



REGION 5

CHICAGO, IL 60604

Board of County Commissioners of Hamilton County
County Administration Building
138 East Court Street, Suite 603
Cincinnati, Ohio 45202

Christine Zimmer
General Counsel
City of Cincinnati
1600 Gest Street
Cincinnati, Ohio 45204

Diana Christy, Director
Metropolitan Sewer District of Greater Cincinnati
1600 Gest Street
Cincinnati, Ohio 45204

Re: Regulators' Approval of the Defendants' June 28, 2024, Proposed Phase 2B
Schedule and Adaptive Plan Alterations

Dear Commissioners, Ms. Zimmer and Ms. Christy:

This letter is being sent on behalf of the U.S. Environmental Protection Agency, Ohio Environmental Protection Agency and Ohio River Valley Water Sanitation Commission (ORSANCO) (collectively, the Regulators). As described below, the Regulators approve the proposed Phase 2B Plan Schedule and adaptive plan alterations that were included in the document entitled "Metropolitan Sewer District of Greater Cincinnati ('MSD') Wet Weather Improvement Program ('WWIP') Phase 2B Plan and Schedule of Work" submitted to the Regulators on June 28, 2024 (Submittal), on behalf of the Board of County Commissioners of Hamilton County and the City of Cincinnati (Defendants). Defendants submitted the proposed Phase 2B Schedule in accordance with Paragraph B.1.b of the WWIP (as amended)¹ and the proposed adaptive plan alterations in accordance with Paragraph C.2 of the WWIP.

¹ See Order Granting United States' Motion for Entry of Amendment to the Consent Decree on Combined Sewer Overflows, Wastewater Treatment Plants and Implementation of Capacity Assurance Program Plan for Sanitary Sewer Overflows, Doc. 1468, PAGEID # 3245, and 1468-1, PAGEID # 32480 (revising the date for submitting

Specifically, in accordance with Paragraphs B.1.b, C.2 and C.4.a of the WWIP and Section XXIX.A of the Consent Decree on Combined Sewer Overflows, Wastewater Treatment Plants and Implementation of Capacity Assurance Program Plan for Sanitary Sewer Overflows (CSO Decree), the Regulators approve the following:

- (a) The schedule and list of projects specified in Table 1 on page 14 and Figure 3 on page 15 of the Submittal, except that each of the dates set forth in Table 1 on page 14 and Figure 3 on page 15 is extended by one year in accordance with Paragraph XXX.B of the CSO Decree to reflect the fact that the Regulators' approval occurred more than one year after Defendants provided the Submittal. The schedule and list of projects are attached to this letter as Enclosure 1.
- (b) The June 30, 2034, date for submission of a proposed Phase 2C schedule to the Regulators that is set forth on page 1 of the Submittal, except that the June 30, 2034, date is extended by one year to June 30, 2035, in accordance with Paragraph XXX.B of the CSO Decree to reflect the fact that the Regulators' approval occurred more than one year after Defendants provided the Submittal. Page 1 of the Submittal where the June 30, 2034, date is set forth is attached to this letter as Enclosure 2.
- (c) The revisions to Attachment 2 of the WWIP set forth in the document that Defendants called "Attachment 3" at PDF pages 51-57 of the Submittal, and the Project Fact Sheets at PDF pages 22-28 of the Submittal that are referenced in the revisions to Attachment 2 of the WWIP. Those revisions include Defendants' project cost estimates. The Regulators' approval of the items listed in this subparagraph should not be construed as the Regulators' agreement with the accuracy of the cost estimates set forth in the revisions. The revised Attachment 2 and Project Fact Sheets are attached to this letter as Enclosure 3.

Defendants also requested in the Submittal modifications to the WWIP to substantially revise the body of the WWIP and add new attachments. The Regulators are taking no action on Defendants' modification request in the context of approving Defendants' proposed Phase 2B Schedule and adaptive plan alterations. The Regulators will respond separately to Defendants' modification request later.

Sierra Club provided comments to the Regulators on Defendants' proposals during meetings held over Zoom and Microsoft Teams on October 9, 2024, and January 23, 2025, and email messages dated December 11, 2024, January 23, 2025, and January 27, 2025. Sierra Club did not raise significant concerns regarding three of the four primary components of Defendants' proposed Phase 2B Schedule (the Little Miami Wastewater Treatment Plant (WWTP) High-Rate Treatment Bundle, the Mill Creek WWTP Dewatering Building Improvements, and the East Branch Ohio River Interceptor Project), other than noting that the Submittal failed to mention that the Ohio Department of Transportation has agreed to reimburse Defendants for the costs of the East Branch Ohio River Interceptor Project.

Defendants' Phase 2 Schedule submittal from October 31, 2017 to June 30, 2018); and Regulators' Approval of the Defendants' August 2023 Proposed Phase 2A Schedule, Doc. 2082-6, PAGEID # 55417 (approving the Phase 2B submittal date of June 30, 2024).

Sierra Club did express concerns about the fourth primary component of the schedule: the Mill Creek WWTP High-Rate Treatment Pump Station. According to Defendants' Project Fact Sheet, the current 430 million gallon per day pump station "is now functionally obsolete" and so must be replaced. Defendants intend to construct a larger, 700 million gallon per day pump station near the Mill Creek WWTP. The larger pump station will have sufficient capacity to serve current needs plus the needs of a future high-rate treatment facility that Defendants are considering constructing at the Mill Creek WWTP as another adaptive plan alteration during the next phase of WWIP implementation. Sierra Club believes that Defendants should be investigating and implementing targeted sewer separation and green infrastructure projects instead of spending money building a larger pump station to be used to pump flows to a high-rate treatment facility at the Mill Creek WWTP. The Regulators do not agree with Sierra Club.

The Mill Creek high-rate treatment facility that Defendants are considering would reduce untreated overflow volumes by approximately 500 million gallons per typical year. While it may be possible for Defendants to undertake sewer separation and green infrastructure projects, no viable opportunities to do so on a large scale basis have been identified, and so it would take a large number of small scale, targeted sewer separation and green infrastructure projects to achieve the same 500 million gallon per year reduction in untreated overflows that the Mill Creek high-rate treatment facility is expected to achieve. Practical considerations of undertaking such a plan, time, cost, and disruption to the community make it less preferable than Defendants' proposed construction of the Mill Creek high-rate treatment facility. For example, identifying, designing, and implementing so many projects would likely take longer and cost the same or more than designing and constructing the Mill Creek high-rate treatment facility. In addition, the large number of projects in multiple locations would likely be more disruptive to the community than the single Mill Creek facility located near the Mill Creek WWTP and, if sited on private property, would raise issues regarding who will carry out necessary long term maintenance. Finally, Defendants have already performed a great deal of planning and engineering regarding a high-rate treatment facility at the Mill Creek and the Regulators have a high degree of confidence that such a facility would successfully reduce large volumes of untreated sewage. In contrast, it is not clear whether it will be both technically and financially feasible for targeted sewer separation and green infrastructure to do so. Consequently, the Regulators do not agree that Defendants should only build a pump station capable of addressing Defendants' current needs rather than building the larger Mill Creek WWTP High-Rate Treatment Pump Station that will be necessary when Defendants construct the Mill Creek high-rate treatment facility.²

In accordance with the CSO Decree, as amended, and Paragraphs B.1.b, C.2 and C.4.a of the WWIP, and as described above, Attachment 2 of the WWIP is revised to incorporate the changes proposed by Defendants (*see* Enclosure 3 to this letter); Defendants are required to implement the approved Phase 2.B schedule in accordance with its terms (with all dates in that approved

² If the replacement Mill Creek pump station is only built to meet current needs and is not constructed with the larger capacity necessary to accommodate the Mill Creek high-rate treatment facility, and it eventually becomes evident after detailed investigation that it will not be technically or financially feasible to reduce hundreds of millions of gallons of untreated sewage through targeted sewer separation and green infrastructure, the total cost of building the smaller pump station then later expanding that pump station as necessary to accommodate the Mill Creek high-rate treatment facility will be substantially higher than simply replacing the current pump station with one sized to accommodate both current and future needs now.

schedule extended by one year) (*see* Enclosure 1 to this letter); and Defendants are required to submit a Phase 2C schedule by June 30, 2035 (*see* Enclosure 2 to this letter), for the Regulators' review. In accordance with Paragraphs XXX.A and C of the CSO Consent Decree, this approval does not relieve Defendants of their obligations to comply with all provisions of State law, including the obligations to obtain necessary permits to install and their obligations to comply with their National Pollutant Discharge Elimination System permits. If you have any questions, please contact either Megan Bobb of my staff at 312-353-6057 or Gary Prichard from our Office of Regional Counsel at (312) 886-0570.

Sincerely,

Nefertiti DiCosmo
Branch Manager
Water Enforcement & Compliance Assurance Branch
Region 5 Enforcement and Compliance Assurance Division

cc (via email):

David Edelstein, Counsel for Board of County Commissioners
Lou McMahon, Counsel for City of Cincinnati
Marilyn Wall, Sierra Club
David Altman, Counsel for Sierra Club
Leslie Allen, U.S. Department of Justice
Steven Ellis, U.S. Department of Justice
U.S. EPA, Ohio EPA and ORSANCO Regulator team

Enclosure 1

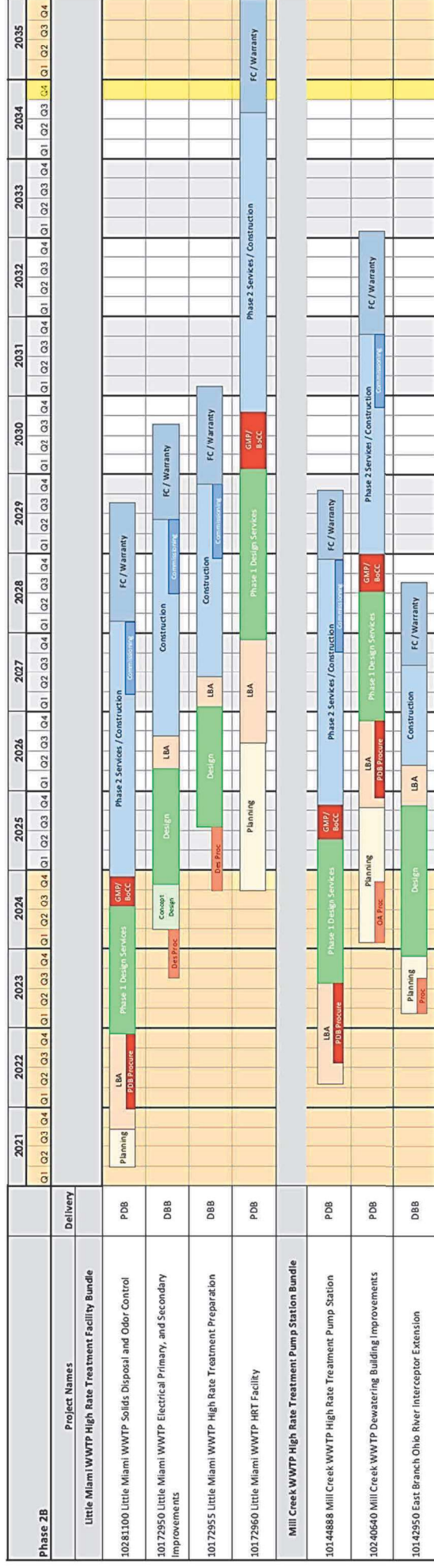
Pages 14-15 of Defendants' June 28, 2024,
Submittal
Table 1 and Figure 3

Table 1: Phase 2B Major Project Bundles

WWIP Index	Project Bundle	Milestone Date	Milestone	Bundle Cost (Million - 2023\$)¹	Bundle Cost (Million - 2006\$)¹	Estimated Overflow Volume Reduction (MG/Typ. Yr.)
195 – 206 (adaptive)	Little Miami WWTP HRT Bundle LMWWTP Electrical, Primary, and Secondary Improvements + LMWWTP High Rate Treatment Preparation + LMWWTP Solids Disposal and Odor Control + LMWWTP HRT Facility	12/31/34	Construction Substantial Completion	\$541.4	\$321.3	1,316
248 (adaptive), 395A (adaptive for 394, 395, 396, 417, and 452)	Mill Creek WWTP HRT Pump Station Bundle MCWWTP Pump Station + MCWWTP Dewatering Building Improvements + East Branch Ohio River Interceptor Extension	12/31/34	Construction Substantial Completion	\$495.2	\$293.9	142.4

¹ 2025 – 2034 Estimated Cashflow

Figure 3: Phase 2B Plan Schedule of Major Projects



- Notes:
1. Pre-Phase 2B and Post Phase 2B
 2. End of Phase 2B
 3. PDB = Progressive Design Build; DBB = Design Bid Build

Enclosure 2

Page 1 of Defendants' June 28, 2024, Submittal
Date for Submission of Proposed Phase 2C
Schedule

I. Introduction

This document is the Hamilton County Board of Commissioners' (County) submission of a Phase 2B Plan for the Wet Weather Improvement Program (WWIP) implemented under the Global Consent Decree (Consent Decree) approved in Case No. 1:02-CV-107 in the U.S. District Court of the Southern District of Ohio, Western Division. The County is the owner and principal of the County Sewer District known as the Metropolitan Sewer District of Greater Cincinnati (MSD), which is operated by the City of Cincinnati (City or Cincinnati) as agent for the County (hereafter, the County, City and MSD are collectively referred to as the Defendants). MSD serves over 830,000 people with critical wastewater services. MSD operates seven treatment plants and over 3000 miles of collections system pipes. The system includes assets that are many decades old, some older than a century, that require sustained reinvestment in addition to the mandated improvements of the Consent Decree.

