

US EPA ARCHIVE DOCUMENT

ATTACHMENT 1A
Phase 1 Milestone Schedule

PROJECT ID	PROJECT	PTI Submittal Milestone	Start Construction Milestone	End Construction Milestone
10130740	Werk & Westbourne	12/31/2013	12/31/2014	12/31/2017
10143960	Westwood Northern (Bundle)	06/30/2015	06/30/2016	06/30/2017
10142240	Blue Rock	12/31/2013	12/31/2014	12/31/2015
10171840	Lower Little Miami (Bundle)	12/31/2012	12/31/2013	12/31/2015
10120360	Pebble Creek WWTP			06/30/2009
10120420	Diamond Oaks		12/31/2009	12/31/2010
10120460	Towers East	12/31/2011	12/31/2012	12/31/2013
10130560	Muddy Secondary			06/30/2010
10130565	Muddy Pump Upgrade			06/30/2010
10130680	Harwinton			12/31/2010
10131220	Glenview	12/31/2013	12/31/2014	12/31/2015
10144441	1852 Columbia		12/31/2011	12/31/2012
10141440	Millbrook 1			06/30/2009
10141520	Arrowood			06/30/2009
10141540	Winton 1			12/31/2010
10141560	Winton 2			12/31/2010
10142020	Daly Road	12/31/2014	12/31/2015	12/31/2016
10142440	7601 Production			06/30/2009
10144880	Mill Grit		12/31/2010	06/30/2013
10144884	Mill Secondary	12/31/2009	12/31/2010	12/31/2014
10145180	Mill Diversion			12/31/2009
10145280	Mitchell RTC			11/01/2009
10145300	Badgely RTC			11/01/2009
10145320	Lick RTC			05/31/2010
10150012	Polk Phase 3B			06/30/2009
10160005	Sycamore 3			12/31/2010
10160010	Sycamore 4			12/31/2010
10170081	Montgomery		12/31/2011	12/31/2012
10170560	Woodruff			06/30/2009
10170780	LM WWTP Thickening			06/30/2010
10171900	Eastern Delta (Bundle)		12/31/2013	12/31/2015
10172090	Kenwood			06/30/2009
10180600	Mill Incinerator			12/31/2010
10145580	Mill Creek WWTP (Bundle)	12/31/2014	12/31/2015	12/31/2016
10131180	Muddy Creek WWTP (Bundle)	12/31/2013	12/31/2014	12/31/2015
10143220	North Side Upper (Bundle)	12/31/2016	12/31/2017	12/31/2018
10171620	Upper Duck All (Bundle)	12/31/2016	12/31/2017	12/31/2018
10145660	LMCPR	06/30/2015	06/30/2016	12/31/2018

