Road Sewer Separation Project 11240110. This will ensure that phasing and construction coordination of the work minimizes construction congestion on Quebec Road and reduces the need to construct temporary structures.

### Impact to Operating Budget

None.

### Description and Location

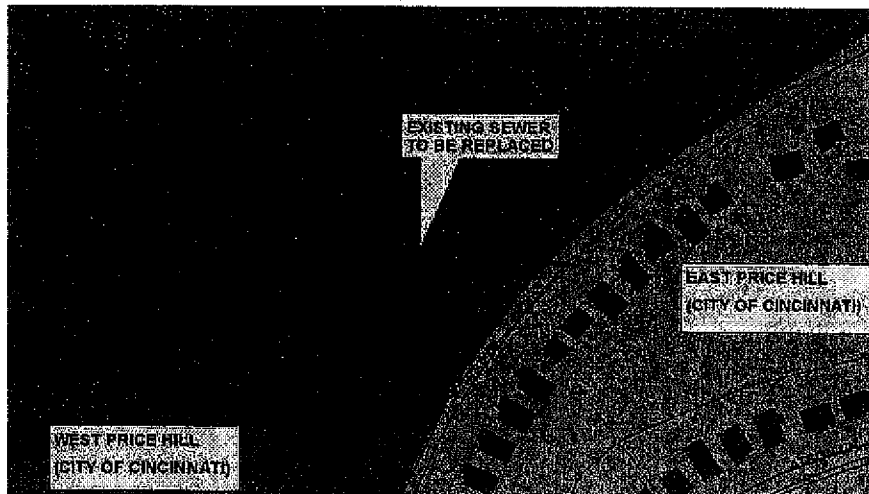
This project consists of approximately 300 feet of 12-inch diameter sanitary sewer and 500 feet of 15-inch storm sewer along Quebec Rd in the West Price Hill neighborhood of the City of Cincinnati.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$1,997	\$0	\$0	\$1,997
Design	\$61,700	\$0	\$0	\$0	\$0
Pre-Construction Services	\$11,500	\$73,200	\$0	\$0	\$73,200
Miscellaneous Expense	\$36,100	\$36,100	\$0	\$0	\$36,100
Right-of-Way	\$9,800	\$9,800	\$0	\$0	\$9,800
Construction	\$381,900	\$0	\$373,000	\$0	\$373,000
Program Management	\$0	\$5,959	\$0	\$0	\$5,959
Construction Services	\$45,500	\$0	\$55,600	\$0	\$55,600
Interest / Financing	\$4,800	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$551,300</b>	<b>\$127,056</b>	<b>\$428,600</b>	<b>\$0</b>	<b>\$555,656</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023		Project Total
\$127,056	\$428,600	\$0	\$0	\$0	\$0		\$555,656

### Prior Legislation Action

Dec 2012, May 2014, Nov 2014, Apr 2017



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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

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 7264  
 IMAGE

## 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.

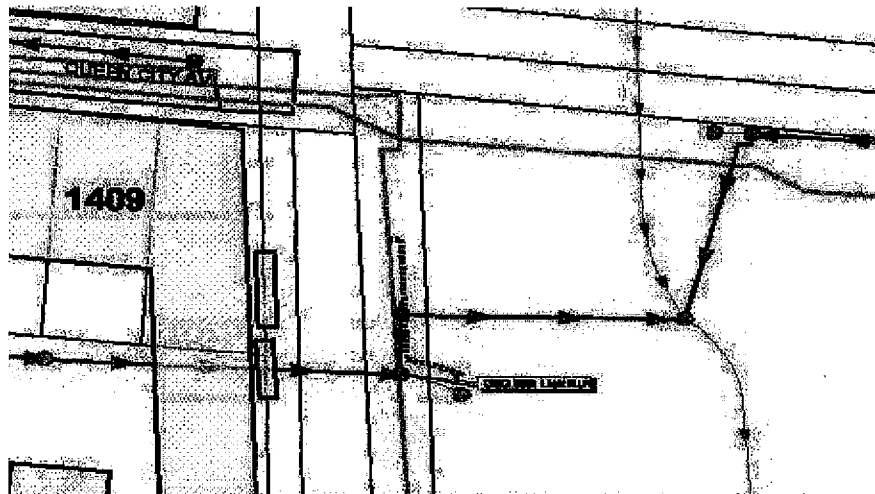
## Description and Location

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	\$20,400	\$0	\$20,400
Interest / Financing	\$300	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$97,700</b>	<b>\$140,489</b>	<b>\$144,700</b>	<b>\$0</b>	<b>\$285,189</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$140,489	\$144,700	\$0	\$0	\$0	\$285,189

**Prior Legislation Action**  
 May 2013, May 2014, Aug 2016, Oct 2016, Feb 2017



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

COM'RS MIN  
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IMAGE TUE5

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Pleasant Run Pump Station Upgrades

Project ID 10240426 CIP Number 10240426  
Project Type Pump Station Improvement/Elim Sewer Number 6611

## Purpose and Justification

The Pleasant Run Pump Stations were installed in the 1970s. These facilities are considered highly critical and carry a high consequence of failure due to the large amount of flow and lack of redundancy. The forcemains are constructed with DIP and at the end of their useful lives. Several sections of the Pleasant Run Central forcemain are were recently replaced due to severe corrosion and has had corrosion issues since the 1990s.

## 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.

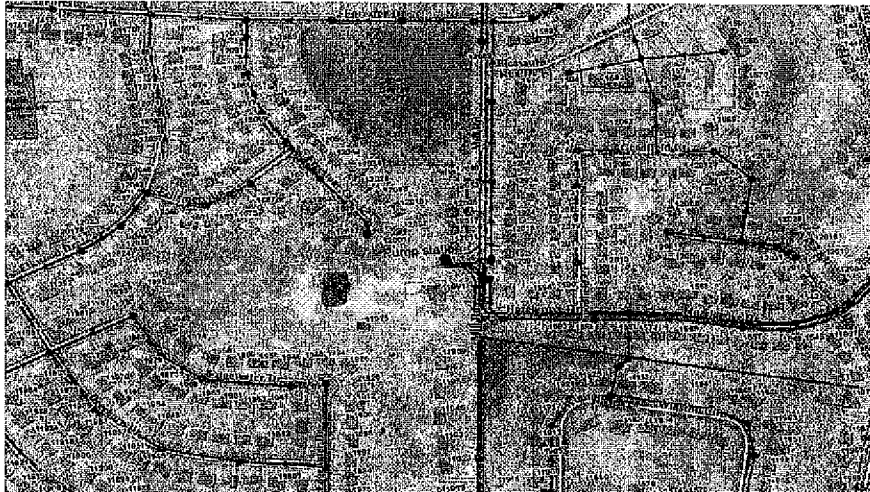
## Description and Location

The buildings housing the pump stations need HVAC upgrades for worker safety and equipment maintenance. These stations receive odor complaints from local residents. The pumps and electrical equipment within the stations have reached then end of their useful lives. The concrete structures are beginning to corrode and leak and need repairs. This project is to upgrade the Pleasant Run East, West, and Central. These pump stations were installed in the 1970s with Dry Well Wet Well configurations and operate in series. The firm capacity of the system is around 11 MGD. The upgrades include new forcemains, pumps, and electrical improvements along with building and odor control improvements. This project is located in Springfield Township and the City of Forest Park, Hamilton County, Ohio

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$1,675,000	\$0	\$1,675,000	\$0	\$1,675,000
Design	\$990,000	\$0	\$0	\$990,000	\$990,000
Pre-Construction Services	\$712,000	\$0	\$0	\$712,000	\$712,000
Miscellaneous Expense	\$343,000	\$0	\$0	\$343,000	\$343,000
Right-of-Way	\$696,000	\$0	\$0	\$696,000	\$696,000
Construction	\$15,300,000	\$0	\$0	\$15,300,000	\$15,300,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$2,356,000	\$0	\$0	\$2,356,000	\$2,356,000
Interest / Financing	\$765,000	\$0	\$0	\$765,000	\$765,000
<b>Total</b>	<b>\$22,837,000</b>	<b>\$0</b>	<b>\$1,675,000</b>	<b>\$21,162,000</b>	<b>\$22,837,000</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$0	\$1,675,000	\$2,741,000	\$0	\$18,421,000	\$0	\$22,837,000

## Prior Legislation Action





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Berkley Avenue Sewer Replacement  
 Project ID 10240430 CIP Number 10240430 CD IMAGE00  
 Project Type Sewer Replacement Sewer Number 6293

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 DEC 19 2018  
 7266

## Purpose and Justification

The purpose of this project is to rehabilitate four combined sewer segments, abandon one segment, and replace one segment of a deteriorated combined sewer originally constructed in 1926 and 1938. MSD conducted a condition assessment of the existing combined sewer segments and found some of the pipes to have shape loss, longitudinal cracks at the crown of the sewer, and broken tiles.

## Impact to Operating Budget

None.

## Description and Location

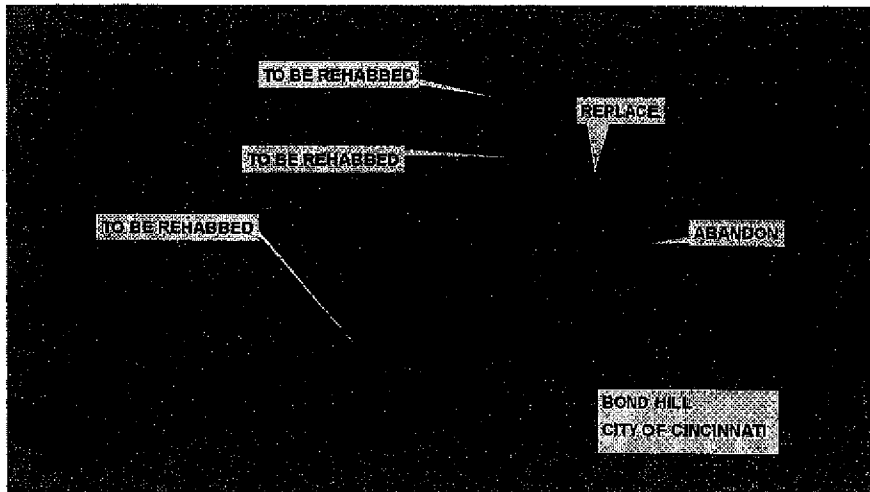
The project includes lining of existing 10-inch, 30-inch and 36-inch combined sewers; coating of deteriorated reinforcing bars within a 48-inch sewer; replacement of an 18-inch sewer with a 24-inch segment; and abandonment of an existing 8-inch sewer segment. The project is located along Berkley, Catalina, and Lane Avenues in the Mill Creek sewershed in the City of Cincinnati's Bond Hill neighborhood, Hamilton County, Ohio.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$21,565	\$0	\$0	\$21,565
Design	\$84,100	\$104,408	\$0	\$0	\$104,408
Pre-Construction Services	\$16,600	\$82,000	\$0	\$0	\$82,000
Miscellaneous Expense	\$35,900	\$34,250	\$0	\$0	\$34,250
Right-of-Way	\$15,000	\$15,000	\$0	\$0	\$15,000
Construction	\$553,100	\$0	\$660,200	\$0	\$660,200
Program Management	\$0	\$10,098	\$0	\$0	\$10,098
Construction Services	\$23,700	\$0	\$68,660	\$0	\$68,660
Interest / Financing	\$3,400	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$731,800</b>	<b>\$267,321</b>	<b>\$728,860</b>	<b>\$0</b>	<b>\$996,181</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$267,321	\$728,860	\$0	\$0	\$0	\$0	\$0	\$996,181

## Prior Legislation Action

Dec 2012, Jan 2014, Mar 2014, May 2014, Oct 2015, Feb 2016, Oct 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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

Project ID 10240455 CIP Number 10240455  
Project Type Sewer Replacement Sewer Number

CDM/R/S/M/N  
658/POL/352  
DEC 19 2018  
IMAGE 7207

## 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.

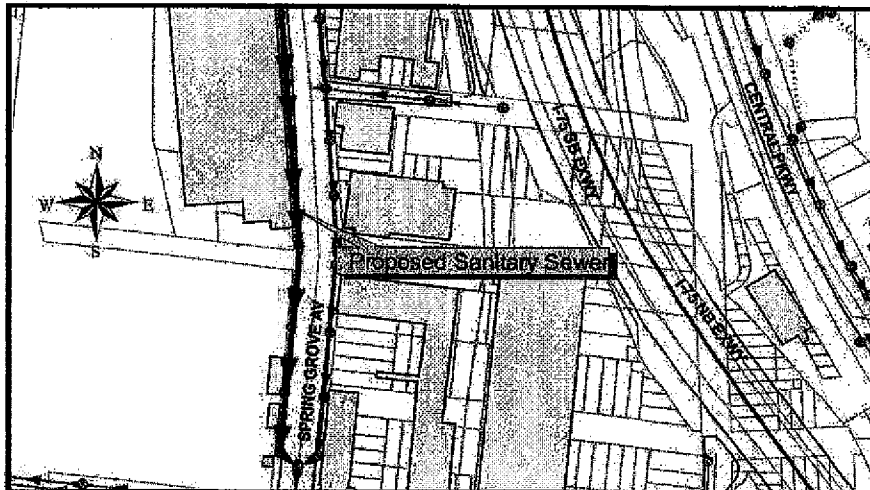
## Description and Location

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	\$89,450	\$0	\$0	\$89,450
Pre-Construction Services	\$30,400	\$30,400	\$0	\$0	\$30,400
Miscellaneous Expense	\$15,900	\$15,900	\$0	\$0	\$15,900
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$506,200	\$0	\$506,200	\$0	\$506,200
Program Management	\$0	\$1,704	\$0	\$0	\$1,704
Construction Services	\$34,700	\$0	\$44,700	\$0	\$44,700
Interest / Financing	\$4,400	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$673,000</b>	<b>\$152,445</b>	<b>\$550,900</b>	<b>\$0</b>	<b>\$703,345</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$152,445	\$550,900	\$0	\$0	\$0	\$703,345

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



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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IMAGE 7768

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

Project ID: 10240473 CIP Number: 10240473 CD Index # 000  
Project Type Pump Station Improvement/Elim Sewer Number 6716

## Purpose and Justification

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

## Impact to Operating Budget

None.