The WWIP identifies Consent Decree projects and terms of program and project implementation. The Consent Decree requires projects in the WWIP to be implemented as expeditiously as practicable and guided by community affordability and other considerations. The WWIP is being implemented in multiple phases. Phase 1 of the WWIP ended December 31, 2018. A "Bridge" phase of additional projects was then implemented after Phase 1 and prior to the start of Phase 2A. The County submitted a Phase 2A Plan which the Ohio EPA, US EPA, and ORSANCO (Regulators) approved on August 29, 2023. Phase 2A is scheduled to be substantially completed by December 31, 2024. As part of the Phase 2A agreement, the County agreed to submit a Phase 2B Plan by June 30, 2024, which would consist of a subset of the remaining WWIP projects.

The County's Phase 2B Plan begins on January 1, 2025 and lasts ten years until December 31, 2034. It consists of major projects that will remove an estimated 1.46 billion gallons of untreated overflows. The current estimated capital cost of Phase 2B is \$1.82B (2023\$)¹ (\$1.08B 2006\$).² There is also an additional \$82M (2023\$) budgeted for the Sewer Backup Program (SBU), a WWIP requirement, that is funded by MSD's operating budget. These costs and this schedule are comparable to Phase 1, and both reflect community affordability, MSD capacity, and constructability concerns. This Phase 2B Plan also sets the stage to assure continuity of work in Phase 2C. The County will submit a Phase 2C Plan by June 30, 2034.

In addition to the schedule of work, this Phase 2B Plan includes necessary revisions to the WWIP that provide the Defendants with the ability to continue WWIP implementation and Consent

¹ The \$1.82 billion (2025-2034) is part of the \$1.97 billion (2024-2034) cash-flow total, which includes \$160.9 million for 2024, used in the financial capability assessment. Refer to Enclosure 2 for the full financial capability assessment.

² The WWIP refers to all costs in 2006\$. This requires current day and future cost be converted back to 2006\$ using a deflationary factor. For consistency and to better understand the impact of the Phase 2B Plan, all costs herein are presented in both 2023 and 2006 dollars. Capital costs projected for the Phase 2B Plan are expressed in nominal dollars (incorporating inflation).

Enclosure 3

Pages 51-57 and PDF Pages 22-28 of Defendants'
June 28, 2024, Submittal
Revised Attachment 2 to the WWIP and Project
Fact Sheets

WWIP ATTACHMENT 3

INDEX	PID	PROJECT NAME	SUNK COST 2006 Dollars	SUNK COST 2023 Dollars	REMAINING COST (NOTE 18) 2006 Dollars	REMAINING COST 2023 Dollars Conversion Factor 1.683075	SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	TECH	CAPP	ROV/PLAN REMAINING (MG/year) (NOTE 5)
185	10171540	CSO 135 Elimination			\$ 243,716	\$ 410,680	CSO 135	Regulator Improvements - 2.4 cfs (Note 13)	RI		0.0
186	10171560	CSO 43 Elimination			\$ 244,159	\$ 411,426	CSO 43	Regulator Improvements - 2.8 cfs (Note 13)	RI		0.7
187	10171600	CSO 170 Elimination			\$ 242,681	\$ 408,936	CSO 170	EHRT - Regulator Improvement - 3.1 cfs	RI		in 71800
188	10171640	CSO 214 Partial Separation			\$ 14,074,375	\$ 23,716,377	CSO 214	Partial Separation (Note 13)	PS		57.4
189	10171660	CSO 500 Improvements			\$ 243,069	\$ 405,589	CSO 500	Regulator Improvement - 1.5 cfs. See E-500	RI		in 71800
190	10171680	CSO 501 Improvements			\$ 243,373	\$ 410,102	CSO 501	Regulator Improvement - 0.1cfs. See E-500	RI		0.0
191	10171700	CSO 549 Improvements			\$ 243,613	\$ 410,506	CSO 549	Regulator Improvement - 5.0 cfs. See E-500	RI		in 71800
192	10171720	CSO 550 Improvements			\$ 243,820	\$ 410,855	CSO 550	Regulator Improvement - 0.4 cfs. See E-500.	RI		in 71800
193	10171760	CSO 552 Improvements			\$ 242,109	\$ 407,972	CSO 552	Regulator Improvement - 19.4 cfs	RI		18.6
194	10171800	Upper Duck Creek EHRT Facility			\$ 14,541,318	\$ 24,503,211	E-510 - EHRT - 40 MGD - Serves CSOs 170, 549, 501 & 500 (NOTE 2)	E-510 - EHRT - 40 MGD - Serves CSOs 170, 549, 501 & 500 (NOTE 2)	EHRT	NOTE-1	106.0
195-206	103.2082	(H) LMR Four Mile Pump Station Upgrade			\$ 3,437,502	\$ 6,095,762	E-502 - Four Mile Pump Station Rec Proj - RS-1 (Note 13)	E-502 - Four Mile Pump Station Rec Proj - RS-1 (Note 13)	WWTP	NOTE-1	
196	103.2084	(H) LMMWWTP Pump Station Reconfiguration			\$ 3,172,158	\$ 5,345,324	E-503 - Modify LMR Pump Station Rec Proj - RS-5	E-503 - Modify LMR Pump Station Rec Proj - RS-5	WWTP	NOTE-1	
197	103.2084	(H) LMMWWTP Grit Station Upgrade			\$ 8,174,858	\$ 13,775,249	E-503 - Grit Collection Proj - SG-1 (Note 13)	E-503 - Grit Collection Proj - SG-1 (Note 13)	WWTP	NOTE-1	
198	103.2085	(H) LMMWWTP Pump Station Hydraulic Improvements			\$ 1,799,992	\$ 3,033,122	E-503 - Four Mile Pump Station to Screen Building Rec Proj - H-1	E-503 - Four Mile Pump Station to Screen Building Rec Proj - H-1	WWTP	NOTE-1	
199	103.2086	(H) LMMWWTP Primary to Secondary Hydraulic Improvements			\$ 1,238,132	\$ 2,238,002	E-503 - Primary to Secondary Conveyance Rec Proj - H-2	E-503 - Primary to Secondary Conveyance Rec Proj - H-2	WWTP	NOTE-1	
200	103.2082	(H) LMMWWTP Chemically Enhanced Primary			\$ 5,660,701	\$ 9,875,721	E-503 - Chemical Enhance Primary Rec Proj - RT-2	E-503 - Chemical Enhance Primary Rec Proj - RT-2	WWTP	NOTE-1	
201	103.2088	(H) LMMWWTP Secondary Treatment Modifications			\$ 9,135,525	\$ 15,562,552	E-503 - Modification to Secondary Treatment Rec Proj - ST-3	E-503 - Modification to Secondary Treatment Rec Proj - ST-3	WWTP	NOTE-1	
203	103.2090	(H) LMMWWTP Chemical Feed Upgrades			\$ 3,418,935	\$ 6,096,177	E-503 - Upgrade Chemical Feed Sys Storage - D-3	E-503 - Upgrade Chemical Feed Sys Storage - D-3	WWTP	NOTE-1	
203	103.2083	(H) LMMWWTP Sludge Receiving Improvements			\$ 655,361	\$ 767,317	E-503 - Improvement to Sludge Receiving Facility Rec Proj - DB-6	E-503 - Improvement to Sludge Receiving Facility Rec Proj - DB-6	WWTP	NOTE-1	
204	103.2094	(H) LMMWWTP Standby Power			\$ 7,141,778	\$ 12,034,432	E-505 - Dual Feed / Standby Power Rec Proj - E-3	E-505 - Dual Feed / Standby Power Rec Proj - E-3	WWTP	NOTE-1	
205	103.2200	(H) LMMWWTP Wet Weather Pump Station			\$ 36,586,845	\$ 61,651,578	E-505 - Wet Weather Pump Station with Screening LMR MGD to Auxiliary Outfall	E-505 - Wet Weather Pump Station with Screening LMR MGD to Auxiliary- Outfall	WWTP	NOTE-1	
206	103.2200	(H) LMMWWTP Dry Weather Pump Station			\$ 75,000	\$ 631,903	Four Mile PS - Dry Weather Pumps - B&M Rec Proj - PS-1	Four Mile PS - Dry Weather Pumps - B&M Rec Proj - PS-1	WWTP	NOTE-1	
195-206	101.7250	(H) LMMWWTP Electrical, Primary and Secondary Improvements					Refer Project Fact Sheet.	Refer Project Fact Sheet.	WWTP		
195-206	101.7255	(H) LMMWWTP High Rate Treatment Preparation					Refer Project Fact Sheet.	Refer Project Fact Sheet.	WWTP		
195-206	101.7260	(H) LMMWWTP HRT Facility					Refer Project Fact Sheet.	Refer Project Fact Sheet.	WWTP		
195-206	102.0100	(H) LMMWWTP Solids Disposal with Odor Control					Refer Project Fact Sheet.	Refer Project Fact Sheet.	WWTP		
207	101.0000	Lockland Sewer Separation			\$ 2,214,977	\$ 4,086,268	SSO 1045, 1010	Replace collector following original alignment - 7968 ft of 12.24"	CONV	1 yr	
208	101.0210	Oxley Grating			\$ 241,149	\$ 406,354	CSO 216	Regulator Improvement - 6 cfs. Combine with implementation of green infrastructure as redevelopment, renovation, and routine maintenance occurs to achieve CSO control to achieve 85%.	RI		4.6
209	101.0230	914 Oak St. Grating			\$ 241,284	\$ 406,582	CSO 559	Regulator Improvements - 14.0 cfs. Green potential greater than storage need.	RI		7.0
210	101.0220	200' West of Bacon St. Grating			\$ 243,670	\$ 410,602	CSO 515	Regulator Improvements - 0.7 cfs	RI		0.0
211	101.0220	Bacon St. Grating			\$ 243,670	\$ 410,602	CSO 516	Regulator Improvements - 0.11 cfs	RI		0.1
212	101.0260	No. 96 North Park Grating			\$ 241,284	\$ 406,582	CSO 538	Regulator Improvements - 0.31 cfs	RI		0.1
213	101.0280	117 E. Charlotte Grating			\$ 241,356	\$ 406,703	CSO 539	Regulator Improvements - 5.0 cfs.	RI		1.3
214	101.0200	428 South Cooper Grating			\$ 241,356	\$ 406,703	CSO 562	Regulator Improvements - 3.08 cfs	RI		0.0
215	101.3000	Muddy Creek Basin Storage & Conveyance Sewer			\$ 120,122,277	\$ 202,415,046	701, 702, SSO 692, 697, 675-A, 1061	Storage & Conveyance Tunnel unlocks Muddy Creek PS, Eliminating SSOs 692 & 697, provides CSO control for 518, 404, 405, and 406 - 25 ft diameter, 8500 ft long, firm influent pumping capacity, firm effluent pumping capacity, and peak wet weather treatment capacity at the Muddy Creek WWTP to all be 35 MGD.	TUNNEL	2 yr	NOTE 9
216	101.3010	Muddy Creek Pump Station Upgrade and Forcemain			\$ 8,643,782	\$ 14,565,421	SSO 692, 697, 675-A	Elim. PSO - Increase capacity & convey to Hillside Relief Tunnel - 25 MGD pumps, 12" TM for DWT, 36" TM for WWF (associated with 30000)	PSU/FM	2 yr	
217	101.3000	River Rd. Near Muddy Creek WWTP Conveyance Sewer			\$ 396,774	\$ 668,994	SSO 702	Rapid Run/lander Rd. Interceptor directly into New Tunnel - 800 ft of 36" (Note 13)	CONV	1 yr	
218	101.31020	CSO 402 Topinabee Dr. Reg. Improvements			\$ 242,680	\$ 408,934	CSO 402	Regulator Improvement - 13.3 cfs (dependent on 30000, 30160, 31120) (Note 13)	RI		7.2
219	101.31040	CSO 403 Elco St. Div. Dam Reg. Improvements			\$ 245,338	\$ 413,413	CSO 403	Regulator Improvement - 7.10 cfs (dependent on 30000, 30160, 31120) (Note 13)	RI		3.6
220	101.31060	CSO 404 Ivanhoe St. Reg. Improvements			\$ 241,095	\$ 406,263	CSO 404	Regulator Improvement - 26.9 cfs (dependent on 30000, 30160, 31120) (Note 13)	RI		16.2
221	101.31080	CSO 405 Revere St. Reg. Improvements			\$ 242,108	\$ 407,970	CSO 405	Regulator Improvement - 6.20 cfs (dependent on 30000, 30160, 31120) (Note 13)	RI		3.7
222	101.31100	CSO 406 Kinnabed St. Reg. Improvements			\$ 242,079	\$ 407,921	CSO 406	Regulator Improvement - 15.4 cfs (dependent on 30000, 30160, 31120) (Note 13)	RI		9.0
223	101.31120	West Branch Ohio River Interceptor Sewer			\$ 3,477,204	\$ 5,859,350	404, 405, CSO 406	Convey flow from CSO 404 to WWTP - 4000' - 60" sized for 85% control for CSO 404, 405 and 406 (dependent on 30000, 30160)	CONV		-