ATTACHMENT 1B

INDEX	PROJECT	Sunk Costs		Remaining Costs		CSO SSO Identifier	Description / Design (NOTE4)	Technology	Plan CAPP	Plan Remaining CSO (M/G/year)
		2008 Dollars	2006 Dollars	2008 Dollars	2006 Dollars					
1	10141660 Norman Ave.	\$	\$	137,501		SSO 585	Relief sewer to Elim. SSO 585 - 285 ft of 12"	CONV	2 yr	
2	10141480 Mill Rd. Sewer	\$	\$	1,855,868			Phase 2 - Relief sewer to replace sewer - 2200 ft of 30"	CONV		
3	10142040 Comision Rd.	\$	\$	210,003			Relieve WIFS w/sewer - 62 ft of 12"	CONV		
4	10141680 Rosa Run Grit Pit	\$	\$	923,746			Grit Pit			
5	10170040 SSO 570 & 1017 in Madiera	\$	\$	3,357,676		SSO 570 & 1017	Elim. SSOs 570 & 1017 w/sewer, 3800 ft of 24 - 30 inch	CONV	2 yr	
6	10141280 Springdale - Sharonville Sewer	\$	\$	2,401,605		SSO 915	Contract 3 - Relief sewer to eliminate SSO 915 - 7842 ft of 8-30"	CONV	2 yr	
7	10141720 Goodman Ave.	\$	\$	1,807,081		531, 577, 1024	Relief sewer to Elim. SSOs 531, 577, 1002, 1005, & 1024 - 1850 ft of 24", 860 ft of 18", & 600 ft of 15"	CONV	2 yr	
8	10145120 Eggleston & Bold Frize	\$	\$	64,106			HWDW - Tide Gate Replacement	HW		
9	10170820 Gungahlin/Parkinson Rd.	\$	\$	3,126,594			Replace existing pipe - Approx. 2800 LF of 12-27"	CONV		
10	10141700 Mill Creek WWTP Aux. Air Supply	\$	\$	215,096			Fulfillment of Need for Aux. Air Supply to Air Transfer Duct, connecting Incinerator Outlet to Scrubber Inlet to control pos. & neg. pressures in each unit.	WWTP	NOTE 1	
11	10141200 Northbrook SSO 628	\$	\$	1,423,853		SSO 628	Phase 2 - Relief sewer to replace sewer near SSO 628 - 3500 ft of 12-15"	CONV	2 yr	
12	10145400 Samohi Ridge	\$	\$	2,144			Solve WIF problems - 524 ft of 12-24"	CONV		
13	10141220 North College Hill	\$	\$	5,391,761		530, 531, SSO 567, 577, 634	Phases 25 & 83 - Relief sewer to eliminate SSOs 530, 531, 567, 577 & 634 - 9800 ft of 12-42"	CONV	2 yr	
14	10141740 St. Clair Sewer	\$	\$	1,454,250			Relief sewer to replace sewer on Elizabeth Ave. - 2638 ft of 8-24"	CONV		
15	10141580 Mill Creek WWTP Replacement Screens PH1	\$	\$	2,815,073			Phase 1 - Replace Screens	WWTP	NOTE 1	0
16	10145000 Mitchell Ave.	\$	\$	814,916		CSO 29	New sewer to eliminate CSO 29 and abandon siphon line under Mill Creek	CONV	2 yr	
17	10141240 Sewer 155 Cooper Creek	\$	\$	5,104,573		SSO 820	Contract 2B - Relief sewer to eliminate SSO 820 - 7410 ft of 8-36"	CONV		
18	10141300 Cambell/ Azres PS	\$	\$	321,573			PS Elm w/sewer - 658 ft of 8"	CONV		
19	10170020 SSO 1053 East Fork Ave. Grating	\$	\$	3,410,084		SSO 1053 CSO 70, 200	Phase 2A, 2B, & 2C - Camargo Rd Sewer Improv. Elim. SSO 1053 and CSOs 70, 200 - 7088 ft of 8 - 36 inch	PS/CONV	2 yr	0