## Description and Location

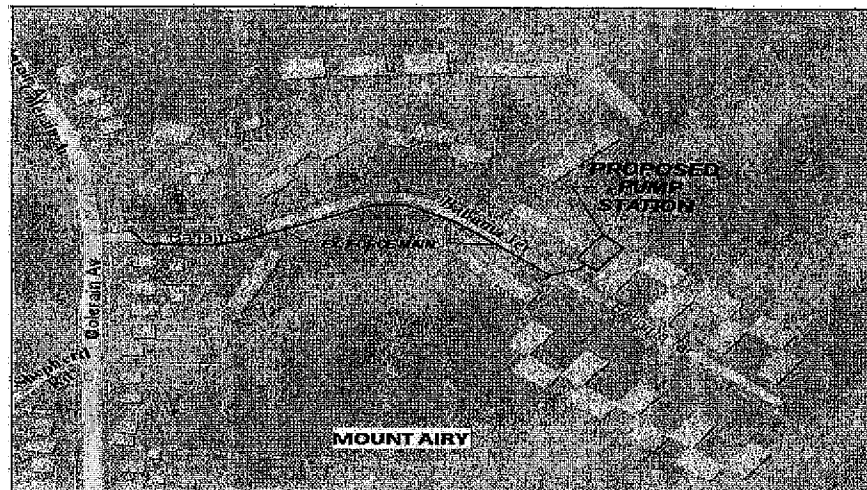
This project is located in the Mt. Airy neighborhood of the City of Cincinnati at the existing Bahama Gardens Pump Station. The project will upgrade the existing pump station. The scope also includes connecting the pump station to the force main that was replaced in 2016 and demolition of the existing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

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$75,000	\$75,000	\$0	\$0	\$75,000
Pre-Construction Services	\$70,000	\$71,200	\$0	\$0	\$71,200
Miscellaneous Expense	\$15,000	\$15,000	\$0	\$0	\$15,000
Right-of-Way	\$15,000	\$15,000	\$0	\$0	\$15,000
Construction	\$505,700	\$0	\$679,700	\$0	\$679,700
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$103,700	\$0	\$132,000	\$0	\$132,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$784,400</b>	<b>\$176,200</b>	<b>\$811,700</b>	<b>\$0</b>	<b>\$987,900</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$176,200	\$811,700	\$0	\$0	\$0	\$987,900

## Prior Legislation Action

Dec 2017



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Pardee Alley Sewer Replacement-Oswald A1 to 200' north

Project ID 10240550 CIP Number 10240550 CD Index # 000

Project Type Sewer Replacement Sewer Number COWERS MIN VOL. 352

## Purpose and Justification

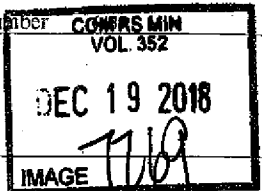
There are several pipe segments near Hatmaker Street and downstream collection system to the north that are in poor condition. Portion of the downstream sewer are stone sewers that were built around the turn of the century. Currently, one of the pipe segments has experienced a collapse and it is likely more collapses will occur. The project is to re-align the service connections for the three locations served by the subject sewer to the sewer in W. Eighth Street. The plumbing in the Health Clinic basement will need to be re-aligned. Then existing will be abandon in-place.

## Impact to Operating Budget

None.

## Description and Location

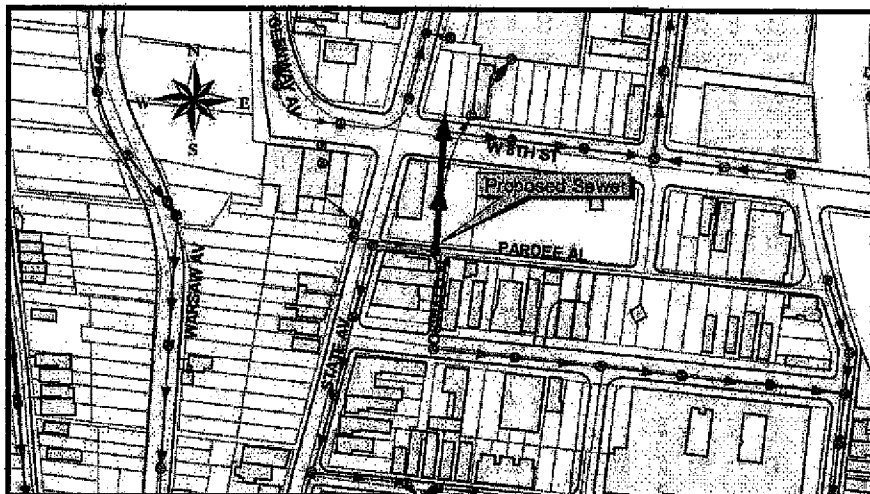
The project will fill, seal, and abandon approximately 1,026 linear feet of 18-inch through 36-inch diameter combined sewer, construct approximately 195 linear feet of 12-inch diameter storm sewer, and relocate and reconnect four sewer laterals. The project is located in Lower East Price Hill, in the Mill Creek Valley, in the City of Cincinnati, Hamilton County, Ohio.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$25,727	\$0	\$0	\$25,727
Design	\$34,300	\$52,464	\$0	\$0	\$52,464
Pre-Construction Services	\$4,500	\$6,500	\$0	\$0	\$6,500
Miscellaneous Expense	\$57,700	\$47,120	\$0	\$0	\$47,120
Right-of-Way	\$33,600	\$33,600	\$0	\$0	\$33,600
Construction	\$137,100	\$0	\$210,000	\$0	\$210,000
Program Management	\$0	\$2,942	\$0	\$0	\$2,942
Construction Services	\$17,500	\$0	\$30,000	\$0	\$30,000
Interest / Financing	\$300	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$285,000</b>	<b>\$168,353</b>	<b>\$240,000</b>	<b>\$0</b>	<b>\$408,353</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$168,353	\$240,000	\$0	\$0	\$0	\$408,353

**Prior Legislation Action**  
Dec 2013, May 2014, Sep 2014, Nov 2014, Oct 2017, Oct 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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VOL. 352  
DEC 19 2018  
IMAGE T270

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Mill Creek WWTP Main Substation Improvements

Project ID 10240590 CIP Number 10240590 CD Index #000  
Project Type Treatment Facility Sewer Number 6484

## Purpose and Justification

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

## Impact to Operating Budget

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

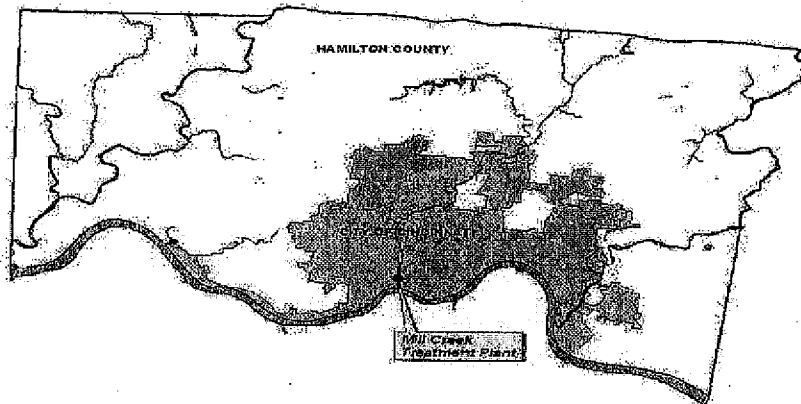
This project will provide improvements for the main substation transformers, power bus and switches, along with revising the electric service entrance, adding power monitoring and transformer isolation wall. Power Building Switchgear will be demolished with feeders extended from the new substation to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

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$220,000	\$0	\$0	\$0	\$0
Design	\$306,000	\$200,000	\$0	\$0	\$200,000
Pre-Construction Services	\$52,000	\$83,000	\$0	\$0	\$83,000
Miscellaneous Expense	\$67,100	\$58,600	\$0	\$0	\$58,600
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$2,560,000	\$5,889,576	\$3,560,642	\$0	\$9,450,218
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$231,000	\$700,000	\$0	\$0	\$700,000
Interest / Financing	\$70,000	\$188,000	\$188,000	\$0	\$376,000
<b>Total</b>	<b>\$3,506,100</b>	<b>\$7,119,176</b>	<b>\$3,748,642</b>	<b>\$0</b>	<b>\$10,867,818</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$7,119,176	\$3,748,642	\$0	\$0	\$0	\$10,867,818

## Prior Legislation Action

Dec 2015, Dec 2016, Jan 2018, Oct 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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

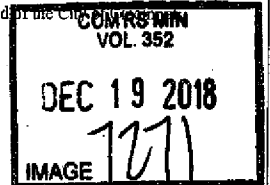
The MCWWTP Standby Power project will upgrade critical distribution assets at MCWWTP to improve reliability and maintainability of the standby power system. The standby power system project includes replacement of standby engine-generator, copper bus distribution system, and local process area transfer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

## Impact to Operating Budget

None

## Description and Location

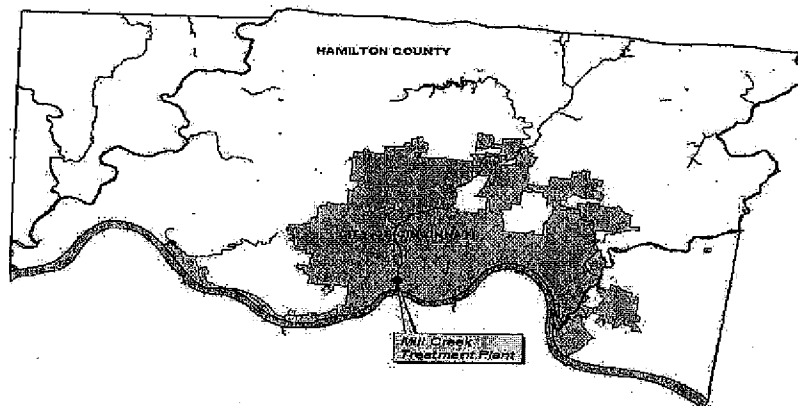
The Project will increase the reliability of MCWWTP's current standby power distribution system at 1600 Gest Street, Cincinnati, OH 45204. This project is in the Lower Price Hill neighborhood of the City of Cincinnati.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$344,000	\$0	\$344,000	\$0	\$344,000
Pre-Construction Services	\$75,000	\$0	\$75,000	\$0	\$75,000
Miscellaneous Expense	\$45,000	\$0	\$45,000	\$0	\$45,000
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$3,424,000	\$0	\$0	\$3,424,000	\$3,424,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$309,000	\$0	\$0	\$309,000	\$309,000
Interest / Financing	\$129,000	\$0	\$0	\$129,000	\$129,000
<b>Total</b>	<b>\$4,326,000</b>	<b>\$0</b>	<b>\$464,000</b>	<b>\$3,862,000</b>	<b>\$4,326,000</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$0	\$464,000	\$0	\$3,862,000	\$0	\$0	\$4,326,000	

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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

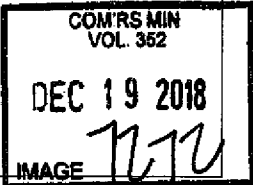
The project will improve the critical MSD owned high and medium voltage assets within the existing 4.16kV and 13.2kV distribution loop systems at MCWWTP to increase the reliability and reduce the high risk of failure. Assets to be replaced include equipment operating past the end of useful life, equipment 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

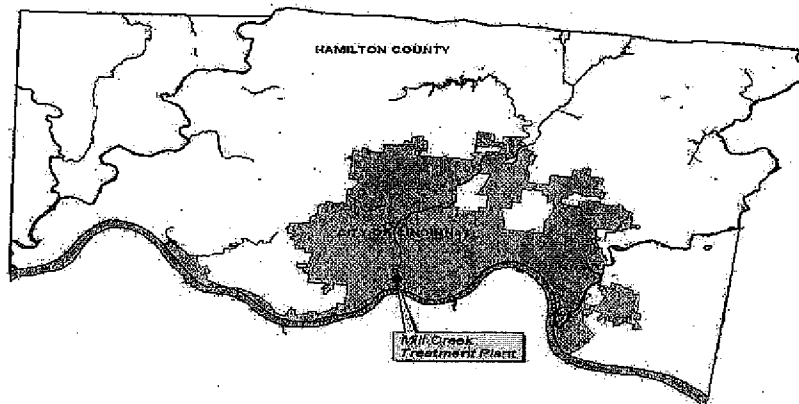
The Project will upgrade the existing at-risk 4.16kV and 13.2kV distribution loop equipment not currently being planned for replacement with other projects in MCWWTP. This project is in the Lower Price Hill neighborhood of the City of Cincinnati.