WWIP ATTACHMENT 3												
INDEX	PID	PROJECT NAME	Sunk Costs 2006 Dollars	Sunk Costs 2023 Dollars	Remaining Cost (NOTE 16) 2006 Dollars	Remaining Cost 2023 Dollars <i>Conversion Factor 1.683075</i>	CSO SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	Technology	Plan CAPP (NOTE 5)	Plan Remaining CSO (MG/year) (NOTE 5)	
			SUNK COST	SUNK COST	REMAINING COST	REMAINING COST (NOTE 17)		SCOPE	TECH	CAPP	ROV PLAN REMAINING	
		Left Blank										
224		Left Blank										
225		Left Blank										
226		Left Blank										
227		Left Blank										
228	10140480	Pleasant Run Interceptor Replacement			\$ 1,203,840	\$ 2,028,561		WIBs- Replace collector following original alignment - 4246 ft of 21-24"	CONV			
229		Left Blank										
229a	10141180	I-75 & Shepard Ave. SSO-300 SSO 700 Reliability Improvements			\$ 8,557,600	\$ 14,420,198	SSO 700	Increase Storage at existing site. (NOTE 13)	STOR	1 yr		
230	10142120	Mill & Vine St. Grating			\$ 241,286	\$ 406,585	CSO 512	Regulator Improvements- 3.25 cfs	RI		0.2	
231	10142100	Bernard & Reisenberg Grating			\$ 2,242,366	\$ 3,778,555	CSO 513	Partial Separation (NOTE 13)	PS		1.7	
232	10142210	Smalley Grating			\$ 1,226,004	\$ 2,065,909	CSO 514	Partial Separation (NOTE 13)	PS		0.2	
233	10130020	Muddy Creek Interceptor Rehabilitation			\$ 4,889	\$ 8,238	SSO 1061 CSO 518 MH 1006007	Clean Interceptor - 5000 ft of 36"	CLEAN			
234	10130040	CSO 518 Muddy Creek Conveyance Sewer			\$ 5,095,655	\$ 9,260,591	SSO 1061 CSO 518 MH 1006007	Replace section of Muddy Creek Int. - 9000 ft of 36" (NOTE 13)	CONV	1 yr		
235	10130180	Addyston PS Elimination			\$ 1,712,696	\$ 2,886,021	PSO 730, MH 10902003	Elim. Addyston P.S. w/gravity along Rte. 50 - 2650' of 36" and two 100' of 24"	CONV	1 yr		
236	10130700	Muddy Creek @ Westbourne EHRT			\$ 24,184,412	\$ 40,752,548	CSO 198	EHRT - 126 MGD Community Priority (NOTE 2 and 13)	EHRT		61.2	
237	10130720	CSO 518 Improvements			\$ 244,422	\$ 411,869	CSO 518	Regulator Improvement - 27.4 cfs Premised on CAPP Activity ID - 30040, 30040 Community Priority	RI		8.4	
238	10130780	CSO's 223, 408, 410, 541, 654			\$ 1,659,360	\$ 3,133,161	223, 408, 654 CSO 410, 541, 411, 412, 413, 414, 415, 416	CD Exhibit 1 Partial Separation (NOTE 13)	PS		0.3	
239	10130840	CSO's 411, 412, 413, 414, 415, 416			\$ 4,682,231	\$ 6,878,865		CD Exhibit 1 Regulator Improvement-3.21 cfs and Relocation Complete Partial Separation - Activity ID 31140 (NOTE 13)	PS		12.9	
240	10131000	E. Branch Muddy Ph1 Interceptor - Combined in 31006						W-103 - CD Exhibit 1 Interceptor Replacement Phase 1	CONV			
241	10131002	E. Branch Muddy Ph2 Interceptor - Combined in 31006						W-103 - CD Exhibit 1 Interceptor Replacement Phase 2	CONV			
242	10131003	E. Branch Muddy Ph3-A Pump Station - Combined in 31006						W-103 - CD Exhibit 1 Interceptor Replacement Phase 3	CONV			
243	10131004	East Branch Muddy Ph3-B Pump Station - Combined in 31006						East Branch Muddy Ph3-B Pump Station	CONV			
244	10131006	East Branch Muddy Interceptor			\$ 60,315,458	\$ 101,636,070		W-105 - Interceptor Extension	CONV			
245	10131140	E. Branch Ohio Interceptor Sewer Separation			\$ 15,648,746	\$ 26,706,326	408, 411, CSO 412, 414, 415, 416	W-104 - Complete the Partial Separation in CSOs areas 408, 411, 412, 414, 415, 416	PS		In 30840 and 30780	
246	REMAINING PHASE 2 PROJECTS/RUNDLES											
247	10140500	Mill Creek Wastewater Treatment Plant	\$182,720	\$ 307,897	\$1,700,117,714	\$ 2,864,825,857						
247a	10145500	Mill Creek WWTP Outfall Improvements			\$ 15,632,200	\$ 25,551,129		To be evaluated in conjunction with Index Line 248	WWTP		NOTE 15	
247b	10145580	Mill Creek WWTP Added Sludge Pumping			\$ 1,115,000	\$ 2,215,874		To be evaluated in conjunction with Index Line 248	WWTP		NOTE 15	
248	10144482	Mill Creek WWTP Chemical Enhanced Primary Treatment	\$ 164,235	\$ 276,748	\$ 25,215,765	\$ 42,490,455		C-402 - Enhanced Primary Treatment (NOTE 13)	WWTP	NOTE 1	NOTE 15	
248a	10144888	(1) MCWWTP High Rate Treatment Pump Station						Refer to Project East Sheet.	WWTP			
248b	10240540	(1) MCWWTP Dewatering Building Improvements						Refer to Project East Sheet.	WWTP			
249	10140500	Lower Duck Creek Upper										
250	10170920	Nu-Tone Parking Lot Grating			\$ 9,989,847	\$ 16,833,641	CSO 68	Storage - 2.53 MG	STOR		36.9	
251	10170960	Madison & Redbank Grating			\$ 377,349	\$ 467,354	CSO 66	Regulator Improvements - 2.7 cfs	RI		0.0	
252	10171660	4730 Madison Ave. Grating			\$ 377,349	\$ 467,354	CSO 61	Regulator Improvements - 8.2 cfs	RI		2.1	
253	10171800	End of Harrow St. Div. Dam			\$ 377,350	\$ 467,356	CSO 64	Regulator Improvements - 9.7 cfs	RI		0.1	
254	10171800	Brotherton Rd. Grating			\$ 377,349	\$ 467,354	CSO 80	Regulator Improvements - 7.0 cfs	RI		0.0	
255	10171200	3675 Forest Hills Grating (Dynamic Underflow Control)			\$ 377,349	\$ 467,354	CSO 83	Regulator Improvements - 11 cfs (NOTE 13)	RI	NOTE 11	2.7	
256	10171400	3646 Madison Rd. Div. Dam			\$ 377,350	\$ 467,356	CSO 188	Regulator Improvements - 8.1 cfs	RI		4.4	
257	10171860	Ford Gate Grating			\$ 377,350	\$ 467,356	CSO 199	Regulator Improvements - 27 cfs	RI		0.0	
258	10171440	Camberwell Ave. Div. Dam			\$ 2,259,200	\$ 3,806,921	CSO 205	Partial Separation	PS		0.5	
259	10171460	Old Red Bank Rd. Grating			\$ 5,514,020	\$ 9,291,537	CSO 84	Consolidate to STO @ CSO 503 1,500' of 72" sewer	STOR		in 71520	
260	10171880	3979 Rosslyn Dr. Grating			\$ 19,458,278	\$ 32,283,135	CSO 136	Storage - 4.00 MG	STOR		31.0	
261	10171520	Zeeb Rd. Grating			\$ 5,099,999	\$ 8,593,881	CSO 503	Pipe Rehab Replacement and Stream Restoration	SEP/GREEN		15.1	

WWIP ATTACHMENT 3											
INDEX	PID	PROJECT NAME	Sunk Costs 2006 Dollars	Sunk Costs 2023 Dollars	Remaining Cost (NOTE 16) 2006 Dollars	Remaining Cost 2023 Dollars Conversion Factor 1.683075	CSO SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	Technology	Plan CAPP (NOTE 5)	Plan Remaining CSO (MG/year) (NOTE 5)
			SUNK COST	SUNK COST	REMAINING COST	REMAINING COST (NOTE 17)		SCOPE	TECH	CAPP	ROV PLAN REMAINING
	PLWWTP	Pleasant Run Wastewater Treatment Plant									
263	10145540	WWTP Joint MSD/ Butler County Facility			\$ 100,54,974	\$ 169,105,658		Pleasant Run Flow Diversion from Mill Creek - Joint MSD/Butler Co. Facility	WWTP	NOTE 1	
264	RL	Reading Lower									
265	10140340	Ronald Reagan & Reading Rd.			\$ 1,402,999	\$ 2,364,159	SSO 1001, 1020	Replacement collector following original alignment - 4336 ft of 12-21"	CONV	1 yr	
266	10142860	214 Clark St. Grating			\$ 277,351	\$ 467,357	CSO 507	Regulator Improvements-0.9 cfs	RI		0.4
267	10142980	Gebert St. Grating			\$ 277,350	\$ 467,356	CSO 509	Regulator Improvements -3.0 cfs	RI		0.1
268	10142100	531 Davis Street Grating			\$ 277,350	\$ 467,356	CSO 511	Regulator Improvements - 4.49 cfs	RI		0.0
269	10142140	Reading Rd @ Galbreath			\$ 3,654,201	\$ 6,494,618	CSO 670	Partial Separation	PS		2.2
270	10142160	Southern Ave. Grating			\$ 277,350	\$ 467,356	CSO 510	Regulator Improvements- 0.6 cfs	RI		0.1
271	10142180	245 Clark St. Overflow			\$ 548,900	\$ 1,598,968	CSO 508	Partial Separation	PS		1.3
272	LDK	Little Duck Regulators									
273	10171040	Camargo & East Fork Grating			\$ 277,345	\$ 467,347	CSO 69	Regulator Improvements -8.4 cfs Relocated Completed CIP 96-12	RI		0.0
274	10171080	Plainville & Indian Hill			\$ 277,345	\$ 467,347	CSO 71	Regulator Improvements - 1.7 cfs Relocated Completed CIP 96-12	RI		0.3
275	10171100	4800 Jameson Grating			\$ 277,344	\$ 467,345	CSO 72	Regulator Improvements - 1.7 cfs	RI		0.1
276	10171120	6402 Rose St. Grating			\$ 277,345	\$ 467,347	CSO 74	Regulator Improvements -3.2 cfs	RI		0.7
277	10171140	6333 Rose St. Grating			\$ 277,344	\$ 467,345	CSO 75	Regulator Improvements -7.9 cfs	RI		1.3
278	10171160	Bramble & Homer Grating			\$ 277,344	\$ 467,345	CSO 76	Regulator Improvements - 7.9 cfs	RI		1.3
279	10171180	3980 South Whitted Grating			\$ 277,344	\$ 467,345	CSO 78	Regulator Improvements - 5.5 cfs	RI		0.3
280	10171200	Southern Ave. Grating			\$ 277,346	\$ 467,349	CSO 79	Regulator Improvements - 7.0 cfs	RI		1.5
281	10171220	Wooster @ Red Bank Div. Dam			\$ 277,343	\$ 467,344	CSO 656	Regulator Improvements Remove downstream flow restriction @ Beechmont Sluice Gate	RI		16.9
282	LDOR	Lower Duck Creek									
282a	10270190	Columbia Square Separation			\$ 555,514	\$ 936,083	CSO 469	CONV (NOTE 12 & NOTE 13)	CONV		
283	10171180	5150 Wooster Pike Grating			\$ 2,180,499	\$ 3,674,304	CSO 85	Full Separation	PS		0.0
284	10171400	Archer St. Div. Dam, SEP			\$ 2,127,200	\$ 3,921,507	CSO 86	Partial Separation CIP 93-02 HW/DW Relocate	PS		1.9
285	10171500	Turpin St. Div. Dam (Dynamic Underflow Control)			\$ 277,349	\$ 467,354	CSO 472	Regulator Improvements (NOTE 13)	RI	NOTE 11	26.5
286	ICWWTP	Indian Creek Wastewater Treatment Plant									
287	10110000	Indian Creek WWTP			\$ 799,238	\$ 504,238	PSO 677	Opt Existing Facility, 8.2 - 10.8 MGD	Optimization	NOTE 1	
288	10110020	Cleves Pump Station			\$ 11,042,000	\$ 18,606,988		1.5 MG Storage w/new 3.6 MGD pumps and FM for wet weather flow	STOR	1 yr	
289	AC	Amberley Creek									
290	10141160	Reading Rd. & Losantville Rd.			\$ 824,908	\$ 1,390,133	SSO 1032	Replace collector following original alignment - 1793 ft of 12-18"	CONV	1 yr	
291	10142460	Bercoth & Kincaid Grating			\$ 277,332	\$ 467,325	CSO 505	Regulator Improvements - 4.3 cfs	RI		0.0
292	10142480	Ridge/Sakeliew Div. Dam			\$ 277,332	\$ 467,325	CSO 651	Regulator Improvements - 3.75 cfs	RI		0.3
293	10142500	6536 Cliffridge Grating			\$ 1,553,100	\$ 3,291,120	CSO 506	Partial Separation	PS		1.3
294	CRU	Congress Run Upper									
295	10142520	146 Ridgeway Grating			\$ 277,350	\$ 467,356	CSO 535	Regulator Improvements -3.25 cfs	RI		0.0
296	10142540	60 St. Clair Grating			\$ 277,350	\$ 467,356	CSO 560	Regulator Improvement - 3.25 cfs	RI		0.0
297	10142600	No. 41 Sherry Grating			\$ 528,701	\$ 1,564,931	CSO 537	Partial Separation	PS		0.2
298	10141140	Ronald Reagan & Galbreath Rd.			\$ 784,079	\$ 1,321,232	SSO 1029	Replace collector following original alignment - 3005 ft of 15-21"	CONV	1 yr	
299	10145900	Anthony Wayne Flooded MHS			\$ 65,126,882	\$ 109,743,681	Anthony Wayne	Future Wet Weather Facility to provide system capacity in the Mill Creek inter-captor system			
300	10140880	W. Galbreath Road			\$ 3,181,999	\$ 5,361,907	SSO 568, 569	CIP 2008-25 (in planning)	CONV	1 yr	
301	10141100	Ronald Reagan & Galbreath			\$ 7,297,254	\$ 12,296,420	SSO 1029	Replace collector following original alignment - 15,583 ft of 21-48"; Tunnel 220ft of 42"	CONV	1 yr	
302	TWLL	Tributary to Winton Lake Lower									
303	10141020	Colerain & Galbreath Storage Facility	\$ 2,356	\$ 3,970	\$ 17,553,671	\$ 29,242,237	SSO 640	Below ground Storage, protects trunk sewer - 5.9 MG	STOR	1 yr	
304	10140820	Colerain - Jessup Replacement Sewer	\$ 2,406	\$ 4,054	\$ 5,931,498	\$ 9,930,986		Replace collector following original alignment - 12,950 ft of 15-60"; Tunnel 220ft of 18-42"	CONV		
305	MA	Montgomery All									
306	10170160	Dawson Rd. & Rosecrest Ave.			\$ 2,150,290	\$ 3,623,400	SSO 1008, 1014, 608	Replace existing pipe - Approx. 2600 LF of 18-27"	CONV	1 yr	
307	10170180	Miami Ave. N. Btwn Merdel Dr. & Euclid Rd.			\$ 3,023,001	\$ 5,093,983	SSO 1008	Replace existing pipe - Approx. 7300 LF of 15-21"	CONV	1 yr	
308	10170320	Miami Rd. W. @ Miami-Demar Rd.			\$ 1,569,644	\$ 2,307,953		Replace existing pipe - Approx. 1700 LF of 18"	CONV		
309	10170340	Graves Rd. @ Rhinestorm Park			\$ 1,795,303	\$ 3,025,220		Replace existing pipe - Approx. 3800 LF of 15-18"	CONV		
310	CCA	Cough Creek A									
311	10170120	Beechmont Ave. South of Birkshire			\$ 3,524,420	\$ 5,938,912	SSO 588	Replace existing pipe - Approx. 4000 LF of 27-30"	CONV	1 yr	