20	10141400 Deer Park	\$	\$	2,076,612		SSO & 601	Relief sewer to Elim. SSOs 1023, 600, & 601 - 3600 ft of 30" & 570 ft of 21"	CONV	2 yr	
21	10144940 Sawyer Point	\$	\$	33,288		SSO 597	sewer, remove diversion dam, and plugging existing dry line conduit			
22	10141880 Labotteaux Ave.	\$	\$	181,725			Elim. SSO 587 w/sewer - 559 ft of 15"	CONV	2 yr	
23	10110300 Durango Green - Shadely Lane PS	\$	\$	540,190			Elimination of PS w/sewer - 2861 ft of 12-in.	CONV		
24	10130000 Park Run WWTP Ph 2 STO	\$	\$	11,186,381			WWTP Optim. - Phase 2	Optimization	NOTE 1	
25	10150240 Maple Ave.	\$	\$	233,381			Loveland Supplemental Agreement			
26	10144920 Harrison & State Ave. West 4	\$	\$	171,990		CSO 4	HWDW Protection	HW		
27	10145020 Montana Ave.	\$	\$	138,382		CSO 89	New sewer and building connections to eliminate CSO 89	SEP		0.05
28	10141680 406 Elliot Ave.	\$	\$	130,892		SSO 572	Relief sewer to Elim. SSO 572 - 203 ft of 16"	CONV	2 yr	
29	10145080 Eastern Ave. (Collins to Bayou)	\$	\$	451,316			Phase 2 - Express Sewer to allow for development and conveyance of wet weather flows	CONV		
30	10170940 Stewart Rd. East Regulator	\$	\$	412,420		CSO 557	Completed, CIP 2002-05 Full Separation - Elimination CD Exhibit 1	FS		0.0
31	10111360 Garden Hills PS	\$	\$	1,085,355			PS Elm w/sewer - 4083 ft of 18 & 16" sewer	CONV		
32	10141620 Mill Creek WWTP Solids Mgmt Centrifuge Procurement	\$	\$	2,616,020			Solids Management Program Centrifuge Procurement - Cost in WWTP Optimization	WWTP	NOTE 1	
33	10144960 Harrison & State Ave. West 3	\$	\$	326,357		CSO 3	HWDW Protection	HW		
34	PROJECTS IN CLOSEOUT									
35	10141760 Mill Creek WWTP Raw Sewage Pumps	\$	\$	93,831,813	\$	16,983,454				
36	10120400 Arrow St. WWTP Elimination & North Bend Crossing	\$	\$	3,153,931	\$	864,295	Replace depleted wastewater Pumping System	WWTP	NOTE 1	
37	10141640 Mill Creek WWTP Solids Mgmt. Centrifuge Install	\$	\$	1,371,433	\$	28,412	PS Elm & WWTP Elm. w/sewer - 6108 ft of 8-12"	CONV		
38	10144900 Ludlow Run	\$	\$	10,208,487	\$	-	Solids Management Program Centrifuge Installation	WWTP	NOTE 1	
39	10145240 Este Ave.	\$	\$	2,615,592	\$	480,658	Collector Upgrade CIP 83-10 Exhibit 1	CONV		16.8
40	10145140 Glvanden Sewer	\$	\$	90,636	\$	78,915	Flood Remediation Sewer Este Ave. Overflow			
41	10170660 Mariemont SSO Elimination 679A, 679B & 680	\$	\$	67,933	\$	-	Removal of process flow from combined sewer to interceptor			
		\$	\$	8,271,513	\$	800,802	Elim. of SSOs 679, 679A, & 680 w/sewer, 5800 ft of 36 inch & 2000 ft of 8-21 inch	CONV	2 yr	