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

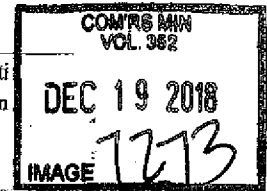
5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$232,000	\$1,144,000	\$0	\$0	\$1,376,000

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018



Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Fitzpatrick Sewer Cleaning and Rehabilitation  
 Project ID 10240710 CIP Number 10240710  
 Project Type Study Sewer Number 6664

### Purpose and Justification

The Fitzpatrick Sewer is 70+ years old conveys flow from outside sewers and several solids handling process within the Mill Creek WWTP. Portions of this sewer are severely corroded and have large mineral deposits. This sewer may have capacity issues which may cause upstream sewer surcharging and odors.

### Impact to Operating Budget

None.

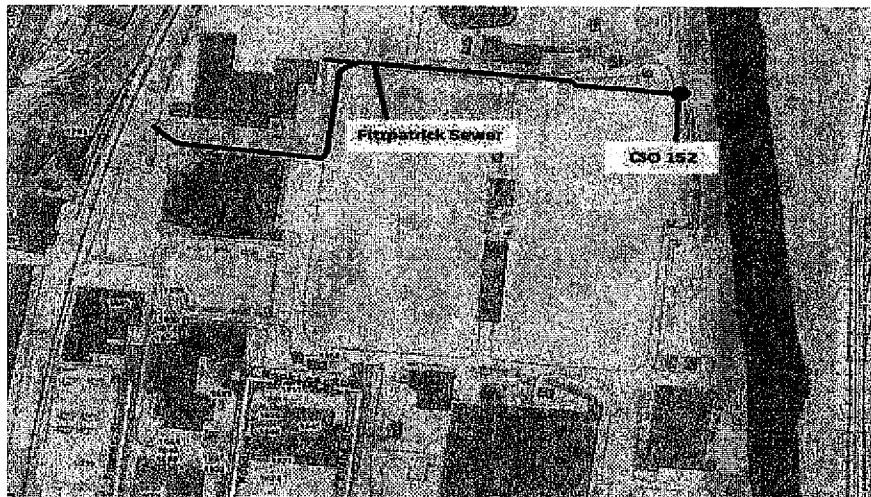
### Description and Location

This project is to clean and line the Fitzpatrick Sewer within the Mill Creek WWTP campus. The sewer cleaning will remove large mineral deposits that constrict flow and allow solids to build within the sewer potentially causing odors. The Fitzpatrick Sewer is also degraded. It currently has several sections with exposed rebar and concrete decay. Lining will prevent further sewer degradation and extend the life of the Fitzpatrick Sewer. This project will also install a flow meter to measure the frequency and flow rate of the incinerator scrubber overflow. This information is currently unknown and would help inform future plant projects and operations. This project is located within the Mill Creek WWTP in the neighborhood of Lower Price Hill within the City of Cincinnati.

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

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023		Project Total
\$0	\$120,000	\$2,732,000	\$0	\$0	\$0	\$0	\$2,852,000

Prior Legislation Action





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

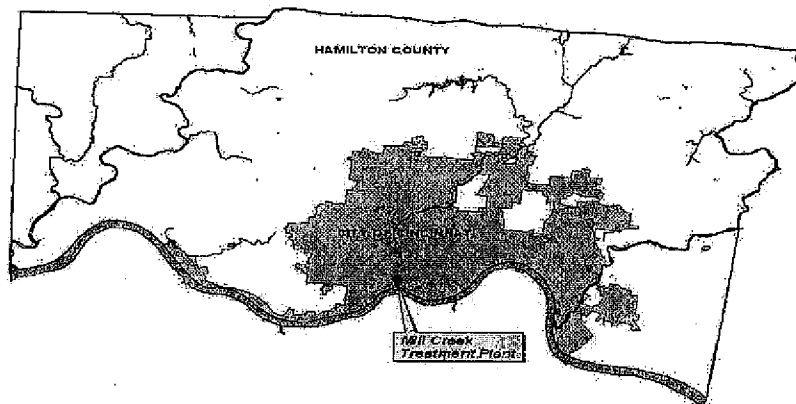
Department	Metropolitan Sewer District of Greater Cincinnati				
Project Title	MCWWTP Solids Handling Process & Odor Control Planning Bundle				
Project ID	10240715	CIP Number	10240715	CD Index #	000
Project Type	Treatment Facility	Sewer Number	6711		
<b>Purpose and Justification</b>	<b>Impact to Operating Budget</b>				
This project will result in a master plan for MSDGC's solids handling processes across all major treatment plants to aid in long term planning.	None.				
	<b>Description and Location</b>				
This project will take a comprehensive look at the solids handling facilities across all of MSDGC's treatment plants. This includes an assessment of the best long term use of the incinerator facilities constructed at Mill Creek WWTP in 2010. This project will include recommendations for immediate needs, projects that should be implemented in the next five years, and recommended project sequencing for the next 30 years.					

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IMAGE

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$2,375,000	\$1,840,000	\$425,000	\$0	\$2,265,000
Design	\$0	\$0	\$0	\$0	\$0
Pre-Construction Services	\$0	\$0	\$0	\$0	\$0
Miscellaneous Expense	\$0	\$0	\$0	\$0	\$0
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,375,000</b>	<b>\$1,840,000</b>	<b>\$425,000</b>	<b>\$0</b>	<b>\$2,265,000</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$1,840,000	\$425,000	\$0	\$0	\$0	\$0	\$0	\$2,265,000

**Prior Legislation Action**  
Aug 2017



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Camargo Canyon Pump Station Elimination

Project ID 10270026 CIP Number 1027  
 Project Type Pump Station Improvement/Elim

**Not Authorized**

## Purpose and Justification

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

## Impact to Operating Budget

None.

## Description and Location

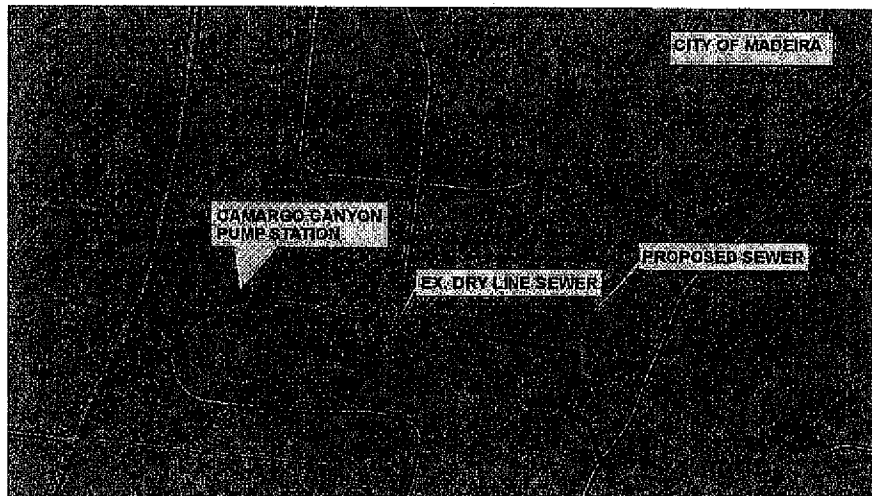
The pump station is to be eliminated with the construction of 892 feet of new 8-inch diameter gravity sewer to connect a dry line installed with the pump station to an existing sewer on Camargo Road. This project is located in the City of Madeira.

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Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$85,300	\$138,568	\$60,000	\$0	\$198,568
Pre-Construction Services	\$35,300	\$35,300	\$45,000	\$0	\$80,300
Miscellaneous Expense	\$36,800	\$0	\$15,000	\$0	\$15,000
Right-of-Way	\$27,400	\$10,932	\$20,000	\$0	\$30,932
Construction	\$589,200	\$0	\$0	\$1,178,400	\$1,178,400
Program Management	\$0	\$15,567	\$0	\$0	\$15,567
Construction Services	\$54,000	\$0	\$0	\$122,554	\$122,554
Interest / Financing	\$8,500	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$836,500</b>	<b>\$200,367</b>	<b>\$140,000</b>	<b>\$1,300,954</b>	<b>\$1,641,321</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$200,367	\$140,000	\$0	\$1,300,954	\$0	\$0
						\$1,641,321

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



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title **Portsmouth Avenue Sewer Replacement**  
 Project ID **10270125** CIP Number **10270125** CD Index # **000**  
 Project Type **Sewer Replacement** Sewer Number **6224**

## Purpose and Justification

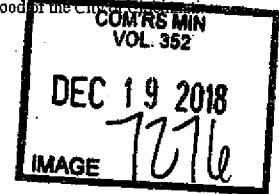
The purpose of this project is to address 234 of liner feet of existing deteriorated sanitary between Portsmouth and Wasson Road. Although the existing sewer has insufficient flow capacity, it was recommended as a candidate for lining. A larger diameter sewer will be construction in along Portsmouth which will redirect flow to the existing sanitary sewer located on Paxton Avenue.

## Impact to Operating Budget

None.

## Description and Location

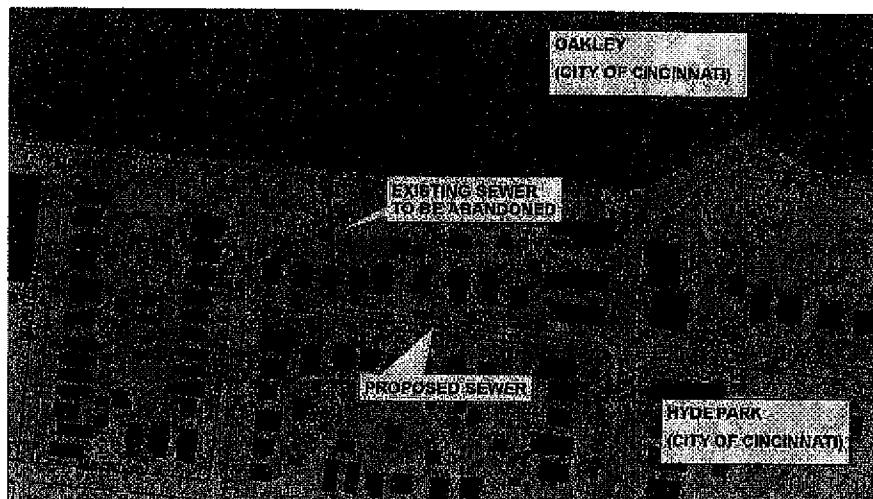
This project will install approximately 429 feet of 24 inch sewer in Portsmouth Ave, replace three building sewers, and 3 manhole. The project is located in the Hyde Park neighborhood of the City of Cincinnati.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$12,230	\$0	\$0	\$12,230
Design	\$58,100	\$0	\$0	\$0	\$0
Pre-Construction Services	\$10,500	\$68,600	\$0	\$0	\$68,600
Miscellaneous Expense	\$38,400	\$38,400	\$0	\$0	\$38,400
Right-of-Way	\$22,000	\$22,000	\$0	\$0	\$22,000
Construction	\$351,600	\$0	\$349,825	\$0	\$349,825
Program Management	\$0	\$3,844	\$0	\$0	\$3,844
Construction Services	\$14,000	\$0	\$37,800	\$0	\$37,800
Interest / Financing	\$1,200	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$495,800</b>	<b>\$145,074</b>	<b>\$387,625</b>	<b>\$0</b>	<b>\$532,699</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$145,074	\$387,625	\$0	\$0	\$0	\$0	\$0	\$532,699

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



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Delta and Greist Sewer Replacement		
Project ID	10270165	CIP Number	10270165 CD Index # 000
Project Type	Sewer Replacement	Sewer Number	6593

## Purpose and Justification

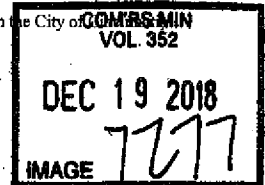
The project is to replace pipe segments installed between 1895 and 1928, having served their useful life. The segments have fracturing and longitudinal cracking. The structural risk factors vary from medium to extreme and are not candidates for lining due to the structural condition and/or capacity issues.

## Impact to Operating Budget

None.