WWTP ATTACHMENT 3

INDEX	PID	PROJECT NAME	Sunk Costs 2006 Dollars	Sunk Costs 2023 Dollars	Remaining Cost (NOTE 18) 2006 Dollars	Remaining Cost 2023 Dollars Conversion Factor 1.683075	CSO SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	Technology	Plan CAPP (NOTE 5)	Plan Remaining CSO (MG/Year) (NOTE 5)
			SUNK COST	SUNK COST	REMAINING COST	REMAINING COST (NOTE 17)		SCOPE	TECH	CAPP	ROV PLAN REMAINING
312	10170140	Birney Ln. South of Beechmont			\$ 1,929,768	\$ 3,251,804	SSO 588	Replace existing pipe - Approx. 4100 LF of 15-27"	CONV	1 yr	
313	10170120	Spindahl Dr. @ Beechview Estates			\$ 17,484,000	\$ 29,124,836		Regional Storage - 4.6 MG	STOR		
314	10170140	Cough Pike @ Bataids Rd. & Corby Rd.			\$ 18,560,565	\$ 31,275,944		Replace existing pipe - Approx. 9600 LF of 15-48"	CONV		
315	10170160	Cough Pike @ Bataids Rd. & Golden Gate Dr.			\$ 2,198,465	\$ 3,875,086		Replace existing pipe - Approx. 3000 LF of 48"	CONV		
316	10170180	Berkshire Rd.			\$ 2,482,335	\$ 4,856,951		WILB - Replace existing pipe - Approx. 4100 LF of 27-54"	CONV		
317	10170890	Berkshire HRT			\$ 17,781,369	\$ 29,962,940	CSO 182	EHRT - 44.3 MGD Community Priority (NOTE 2)	EHRT		18.3
318	10170900	Cough Cir. Div. Dam			\$ 777,729	\$ 467,994	CSO 476	Regulator Improvements - 49.2 cfs. Premised on operational changes at WWTP Four Mile P.S.	RI		2.4
319	10170860	Prospect Woods			\$ 419,293	\$ 1,380,570	PSO 861	Prospect Woods PS Upgrade (NOTE 13)	PSU	2 yr	
320	W	Winton									
321	10140620	Springfield Pike & Riddle Rd.			\$ 24,600,000	\$ 41,958,368		Partially buried Storage - Protects interceptors, 9.4 MG, gravity in & out	STOR		
322	10141940	Winton Rd. & Lakewood Dr.			\$ 5,799,999	\$ 9,775,433		New parallel sewer to follow original alignment - 11,338 ft of 18-42"	CONV		
323	10141210	Greenline Acres PS			\$ 609,699	\$ 1,027,389	PSO 794	PS Bim, PSO 794, W/Sewer	CONV	2 yr	
324	10140380	Ronald Reagan & Hamilton			\$ 5,199,070	\$ 8,760,823	SSO 612, 1003	Replace collector following original alignment - 12,396 ft of 12-48"; Tunnels 80 ft of 36"	CONV	2 yr	
325	DAL	Delta Ave. Lower									
326	10172000	Kellogg @ Wilmer, REG			\$ 277,730	\$ 467,996	CSO 609	Regulator Improvement	RI		0.0
327	D	Deerfield									
328	10170980	Stewart & Ken Andre Grotting			\$ 777,349	\$ 467,354	CSO 554	Regulator Improvements - 4.1 cfs	RI		0.0
329	10171900	6735 Ken Andre Grotting			\$ 5,700,543	\$ 8,763,305	CSO 555	Sewer Separation	PS		8.9
330	10171920	Stewart Rd. West Regulator			\$ 11,779,329	\$ 19,849,053	CSO 556	Storage - 2.90 MG	STOR		17.5
331	RR	Rapid Run									
332	10130440	Wulff Run Creek, From Neeb Rd. to Viscount			\$ 3,293,342	\$ 5,549,528		Replace Interceptor in Wulff Run - 4500 ft of 24"	CONV		
333	10130460	Delhi Rd. & Oakwood Park Dr.			\$ 8,389,474	\$ 14,136,893	SSO 623	Storage Tank capturing SSO 623 - 1.25 MG w/3 MGD pump	STOR	2 yr	
334	10130600	Delhi Rd. East to Schroer Ave.			\$ 1,224,556	\$ 2,568,991		Replace Interceptor along original alignment through Delhi - 5500 ft of 18-24"	CONV		
335	10130760	Rapid Run & Devils Backbone			\$ 26,534,390	\$ 44,880,545	CSO 523	EHRT - 106 MGD Community Priority (NOTE 2)	EHRT		55.3
336	TWLU	Tributary to Winton Lake Upper									
337	10142160	Daily Rd. Vortex Separator			\$ 63,483,831	\$ 106,975,027	CSO 532	EHRT - 204.7 MGD Community Priority (NOTE 2)	EHRT		33.9
338	LDC	Lower Duck Conveyance									
339	10170100	Wrooster Pike & West St.			\$ 1,844,367	\$ 3,107,897		WILB - Replace existing pipe - Approx. 2800 LF of 12-27"	CONV		
340	10170680	Plainsview Rd.			\$ 1,580,886	\$ 2,663,911		WILB - Replace existing pipe - Approx. 2800 LF of 12-27"	CONV		
341	SP	Sycamore Plan									
342	10140200	Montgomery & Deerfield			\$ 192,639	\$ 324,611		Replace pipe - 500 ft of 18"	CONV		
343	CCB	Cough Creek B									
344	10170300	Gungadin Dr. W. of 5 Mile & Piddison			\$ 4,716,433	\$ 7,947,543		Replace existing pipe - Approx. 8800 LF of 21-27"	CONV		
345	10170360	Concordridge Dr. & Hunley Rd.			\$ 5,019,056	\$ 8,457,486		Replace existing pipe - Approx. 6600 LF of 15-18"	CONV		
346	10170380	Laywer Rd. @ Heatherwood In.			\$ 786,806	\$ 1,325,827		Replace existing pipe - Approx. 2100 LF of 15"	CONV		
347	10170880	Cough Pike @ Golden Gate Dr.			\$ 4,463,535	\$ 7,184,376		Replace existing pipe - Approx. 6100 LF of 21-27"	CONV		
348	10170700	Cough Pike @ Wolfhenge Rd.			\$ 2,185,711	\$ 3,683,087		Replace existing pipe - Approx. 5300 LF of 18-21"	CONV		
349	PRWWTP	Polk Run Wastewater Treatment Plant									
350	10150020	Polk WWTP STO Storage Tank			\$ 16,536,648	\$ 28,539,522		Storage - 6 MG (NOTE 1)	STOR		
351	10150015	Polk Run WWTP STO Optimization Ph4			\$ 8,156,003	\$ 13,743,477		Polk Run WWTP Optimization Ph4	Optimization	NOTE 1	
352	10150080	Polk WWTP STO Replace Pipe			\$ 5,652,872	\$ 9,862,528		Replacement pipe - 800 ft of 30"/1 MG tank	CONV/STOR		
353	10150100	Polk WWTP CNV Map 015			\$ 1,141,165	\$ 1,924,915		Replacement pipe - 2700 ft of 15-18"	CONV		
354	10150040	Polk WWTP CNV Map 002			\$ 5,424,217	\$ 9,146,229		Replace pipe (200 ft of 18"). New PS & Storage tank	CONV/STOR		
355	10150160	Polk WWTP CNV Map 010			\$ 12,537,008	\$ 21,799,829		Replace pipe - 7000 ft of 36 - 48"	CONV		
356	CA	California Plan									
357	10170400	5 Mile Rd. & Old Kellogg			\$ 7,776,701	\$ 13,441,399		Replace existing pipe - Approx. 5000 LF of 36-54"	CONV		
358	10170420	5 Mile Rd. & Birney In.			\$ 6,037,842	\$ 10,174,217		Replace existing pipe - Approx. 2000 LF of 42"	CONV		
359	10170440	4 Mile Rd. @ 1/25			\$ 5,890,945	\$ 9,926,684		Replace existing pipe - Approx. 7400 LF of 21-30"	CONV		
360	10170460	Indian Creek Rd.			\$ 3,739	\$ 6,300		Seal Memhole Lids	Seal Memhole Lids		
361	10170540	Kellogg Ave. @ Coney Island			\$ 7,195,266	\$ 12,124,563		Replace existing pipe - Approx. 6200 LF of 54-66"	CONV		
362	WOL	West Ohio Lower									
363	10144560	Delhi Ave. Div. Dam			\$ 583,399	\$ 983,071	CSO 420	Partial Separation	PS		0.1
364	10144580	River Rd. @ Delhi Div. Dam			\$ 857,500	\$ 1,444,952	CSO 421	Partial Separation	PS		0.2
365	10144760	Bald Face Sr. Div. Dam			\$ 96,810,229	\$ 163,132,497	CSO 419	EHRT - 275 MGD (NOTE 2)	EHRT		132.2
366	10144780	Mt. Echo Rd. Regulator			\$ 777,350	\$ 467,356	CSO 422	Regulator Improvements - 22.2 cfs	RI		13.4
367	10144800	Mt. Hope Ave. Regulator			\$ 13,886,537	\$ 23,399,856	CSO 423	Storage-3.5 MG	STOR		24.9
368	KRU	Kings Run Upper									
369	10142400	Ross Run Regulator			\$ 777,300	\$ 467,271	CSO 485	Regulator Improvements - 70.4 cfs	RI		29.1