ATTACHMENT 1B

INDEX	Project Completion Actual	Sunk Costs 2006 Dollars	Remaining Costs 2006 Dollars	CSO SSO Identifier	Description / Design (NOTE 4)	Technology	Plan CAPP	Plan Remaining CSO (MG/year)
42	10171420		\$ 244,636	\$ -	Archer St. Div Dam, HDW	HW		
43	10171820		\$ 1,753,157	\$ 226,000	Beechmont Sluice Gate WWTP Rehabilitation	WWTP		
44	10141500		\$ 6,332,281	\$ 485,777	Phase 2 - Replumb existing FM - 3000 ft of 16" FM	FM		
45	10170800		\$ 186,244	\$ 123,417	Elim. PSO 851 w/ sewer - 1745 ft of 12"	CONV	2 yr	
46	10120340		\$ 270,665	\$ 96,542	PS Elm w/ sewer - 1072 ft of 12"	CONV		
47	10141380		\$ 906,577	\$ 280,075	Relief sewer to Elm. SSO 222 - 1821 ft of 12-21"	CONV	2 yr	
48	10141820		\$ 12,730,053	\$ 1,500,406	CEHRS Treatment Facility (Performance in 41180)	CEHRS		
49	10170840		\$ 605,979	\$ 253,036	Phase 2 Elm. of P.S. w/ sewer - 834 ft of 30"	CONV		
50	10142000		\$ 444,930	\$ 349,792	Elim. SSO 574 w/ sewer - 950 ft of 15"	CONV	2 yr	
51	10141420		\$ 385,144	\$ 307,179	PS Elm w/ sewer - 1570 ft of 12"	CONV	2 yr	
52	10141600		\$ 2,910,250	\$ 701,430	Phase II - Replace Screens	PSUFM	NOTE 1	
53	10141340		\$ 800,614	\$ 81,932	PS and 1000 ft of 6" FM	PSUFM	NOTE 1	
54	10150011		\$ 522,457	\$ 145,466	Polk Run WWTP PS Elimination Sewer Ph3A	Optimization		
55	10145200		\$ 94,432	\$ -	Separation sewer to aid in elimination of CSO 450	PS		0.0
56	10172200		\$ 1,090,035	\$ 425,647	Partial Separation	PS		
57	10141760		\$ 657,381	\$ 131,280	Relief sewer to Elm. Marview PS (900 ft of 6") & New PS/FM to Replace Arrowhead PS (245 ft of 4")	PS/CONV	2 yr	
58	10145040		\$ 301,714	\$ 54,969	Partial Separation Phase 3 CIP 98-91 - 2006 Construction (CD Exhibit 1)	PS		0.2
59	10130420		\$ 94,677	\$ 57,510	Parallel section of Wulff Run Interceptor - 200 ft of 24"	CONV		
60	10145220		\$ 3,650,803	\$ 932,975	Real Time Control Project to retain water in CSO with inflatable dam (CSO annual reduction of approximately 250 MG/year)	RTC	In 43040 NOTE 5	
61	10145100		\$ 1,814,482	\$ 343,174	Ad in separation of existing combined sewer	SEP	In 45220	
62	10160000		\$ 26,960,214	\$ 3,035,574	Sycamore WWTP Upgrade - 50 MGD, Phase 1 and 2	Optimization	NOTE 1	
63	10131200		\$ 511,347	\$ 519,479	Mount St. Joseph Sewer Replacement	PS		In 30780
64	10120380		\$ 705,188	\$ 387,965	PS Elm w/ sewer - 2703 ft of 12"	CONV	2 yr	
65	10141839		\$ 304,233	\$ 5,020	McGrew Ave. PS Upgrade	PSU		
66	10120360		\$ 928,541	\$ 847,905	WWTP replaces w/PS & FM	WWTP Elim.		
67	10142440		\$ 122,447	\$ 104,550	Regulator Improvements - 0.20 o/s	RI		0.2
68	10172090		\$ 757,102	\$ 1,375,273	Upgrade of Existing Kenwood PS No. 724	PSU		
69	10150012		\$ 1,481,193	\$ 939,560	Polk Run WWTP Expansion Ph3B	Optimization	NOTE 1	
70	10141440		\$ 402,371	\$ 302,501	PS and 600 ft of 6" FM - PS Upgrade	PSUFM	2 yr	
71	10170560		\$ 939,041	\$ 371,610	1.2 MGD, 600 ft of 6" F.M. - PS Upgrade	PSUFM	2 yr	
72	10141520		\$ 423,189	\$ 813,609	Eliminate PSO 861	CONV	2 yr	
REMAINING PHASE 1 PROJECTS TO BE CONSTRUCTED								
73			\$ 114,204,002	\$ 807,433,016				
74	10145280		\$ 1,127,341	\$ 1,518,011	Real Time Control Project to retain water in CSO with inflatable dam (CSO annual reduction of approximately 100 MG/year)	RTC		In 45380 NOTE 5
75	10145300		\$ 305,654	\$ 2,617,059	Real Time Control Project to retain water in CSO with inflatable dam (CSO annual reduction of approximately 60 MG/year)	RTC		In 45820 NOTE 5
76	10145180		\$ 1,223,735	\$ 385,126	Bloody Run & Spring Grove Ave. - Phase 2 - REG	RI		In 42700
77	10145320		\$ 76,572	\$ 1,376,782	Real Time Control Project to retain water in CSO (CSO annual reduction of approximately 200 MG/year)	RTC		In 45660 NOTE 5
78	10130560		\$ 5,734,429	\$ 5,289,057	W-102 - WWTP Optimization Secondary Enhancement (98-09)	WWTP	NOTE 1	
79	10130565		\$ 608,071	\$ 2,801,053	W-102 - WWTP Optimization Raw Sewage Pump Upgrade, Effluent Pump Upgrade	WWTP	NOTE 1	
80	10170760		\$ 2,429,843	\$ 3,346,832	E-503 - Activated sludge thickening (CIP 2005-31)	WWTP	NOTE 1	
81	10130680		\$ 117,431	\$ 1,046,285	Replace sewer - 2000 ft of 12"	CONV	2 yr	
82	10141540		\$ 338,400	\$ 2,060,884	Phase I - New PS, gravity sewer from Winton 2 to Winton 1, and New FM in Winton Rd	CONV	2 yr	
83	10141560		\$ 297,485	\$ 1,382,776	Phase II - New sewer to Elm. Sherwood PS - 2300 ft of sewer & 4750 ft of FM	CONV	2 yr	
84	10160005		\$ 770,557	\$ 6,114,644	Sycamore WWTP Upgrade - 50 MGD, Phase 3	Optimization	NOTE 1	
85	10160010		\$ 216,253	\$ 2,550,814	Sycamore WWTP Upgrade - 50 MGD, Phase 4	Optimization	NOTE 1	