## Description and Location

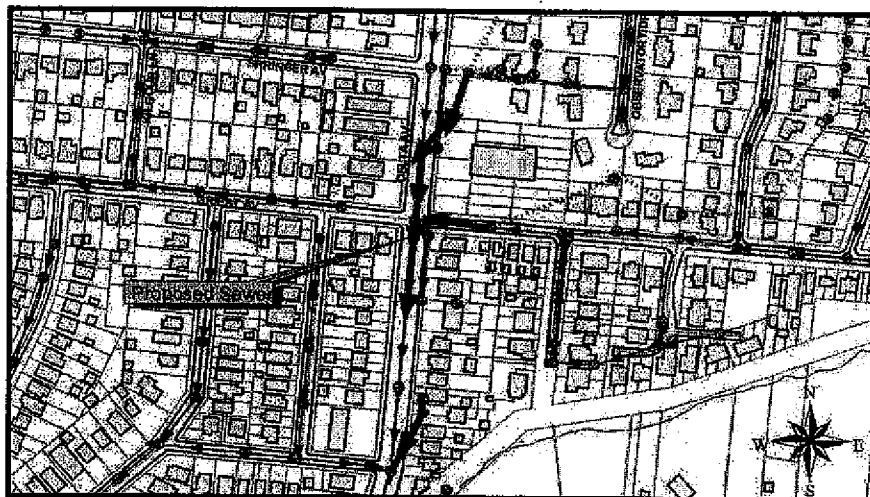
The project will replace 1,297 feet of pipe in the area of Delta Avenue and Grist Avenue. The project is located in the Mount Lookout area of Cincinnati in the Duck Creek watershed, in the City of Hamilton County, Ohio



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$34,576	\$0	\$0	\$34,576
Design	\$145,500	\$145,500	\$0	\$0	\$145,500
Pre-Construction Services	\$68,500	\$68,500	\$20,000	\$0	\$88,500
Miscellaneous Expense	\$40,000	\$40,000	\$0	\$0	\$40,000
Right-of-Way	\$43,700	\$43,700	\$0	\$0	\$43,700
Construction	\$1,142,000	\$0	\$0	\$1,142,000	\$1,142,000
Program Management	\$0	\$3,939	\$0	\$0	\$3,939
Construction Services	\$51,600	\$0	\$0	\$99,700	\$99,700
Interest / Financing	\$14,300	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,505,600</b>	<b>\$336,215</b>	<b>\$20,000</b>	<b>\$1,241,700</b>	<b>\$1,597,915</b>

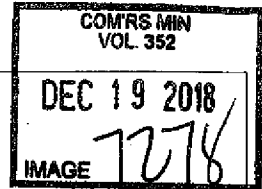
5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023	Project Total	
\$336,215	\$20,000	\$0	\$1,241,700	\$0	\$0	\$1,597,915	

**Prior Legislation Action**  
May 2014, Dec 2016



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018



Department Metropolitan Sewer District of Greater Cincinnati  
Project Title East Hill Ave Sewer Replacement

Project ID 10270175 CIP Number 10270175 CD Index # 000  
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

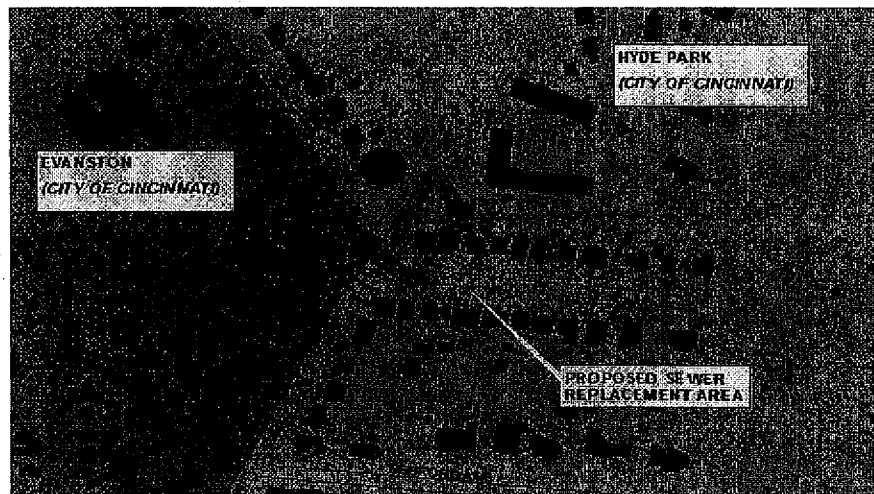
This asset management project located in the Hyde Park neighborhood of the City of Cincinnati. This project will install approximately 340 feet of new 30-inch sewer and approximately 110 feet of new 18-inch sewer to replace and relocate a severely deteriorated 24-inch sewer near East Hill Ave and Madison Road. A new sewer will be placed in the public right of way 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	\$74,500	\$0	\$0	\$74,500
Miscellaneous Expense	\$43,500	\$43,500	\$0	\$0	\$43,500
Right-of-Way	\$16,600	\$16,600	\$0	\$0	\$16,600
Construction	\$1,416,800	\$0	\$1,542,800	\$0	\$1,542,800
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$48,700	\$0	\$121,100	\$0	\$121,100
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$1,745,200</b>	<b>\$311,700</b>	<b>\$1,663,900</b>	<b>\$0</b>	<b>\$1,975,600</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$311,700	\$0	\$0	\$0	\$0	\$1,975,600

## Prior Legislation Action

Dec 2014, Jun 2017, Nov 2018



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title **Wasson Ravine Sewer Replacement**  
 Project ID **10272025** CIP Number **10272025** CD Index # PN# 38  
 Project Type **Sewer Replacement** Sewer Number **6847**

## Purpose and Justification

The pipes in this project have deteriorated and require replacement. Some segments have shape loss greater than 20% and cannot be lined. These segments run under 12 existing structures and are in danger of collapse. The segments pose a risk to MSDGC in their current condition. The collapse of the pipes could represent a liability to MSDGC. The health risk of non-performance is sewage ex-filtration as a result of not being able to carry out maintenance operations for these assets. Also, in the event that the pipe collapses, it may result in sewage backups, sewage discharges to the environment and foundation damage due to the proximity to the buildings.

## Impact to Operating Budget

None

## Description and Location

This project is located between Wasson Road and Mt. Vernon Avenue, in the Oakley neighborhood of the City of Cincinnati. The pipe segments are approximately 1,450 feet, are in poor condition and are partially collapsed or deformed and broken. This project will address the rehabilitation or replacement of these sewers. All project descriptions and costs are pre-planning level.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$120,000	\$0	\$0	\$0	\$0
Design	\$170,000	\$0	\$388,000	\$0	\$388,000
Pre-Construction Services	\$38,000	\$0	\$62,000	\$0	\$62,000
Miscellaneous Expense	\$320,000	\$0	\$67,000	\$0	\$67,000
Right-of-Way	\$225,000	\$0	\$152,000	\$0	\$152,000
Construction	\$1,100,000	\$0	\$0	\$1,900,000	\$1,900,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$130,000	\$0	\$0	\$215,000	\$215,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$2,103,000</b>	<b>\$0</b>	<b>\$669,000</b>	<b>\$2,115,000</b>	<b>\$2,784,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$669,000	\$0	\$0	\$2,115,000	\$0	\$2,784,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Little Miami Solids Disposal System with Odor Control

Project ID 10272035 CIP Number  
 Project Type Treatment Facility

Impact to Operating Budget  
 None

### Description and Location

This project will address critical solid waste management needs at the Little Miami WWTP. Because of changed federal regulations, the existing incinerator is no longer compliant or operable. The project includes an anaerobic digestion facility, sludge liquid receiving facility, solids load out facility, and associated odor control and will produce Class B biosolids. Sludge from Little Miami, Polk Run, and Sycamore Creek WWTPs will be digested and dewatered at Little Miami. This project is located in the City of Cincinnati neighborhood of East End, Hamilton County, Ohio

**Not Authorized as Proposed  
 see 1028#### - Solids Handling  
 Improvements - District Wide  
 Placeholders - Per Master Plan**

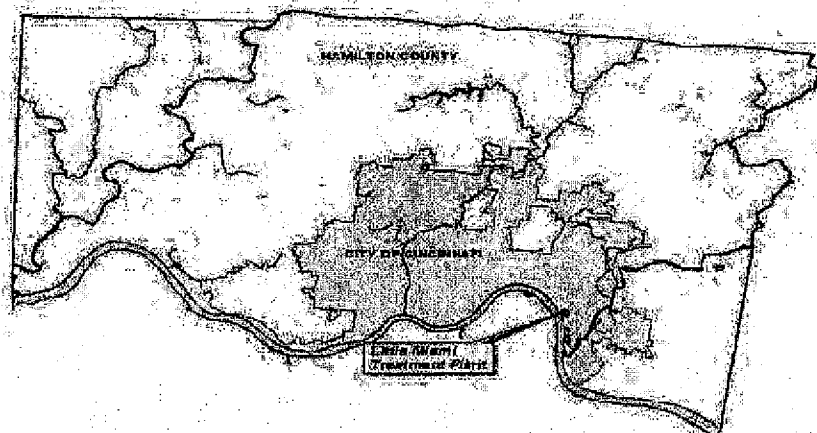
### Purpose and Justification

The incinerator has reached its expected useful life and has been off-line since March 2016 due to the increased federal emission regulations. Solids from the Little Miami WWTP, Polk Run WWTP, and Sycamore Creek WWTP are now disposed of in a solid waste landfill. The proposed anaerobic digestion facility will produce biogas that can be converted to renewable energy and produce Class B biosolids for land application.

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$2,402,500	\$0	\$2,402,500	\$0	\$2,402,500
Pre-Construction Services	\$586,800	\$0	\$586,800	\$0	\$586,800
Miscellaneous Expense	\$216,200	\$0	\$216,200	\$0	\$216,200
Right-of-Way	\$0	\$0	\$0	\$0	\$0
Construction	\$29,336,800	\$0	\$0	\$29,336,800	\$29,336,800
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$6,014,100	\$0	\$0	\$6,014,100	\$6,014,100
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$38,556,400</b>	<b>\$0</b>	<b>\$3,205,500</b>	<b>\$35,350,900</b>	<b>\$38,556,400</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$3,205,500	\$0	\$35,350,900	\$0	\$0	\$38,556,400

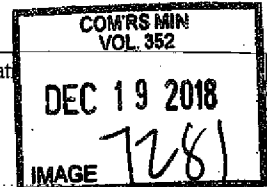
**Prior Legislation Action**



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 IMAGE 7250

# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018



Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Hydraulic Modeling 2019  
 Project ID 10280239 CIP Number 10280239  
 Project Type Allowance Sewer Number 6869

### 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

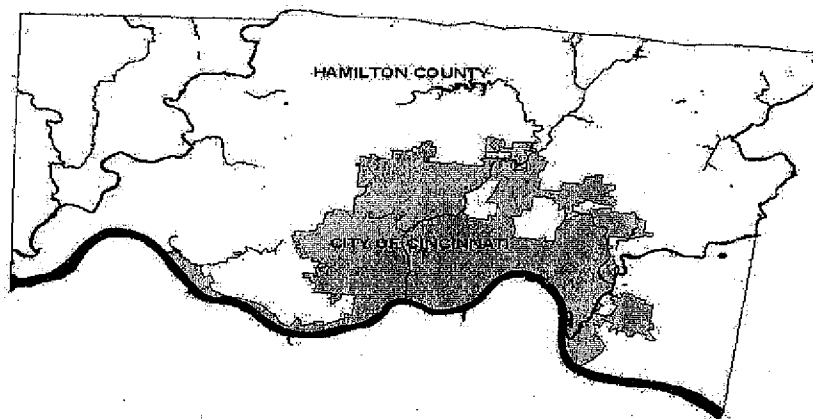
Sewer modeling is used to assist in the planning and design process and is required as part of the Global Consent Decree and MSD's CSO NPDES permit. MSD is committed to ensuring its system-wide model meets the latest standards and provides the best available tool for assessing, planning, and designing 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	\$1,200,000	\$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
<b>Total</b>	<b>\$1,200,000</b>	<b>\$0</b>	<b>\$1,200,000</b>	<b>\$0</b>	<b>\$1,200,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$1,200,000	\$0	\$0	\$0	\$0	\$1,200,000

**Prior Legislation Action**





# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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IMAGE 7282

Department Metropolitan Sewer District of Greater Cincinnati  
Project Title Emergency Sewer Repairs 2019

Project ID 10280319 CIP Number 10280319 CD Index # 000  
Project Type Allowance Sewer Number 6903

### Purpose and Justification

This project will allow MSDGC to quickly respond to sudden, unexpected sewer system failures which may threaten the public health, welfare, or safety. Conditions that warrant emergency sewer repairs include cave-ins, sewer backups into private property, sewer overflows, and imminent danger to structures or real property.

### Impact to Operating Budget

None.

MSD to submit new Fact Sheet showing budget of \$7,000,000.

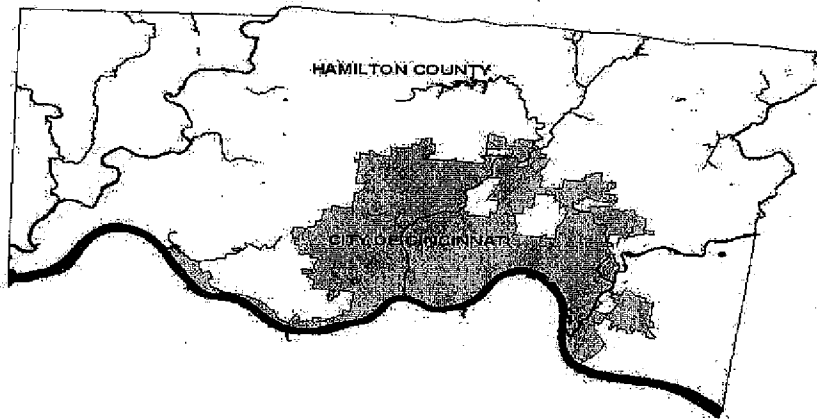
### Description and Location

Throughout the District, this program funds emergency sewer system repair projects using MSD personnel and competitively bid as-needed sewer repair contracts. This project allows MSD to quickly and efficiently restore and maintain interrupted service, while mitigating the risk of additional damages or losses.