WWIP ATTACHMENT 3										
INDEX	PID	PROJECT NAME	Sunk Costs 2006 Dollars	Sunk Costs 2023 Dollars	Remaining Cost (NOTE 16) 2006 Dollars	Remaining Cost 2023 Dollars Conversion Factor 1.683075	CSO SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	Technology	Plan Remaining CSO (MG/year) (NOTE 5)
			SUNK COST	SUNK COST	REMAINING COST	REMAINING COST (NOTE 17)		SCOPE	TECH	ROV/PLAN REMAINING
370	10143180	Wooden Shoe Regulator	\$ 13,723	\$ 23,128	\$ 25,596,976	\$ 43,132,824	CSO 217	Partial Separation with Storage - 1.5 MG (project included in Revised Original LMCPH)	PS/STOR	23.3
371	10143000	Kings Run and Spring Cove			\$ 2,495,402	\$ 3,783,671	CSO 486	Partial Separation	PS	0.4
372	10143040	Ross Run Grating			\$ 186,895,962	\$ 314,933,713	CSO 487	EHRT - 584 MGD (NOTE 2)	EHRT	289.2
373	10143140	Kings Run Regulator			\$ 5,487,501	\$ 9,246,851	CSO 483	Partial Separation to new interceptor connection	PS	15.3
374	10143160	Heapsle Street								
375	10142760	Vinton St. Regulator - CSO & West Fork			\$ 277,301	\$ 467,273	CSO 8	Regulator Improvements - 1.54 cfs	RI	0.9
376	10143000	Powers No. 1 Grating			\$ 277,349	\$ 467,354	CSO 527	Regulator Improvements - 4.6 cfs	RI	0.4
378	10143700	Beekman North Grating			\$ 277,350	\$ 467,356	CSO 528	Regulator Improvements - 3.0 cfs	RI	0.2
379	10143720	Beekman South Grating			\$ 277,350	\$ 467,356	CSO 530	Regulator Improvements - 8.5 cfs	RI	0.9
380	10143740	Llewellyn Grating			\$ 277,350	\$ 467,356	CSO 529	Regulator Improvements - 3.9 cfs	RI	0.1
381	10143760	Hoffner Grating			\$ 359,200	\$ 605,279	CSO 123	Partial Separation	PS	0.0
382	10143780	Heys Grating			\$ 695,800	\$ 1,099,490	CSO 127	Partial Separation	PS	0.2
383	10143800	Todd No. 2 Grating			\$ 1,337,900	\$ 2,254,462	CSO 128	Partial Separation	PS	0.3
384	10143860	Butte/Todd 1/Twin Grating			\$ 85,000,001	\$ 143,231,377	CSO 130	Conveyance to Tunnel at Mill Creek, 12,600' of 84" sewer	CONV	56.3
385	10143820	Badgley Run Grating - incl. with 10143860					CSO 125	Conveyance to Tunnel at Mill Creek, 12,600' of 84" sewer, Cost in CSO 130	CONV	68.9
386	10143840	Todd 1 Grating, CNV - incl. with 10143860					CSO 126	Conveyance to Tunnel at Mill Creek, 12,600' of 84" sewer, Cost in CSO 130	CONV	33.2
387	10143880	Twin Grating, CNV - incl. with 10143860					CSO 203	Conveyance to Tunnel at Mill Creek, 12,600' of 84" sewer, Cost in CSO 130	CONV	5.4
388	10143900	Dreman Grating - incl. with 10143860					CSO 117	Conveyance to Tunnel at Mill Creek, 12,600' of 84" sewer, Cost in CSO 130	CONV	9.4
389	10142640	Elmwood Lower								
390	10142640	Vine St. Div. Dam			\$ 1,019,100	\$ 1,717,260	CSO 544	Partial Separation	PS	0.1
391	10142660	Murray Rd. Div. Dam			\$ 510,101	\$ 859,558	CSO 653	Partial Separation	PS	0.4
392	10142700	Bloody Run Regulator			\$ 75,588,176	\$ 127,995,223	CSO 181	EHRT - 230 MGD (NOTE 2)	EHRT	215.1
393	10144100	East Ohio 1 Upper								
394	10144160	East St. West-2-A Div. Dam, STO					CSO 430	In-line Storage in existing piping (also 431 & 432)	STOR	27.6
395	10144180	9th & McLean Div. Dam, STO					CSO 432	In-line Storage in existing piping (also 430 & 431)	STOR	5.2
395A	10142950	(1) East Branch Ohio River Interceptor Extension					430, 431, CSO 432, 489, 606	Partial Separation. Refer to Project Fact Sheet.	PS	Improves Performance of Indices 394, 395, 396, 437 & 452
396	10144100	Blackford St. Regulator			\$ 2,202,301	\$ 4,553,580	CSO 431	In-line Storage in existing piping (also 430 & 432) Dewater pump station for 2.0 MGD	STOR	102.5
397	10144200	East Ohio 2								
398	10144200	Pikes St. Div. Dam			\$ 277,350	\$ 467,356	CSO 444	Regulator Improvement - 1.0 cfs	RI	0.1
399	10144240	Collard St. Regulator			\$ 277,349	\$ 467,354	CSO 447	Regulator Improvement - 2.6 cfs	RI	0.3
400	10144260	Riverfront Coliseum Regulator			\$ 1,302,200	\$ 2,578,502	CSO 443	Partial Separation	PS	0.1
401	10144320	Parsons St. Div. Dam			\$ 277,350	\$ 467,356	CSO 446	Regulator Improvement - 8.5 cfs	RI	4.1
402	10144340	Eggleston & 4th Div. Dam			\$ 27,674,917	\$ 46,971,326	CSO 451	EHRT - 120 MGD (NOTE 2)	EHRT	119.2
403	10144360	Eggleston & 3rd F. Div.			\$ 277,350	\$ 467,356	CSO 452	Regulator Improvement - 6.4 cfs	RI	3.6
404	10144380	Eggleston & 3rd			\$ 277,350	\$ 467,356	CSO 453	Regulator Improvement - 2.0 cfs	RI	1.0
405	10144400	Eggleston & 3rd E. Div.			\$ 277,349	\$ 467,354	CSO 454	Regulator Improvements - 5.8 cfs	RI	2.8
406	10144420	Eggleston & Pete Rose Way			\$ 277,350	\$ 467,356	CSO 455	Regulator Improvement - 2.6 cfs	RI	1.6
407	10144420	West Ohio Upper								
408	10144700	Evans & 6th Street Div.			\$ 381,500	\$ 642,856	CSO 608	Partial Separation	PS	0.5
409	10144720	Evans & River Rd. No. 1 Div.			\$ 97,801	\$ 164,802	CSO 426	Full Separation	PS	0.3
410	10144740	Evans & River Rd. No. 2 Div.			\$ 1,682,099	\$ 2,834,463	CSO 427	Partial Separation	PS	0.5
411	10144820	River Rd. @ State Div. Dam			\$ 4,337,794	\$ 7,141,001	CSO 474	Partial Separation	PS	5.2
412	10144860	State Ave. Div. Dam			\$ 277,351	\$ 467,357	CSO 425	Regulator Improvement - 1.7 cfs Overcontrol @ CSO 419	RI	8.5
413	10144900	East Ohio 1 Lower West								
414	10144920	Baymiller St. Regulator			\$ 277,333	\$ 467,327	CSO 435	Regulator Improvements 11.2 cfs	RI	6.6
415	10144940	Carr St. Regulator			\$ 2,638,500	\$ 4,446,070	CSO 433	Partial Separation	PS	1.0
416	10144960	Carr & Front Div. Dam			\$ 824,599	\$ 1,385,531	CSO 434	Partial Separation	PS	0.2
417	10144120	7th & Midson Div. Dam			\$ 385,300	\$ 1,323,289	CSO 489	Partial Separation	PS	0.1
418	10144140	Geat & Front Regulator			\$ 4,587,403	\$ 7,730,118	CSO 436	Partial Separation	PS	8.4
419	10142600	Congress Run Lower								
420	10142600	Lockland & Highway Grating			\$ 2,276,601	\$ 4,847,288	CSO 430	Partial Separation	PS	0.9

WWIP ATTACHMENT 3

INDEX	PID	PROJECT NAME	Sunk Costs 2006 Dollars	Sunk Costs 2023 Dollars	Remaining Cost (NOTE 16) 2006 Dollars	Remaining Cost 2023 Dollars <i>Conversion Factor 1.683075</i>	CSO SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	Technology	Plan CAPP (NOTE 5)	Plan Remaining CSO (MG/year) (NOTE 5)
			SUNK COST	SUNK COST	REMAINING COST	REMAINING COST (NOTE 17)		SCOPE	TECH	CAPP	ROV PLAN REMAINING (NOTE 5)
INDEX											
421	10142600	Vine & Ducamp Div. Dam			\$ 8,774,751	\$ 13,943,576	CSO 171	Storage - 2.00 MG	STOR		23.0
422	KRL	Kings Run Lower									
423	10142660	Station Ave. A. Div. Dam			\$ 277,301	\$ 467,273	CSO 26	Regulator Improvements - 7.1 cfs	RI		0.0
424	10142860	Clifton Ave. West Grating			\$ 1,159,300	\$ 1,953,507	CSO 480	Partial Separation	PS		1.3
425	EO3W	East Ohio 3 West									
426	10144440	Walton St. Div. Dam			\$ 6,473,599	\$ 10,806,500	CSO 430	Partial Separation	PS		3.3
427	10144460	Hazen St. Div. Dam			\$ 1,450,000	\$ 2,438,524	CSO 451	Partial Separation	PS		1.0
428	10144480	Collins St. West Div. Dam			\$ 1,233,000	\$ 2,229,354	CSO 452	Partial Separation	PS		0.2
429	10144520	Hazen St. @ Glen Alley Div.			\$ 541,898	\$ 913,139	CSO 658	Full Separation	FS		0.0
430	10144560	Liberty St. South Div.			\$ 136,000	\$ 229,170	CSO 449	Full Separation	FS		0.0
431	10144580	Collins St. West Regulator			\$ 1,772,000	\$ 2,943,415	CSO 453	Partial Separation	PS		0.5
432	10144600	Collins St. East Div. Dam			\$ 19,900,435	\$ 33,514,875	CSO 458	Storage - 6.0 MG Consolidate with CSO 460	STOR		10.1
433	10144640	Liberty St. North Div.			\$ 277,350	\$ 467,356	CSO 448	Regulator Improvement - 5.5 cfs	RI		12.7
434	EO1E	East Ohio 1 Lower East									
435	10144700	3rd St. @ Central Ave.			\$ 277,331	\$ 467,324	CSO 439	Regulator Improvements - 52.4 cfs	RI		8.9
436	10144100	Central Ave. Grating			\$ 3,483,099	\$ 6,206,298	CSO 438	Partial Separation	PS		14.3
437	NSL	North Side Lower									
438	10143100	Geringer St. Grating			\$ 277,300	\$ 467,271	CSO 19	Regulator Improvement - 7.6	RI		0.9
439	EU	Elmwood Upper									
440	10143210	Maple St. Div. Dam			\$ 277,301	\$ 467,273	CSO 37	Regulator Improvements - 6.2 cfs	RI		1.3
441	10143210	64th St. Div. Dam			\$ 2,180,418	\$ 3,643,675	CSO 39	Partial Separation	PS		2.2
442	10142740	68th St. Div. Dam			\$ 277,301	\$ 467,273	CSO 488	Over Control at 181 to eliminate conveyance element	RI		35.3
443	SGL	Spring Grove Lower									
444	10143360	4710 Howard Grating			\$ 277,300	\$ 467,271	CSO 110	Regulator Improvements - 2.90 cfs	RI		0.3
445	10143300	Springlaw Grating			\$ 1,406,906	\$ 2,370,742	CSO 111	Partial Separation	PS		4.1
446	10143420	1543 Springlaw Grating			\$ 1,218,799	\$ 2,053,768	CSO 112	Partial Separation	PS		0.7
447	EO3E	East Ohio 3 East									
448	10144500	Bayou St. 120 West Regulator			\$ 471,800	\$ 795,018	CSO 459	Partial Separation	PS		0.3
449	10144540	Eastern and Gotham			\$ 2,435,600	\$ 4,104,169	CSO 667	Partial Separation	PS		2.6
450	10144620	Bayou St. 100 West Div. Dam			\$ 6,668,046	\$ 11,236,158	CSO 450/458	Consolidate with CSO 458	CONV		14.7
451	LOICFF	Lower Mill Creek Final Remedy									
452	10145180	Mill Creek "Lower 11 CSO" Phase 2 CSO controls					2, 3, 4, 5, 6, 7, 9, 666, 332, 428, CSOs and 429 ("Lower 11 CSOs")	Storage, conveyance, strategic separation, green infrastructure, using MSO's Integrated Watershed Planning approaches at the listed CSOs or in the LMC basin	NOTE 6		85% capture or control (aggregate) (NOTE 8)
453		Phase 2 Default (Lower Mill Creek Final Remedy)					33, 10, 11, 33, 13, 14, 35, 22, 23, CSOs 24, 482, 28, 29, 30, 025, Este, 18, 21, 017	Default tunnel/conveyance	NOTE 7		85% capture or control (aggregate) (NOTE 8)
454	10130745	Werk & Westbourne Grating					CSO 522	EHRT - Sized so that, in conjunction with Attachment 1B Index 109 EHRT, total EHRT capacity is at least 106 MGD.	EHRT		64.7
455	10140000	SSO 1048 Conveyance Sewer Phase 1			\$ 1,710,579	\$ 2,882,454	SSO 1048	Replace collector following original alignment - 4115 ft of 18-27"; Tunnel 375 ft of 18-24"	CONV	1 yr	
456	10140020	SSO 1048 Conveyance Sewer Phase 2			\$ 2,467,502	\$ 4,137,926	SSO 1048	Replace collector following original alignment - 4256 ft of 30-36"	CONV	2 yr	
457	10140080	SSO 587 Conveyance Sewer			\$ 1,178,958	\$ 1,986,633	SSO 587	Replace collector following original alignment - 4235 ft of 15-24"	CONV	2 yr	
458	10140120	Sharonville/Evanale Trunk to SSO 700			\$ 34,000,590	\$ 57,293,544	SSO 1048, 587	24,529 LF of 30-66"; Tunnel 6250 LF of 30-78"	CONV	2 yr	
459	10141180	SSO 700 Final Remedial Plan (FRP)			\$ 96,000,000	\$ 162,104,215	SSO 700	24.4 MG storage and conveyance, in accordance with the descriptions and designs specified in the SSO 700 Final Remedial Plan approved by the Regulators on December 19, 2022. Project also includes those included in Index Lines 455-458 (moved from Index Lines 224-227) and upsizing of two (2) sewer segments as noted in the SSO 700 FRP.	STOR		
460		TOTAL PHASE 2 WITHOUT PHASE 2 ALLOWANCES	\$182,720	\$ 307,897	\$2,077,237,782	\$ 3,500,301,456					