INDEX	Project	Completion Actual	Sumt		Remaining		CSO SSO Identifier	Description / Design (NOTE4)	Technology	Plan CAPP	Plan Remaining CSO (MG/year)
			Costs	2008 Dollars	Costs	2008 Dollars					
86	10180600	Mill Creek WWTP, TPE Incinerator	\$	35,021,978	\$	35,021,978	PSO	Mill Creek WWTP, TPE Incinerator	WWTP	NOTE 1	
87	10120420	Diamond Oaks, Windmere 3rd & Regency Ridge PS	\$	306,882	\$	1,336,137	PSO	PS Elm Wdower - 3200 ft of 8" Montgomery Rd & Lester Ave	CONV	2 yr	
88	10170081	Montgomery Rd & Lester Ave	\$	57,616	\$	984,962	CSO 465	2145 feet of 27 to 36" combined sewer and 2050 feet of 36" storm sewer. Catch basins along the storm sewer will be diverted to the storm sewer, allowing the combined sewer to be downsized.	CONV		
89	10144441	1852 Columbia Pkwy Sewer	\$	242,189	\$	1,744,316	CSO 465	C-402 - Mill Creek Grit Removal Improvements (CJP 2006-30)	PS		In 44440
90	10144880	Mill Creek WWTP Grit Removal	\$	667,744	\$	39,383,529	PSO 887, 891	Eliminate Towers East PS & Upgrade Ponderosa PS	WWTP	NOTE 1	
91	10120460	Towers East Pump Station	\$	20,305	\$	2,183,245	CSO 469	C-402 - Secondary Treatment Enhancements	PSE/PSU	2 yr	
92	10144884	Mill Creek WWTP Secondary Treatment Enhance -	\$	985,315	\$	40,280,301	CSO 469	E-301 - Construct Real Time Control Chamber at Lilla Miami WWTP, construct 72" intersecting sewer to Eastern Avenue	WWTP	NOTE 1	
93	10171980 (A)	Eastern Delta Ave. Ph1	\$	4,552,591	\$	39,127,126	CSO 469	Extend interceptors to 2 new CSOs (469A & 469B)	CONV		75.9
94	10171920 (A)	Eastern Delta Ave. Ph2	\$	1,139,074	\$	18,594,985	CSO 469, 467, 468, 469, 657	Separation of area tributary to CSO 467A and 657, construction of new flow regulator and flap gate (HMDW) structures at CSOs 467, 468, and 469; demolition of Delta Ave. Pump Station	CONV		47.5
95	10171900 (A)	Eastern Delta Ave. Ph3	\$	1,009,542	\$	14,246,639	PSO 773	Upgrade PS	CONV		
96	10131220	Glenview PS at Wesselman	\$	-	\$	780,202	CSO 180	Full Separation - CIP 94-25 and Regulator Improvements -7.7 cfs Community Priority	PSU	2 yr	
97	10142240	Blue Rock Rd. Sewer Separation	\$	2,931	\$	1,887,181	CSO 471	Regulator Improvements - 9.3 cfs Premised on operational changes at Four Mile P.S.	FS		0.1
98	10171840 (B)	CSO 471 Grandin Rd. Reg. Improvements	\$	565	\$	288,083	CSO 470	Partial Separation & Regulator Improvements Construct storm sewer from Eastern Ave to Wilmer Rd	RI		0.0
99	10171860 (B)	CSO 470 Eastern Ave. Sewer Separation	\$	309	\$	1,807,283	CSO 470	W-102 - Add new Belt Filter Press-BAN Proj. DR-2	PS		0.0
100	10131180 (C)	Muddy Creek WWTP New Belt Filter Press	\$	1,348,000	\$	4,270,000	CSO 525	W-102 - Add new Belt Filter Press-BAN Proj. DR-2	WWTP	NOTE 1	
101	10131240 (C)	Muddy Creek WWTP Grit Replacement	\$	4,270,000	\$	13,742,834	CSO 522	Regulator sewer #181 - 6500 ft of 21-30"	CONV		
102	10142020	Daily Rd. to Completion Rd.	\$	505,198	\$	15,63,200	CSO 522	Additional Optimization - Auxiliary Outfall Improvements	WWTP	NOTE 1	
103	10145500 (D)	Mill Creek WWTP Outfall Improvements	\$	15,63,200	\$	137,000	CSO 522	Additional Optimization - Auxiliary Outfall Improvements	WWTP	NOTE 1	
104	10145560 (D)	Mill Creek WWTP Secondary Bypass Weir	\$	137,000	\$	1,315,000	CSO 194	Additional Primary Sludge Pumping	WWTP	NOTE 1	
105	10145560 (D)	Mill Creek WWTP Added Sludge Pumping	\$	1,315,000	\$	4,105,549	CSO 195	Partial Separation Community Priority	PS		3.0
106	10143920 (E)	CSO 194 High Point Sewer Separation	\$	13,317	\$	2,808,123	CSO 525	Partial Separation Community Priority	PS		3.7
107	10143940 (E)	CSO 195 Westwood Northern Sewer Separation	\$	13,170	\$	2,407,888	CSO 525	Partial Separation Community Priority	PS		2.5
108	10143960 (E)	CSO 525 Mt. Arty Grating Sewer Separation	\$	6,619	\$	28,256,984	CSO 522	EHRT - 108 MGD Community Priority (NOTE 2)	EHRT		64.7
109	10130740	Werk & Wesbourne Grating	\$	374,405	\$	885,920	SSO 645, 225-A	New parallel sewer to follow original alignment - 1700 ft of 15"	CONV	2 yr	
110	10141080 (F)	Ludlow and Lafayette Parallel Sewer	\$		\$	1,306,000	CSO 179	Partial Separation	PS		0.4
111	10143220 (F)	Scarlet Oaks Regulator	\$		\$	244,342,000	CSO 135	Grey LMC Default Project - Tunnel and EHRT to remove a total of 1.6 billion gallons of overflow.	TunEHRT		451
112	10145650	Grey LMC Default Project	\$	-	\$	192,428,428	CSO 135	RTIC projects remove an additional 0.41 billion gallons - 45220, 45280, 45300, 45320 - A total of 2 billion gallons of overflow removed.)			
113		Allowances	\$	58,039,261	\$	252,000,000	SSO 1000	Replace existing pipe - Approx. 1400 LF of 15-24"	CONV	2 yr	
114	10170080 (G)	SSO 1000 Elimination	\$		\$	1,815,284	SSO 228	Replace existing pipe - Approx. 3100 LF of 15-18"	CONV	2 yr	
115	10170100 (G)	SSO 228 Elimination	\$		\$	1,381,001	CSO 54	Regulator Improvements-10.0 cfs CAPP PLUM-LIT-CAPP-C-064	RI		0.1
116	10171580 (G)	CS									