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	\$4,750,000	\$0	<del>\$4,750,000</del> \$6,650,000	\$0	<del>\$4,750,000</del>
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$250,000	\$0	<del>\$250,000</del> \$350,000	\$0	<del>\$250,000</del>
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$5,000,000</b>	<b>\$0</b>	<del><b>\$5,000,000</b></del> <b>\$7,000,000</b>	<b>\$0</b>	<del><b>\$5,000,000</b></del>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	<del>\$5,000,000</del>					<del>\$5,000,000</del>

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

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 IMAGE

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Building Sewer Renewal Program 2019

Project ID 10280609 CIP Number 10280609 CD Index #000  
 Project Type Allowance Sewer Number 6870

## Purpose and Justification

This program is necessary to fund the structural renewal and repair of the portion of privately owned building sewers located within the public right-of-way or within dedicated main sewer easements consistent with Section 2008 of MSD's Rules and Regulations.

## Impact to Operating Budget

None.

MSD to submit new Fact Sheet showing budget of \$3,000,000.

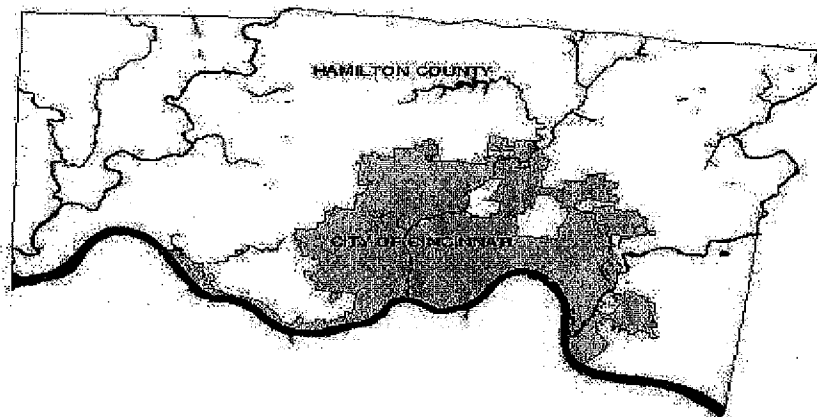
## Description and Location

Throughout the District, this program supports the structural renewal and repair of the portion privately owned building sewers within the public right-of-way and or within dedicated main sewer easements to cost effectively extend asset life while protecting public safety, health and the environment. The scope of this project will include the installation of inspection ports on building sewers at the public right-of-way line or dedicated public sewer easement line to facilitate trenchless structural renewal and building sewer flow monitoring.

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	\$4,750,000	\$0	<del>-\$4,750,000</del> \$2,850,000	\$0	<del>-\$4,750,000</del>
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$250,000	\$0	<del>-\$250,000</del> \$150,000	\$0	<del>-\$250,000</del>
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$5,000,000</b>	<b>\$0</b>	<b><del>-\$5,000,000</del></b> <b>\$3,000,000</b>	<b>\$0</b>	<b><del>-\$5,000,000</del></b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	<del>-\$5,000,000</del>	\$0	\$0	\$0	\$0	<del>-\$5,000,000</del>

Prior Legislation Action



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	Critical Asset Management Projects 2019		
Project ID	10280719	CIP Number	10280719 CD Index # 000
Project Type	Allowance	Sewer Number	6871

## Purpose and Justification

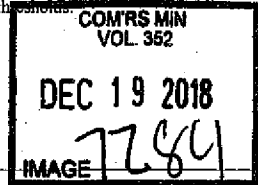
The purpose of the Facilities Asset Management Projects allowance is to provide MSD with an expeditious means of addressing infrastructure and other asset failures in advance of catastrophic failure when possible. This allowance utilizes district wide condition reports, field data, studies and other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

## Impact to Operating Budget

None.

## Description and Location

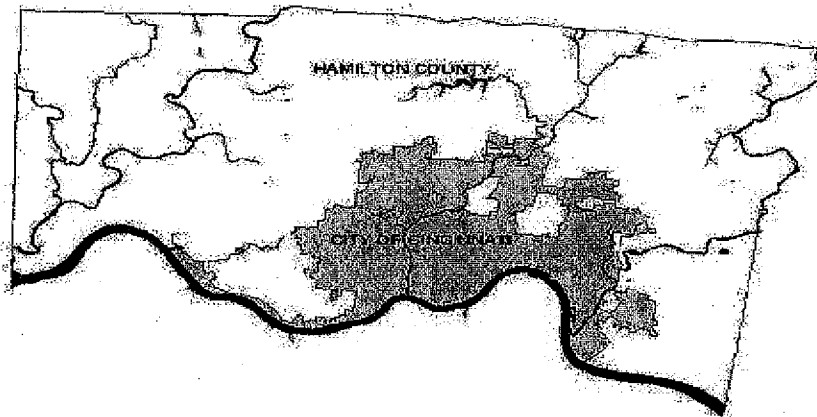
This allowance serves as an annual "budget" from which smaller expenditures will be made as the need arises. To manage this allowance, MSD will maintain a risk-based prioritized list of proposed expenditures that will be updated as needs arise and seek legislative approval according to established procedures.



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	\$6,000,000	\$0	\$6,000,000	\$0	\$6,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$0	\$0	\$0	\$0	\$0
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$6,000,000</b>	<b>\$0</b>	<b>\$6,000,000</b>	<b>\$0</b>	<b>\$6,000,000</b>

5 Year Projected Legislation							
Prior Legislation	2019	2020	2021	2022	2023		Project Total
\$0	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$6,000,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department Metropolitan Sewer District of Greater Cincinnati  
 Project Title Prioritized Wastewater Collection System Improvements 2019

Project ID 10281319 CIP Number 10281319  
 Project Type Allowance

**Not Authorized**

## Purpose and Justification

Formerly known as the "High Risk Asset Renewal" program, this program is necessary to fund dynamically prioritized planned and reactive improvements to assets comprising the wastewater collection system prior to complete failure. This allowance is necessary to meet operational and regulatory requirements while mitigating risk and meeting established levels of service at the lowest asset life-cycle cost.

## Impact to Operating Budget

None.

## Description and Location

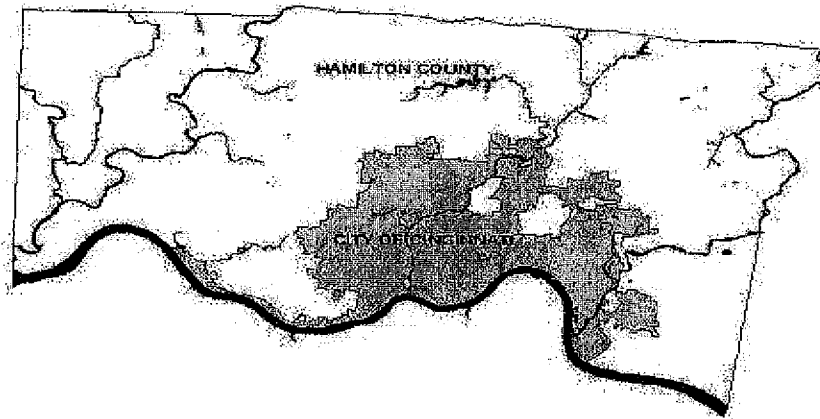
Throughout the District, this program will fund the prioritized renewal and improvement of assets comprising the wastewater collection system consistent with MSD's integrated asset management framework to maintain acceptable levels of service at the lowest asset life-cycle cost prior to complete failure.

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 IMAGE 7285

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	\$12,000,000	\$0	\$6,000,000	\$0	\$6,000,000
Program Management	\$0	\$0	\$0	\$0	\$0
Construction Services	\$1,000,000	\$0	\$1,000,000	\$0	\$1,000,000
Interest / Financing	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$13,000,000</b>	<b>\$0</b>	<b>\$7,000,000</b>	<b>\$0</b>	<b>\$7,000,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$7,000,000
	\$7,000,000	\$0	\$0	\$0	\$0	\$7,000,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

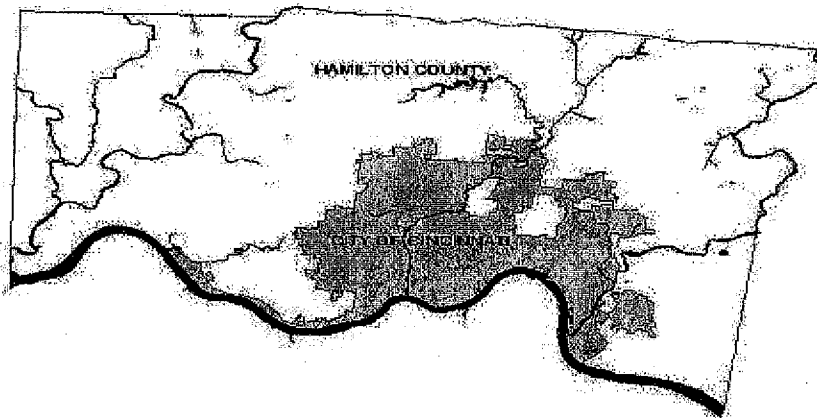
Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CIP Planning Projects 2019		
Project ID	10282019	CIP Number	10282019 CD Index # 000
Project Type	Allowance	Sewer Number	6872
<b>Purpose and Justification</b> This project will provide capital funding to support planning CIP projects.	<b>Impact to Operating Budget</b> None.		
	<b>Description and Location</b> This project provides appropriated funds for the resources necessary for the planning of capital projects for advancement to the design phase.		

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IMAGE *TJL*

Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$2,500,000	\$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
<b>Total</b>	<b>\$2,500,000</b>	<b>\$0</b>	<b>\$1,000,000</b>	<b>\$0</b>	<b>\$1,000,000</b>

5 Year Projected Legislation						
Prior Legislation	2019	2020	2021	2022	2023	Project Total
\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000

**Prior Legislation Action**



# 2019 Capital Budget and Capital Improvement Program

Wednesday, November 28, 2018

Department	Metropolitan Sewer District of Greater Cincinnati		
Project Title	CIP Planning Asset Management Conveyance Projects 2019		
Project ID	10282219	CIP Number	10282219 CD Index # PN# 38
Project Type	Allowance	Sewer Number	6873

## Purpose and Justification

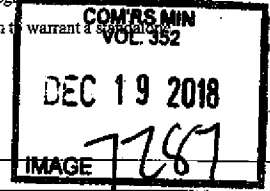
MSDGC continually assesses condition of wastewater collection system assets throughout the district. Risk of failure is categorized for sewer segments using the GSAM asset management system. This project provides capital funding so that the highest risk sewer segments can be prioritized for replacement or rehabilitation proactively, and so that construct-able projects can be developed for subsequent planning and design. This project will assist MSDGC's overall Watershed Planning strategy.

## Impact to Operating Budget

None

## Description and Location

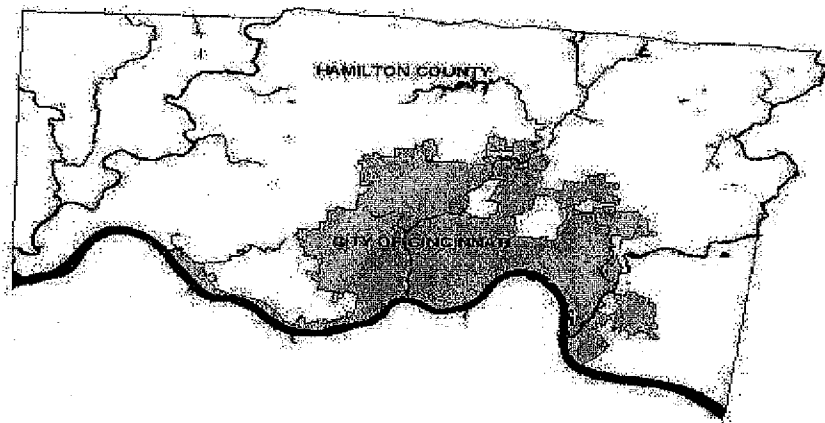
This allowance project will be used to develop projects throughout the entire district using the most current GSAM data. Data analysis and evaluation in this project will lead to rehabilitation, relining, or replacement of sewer segments. Construction and design will occur in separate projects with legislated funds or with allowance funds if the need is immediate or if the project is not significant enough to warrant a separate capital project.