WWWP ATTACHMENT 3	
PID	PROJECT NAME
INDEX	
INDEX	

Sunk Costs 2006 Dollars	Sunk Costs 2023 Dollars	Remaining Cost (NOTE 16) 2006 Dollars	Remaining Cost 2023 Dollars <i>Conversion Factor 1.683975</i>	CSO SSO Identifier (NOTE 14)	Description / Design (NOTE 3)	Technology	Plan CAPP (NOTE 5)	Plan Remaining CSO (MG/year) (NOTE 5)
SUNK COST	SUNK COST	REMAINING COST	REMAINING COST (NOTE 17)		SCOPE	TECH	CAPP	ROV PLAN REMAINING
NOTES:								
1. PROJECT COMPLETE AND IN SERVICE AT SPECIFIED CAPACITY								
2. FOR ALL PROJECTS WITH EHRT TECHNOLOGY VOLUME SHOWING IS REMAINING UNTREATED OVERFLOW - SEE ATTACHMENT 5.								
3. CAPP DESIGN: ALL CAPP SEWER PROJECTS WILL BE DESIGNED TO MEET THE 30 YEAR DESIGN STORM EVENT. ALL CAPP PUMP STATION AND STORAGE FACILITIES WILL BE DESIGNED TO MEET THE 2 YEAR DESIGN STORM EVENT. THE 2 AND 10 YEAR DESIGN STORMS ARE SCS TYPE II - 24 HOUR EVENTS.								
4. FOR THESE RTC PROJECTS, THE STATED REDUCTION IN THE TYPICAL YEAR CSO DISCHARGE VOLUME SHALL ALSO BE THE PERFORMANCE CRITERIA FOR THE FACILITY.								
5. PERFORMANCE CRITERIA FOR CSO VOLUMES REMAINING AFTER IMPLEMENTATION OF CSO CONTROLS NOT TO BE EXCEEDED AT A PARTICULAR OUTFALL DURING MSDGC'S TYPICAL RAINFALL YEAR (1970). COMPLIANCE WITH THESE CRITERIA WILL BE EVALUATED BY IMPLEMENTATION OF THE POST CONSTRUCTION MONITORING PROGRAM (APPROVED MARCH 20, 2020) UTILIZING MSDGC'S HYDROLOGIC AND HYDRAULIC MODEL TO NORMALIZE THE RESULTS OF THE POST CONSTRUCTION MONITORING TO THE TYPICAL YEAR.								
6. DEFENDANTS MAY PROPOSE WORK AT ADDITIONAL CSOS IN THE LMC BASIN IN ACCORDANCE WITH THE PROVISIONS OF THE WWIP.								
7. THE DEFAULT FINAL REMEDY FOR THE LOWER MILL CREEK FINAL REMEDY ("LMCRF") IS A TUNNEL(S)/CONVEYANCE. TO BE DESIGNED WITH REFERENCE TO THE FINAL LMCRP AND TO MEET THE APPLICABLE PERFORMANCE CRITERIA. THE PERFORMANCE CRITERIA FOR THESE CSOS WERE EXPRESSED AS "PLAN REMAINING CSO" VOLUMES, BASED ON MODELING PERFORMED AT THE TIME OF THE DEVELOPMENT OF THE WWIP. THE UPDATED PERFORMANCE CRITERION IS EXPRESSED AS 8% CAPTURE OR CONTROL. ACKNOWLEDGING UPDATED MODELING INFORMATION, GIVEN THE KNOWLEDGE GAINED BY DEFENDANTS OF THE LOWER MILL CREEK BASIN OVER THE PERIOD 2009-2012, AND THE PROJECTS INCLUDED IN THE REVISED ORIGINAL LMCRP, THE DEFENDANTS PROPOSE AND THE REGULATORS UNDERSTAND THAT CONSTRUCTION OF THE CSO TUNNEL IS LIKELY NOT THE MOST COST EFFECTIVE ALTERNATIVE FOR THE LMCR. THE WWIP ENVISIONED THAT AN ALTERNATIVE OTHER THAN THE LMCR TUNNEL COULD BE APPROPRIATE FOR THE LMCR AND ALLOWS DEFENDANTS TO PROPOSE A DIFFERENT LMCR PURSUANT TO THE WWIP. THE DEFENDANTS HAVE EXPRESSED INTENT TO TIMELY SUBMIT AN APPROVABLE PROPOSAL FOR A REVISED LMCR THAT REFLECTS DEFENDANTS' INTEGRATED WATERSHED PLANNING APPROACH FOR THE AGGREGATED CSO FLOWS IN THE LOWER MILL CREEK BASIN. THE REGULATORS UNDERSTAND THIS INTENT AND IF A PROPOSAL IS SUBMITTED THAT IS CONSISTENT WITH THE PROVISIONS OF THE WWIP, THE REGULATORS ANTICIPATE APPROVING IT.								
8. "PERCENT CAPTURE OR CONTROL" REFERS TO THE DIFFERENCE OF INFLOW VOLUME MINUS OVERFLOW VOLUME, DIVIDED BY INFLOW VOLUME, MULTIPLIED BY 100. ((INFLOW-OVERFLOW)/INFLOW) X 100). AS PREDICTED IN A TYPICAL YEAR USING THE MOST CURRENT MODEL APPLICABLE TO THE WATERSHED UPON ACHIEVEMENT OF FULL OPERATION. FOR THE PURPOSE OF COMPUTING "PERCENT CAPTURE OR CONTROL," INFLOW VOLUMES ARE THOSE PREDICTED BY MSDGC'S MOST CURRENT MODEL (1) USING MSDGC'S TYPICAL YEAR RAINFALL (1970); AND (2) BASED ON PRE-CONTROL CONDITIONS, DERIVED IN A MANNER CONSISTENT WITH HOW BASELINE CONDITIONS WERE DEFINED IN MSDGC'S JUNE 2006 "WET WEATHER IMPROVEMENT PROGRAM" VOLUME II, CSO LONG TERM CONTROL PLAN REPORT," SECTION 4.7 ON PAGE 4-14. FOR THE PURPOSE OF COMPUTING "PERCENT CAPTURE OR CONTROL," OVERFLOW VOLUMES ARE THOSE PREDICTED BY THE MOST CURRENT MSDGC SYSTEM-WIDE MODEL FOR THE TYPICAL YEAR RAINFALL (1970) FOR POST-CONTROL CONDITIONS. COMPLIANCE WITH THESE CRITERIA WILL BE EVALUATED BY IMPLEMENTATION OF THE POST CONSTRUCTION MONITORING PROGRAM (APPROVED MARCH 20, 2020) UTILIZING MSDGC'S HYDROLOGIC AND HYDRAULIC MODEL TO NORMALIZE THE RESULTS OF THE POST CONSTRUCTION MONITORING TO THE TYPICAL YEAR.								
9. PROJECT IN ATTACHMENT 1B INDEX ROW 79 WAS AN INTERIM UPGRADE TO THE MUDDY CREEK WWTP RAW SEWAGE AND EFFLUENT PUMPING CAPACITIES, TO ACHIEVE MINIMUM FIRM INFILTRANT AND EFFLUENT PUMPING CAPACITIES BOTH OF 28 MGD. FINAL FIRM INFILTRANT PUMPING CAPACITY OF 35 MGD WILL BE ACHIEVED AS PART OF PHASE 2 PROJECT 10130000 [SEE ATTACHMENT 1B, INDEX ROW 151 & ATTACHMENT 2, INDEX ROW 215].								
10. COSTS FOR PROJECTS REFLECT THE COST IDENTIFIED IN THE 2009 WWIP EXCEPT FOR PROJECTS CHANGED OR ADDED THROUGH "ADAPTIVE MANAGEMENT".								
11. INSTALL UP-SIZED UNDERFLOW PIPES EQUIPPED WITH AUTOMATIC FLOW CONTROL GATES ON CSO 083 AND CSO 472, AND CONNECT THOSE AUTOMATIC GATES TO A SCADA SYSTEM TO ALLOW REMOTE AND POSSIBLY AUTOMATIC OPERATION OF THOSE GATES BASED ON FLOW CONDITIONS BOTH IN THE COLLECTION SYSTEM BOTH IN THE PROXIMITY OF THESE CSOS AS WELL AS IN THE INTERCEPTOR DOWNSTREAM OF THE TWO CSOS.								
12. SEPARATE THE COLUMBIA SQUARE DEVELOPMENT SITE BY CONNECTING THE SITE STORM SEWERS TO A CURRENTLY UNUSED SEWER (PREVIOUSLY USED AS THE CSO 469 UNDERFLOW SEWER), AND CONSTRUCTING A NEW SEWER TO DIVERT THAT CURRENTLY UNUSED SEWER TO THE CSO 469 OUTFALL DOWNSTREAM OF THE REGULATOR.								
13. PROJECT IS INCLUDED AS PART OF THE 2018 "BRIDGE" - EITHER IN WHOLE OR IN PART, APPROVED SEPTEMBER 18, 2018.								
14. IN 2009, OHIO EPA CHANGED THE CSO NUMBERS USED TO IDENTIFY SOME OF DEFENDANTS' CSO OUTFALLS IN DEFENDANTS' NPDES PERMIT (1PX00022 "CD" Application No. 005457). AS A RESULT, SOME OF THE CSO IDENTIFIER NUMBERS USED IN THE ORIGINAL WWIP NOW HAVE DIFFERENT NUMBERS IN DEFENDANTS' NPDES PERMIT. THE WWIP HAS BEEN MODIFIED TO CHANGE ALL THOSE CSO IDENTIFIER NUMBERS TO BE CONSISTENT WITH THE CSO IDENTIFIER NUMBERS IN DEFENDANTS' NPDES PERMIT. SPECIFICALLY, CSO IDENTIFIER NUMBERS ASSOCIATED WITH THE FOLLOWING INDEX LINES IN ATTACHMENT 1B HAVE BEEN CHANGED: INDEX LINES 55, 89, 95 AND 112. CSO IDENTIFIER NUMBERS ASSOCIATED WITH THE FOLLOWING INDEX LINES IN ATTACHMENT 2 HAVE BEEN CHANGED: 270, 370, 377-380, 388, 396, 398-401, 403-406, 409, 410, 412, 423, 425-428, 430, 431, 433, 435 AND 453.								
15. ENHANCED PRIMARY TREATMENT MAY INCLUDE ENHANCED HIGH RATE TREATMENT TECHNOLOGIES. SCOPE OF WORK OF ATTACHMENT 2 INDEX LINE 248 INCLUDES AN EVALUATION TO DETERMINE POTENTIAL INCORPORATION OF PROJECT 101465500 (REMOVED FROM ATTACHMENT 1B INDEX LINE 103 AND ADDED TO ATTACHMENT 2 INDEX LINE 247a) FOR MILL CREEK WWTP OUTFALL IMPROVEMENTS AND PROJECT 101455800 (REMOVED FROM ATTACHMENT 1B INDEX LINE 105 AND ADDED TO ATTACHMENT 2 INDEX LINE 247b) FOR MILL CREEK WWTP ADDED SLUDGE PUMPING. THE PURPOSE OF THE EVALUATIONS WILL BE TO DETERMINE (1) WHETHER ADDITIONAL SLUDGE PUMPING IS NECESSARY TO PROCESS THE ADDITIONAL SLUDGE GENERATED BY CHEMICALLY ENHANCED PRIMARY TREATMENT OR OTHER ENHANCED HIGH RATE TREATMENT TECHNOLOGY, (2) WHETHER ADDITIONAL AUXILIARY OUTFALL CAPACITY WILL BE NECESSARY TO ACCOMMODATE THE EXPANDED MILL CREEK WWTP PEAK TREATMENT CAPACITY, AND (3) IF SUCH INCREASES ARE NEEDED, THE SIZE AND DESIGN CRITERIA OF ADDITIONAL SLUDGE PUMPING ALONG WITH THE DESIGN AND SIZING OF OUTFALL IMPROVEMENTS TO HANDLE ANY ADDITIONAL FLOWS THROUGH THE TREATMENT PLANT.								
16. THE ALLOWANCES AS DEFINED IN THE FINAL WWIP SECTION C6 AND REFLECTED IN INDEX 113 FROM THE ORIGINAL FINAL WWIP ATTACHMENT 1B, SHALL CONTINUE INTO PHASE 2.								
17. REMAINING COSTS SHOWN IN 2023\$ ARE BASED UPON THE INITIAL FINAL WWIP REMAINING COSTS SHOWN IN 2006\$. THE MULTIPLYING FACTOR TO CONVERT 2006\$ TO 2023\$ IS 1.683975. PROJECT COSTS FOR PROJECTS ADDED TO ATTACHMENT 3 ARE TO BE DETERMINED.								
Bundle Identifiers:								
(1) LITTLE MIAMI WWTP BUNDLE: THIS BUNDLE IN ATTACHMENT 3 CONSISTS OF ADDRESSING 1.2 INDEX PROJECTS BE REPLACED BY FOUR ADAPTIVE MANAGEMENT PROJECTS DURING PHASE 2B. THE FOUR PROJECTS ARE: 1) 10172950 LMMWWTP ELECTRICAL, PRIMARY AND SECONDARY IMPROVEMENTS, 2) 10172955 LMMWWTP HIGH RATE TREATMENT PREPARATION, 3) 10172960 LMMWWTP HRT FACILITY AND 4) 10281100 LMMWWTP SOLIDS DISPOSAL WITH ODOR CONTROL. REFER TO THE PROJECT FACT SHEETS FOR DETAILS ABOUT EACH ADAPTIVE MANAGEMENT PROJECT.								
(1) MILL CREEK WWTP BUNDLE: THIS BUNDLE IN ATTACHMENT 3 CONSISTS OF ADDRESSING SIX INDEX PROJECTS THAT ARE IMPROVED UPON BY THREE ADAPTIVE MANAGEMENT PROJECTS DURING PHASE 2B. INDEX 248 IS PARTIALLY ADDRESSED BY TWO ADAPTIVE MANAGEMENT PROJECTS WHICH ARE: 1) 10144888 MCOWWWTP HIGH RATE TREATMENT PUMP STATION, AND 2) 10240640 MCOWWWTP DEWATERING BUILDING IMPROVEMENTS, AND THE THIRD ADAPTIVE MANAGEMENT PROJECT. 3) 10142950 EAST BRANCH OHIO RIVER INTERCEPTOR EXTENSION, WHICH IMPROVES PERFORMANCE OF INDEX PROJECTS 394, 395, 396, 417 AND 452. REFER TO THE PROJECT FACT SHEETS FOR DETAILS ABOUT EACH ADAPTIVE MANAGEMENT PROJECT.								