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INDEX	PROJECT	COMPLETION Actual	Sunk Costs 2008 Dollars	Remaining Costs 2008 Dollars	CSO SSO Identifier	Description / Design (NOTE 4)	Technology	Plan CAPP	Plan Remaining CSO (MG/year)
124	10171640	CSO 214 Storage Facility		\$ 2,348,076	CSO 214	Storage - 2.00 MG	STO		
126	10171660	CSO 500 Improvements		\$ 34,275	CSO 500	Regulator Improvement - 1.5 cfs. See E-500	RI		
128	10171680	CSO 501 Improvements		\$ 33,971	CSO 501	Regulator Improvement - 0.1 cfs. See E-500	RI		
127	10171700	CSO 549 Improvements		\$ 33,731	CSO 549	Regulator Improvement - 5.0 cfs. See E-500	RI		
128	10171720	CSO 550 Improvements		\$ 33,525	CSO 550	Regulator Improvement - 0.4 cfs. See E-500	RI		
129	10171760	CSO 552 Improvements		\$ 35,234	CSO 552	Regulator Improvement - 19.4 cfs	RI		
130	10171800	Upper Duck Creek BHT Facility		\$ 2,347,477		E-500 - EHRT - 40-MGD - Serves CSOs 170, 549, 550, 501 & 500 (NOTE 2)	EHRT		
131	10171820	LM Four Mile Pump Station Upgrade		\$ 542,689		E-503 - Four Mile Pump Station Rec Proj - PS-1	WWTP	NOTE 1	
132	10171830	LMWWTP Pump Station Reconfiguration		\$ 467,742		E-503 - Modify LMR Pump Station Rec Proj - PS-5	WWTP	NOTE 1	
133	10171840	LMWWTP Grit Station Upgrade		\$ 1,185,142		E-503 - Grit Collection Proj - SG-1	WWTP	NOTE 1	
134	10171850	LMWWTP Primary to Secondary Hydraulic Improvements		\$ 280,036		E-503 - Four Mile Pump Station to Screen Building Rec Proj - H-1	WWTP	NOTE 1	
135	10171860	LMWWTP Chemically Enhanced Primary		\$ 231,688		E-503 - Primary to Secondary Conveyance Rec Proj - H-2	WWTP	NOTE 1	
136	10171870	LMWWTP Secondary Treatment Modifications		\$ 899,289		E-503 - Chemical Enhance Primary Rec Proj - PT-2	WWTP	NOTE 1	
137	10171880	LMWWTP Secondary Treatment Feed		\$ 1,372,476		E-503 - Modification to Secondary Treatment Rec Proj - ST-2	WWTP	NOTE 1	
138	10171900	LMWWTP Chemical Feed Upgrades		\$ 547,954		E-503 - Upgrade Chemical Feed Sys Storage - D-2	WWTP	NOTE 1	
139	10171930	LMWWTP Sludge Receiving Improvements		\$ 64,939		E-503 - Improvement to Sludge Receiving Facility Rec Proj - DR-6	WWTP	NOTE 1	
140	10171940	LMWWTP Standby Power		\$ 1,074,223		E-503 - Dual Feed / Standby Power Rec Proj - E-1	WWTP	NOTE 1	
141	10172020	LMWWTP Wet Weather Pump Station		\$ 5,288,395		E-505 - Wet Weather Pump Station with Screening 150 MGD to Auditory Outfall	WWTP	NOTE 1	
142	10172260	LMWWTP Dry Weather Pump Station		\$ 125,000		Four Mile PS - Dry Weather Pumps - B&N Rec. Proj. PS-1	WWTP	NOTE 1	
143	10140400	Lockland Sewer Separation		\$ 381,914	SSO 1045, 1010	Replace collector following original alignment - 7968 ft of 12-24"	CONV		
144	10142280	Oakey Grating		\$ 36,201	CSO 226	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		
145	10142300	914 Oak St. Grating		\$ 36,068	CSO 559	Regulator Improvements-14.0 cfs. Green potential greater than storage need.	RI		
146	10142320	200' West of Bacon St. Grating		\$ 33,680	CSO 515	Regulator Improvements-0.7 cfs	RI		
147	10142340	Bacon St. Grating		\$ 33,680	CSO 516	Regulator Improvements-0.11 cfs	RI		
148	10142360	No. 96 North Park Grating		\$ 36,068	CSO 538	Regulator Improvements-0.31 cfs	RI		
149	10142380	117 E. Charlotte Grating		\$ 35,985	CSO 539	Regulator Improvements-5.0 cfs	RI		
150	10142400	428 South Cooper Grating		\$ 35,984	CSO 562	Regulator Improvements-3.08 cfs	RI		
151	10130000	Muddy Creek Basin Storage & Conveyance Sewer	\$ 42,512	\$ 14,060,624	701, 702, SSO 692, SSO 697, 675-A, 1061	Storage & Conveyance Tunnel unloads Muddy Creek PS. Eliminating SSOs 692 & 697, provide CSO control for 516, 404, 405 and 406 - 25 ft diameter, 8500 ft long, 35 MGD pumps at WWTP	TUNNEL		
152	10130160	Muddy Creek Pump Station Upgrade and Foreman	\$ 4,043	\$ 1,511,582	SSO 697, 675-A	Elim. PSO - Increase capacity & convey to Hillside Relief Tunnel - 25 MGD pumps, 12 FM for DWF, 36" FM for WWF (associated with 30000)	PS/JFM		
153	10130400	River Rd. Near Muddy Creek WWTP Conveyance Sewer	\$ 3,725	\$ 53,882	SSO 702	Rapid Run/Bender Rd. Interceptor directly into New Tunnel - 800 ft of 36"	CONV		
154	10131020	CSO 402 Topinabee Dr. Reg. Improvements	\$ 797	\$ 34,470	CSO 402	Regulator Improvement - 13.3 cfs (dependent on 30000, 30160, 31120)	RI		
155	10131040	CSO 403 Elco St. Div. Dam Reg. Improvements	\$ 735	\$ 34,648	CSO 403	Regulator Improvement - 7.10 cfs (dependent on 30000, 30160, 31120)	RI		
156	10131060	CSO 404 Vanhoose St. Reg. Improvements	\$ 704	\$ 35,848	CSO 404	Regulator Improvement - 26.9 cfs (dependent on 30000, 30160, 31120)	RI		
157	10131080	CSO 405 Revere St. Reg. Improvements	\$ 630	\$ 35,034	CSO 405	Regulator Improvement - 6.20 cfs (dependent on 30000, 30160, 31120)	RI		
158	10131100	CSO 406 Kennebeck St. Reg. Improvements	\$ 5,611	\$ 35,178	CSO 406	Regulator Improvement - 15.4 cfs (dependent on 30000, 30160, 31120)	RI		
159	10131120	West Branch Ohio River Interceptor Sewer	\$ 16,349	\$ 564,187	CSO 404, 405, CSO 406	Convey Flow from CSO 404 to WWTP - 4000' - 60" sized for 85% control for CSOs 404, 405 and 406 (dependent on 30000, 30160)	CONV		
160	10140000	SSO 1048 Conveyance Sewer Phase 1	\$	\$ 450,870	SSO 1048	Replace collector following original alignment - 4115 ft of 18-27", Tunnel 375 ft of 18-24"	CONV		