Cost Description	Original Project Estimate	Prior Legislation	Current Legislation	Future Legislation	Current Project Estimate
Planning	\$1,100,000	\$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
<b>Total</b>	<b>\$1,100,000</b>	<b>\$0</b>	<b>\$1,100,000</b>	<b>\$0</b>	<b>\$1,100,000</b>

5 Year Projected Legislation	2019	2020	2021	2022	2023	Project Total
Prior Legislation	\$0	\$0	\$0	\$0	\$0	\$0
	\$1,100,000	\$0	\$0	\$0	\$0	\$1,100,000

**Prior Legislation Action**





2020 CIP

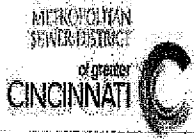
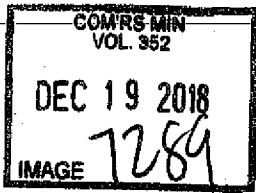
Metropolitan Sewer District of Greater Cincinnati



WWIP Projects

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130566	WWIP	FAC	Muddy Creek WWTP EHRT and Pump Station Upgrade (Construction)	\$37,308,119	\$0	\$37,308,119
10131021	WWIP	CSO	CSO 402-406 Wet Weather Improvements (Construction)	\$18,614,634	\$0	\$18,614,634
10132900	WWIP	CSO	CSO 198 Partial Separation Phase 1 (Planning, Design, Easement)	\$969,757	\$0	\$969,757
10132905	WWIP	CSO	CSO 198 Partial Separation Phase 2 (Planning, Design, Easement)	\$969,757	\$0	\$969,757
10140417	WWIP	ALW	LMCPR Construction Compliance Assurance (Design)	\$2,100,000	\$0	\$2,100,000
10142220	WWIP	SEP	CSO 514 Sewer Separation (Construction)	\$1,345,100	\$0	\$1,345,100
10143920	WWIP	SEP	CSO 194 High Point Sewer Separation (Construction)	\$85,500	\$0	\$85,500
10143940	WWIP	SEP	CSO 195 Westwood Northern Sewer Separation (Construction)	\$502,600	\$0	\$502,600
10144888	WWIP	FAC	Mill Creek WWTP Raw Sewage Pump Station (Design)	\$5,853,659	\$0	\$5,853,659
10172900	WWIP	FAC	LMWWTP Standby Power (Design)	\$630,730	\$0	\$630,730
10172905	WWIP	FAC	LMWWTP Electrical Feeders (Construction)	\$1,000,000	\$0	\$1,000,000
10172915	WWIP	FAC	LMWWTP Solids Handling Improvements (Design)	\$1,550,358	\$0	\$1,550,358
10172940	WWIP	SRC	Mt Washington Source Control Implementation (Construction)	\$8,146,503	\$0	\$8,146,503
10180120	WWIP	ALW	Main Sewer Renewal Program 2020 (Construction)	\$2,000,000	\$0	\$2,000,000
10180220	WWIP	ALW	Manhole Renewal Program 2020 (Construction)	\$1,300,000	\$0	\$1,300,000
10190320	WWIP	ALW	Home Sewer Treatment System Eliminations 2020 (Planning)	\$350,000	\$0	\$350,000
10192020	WWIP	ALW	SBU Urgent Capacity Response Program 2020 (Construction)	\$2,000,000	\$0	\$2,000,000
10199020	WWIP	ALW	Program Management and Support Services 2020 (Design)	\$3,500,000	\$0	\$3,500,000
10230022	WWIP	SEP	CSO 410 Stream Separation (Planning, Design)	\$402,902	\$0	\$402,902
10230140	WWIP	SEP	Addyston Extraneous Stormwater Removal (Planning, Design, Easement)	\$991,761	\$0	\$991,761
10270190	WWIP	SEP	Columbia Square Development Separation (Construction)	\$478,000	\$0	\$478,000
11230840	WWIP	REP	CSO 415 and CSO 416 Source Control (Design)	\$480,683	\$0	\$480,683
11550000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Design)	\$692,039	\$0	\$692,039



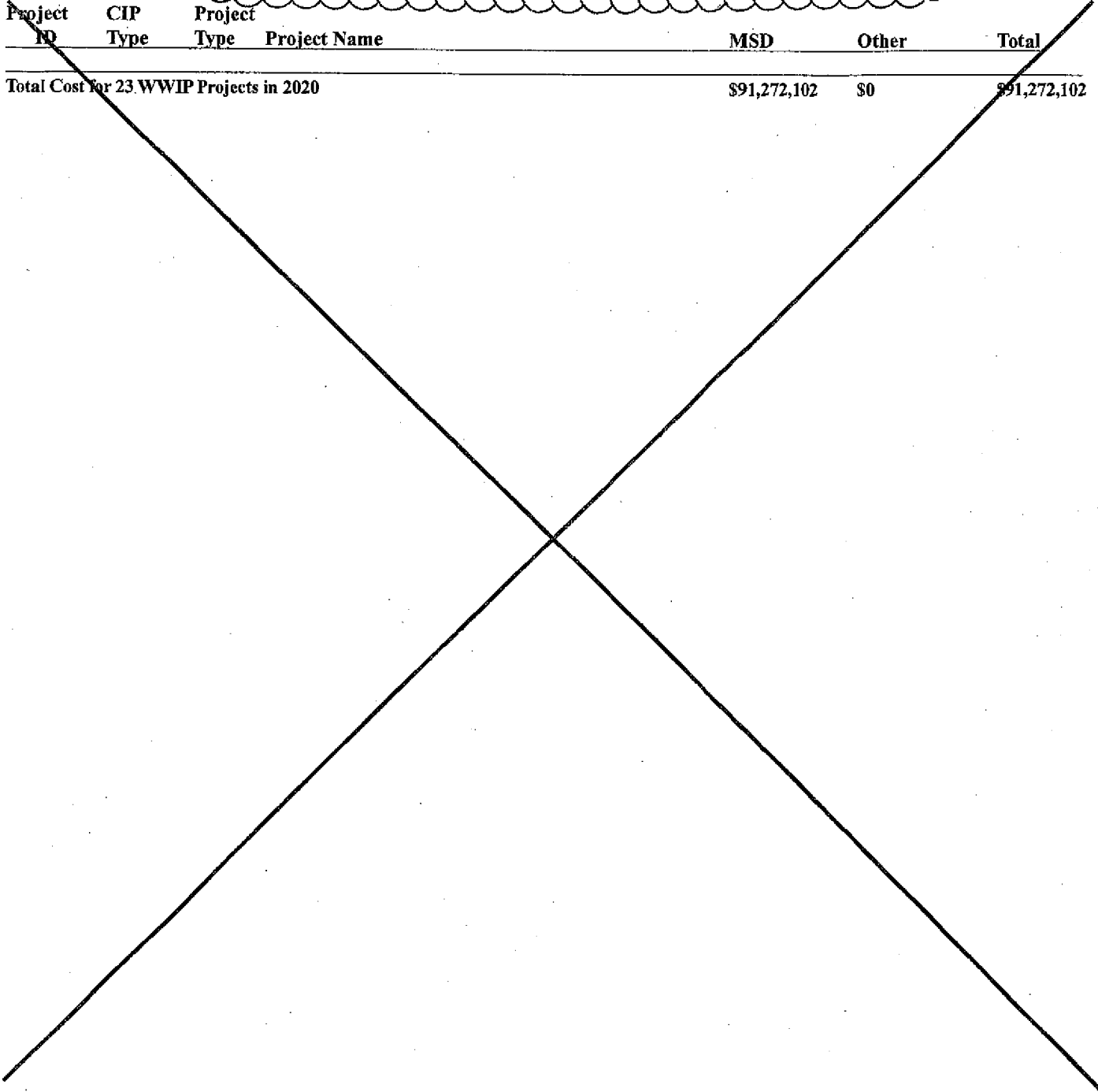
2020 CIP

Metropolitan Sewer District of Greater Cincinnati

WWIP Projects

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
Total Cost for 23 WWIP Projects in 2020				\$91,272,102	\$0	\$91,272,102







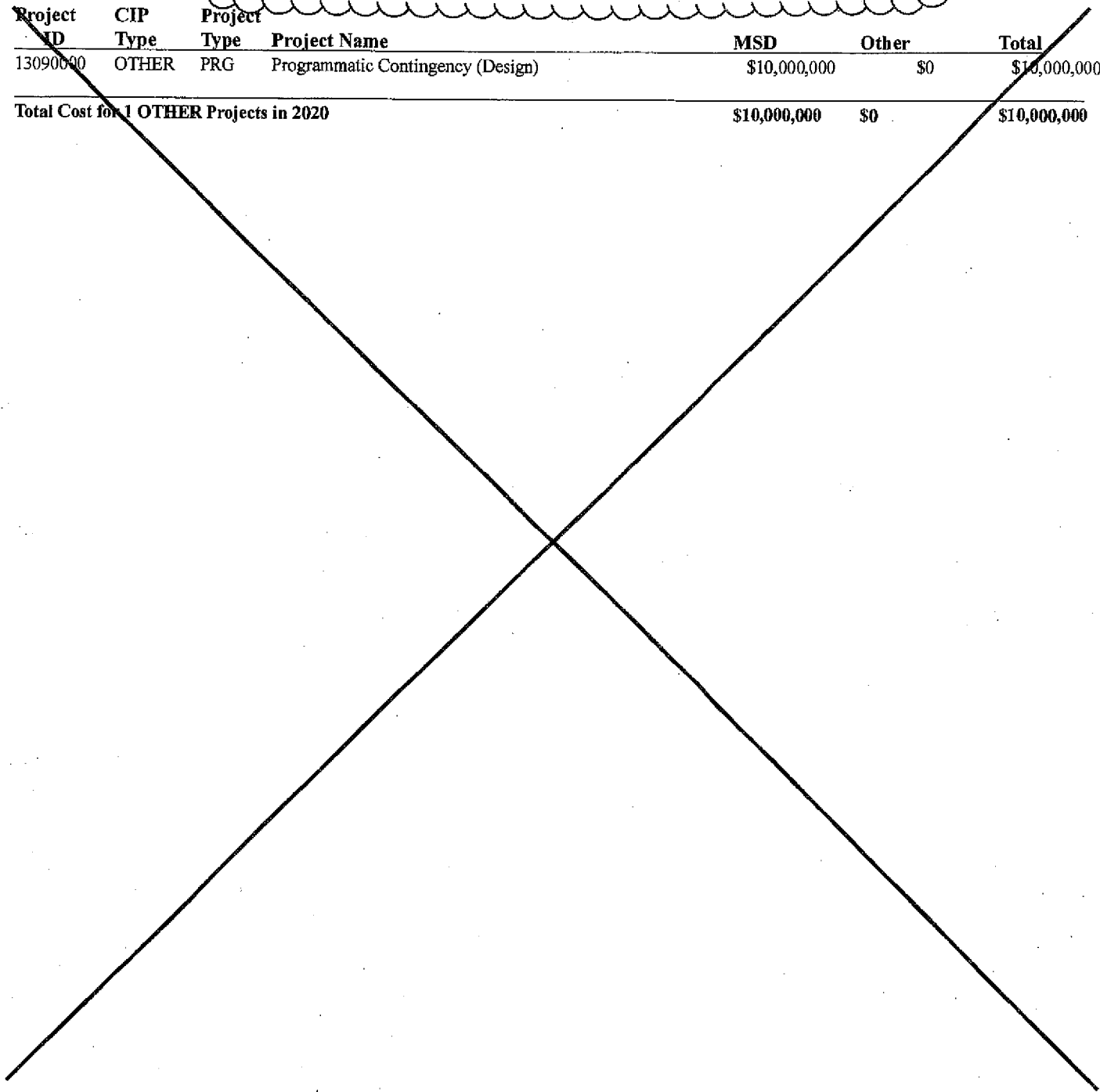
2020 CIP

Metropolitan Sewer District of Greater Cincinnati

OTHER Projects

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$10,000,000	\$0	\$10,000,000
<b>Total Cost for 1 OTHER Projects in 2020</b>				<b>\$10,000,000</b>	<b>\$0</b>	<b>\$10,000,000</b>



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IMAGE 7791



2020 CIP

Metropolitan Sewer District of Greater Cincinnati

ASSET Projects

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10222000	AM	FAC	Taylor Creek WWTP Grit Facility Upgrades (Planning)	\$151,900	\$0	\$151,900
10230090	AM	PSE	Barrington Hills, Barrington Hills BLK. F, Gil Volz, and Kirkridge Acres P.S. Eliminations (Construction)	\$7,396,900	\$0	\$7,396,900
10240320	AM	REP	Wilder Avenue Sewer Replacement (Construction)	\$505,000	\$0	\$505,000
10240426	AM	PSE	Pleasant Run Pump Station Upgrades (Design,Easement)	\$2,741,000	\$0	\$2,741,000
10240525	AM	REP	Victory Parkway Sewer Rehabilitation (Construction)	\$343,300	\$0	\$343,300
10240640	AM	FAC	Mill Creek Solids Handling Improvements & Odor Control (Planning)	\$100,000	\$0	\$100,000
10240697	AM	FAC	Mill Creek 4.16 kV & 13.2 kV Loop Improvements (Construction)	\$1,144,000	\$0	\$1,144,000
10240710	AM	STY	Fitzpatrick Sewer Cleaning and Rehabilitation (Construction)	\$2,732,000	\$0	\$2,732,000
10240870	AM	REP	911 McPherson Avenue Sewer Replacement (Design,Easement)	\$488,000	\$0	\$488,000
10241900	AM	REG	Mill Creek CSO Dynamic Underflow Control Improvements (Planning,Design)	\$881,000	\$0	\$881,000
10280240	AM	ALW	Hydraulic Modeling 2020 (Planning)	\$1,200,000	\$0	\$1,200,000
10280320	AM	ALW	Emergency Sewer Repairs 2020 (Construction)	\$5,000,000	\$0	\$5,000,000
10280505	AM	PSE	Pump Station Telemetry System Upgrades (Construction)	\$5,465,200	\$0	\$5,465,200
10280610	AM	ALW	Building Sewer Renewal Program 2020 (Construction)	\$5,000,000	\$0	\$5,000,000
10280720	AM	ALW	Critical Asset Management Projects 2020 (Construction)	\$6,000,000	\$0	\$6,000,000
10281320	AM	ALW	Prioritized Wastewater Collection System Improvements 2020 (Construction)	\$7,000,000	\$0	\$7,000,000
10282020	AM	ALW	CIP Planning Projects 2020 (Planning)	\$1,000,000	\$0	\$1,000,000
10282220	AM	ALW	Asset Management Conveyance Projects 2020 (Planning,Design,Construction)	\$21,100,000	\$0	\$21,100,000
<b>Total Cost for 18 ASSET Projects in 2020</b>				<b>\$68,248,300</b>	<b>\$0</b>	<b>\$68,248,300</b>
<b>Grand Totals for 42 Projects in 2020</b>				<b>\$169,520,402</b>	<b>\$0</b>	<b>\$169,520,402</b>