10172950 - LMWWTP Electrical, Primary, and Secondary Improvements

Project Fact Sheet

Project Identifiers		Project Location		Project Status:	
Project Type:	Treatment Facility	WWTP Basin:	Little Miami	Current Project Phase:	Design
CIP Category:	WWIP	Watershed:	Lower Duck Creek	Project Delivery Method:	DBB
WWIP Index #:	Multiple (see below)	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	System (2021-Q2)
Sanitary Sewer #:	n/a	Neighborhood:	East End	Funding:	WPCLF

Project Need and Problem Statement
At the Little Miami WWTP, all wet weather flow above 55 million gallons per day (MGD) is screened, pumped, and then discharged to the Ohio River without further treatment. In 2022, the Little Miami WWTP HRT and Bundle Update Business Case Evaluation (BCE) was completed. This BCE recommended the construction of a 115 million gallon per day (MGD) high-rate treatment facility (HRT) and various upgrades to the WWTP to increase biological secondary treatment capacity from 55 MGD to 100 MGD. This project will result in an upgrade to the secondary process and it includes other work necessary to allow for construction of the HRT.

Project Description
This project is included as part of the LMWWTP HRT Project Bundle. The Bundle, inclusive of previously completed projects, is an adaptive management approach to WWIP Indices 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, and 206.
The LMWWTP Electrical, Primary, and Secondary Improvements project includes upgrades at primary and secondary treatment processes to support increased treatment capacity from 55 MGD to 100 MGD through secondary. This project also includes replacement of electrical equipment that is beyond its useful life, in a manner that anticipates requirements of the HRT. Pumping modifications that are required to deliver increased flow to secondary will be completed as a part of the HRT project.

ROW/Acquisition Needs	Project Permitting Needs	Interagency Coordination
None required - all improvements will be made to existing structures	Project requires revisions to the WWTP NPDES Permit. Project requires standard construction project approvals and permits.	Project requires coordination with Duke Energy, Lunken Airport, and the Columbia-Tusculum Community Council

Project Risks	Regulatory
- Project Design and Construction Risks TBD.	WWIP Compliance Date: 12/31/2034
- Project Costs are based on opinion of cost prepared by Arcadis, AACF Estimate Class 5 (-50% to +100% Accuracy)	Adaptive Management: Yes
	Regulatory Approval Status: Approval in Ph 2B
	Benefited CSOs: N/A
	Benefited SSOs: N/A
	Benefited PSOs: N/A

Project Schedule (Dates Actual/Forecasted)		Related Projects	
Project Nomination (SG1)	07/06/2022	multiple	multiple LMWWTP improvement projects
Planning Phase		10172955	LMWWTP High Rate Treatment Preparation
Planning NTP	N/A	10172960	LMWWTP HRT Facility
BCE Approved (SG2)	06/15/2022	--	--
Design Phase		Project Cost Disclaimers	
Design NTP	03/11/2024	Project Cost Estimate: \$ 59,700,000	
60% Design (SG3)	07/23/2025	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance "Programmatic Contingency" and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.	
Submit for PTI	06/01/2025		
100% Design (SG4)	04/01/2026		
Const. Funding (BoCC)	04/30/2026		
Construction Phase			
Construction NTP	08/11/2026		
Subst. Completion (SC1)	04/27/2029		
Final Completion	06/26/2029		

10172955 - LMWWTP High Rate Treatment Preparation

Project Fact Sheet

Project Identifiers		Project Location		Project Status:	
Project Type:	Treatment Facility	WWTP Basin:	Little Miami	Current Project Phase:	Planning
CIP Category:	WWIP	Watershed:	Lower Duck Creek	Project Delivery Method:	DBB
WWIP Index #:	Multiple (see below)	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	System (2021-Q2)
Sanitary Sewer #:	n/a	Neighborhood:	East End	Funding:	WPCLF
Project Need and Problem Statement					
At the Little Miami WWTP, all wet weather flow above 55 million gallons per day (MGD) is screened, pumped, and then discharged to the Ohio River without further treatment. In 2021, the Little Miami WWTP HRT and Bundle Update Business Case Evaluation (BCE) was completed. This BCE recommended the construction of a 115 MGD high-rate treatment facility (HRT) and various upgrades to the WWTP to increase biological secondary treatment capacity from 55 MGD to 100 MGD. This project was identified in the BCE as a necessary precursor to the HRT project. The LMWWTP site has limited available space and this project will prepare a space for the new HRT while also making efficient use of time through coordination with other projects. Preparation for the HRT construction requires demolition of the decommissioned incineration building, the maintenance building, and the soon-to-be decommissioned solids handling buildings.					
Project Description					
This project is included as part of the LMWWTP HRT Project Bundle. The Bundle, inclusive of previously completed projects, is an adaptive management approach to WWIP Indices 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, and 206. This project includes site work required to prepare for the construction of the HRT, which may include demolition of decommissioned buildings and facilities, relocation of utilities, creation of laydown areas, geotechnical work, and environmental remediation work, as needed. Additionally, the scope of this project contains the construction of an electrical building for the HRT. Significant coordination with other projects (LMWWTP Solids Disposal with Odor Control; LMWWTP Electrical, Primary, and Secondary Improvements; and LMWWTP HRT Facility) will be required during design and construction.					
ROW/Acquisition Needs		Project Permitting Needs		Interagency Coordination	
None required - all improvements will be made within the property of the existing treatment plant.		Project requires standard construction project approvals and permits.		Project requires coordination with Duke Energy, Lunken Airport, and the Columbia-Tusculum Community Council	
Project Risks				Regulatory	
- Project Design and Construction Risks TBD. - Project Costs are based on opinion of cost prepared by Arcadis, AACF Estimate Class 5 (-50% to +100% Accuracy)				WWIP Compliance Date 12/31/2034 Adaptive Management Yes Regulatory Approval Status Approval in Ph 2B Benefited CSOs N/A Benefited SSOs N/A Benefited PSOs N/A	
Project Schedule (Dates Actual/Forecasted)				Related Projects	
Project Nomination(SG1)	07/06/2022	multiple	multiple LMWWTP improvement projects		Predecessor
Planning Phase		10172955	LMWWTP Electrical, Primary, and Secondary Improvements		Predecessor
Planning NTP	N/A	10172960	LMWWTP HRT Facility		Successor
BCE Approved (SG2)	06/15/2022	--	--		--
Design Phase		Project Cost Disclaimers		Project Cost Estimate: \$ 43,500,000	
Design NTP	07/28/2025	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance "Programmatic Contingency" and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.			
60% Design (SG3)	06/10/2026				
Submit for PTI	04/21/2026				
100% Design (SG4)	01/20/2027				
Const. Funding (BoCC)	02/25/2027				
Construction Phase					
Construction NTP	06/04/2027				
Subst. Completion (SC1)	11/20/2029				
Final Completion	02/18/2030				

10281100 - LMWWTP Solids Disposal With Odor Control

Project Fact Sheet

Project Identifiers		Project Location		Project Status:	
Project Type:	Treatment Facility	WWTP Basin:	Little Miami	Current Project Phase:	Design
CIP Category:	WWIP	Watershed:	Lower Duck Creek	Project Delivery Method:	PDB
WWIP Index #:	Multiple (see below)	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	System (2021-Q2)
Sanitary Sewer #:	N/A	Neighborhood:	East End	Funding:	WPCLF
Project Need and Problem Statement					
Since the decommissioning of the fluidized bed incinerator at the Little Miami wastewater treatment plant in 2016, all sludge processed at Little Miami has been transported to the landfill for disposal. Comprehensive engineering planning identified anaerobic digestion as the most appropriate replacement solids disposal method and noted that continuation of landfilling was not a long-term option from a perspective of risk, cost, and sustainability.					
Project Description					
This project is included as part of the LMWWTP HRT Project Bundle. The Bundle, inclusive of previously completed projects, is an adaptive management approach to WWIP Indices 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, and 206.					
This project will install digesters and upgrade solids processing facilities, including thickening, dewatering and odor control, to all the treatment plant to produce a biosolids product for beneficial re-use. Clean energy in the form of biogas will be recovered for productive onsite use, partially offsetting the treatment plant’s reliance on grid energy.					
ROW/Acquisition Needs		Project Permitting Needs		Interagency Coordination	
Due to the site constraints of the existing Little Miami WWTP, the optimal location for the new solids handling and disposal facilities is proposed on the west side of the existing parcel. No easements are required for this location. This area is owned by the City of Cincinnati; however, portions of this area are not controlled by MSD and are controlled by other City departments. MSD is requesting control of this area.		- Project requires standard construction project approvals and permits. - Extension of the flood protection levee will required permitting through USACE, FEMA, and the City of Cincinnati Floodplain Manager. - An air permit may be required depending on the final design solution for biogas reuse. - Class A land application permit may required if land application is utilized.		This project will require coordination with USACE, FEMA, OEPA, Regional Air Pollution Control Agency (RAPCA), ODOT, Cincinnati Fire, Building, & Water Departments, City of Cincinnati Department of Transportation and Engineering, Cincinnati Park Board, Lunken Airport, and Federal Aviation Administration (FAA). Non-governmental agency coordination includes Duke Energy.	
Project Risks		Regulatory			
-Challenging schedule considerations with respect to the renewable energy investment Tax Credit (ITC) deadlines will require an early work package, and may require the pre-purchase of equipment -The identification of contamination on the proposed site has resulted in the need for remediation of the impacted soils and will require a modified site layout. The cost of this remediation is being finalized by the PDB Team, but is estimated at \$15M, which has been reflected in this updated cost estimate.		WWIP Compliance Date		12/31/2034	
		Adaptive Management		Yes	
		Regulatory Approval Status		Approval in Ph 2B	
		Benefited CSOs		N/A	
		Benefited SSOs		N/A	
		Benefited PSOs		N/A	
Project Schedule (Dates Actual/Forecasted)		Related Projects			
Project Nomination(SG1)	TBD	10172955	LMWWTP High Rate Treatment Preparation	Successor	
Planning Phase		10172960	LMWWTP HRT Facility	Successor	
Planning NTP	06/04/2020	--	--	--	
BCE Approved (SG2)	11/04/2021	--	--	--	
Design Phase		Project Cost Disclaimers		Project Cost Estimate: \$ 207,000,000	
Design NTP	12/20/2022	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance “Programmatic Contingency” and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.			
60% Design (SG3)	08/21/2024				
Submit for PTI	08/01/2024				
100% Design (SG4)	08/01/2025				
Const. Funding (BoCC)	10/18/2024				
Construction Phase					
Construction NTP	11/18/2024				
Subst. Completion (SC1)	02/17/2028				
Final Completion	03/08/2029				

Project Identifiers		Project Location		Project Status:	
Project Type:	Treatment Facility	WWTP Basin:	Little Miami	Current Project Phase:	Planning
CIP Category:	WWIP	Watershed:	Lower Duck Creek	Project Delivery Method:	PDB or DBB
WWIP Index #:	Multiple (see below)	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	System (2021-Q2)
Sanitary Sewer #:	n/a	Neighborhood:	East End	Funding:	WPCLF

Project Need and Problem Statement
At the Little Miami WWTP, all wet weather flow above 55 million gallons per day (MGD) is screened, pumped, and then discharged to the Ohio River without further treatment. In 2021, the Little Miami WWTP HRT and Bundle Update Business Case Evaluation (BCE) was completed. This BCE recommended the construction of a 115 MGD high-rate treatment facility (HRT) and various upgrades to the WWTP to increase biological secondary treatment capacity from 55 MGD to 100 MGD. This project will construct a 115 MGD HRT facility and provide necessary modifications to the existing plant influent pumping stations (Four-Mile Pump Station and Little Miami Pump Station) to ensure successful treatment operation at peak flows of up to 215 MGD.

Project Description
This project is included as part of the LMWWTP HRT Project Bundle. The Bundle, inclusive of previously completed projects, is an adaptive management approach to WWIP Indices 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, and 206.
This project will construct an HRT facility with a capacity of 115 MGD, and it will upgrade the existing treatment plant influent pumping and screening systems to deliver flow to both the HRT and the upgraded secondary (100 MGD) process. Additionally, the disinfection system will be upgraded to match the expanded treatment capacity. The BCE identified cloth media filtration as a viable HRT technology. As the design progresses and coordination with other concurrent projects occurs, other HRT technologies such as chemically enhanced primary treatment, ballasted flocculation, and compressible media filtration, may be revisited and implemented if appropriate.