ATTACHMENT 1B

INDEX	PROJECT	COMPLETION Actual	Sunk Costs 2006 Dollars	Remaining Costs 2006 Dollars	CSO Identifier	Description / Design (NOTE 4)	Technology	Plan CAPP	Plan Remaining CSO (MG/Year)
161	10140020 SSO 1048 Conveyance Sewer Phase 2			\$ 375,348	SSO 1048, 587	Replace collector following original alignment - 4256' of 30-36"	CONV		
162	10140080 SSO 587 Conveyance Sewer			\$ 275,337	SSO 587	Replace collector following original alignment - 4235' of 15-24"	CONV		
163	10140120 Sharonville/Evendale Trunk to SSO 700			\$ 4,839,634	SSO 1048, 587	24,928 LF of 30-66" Tunnel 6250 LF of 30-78"	CONV		
164	10140480 Pleasant Run Interceptor Replacement			\$ 310,718		WIBs - Replace collector following original alignment - 4246' of 21-24"	CONV		
165	10141180 I-75 & Shepard Ave. SSO 700			\$ 9,407,884	SSO 700	Increase Storage at existing site - Additional 24 MG (NOTE 3)	STOR		
166	10142120 Mill & Vine St. Grating			\$ 38,084	CSO 512	Regulator Improvements-3.25 cfs	RI		
167	10142200 Bernard & Resenberg Grating			\$ 360,034	CSO 513	Partial Separation	PS		
168	10142220 Smalley Grating			\$ 183,886	CSO 514	Partial Separation	PS		
169	10130020 Muddy Creek Interceptor Rehabilitation			\$ 722	SSO 1061 CSO 518 MH 16006007	Clean Interceptor - 5000' of 36"	CLEAN		
170	10130040 CSO 518 Muddy Creek Conveyance Sewer			\$ 856,428	SSO 1061 CSO 518 MH 16006007	Replace section of Muddy Creek Int. - 9000' of 36". Provides CSO interception capacity for CSO 518	CONV		
171	10130280 Addyston PS Elimination			\$ 265,096	PSO 730, 1050203	Elim. Addyston P.S. w/gravity along Rte. 50 - 2650' of 36" and two 100' of 24"	CONV		
172	10130700 Muddy Creek @ Westbourne EHRT			\$ 4,178,406	CSO 198	EHRT - 126 MGD Community Priority (NOTE 2)	EHRT		
173	10130720 CSO 518 Improvements			\$ 33,309	CSO 518	Regulator Improvement - 27.4 cfs Premised on CAPP Activity ID - 30040, 30050 Community Priority	RI		
174	10130780 CSO's 223, 408, 410, 541, 654		\$ 281,421	\$ -	223, 408, 411, 412, 541, 654	CD Exhibit 1 Partial Separation	PS		
175	10130840 CSO's 411, 412, 413, 414, 415, 416		\$ 208,080	\$ 953	CSO 411, 412, 415, 416	CD Exhibit 1 Regulator Improvement-3.21 cfs and Relocation Complete Partial Separation - Activity ID 31140	RI/PS		
176	10131000 E. Branch Muddy Ph1 Interceptor		\$ 1,239,024	\$ 103,852		W-103 - CD Exhibit 1 Interceptor Replacement Phase 1	CONV		
177	10131002 E. Branch Muddy Ph2 Interceptor		\$ 432,610	\$ 4,783		W-103 - CD Exhibit 1 Interceptor Replacement Phase 2	CONV		
178	10131003 E. Branch Muddy Ph3-A Pump Station (Changed to AM)		\$ 881,975	\$ -		W-103 - CD Exhibit 1 Interceptor Replacement Phase 3	CONV		
179	10131004 East Branch Muddy Ph3-B Pump Station (Changed to AM)		\$ 246,641	\$ -		East Branch Muddy Ph3-B Pump Station	CONV		
180	10131006 East Branch Muddy Interceptor		\$ 362,587	\$ -		W-105 - Interceptor Extension	CONV		
181	10131140 E. Branch Ohio Interceptor Sewer Separation			\$ 1,028,053	408, 411, CSO 412, 414, 415, 416	W-104 - Complete Partial Separation in CSOs areas 408, 411, 412, 414, 415, 416	PS		
182	TOTAL PHASE 1		\$ 284,781,000	\$ 881,555,710					