2021 CIP

Metropolitan Sewer District of Greater Cincinnati

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IMAGE *7792*

WWIP Projects

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Planning)	\$250,594	\$0	\$250,594
10130566	WWIP	FAC	Muddy Creek WWTP EHRT and Pump Station Upgrade (Construction)	\$37,308,119	\$0	\$37,308,119
10132910	WWIP	CSO	CSO 223, 408, 541, 654 Partial Separation (Planning)	\$550,000	\$0	\$550,000
10140417	WWIP	ALW	LMCPR Construction Compliance Assurance (Design)	\$1,950,000	\$0	\$1,950,000
10170176	WWIP	REP	Stanley Ave Lateral Relocations (Construction)	\$155,400	\$0	\$155,400
10172915	WWIP	FAC	BMWWTP Solids Handling Improvements (Construction)	\$17,231,318	\$0	\$17,231,318
10180121	WWIP	ALW	Main Sewer Renewal Program 2021 (Construction)	\$2,000,000	\$0	\$2,000,000
10180221	WWIP	ALW	Manhole Renewal Program 2021 (Construction)	\$1,300,000	\$0	\$1,300,000
10190321	WWIP	ALW	Home Sewer Treatment Systems Eliminations 2021 (Planning)	\$350,000	\$0	\$350,000
10192021	WWIP	ALW	SBU Urgent Capacity Response Program 2021 (Construction)	\$2,000,000	\$0	\$2,000,000
10199021	WWIP	ALW	Program Management and Support Services 2021 (Design)	\$3,500,000	\$0	\$3,500,000
11042801	WWIP	SRC	North Fairmount Bioswale Project (Construction)	\$381,000	\$0	\$381,000
11242846	WWIP	SEP	CSO 12 Sewer Separation Phase A.4b - Colerain to Spring Grove Avenue (Construction)	\$7,085,100	\$0	\$7,085,100
11530000	WWIP	REP	Upper Muddy Creek Interceptor Replacement (Construction)	\$5,586,726	\$0	\$5,586,726
<b>Total Cost for 14 WWIP Projects in 2021</b>				<b>\$79,648,257</b>	<b>\$0</b>	<b>\$79,648,257</b>



2021 CIP

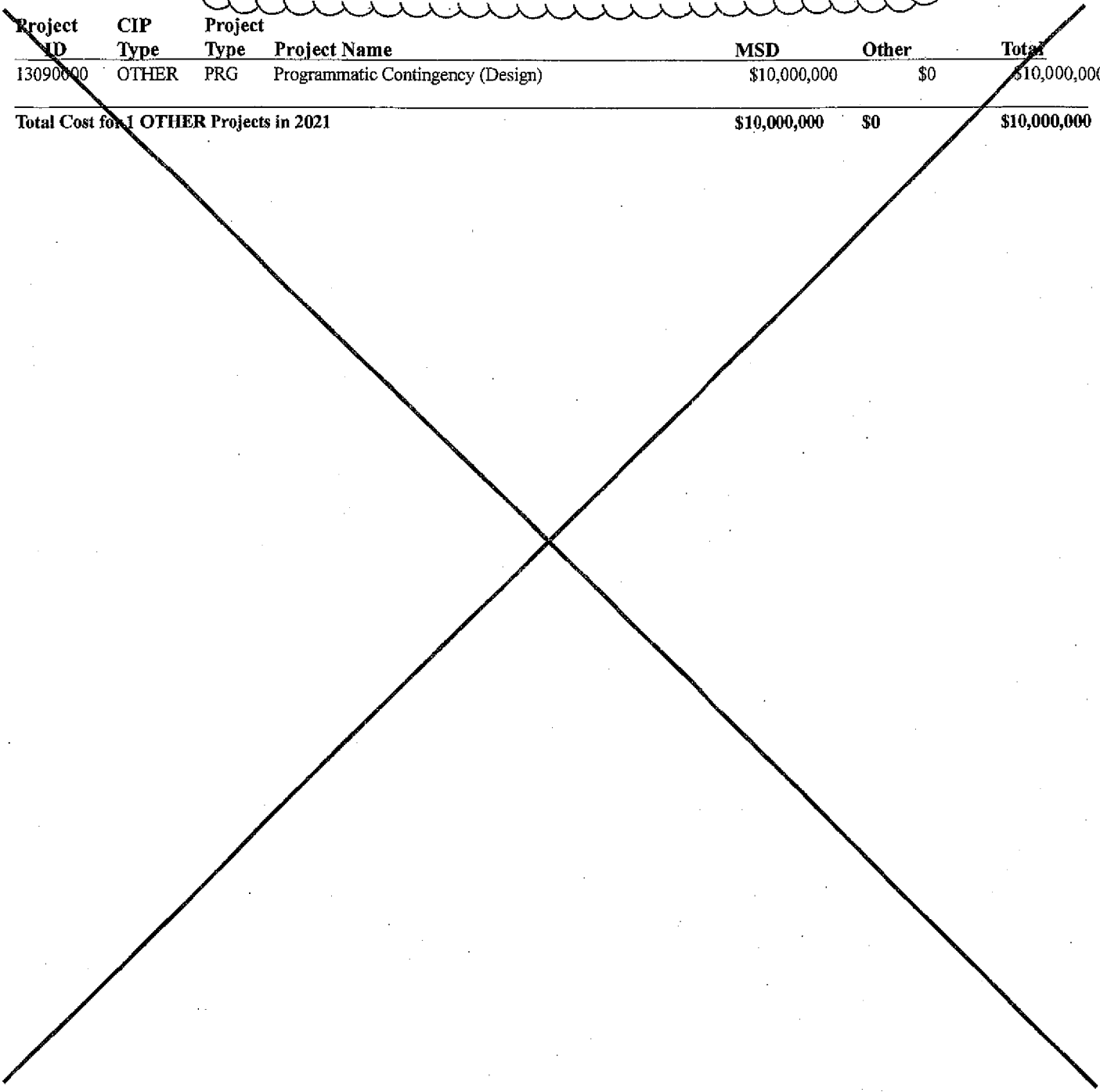
Metropolitan Sewer District of Greater Cincinnati

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VOL. 352  
DEC 19 2018  
IMAGE 7093

**OTHER Projects**

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

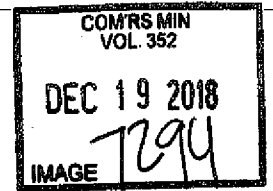
Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$10,000,000	\$0	\$10,000,000
Total Cost for 1 OTHER Projects in 2021				\$10,000,000	\$0	\$10,000,000





2021 CIP

Metropolitan Sewer District of Greater Cincinnati



ASSET Projects

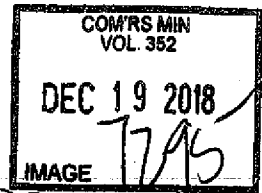
Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10222000	AM	FAC	Taylor Creek WWTP Grit Facility Upgrades (Design)	\$279,900	\$0	\$279,900
10230054	AM	FAC	Muddy Creek WWTP Disinfection Upgrades (Planning,Design)	\$791,600	\$0	\$791,600
10230125	AM	PSE	East Branch Muddy Creek Pump Station Upgrades (Construction)	\$2,308,100	\$0	\$2,308,100
10240271	AM	CRO	Lower Mill Creek HW DW Protection (Construction)	\$1,392,000	\$0	\$1,392,000
10240625	AM	FAC	MCWWTP Standby Power Distribution System Improvements (Construction)	\$3,862,000	\$0	\$3,862,000
10240640	AM	FAC	Mill Creek Solids Handling Improvements & Odor Control (Design)	\$5,566,700	\$0	\$5,566,700
10241900	AM	REG	Mill Creek CSO Dynamic Underflow Control Improvements (Construction)	\$6,772,200	\$0	\$6,772,200
10252005	AM	FAC	Polk Run WWTP Grit Facility Upgrades (Planning)	\$160,600	\$0	\$160,600
10270026	AM	PSE	Camargo Canyon Pump Station Elimination (Construction)	\$1,300,954	\$0	\$1,300,954
10270165	AM	REP	Delta and Greist Sewer Replacement (Construction)	\$1,241,700	\$0	\$1,241,700
10272020	AM	FAC	Little Miami WWTP NPW System Upgrade (Planning,Design)	\$1,069,000	\$0	\$1,069,000
10272035	AM	FAC	Little Miami Solids Disposal System with Odor Control (Construction)	\$35,350,900	\$0	\$35,350,900
10280241	AM	ALW	Hydraulic Modeling 2021 (Planning)	\$1,200,000	\$0	\$1,200,000
10280321	AM	ALW	Emergency Sewer Repair 2021 (Construction)	\$5,000,000	\$0	\$5,000,000
10280721	AM	ALW	Critical Asset Management Projects 2021 (Construction)	\$6,000,000	\$0	\$6,000,000
10281321	AM	ALW	Prioritized Wastewater Collection System Improvements 2021 (Construction)	\$7,000,000	\$0	\$7,000,000
10282021	AM	ALW	CIP Planning Projects 2021 (Planning)	\$1,000,000	\$0	\$1,000,000
10282221	AM	ALW	Asset Management Conveyance Projects 2021 (Planning)	\$1,100,000	\$0	\$1,100,000
<b>Total Cost for 18 ASSET Projects in 2021</b>				<b>\$81,395,654</b>	<b>\$0</b>	<b>\$81,395,654</b>
<b>Grand Totals for 33 Projects in 2021</b>				<b>\$171,043,911</b>	<b>\$0</b>	<b>\$171,043,911</b>



2022 CIP

Metropolitan Sewer District of Greater Cincinnati



WWIP Projects

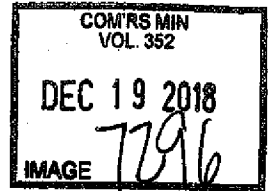
Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130164	WWIP	PSE	Muddy Creek PSU & Force Main (Design)	\$867,534	\$0	\$867,534
10132900	WWIP	CSO	CSO 198 Partial Separation Phase 1 (Construction)	\$3,394,530	\$0	\$3,394,530
10132905	WWIP	CSO	CSO 198 Partial Separation Phase 2 (Construction)	\$3,394,530	\$0	\$3,394,530
10132910	WWIP	CSO	CSO 223, 408, 541, 654 Partial Separation (Design)	\$800,000	\$0	\$800,000
10140417	WWIP	ALW	LMCPR Construction Compliance Assurance (Design)	\$850,000	\$0	\$850,000
10142910	WWIP	SRC	Ludlow Run Sustainable Source Control - Phase 3 (Planning)	\$412,778	\$0	\$412,778
10144888	WWIP	FAC	Mill Creek WWTP Raw Sewage Pump Station (Construction)	\$74,146,341	\$0	\$74,146,341
10172900	WWIP	FAC	LMWWTP Standby Power (Construction)	\$5,341,666	\$0	\$5,341,666
10172930	WWIP	FAC	LMWWTP Four Mile Pump Station Improvements (Design)	\$1,675,040	\$0	\$1,675,040
10180122	WWIP	ALW	Main Sewer Renewal Program 2022 (Construction)	\$2,000,000	\$0	\$2,000,000
10180222	WWIP	ALW	Manhole Renewal Program 2022 (Construction)	\$1,300,000	\$0	\$1,300,000
10190322	WWIP	ALW	Home Sewer Treatment Systems Eliminations 2022 (Planning)	\$350,000	\$0	\$350,000
10192022	WWIP	ALW	SBU Urgent Capacity Response Program 2022 (Construction)	\$2,000,000	\$0	\$2,000,000
10199022	WWIP	ALW	Program Management and Support Services 2022 (Design)	\$3,500,000	\$0	\$3,500,000
10230022	WWIP	SEP	CSO 410 Stream Separation (Construction)	\$1,628,350	\$0	\$1,628,350
10230140	WWIP	SEP	Addyston Extraneous Stormwater Removal (Construction)	\$5,476,164	\$0	\$5,476,164
<b>Total Cost for 16 WWIP Projects in 2022</b>				<b>\$107,136,933</b>	<b>\$0</b>	<b>\$107,136,933</b>