ROW/Acquisition Needs	Project Permitting Needs	Interagency Coordination
The new outfall for the HRT will require acquisition of new easements between the treatment plant property and the Ohio River.	Project requires revisions to the WWTP NPDES Permit. Project requires standard construction project approvals and permits. Project requires USACE Nationwide Permits for construction of the outfall.	Project requires coordination with Duke Energy, Lunken Airport, and the Columbia-Tusculum Community Council

Project Risks	Regulatory
- Project Design and Construction Risks TBD.	WWIP Compliance Date: 12/31/2034
- This project is dependent on completion of several other projects to avoid delay to this project.	Adaptive Management: Yes
- Project Costs are based on opinion of cost prepared by Arcadis, AACE Estimate Class 5 (-50% to +100% Accuracy).	Regulatory Approval Status: Approval in Ph 2B
	Benefited CSOs: 467, 468, 469, 472, 476, 656
	Benefited SSOs: N/A
	Benefited PSOs: N/A
	CSO Wet Weather Bypass: NPDES No. 1PL00000-004

Project Schedule (Dates Actual/Forecasted)		Related Projects	
Project Nomination(SG1)	07/06/2022	10172950	LMWWTP Electrical, Primary, and Secondary Improvements
Planning Phase		10172955	LMWWTP High Rate Treatment Preparation
Planning NTP	08/28/2024	multiple	multiple LMWWTP improvement projects
BCE Approved (SG2)	01/01/2027	10281100	LMWWTP Solids Disposal With Odor Control
Design Phase		Project Cost Disclaimers	
Design NTP	01/01/2028	Project Cost Estimate: \$ 198,000,000	
60% Design (SG3)	08/01/2030	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance "Programmatic Contingency" and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.	
Submit for PTI	08/01/2030		
100% Design (SG4)	08/01/2031		
Const. Funding (BoCC)	11/01/2030		
Construction Phase			
Construction NTP	01/01/2031		
Subst. Completion (SC1)	09/01/2034		
Final Completion	04/24/2035		

10240640 - MCWWTP Dewatering Building Improvements

Project Fact Sheet

Project Identifiers		Project Location		Project Status:																			
Project Type:	Treatment Facility	WWTP Basin:	Mill Creek	Current Project Phase:	Planning																		
CIP Category:	WWIP	Watershed:	Central	Project Delivery Method:	PDB or DBB																		
WWIP Index #:	248 (Adaptive)	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	System (2018-05-04)																		
Sanitary Sewer #:	n/a	Neighborhood:	Lower Price Hill	Funding:	WPCLF																		
Project Need and Problem Statement																							
The Mill Creek WWTP dewatering process suffers from significant reliability problems that often inhibit solids throughput and threaten permit compliance with respect to the incineration of biosolids. The dewatering building is original to the 1950's and although the process has been upgraded at least three times, most major process components are already well beyond their useful life. The last process upgrade was in the early 2000's, well prior to the 2010 installation of fluidized bed incinerators. This project is required to maintain existing treatment plant operations, and also to process additional solids generated by the future Mill Creek HRT facility. This project was a key component of MSD's 2019 Solids Handling Master Plan due to the benefits associated with increasing the reliability of Mill Creek solids handling assets and minimizing offsite odors.																							
Project Description																							
This project is included as part of the MCWWTP HRT Project Bundle. This project will upgrade the Mill Creek dewatering process by constructing a new dewatering building on a site prepared for this purpose during the construction of the fluidized bed incinerators during Phase 1 of the WWIP. The facility will be designed to process all solids generated at Mill Creek WWTP, with or without the additional solids that will be generated from the proposed Mill Creek HRT. The facility will be designed with odor control, and with the ability to feed either the existing incineration process and its eventual replacement, i.e. an upgraded incineration process or alternative solids disposal process.																							
ROW/Acquisition Needs		Project Permitting Needs		Interagency Coordination																			
None required - all improvements will be made within the property of the existing treatment plant.		TBD		Key stakeholders are MSDGC, Hamilton County, OEPA.																			
Project Risks				Regulatory																			
- Project Design and Construction Risks TBD. - Project Costs are based on opinion of cost prepared by MSD, AACF Estimate Class 5 (-50% to +100% Accuracy)				<table border="1"> <tr> <td>WWIP Compliance Date</td> <td>12/31/2034</td> </tr> <tr> <td>Adaptive Management</td> <td>Yes</td> </tr> <tr> <td>Regulatory Approval Status</td> <td>Approval in Ph 2B</td> </tr> <tr> <td>Benefited CSOs</td> <td>N/A</td> </tr> <tr> <td>Benefited SSOs</td> <td>N/A</td> </tr> <tr> <td>Benefited PSOs</td> <td>N/A</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		WWIP Compliance Date	12/31/2034	Adaptive Management	Yes	Regulatory Approval Status	Approval in Ph 2B	Benefited CSOs	N/A	Benefited SSOs	N/A	Benefited PSOs	N/A						
WWIP Compliance Date	12/31/2034																						
Adaptive Management	Yes																						
Regulatory Approval Status	Approval in Ph 2B																						
Benefited CSOs	N/A																						
Benefited SSOs	N/A																						
Benefited PSOs	N/A																						
Project Schedule (Dates Actual/Forecasted)			Related Projects																				
Project Nomination(SG1)	11/09/2022	10144899	Mill Creek WWTP HRT Facility	Successor																			
Planning Phase		--	--	--																			
Planning NTP	10/14/2024	--	--	--																			
BCE Approved (SG2)	10/01/2025	--	--	--																			
Design Phase		Project Cost Disclaimers																					
Design NTP	01/01/2027	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance "Programmatic Contingency" and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.																					
60% Design (SG3)	11/15/2028																						
Submit for PTI	11/15/2028																						
100% Design (SG4)	11/15/2029																						
Const. Funding (BoCC)	01/01/2029																						
Construction Phase		Project Cost Estimate: \$ 151,000,000																					
Construction NTP	01/01/2031																						
Subst. Completion (SC1)	11/01/2031																						
Final Completion	04/01/2032																						

10144888 - MCWWTP High Rate Treatment Pump Station

Project Fact Sheet

Project Identifiers		Project Location		Project Status:	
Project Type:	Treatment Facility	WWTP Basin:	Mill Creek	Current Project Phase:	Design
CIP Category:	WWIP	Watershed:	Central	Project Delivery Method:	PDB
WWIP Index #:	248 (Adaptive)	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	System (2018-05-04)
Sanitary Sewer #:	6793	Neighborhood:	Lower Price Hill	Funding:	WPCLF
Project Need and Problem Statement					
This project will replace the Mill Creek Pump Station that has been in continuous operation since 1959, but that is now functionally obsolete. This system currently provides a total firm influent pumping capacity of 430 million gallons per day (MGD), but it suffers from reliability problems inherent to the original design. It cannot be expanded to add capacity, and it cannot be taken off-line for necessary upgrades or repairs without a long-term bypass of the treatment plant and significant environmental degradation. This project will replace the aging pump station by constructing a new 700 MGD pump station that will be designed to serve both the Mill Creek WWTP and a future co-located high-rate treatment facility (HRT). The construction project will allow for an upgrade to the plant disinfection system to meet more extensive OEPA-required disinfection.					
Project Description					
This project is included as part of the MCWWTP HRT Project Bundle. This is the second of three construction projects at the Mill Creek WWTP that are meant to address WWIP Index 248. The first project, the Diversion Chamber, has been completed. The current project will construct a new pump station, connecting the recently constructed Diversion Chamber structure to the treatment plant. The third, future project, consists of construction of an HRT to treat peak wet weather flows. In addition to providing interim influent pumping capacity for the treatment plant of up to 430 MGD, the project will provide up to 700 MGD in total pumping capacity. The project will also plan and design for an upgraded treatment plant disinfection system.					
ROW/Acquisition Needs		Project Permitting Needs		Interagency Coordination	
None anticipated - Project will be located on existing MSD Mill Creek WWTP property.		Project requires standard construction project approvals and permits. The increase in pumped flow may require an antidegradation review prior to approval of the Ohio EPA permit-to-install (PTI).		Key stakeholders are MSDGC, Hamilton County, USACE, OEPA, USEPA, and ORSANCO.	
Project Risks		Regulatory			
- Encountering contaminated soil during construction. - Impacting treatment plant operations during tie-in of new pump station to existing force mains - Project Costs are based on opinion of cost prepared by design builder, AACE Estimate Class 4 (-20% to +50% Accuracy).		WWIP Compliance Date		12/31/2034	
		Adaptive Management		Yes	
		Regulatory Approval Status		Approval in Ph 2B	
		Benefited CSOs		N/A	
		Benefited SSOs		N/A	
		Benefited PSOs		N/A	
Project Schedule (Dates Actual/Forecasted)		Related Projects			
Project Nomination(SG1)	N/A	10144887	Mill Creek WWTP High Rate Treatment Facility Diversion Structure	Predecessor	
Planning Phase		10144889	Mill Creek WWTP HRT Facility	Successor	
Planning NTP	01/11/2022	--	--	--	
BCE Approved (SG2)	09/14/2022	--	--	--	
Design Phase		Project Cost Disclaimers		Project Cost Estimate: \$ 267,000,000	
Design NTP	09/23/2023	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance "Programmatic Contingency" and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.			
60% Design (SG3)	09/24/2025				
Submit for PTI	09/24/2025				
100% Design (SG4)	09/24/2026				
Const. Funding (BoCC)	11/01/2025				
Construction Phase					
Construction NTP	01/01/2026				
Subst. Completion (SC1)	11/29/2028				
Final Completion	06/27/2029				

10142950 - East Branch Ohio River Interceptor Extension

Project Fact Sheet

Project Identifiers		Project Location		Project Status:	
Project Type:	Sewer	WWTP Basin:	Mill Creek	Current Project Phase:	Design
CIP Category:	WWIP	Watershed:	East Ohio River	Project Delivery Method:	DBB
WWIP Index #:	395A	Municipality:	City of Cincinnati	Hydraulic Model Latest Version:	Project (2024-Q1)
Sanitary Sewer #:	TBD	Neighborhood:	Queensgate	Funding:	ODOT

Project Need and Problem Statement
This stormwater separation project will take advantage of a unique opportunity to coordinate with the Ohio Department of Transportation (ODOT) on a solution for stormwater drainage and conveyance needs associated with the I-75/Brent Spence Bridge project. The project will remove approximately 110 acres of highway drainage area, and an additional 30 acres within the Queensgate neighborhood (partial separation), from the MSD combined sewer system. The project will eliminate two CSOs (489 and 432) and it will reduce overflows at two other CSOs (430 and 431). The project will also facilitate conveyance of wet weather flow in a manner that will allow for the performance of the future Mill Creek HRT facility to be maximized.

Project Description
This project is still being negotiated with ODOT. This project is an adaptive management approach to Indices 394, 395, 396, 417, and 452. This project will construct new stormwater conveyance infrastructure and it will reconfigure existing sewer system assets, including the McClean Avenue Sewer and the East Branch Ohio River Interceptor, to remove stormwater from the combined sewer system. Overflows will be eliminated or reduced at CSOs 430, 431, 432, and 489. The project includes a dynamic underflow control system to maximum underflow to the interceptor, and remaining overflow will be consolidated at CSO 666. This effort will involve design and construction coordination with ODOT on their upcoming project, HAM 75 113361 (Brent Spence Bridge).

ROW/Acquisition Needs	Project Permitting Needs	Interagency Coordination
Temporary and permanent easements will be required from private property owners, including Norfolk Southern, CSX, and USPS. Use of existing right-of-way and State of Ohio (ODOT) owned properties will also be required.	Project will require revisions to numerous CSO permits. Environmental permits for excavation in and near Mill Creek will also be required. Project requires standard construction project approvals and permits.	Coordination with Greater Cincinnati Waterworks transmission main located under Gest Street. Coordination with CSX/Norfolk Southern to ensure requirements to protect railyard infrastructure are met. Coordination with ODOT for agreement to operate and maintain DUC.

Project Risks	Regulatory																		
- Potential schedule delays due to coordination issues with the railroads. - Construction risk associated with unforeseen conditions impacting the operation of tunnel boring machine. Project Costs are based on opinion of cost prepared by JACOBS Engineering, AACE Estimate Class 4 (30% to +50% Accuracy).	<table border="1"> <tr> <td>WWIP Compliance Date</td> <td>12/31/2034</td> </tr> <tr> <td>Adaptive Management</td> <td>Yes</td> </tr> <tr> <td>Regulatory Approval Status</td> <td>Approval in Ph 2B</td> </tr> <tr> <td>Benefited CSOs</td> <td>430, 432, 431A, 489, 666</td> </tr> <tr> <td>Benefited SSOs</td> <td>N/A</td> </tr> <tr> <td>Benefited PSOs</td> <td>N/A</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	WWIP Compliance Date	12/31/2034	Adaptive Management	Yes	Regulatory Approval Status	Approval in Ph 2B	Benefited CSOs	430, 432, 431A, 489, 666	Benefited SSOs	N/A	Benefited PSOs	N/A						
WWIP Compliance Date	12/31/2034																		
Adaptive Management	Yes																		
Regulatory Approval Status	Approval in Ph 2B																		
Benefited CSOs	430, 432, 431A, 489, 666																		
Benefited SSOs	N/A																		
Benefited PSOs	N/A																		

Project Schedule (Dates Actual/Forecasted)		Related Projects	
Project Nomination (SG1)	11/09/2022	10144899	Mill Creek WWTP HRT Facility
Planning Phase	--	--	--
Planning NTP	08/18/2023	--	--
BCE Approved (SG2)	12/06/2023	--	--
Design Phase	--	--	--
Design NTP	12/22/2023	(1) All costs presented are in 3Q23\$. All costs are expressed to a degree of accuracy of no more than three significant digits, as per MSD Project Costing Manual v3. (2) All project related data contained herein reflects best available status as of March 2024. Changes in scope, cost estimates, and schedules are anticipated as part of the normal project delivery cycle. (3) Costs for full-time on-site construction management and inspection have not been included pending finalization of the Phase 2B project portfolio, project delivery methods, and Phase 2B Schedule to determine needs for outsourced versus in-house resources. (4) Programmatic Contingency for change management during design and construction is included in the MSD Allowance "Programmatic Contingency" and will be calculated at 7.5% of the OPCC. (5) Risk Contingency will be determined on a project specific basis once project design is authorized. Costs are not included herein.	
60% Design (SG3)	09/18/2024		
Submit for PTI	07/06/2025		
100% Design (SG4)	11/12/2025		
Const. Funding (BoCC)	12/11/2025		
Construction Phase	--	Project Cost Disclaimers Project Cost Estimate: \$ 148,000,000	
Construction NTP	03/24/2026		
Subst. Completion (SC1)	07/11/2028		
Final Completion	09/11/2028		