2022 CIP

Metropolitan Sewer District of Greater Cincinnati



**OTHER Projects**

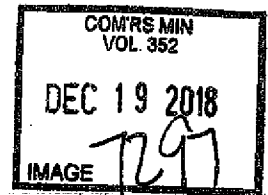
Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$10,000,000	\$0	\$10,000,000
Total Cost for OTHER Projects in 2022				\$10,000,000	\$0	\$10,000,000



2022 CIP

Metropolitan Sewer District of Greater Cincinnati



ASSET Projects

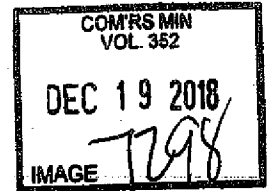
Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10221255	AM	PSE	TCWWTP (Wesselman) PS Improvements (Planning,Design)	\$603,200	\$0	\$603,200
10230665	AM	FAC	Lower Muddy Creek Storage Basin (Construction)	\$12,300,000	\$0	\$12,300,000
10240426	AM	PSE	Pleasant Run Pump Station Upgrades (Construction)	\$18,421,000	\$0	\$18,421,000
10242020	AM	FAC	Mill Creek WWTP Disinfection Improvement (Planning,Design)	\$2,071,600	\$0	\$2,071,600
10252000	AM	FAC	Polk Run WWTP Clarifier Upgrades (Planning)	\$341,000	\$0	\$341,000
10252005	AM	FAC	Polk Run WWTP Grit Facility Upgrades (Design)	\$286,600	\$0	\$286,600
10262000	AM	FAC	Sycamore Creek Sludge Improvements (Planning)	\$570,823	\$0	\$570,823
10272025	AM	REP	Wasson Ravine Sewer Replacement (Construction)	\$2,115,000	\$0	\$2,115,000
10280242	AM	ALW	Hydraulic Modeling 2022 (Planning)	\$1,200,000	\$0	\$1,200,000
10280322	AM	ALW	Emergency Sewer Repair 2022 (Construction)	\$5,000,000	\$0	\$5,000,000
10280612	AM	ALW	Building Sewer Renewal Program 2022 (Construction)	\$5,000,000	\$0	\$5,000,000
10280722	AM	ALW	Critical Asset Management Projects 2022 (Construction)	\$6,000,000	\$0	\$6,000,000
10281322	AM	ALW	Prioritized Wastewater Collection System Improvements 2022 (Construction)	\$7,000,000	\$0	\$7,000,000
10282022	AM	ALW	CIP Planning Projects 2022 (Planning)	\$1,000,000	\$0	\$1,000,000
10282222	AM	ALW	Asset Management Conveyance Projects 2022 (Planning,Design,Construction)	\$21,100,000	\$0	\$21,100,000
<b>Total Cost for 15 ASSET Projects in 2022</b>				<b>\$83,009,223</b>	<b>\$0</b>	<b>\$83,009,223</b>
<b>Grand Totals for 32 Projects in 2022</b>				<b>\$200,146,156</b>	<b>\$0</b>	<b>\$200,146,156</b>





2023 CIP



Metropolitan Sewer District of Greater Cincinnati

WWIP Projects

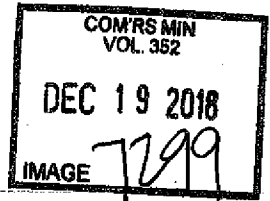
Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10130161	WWIP	PSE	Muddy Creek PSU & Force Main (Construction)	\$5,413,040	\$0	\$5,413,040
10131006	WWIP	SEW	East Branch Muddy Creek Interceptor (includes 10131000,2,3,4) (Design,Easement)	\$8,063,118	\$0	\$8,063,118
10132915	WWIP	CSO	CSO 411, 412, 413, 414 Separation (Planning)	\$660,827	\$0	\$660,827
10140000	WWIP	SSO	SSO 1048 Conveyance Sewer Ph 1 (Design)	\$450,870	\$0	\$450,870
10140020	WWIP	SSO	SSO 1048 Conveyance Sewer Phase 2 (Design)	\$375,348	\$0	\$375,348
10140080	WWIP	SSO	SSO 587 Conveyance Sewer (Design)	\$275,637	\$0	\$275,637
10142380	WWIP	REG	CSO 539 Improvements (Design,Easement)	\$700,000	\$0	\$700,000
10142910	WWIP	SRC	Ludlow Run Sustainable Source Control - Phase 3 (Design,Easement)	\$2,326,532	\$0	\$2,326,532
10171761	WWIP	SEP	CSO 552 Stormwater Removal (Planning,Design,Easement)	\$637,054	\$0	\$637,054
10172930	WWIP	FAC	LMWWTP Four Mile Pump Station Improvements (Construction)	\$19,004,411	\$0	\$19,004,411
10172935	WWIP	FAC	LMWWTP Little Miami Pump Station Improvements (Design)	\$1,365,990	\$0	\$1,365,990
10180123	WWIP	ALW	Main Sewer Renewal Program 2023 (Construction)	\$2,000,000	\$0	\$2,000,000
10180223	WWIP	ALW	Manhole Renewal Program 2023 (Construction)	\$1,300,000	\$0	\$1,300,000
10190323	WWIP	ALW	Home Sewer Treatment Systems Eliminations 2023 (Planning)	\$350,000	\$0	\$350,000
10192023	WWIP	ALW	SBU Urgent Capacity Response Program 2023 (Construction)	\$2,000,000	\$0	\$2,000,000
10199023	WWIP	ALW	Program Management and Support Services 2023 (Design)	\$3,500,000	\$0	\$3,500,000
11230840	WWIP	REP	CSO 415 and CSO 416 Source Control (Construction)	\$3,703,310	\$0	\$3,703,310
11540010	WWIP	REP	Mt Airy Receiving Sewer Upgrade (Design,Easement)	\$720,850	\$0	\$720,850
<b>Total Cost for 18 WWIP Projects in 2023</b>				<b>\$52,846,987</b>	<b>\$0</b>	<b>\$52,846,987</b>



2023 CIP

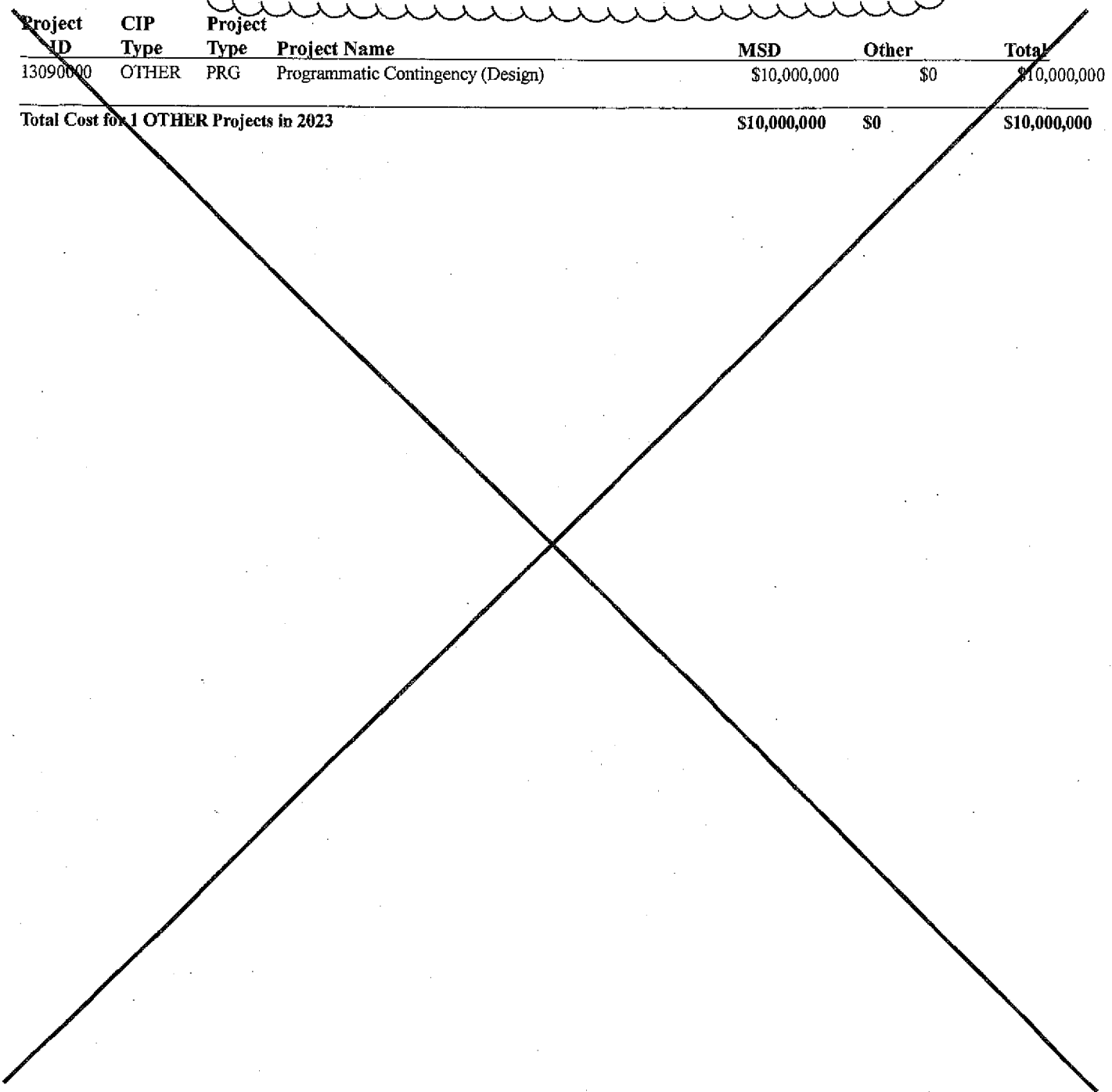
Metropolitan Sewer District of Greater Cincinnati



**OTHER Projects**

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

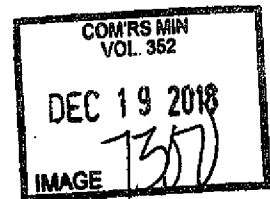
Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
13090000	OTHER	PRG	Programmatic Contingency (Design)	\$10,000,000	\$0	\$10,000,000
Total Cost for 1 OTHER Projects in 2023				\$10,000,000	\$0	\$10,000,000





2023 CIP

Metropolitan Sewer District of Greater Cincinnati



ASSET Projects

Replace pages 76 through 88 with pages 7 through 18 of Attachment 1

Project ID	CIP Type	Project Type	Project Name	MSD	Other	Total
10222000	AM	FAC	Taylor Creek WWTP Grit Facility Upgrades (Construction)	\$1,220,400	\$0	\$1,220,400
10230054	AM	FAC	Muddy Creek WWTP Disinfection Upgrades (Construction)	\$2,628,400	\$0	\$2,628,400
10240610	AM	FAC	MCWWTP Primary Sludge Pumping Improvements (Design)	\$1,494,300	\$0	\$1,494,300
10240615	AM	FAC	Mill Creek WWTP Primary Settling and Primary Skimmings Thickening Building Odor Control (Design)	\$433,100	\$0	\$433,100
10240640	AM	FAC	Mill Creek Solids Handling Improvements & Odor Control (Construction)	\$37,070,000	\$0	\$37,070,000
10250040	AM	FAC	Polk Run WWTP Effluent Pumping Improvements (Planning)	\$219,216	\$0	\$219,216
10250042	AM	FAC	Polk Run WWTP Admin Bldg Improvements (Planning)	\$43,000	\$0	\$43,000
10252000	AM	FAC	Polk Run WWTP Clarifier Upgrades (Design)	\$736,000	\$0	\$736,000
10252010	AM	FAC	Polk Run Odor Control and Sludge Improvements (Planning)	\$530,000	\$0	\$530,000
10262000	AM	FAC	Sycamore Creek Sludge Improvements (Design)	\$1,881,402	\$0	\$1,881,402
10270007	AM	SEW	Dry Run Area Sewers Phase 2 Contract RB (Design, Construction)	\$7,187,500	\$0	\$7,187,500
10280243	AM	ALW	Hydraulic Modeling 2023 (Planning)	\$1,200,000	\$0	\$1,200,000
10280323	AM	ALW	Emergency Sewer Repair 2023 (Construction)	\$5,000,000	\$0	\$5,000,000
10280502	AM	REG	District-Wide Regulator Control Enhancements (Design)	\$500,000	\$0	\$500,000
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)	\$7,000,000	\$0	\$7,000,000
10282023	AM	ALW	CIP Planning Projects 2023 (Planning)	\$1,000,000	\$0	\$1,000,000
10282223	AM	ALW	Asset Management Conveyance Projects 2023 (Planning)	\$1,100,000	\$0	\$1,100,000
<b>Total Cost for 18 ASSET Projects in 2023</b>				<b>\$75,243,318</b>	<b>\$0</b>	<b>\$75,243,318</b>
<b>Grand Totals for 37 Projects in 2023</b>				<b>\$138,090,305</b>	<b>\$0</b>	<b>\$138,090,305</b>