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. INFORMATION RELATED TO THIS PROJECT IS PRELIMINARY AND SUBJECT TO CHANGE BASED ON FURTHER STUDY AS SET FORTH IN PARAGRAPH A.3. OF THE WWIP
4. CAPP DESIGN ALL CAPP SEWER PROJECTS WILL BE DESIGNED TO MEET THE 10 YEAR DESIGN STORM EVENT. ALL CAPP PUMP STATION AND STORAGE FACILITIES WILL BE DESIGNED TO MEET THE 2 YEAR DESIGN STORM EVENT.
5. THE 2 AND 10 YEAR DESIGN STORMS ARE SCS TYPE II - 24 HOUR EVENTS.
6. FOR THESE RTO PROJECTS, THE STATED REDUCTION IN THE TYPICAL YEAR CSO DISCHARGE VOLUME SHALL ALSO BE THE PERFORMANCE CRITERIA FOR THE FACILITY.
7. PERFORMANCE CRITERIA FOR CSO VOLUMES REMAINING AFTER IMPLEMENTATION OF CSO CONTROLS ARE THE VOLUMES NOT TO BE EXCEEDED AT A PARTICULAR OUTFALL DURING MSDGC'S TYPICAL RAINFALL YEAR (1970).
8. COMPLIANCE WITH THESE CRITERIA WILL BE EVALUATED BY IMPLEMENTATION OF A POST CONSTRUCTION MONITORING PROGRAM (WHICH WILL BE SUBMITTED TO THE REGULATORY AGENCIES FOR REVIEW AND APPROVAL IN ACCORDANCE WITH THE GLOBAL CONSENT DECREE) THAT WILL UTILIZE MSDGC'S HYDROLOGIC AND HYDRAULIC MODEL TO NORMALIZE THE RESULTS OF THE POST CONSTRUCTION MONITORING TO THE TYPICAL YEAR.

Bundle Identifiers

- (A) The Eastern Delta Bundle on Attachment 1A consists of these projects.
- (B) The Lower Little Miami Bundle on Attachment 1A consists of these projects.
- (C) The Muddy Creek WWTP Bundle on Attachment 1A consists of these projects.
- (D) The Mill Creek WWTP Bundle on Attachment 1A consists of these projects.
- (E) The Westwood Northern Bundle on Attachment 1A consists of these projects.
- (F) The North Side Upper Bundle on Attachment 1A consists of these projects.
- (G) The Upper Duck All Bundle on Attachment 1A consists of these projects.

Attachment 1C

Original LM CPR

The Lower Mill Creek Partial Remedy (LM CPR) will be a series of measures constructed during Phase 1 of the WWIP to capture a significant volume of combined sewer overflows in the Lower Mill Creek basin. At the Regulators' direction (November 25, 2008 letter), a LM CPR preferred alternative ("Original LM CPR") was identified by Defendants during a preliminary planning analysis and reported to the Regulators in a Lower Mill Creek Alternatives White Paper, dated February 9, 2009, and provided to Sierra Club.

The Original LM CPR will be sized to provide 85% control for the listed consolidated CSO flows from CSO 009 down to the Lower Mill Creek treatment facility, and includes the following:

- Approximately 7600 feet of 30-foot diameter tunnel from the Mill Creek WWTP to CSO 005- Lick Run;
- Approximately 2000 feet of 7-foot diameter consolidation sewer from CSO 005 to CSO 009;
- The tunnel will store and convey overflows, some connected by consolidation sewer, starting with in the north CSO 009 and including CSO 007, CSO 006, CSO 005, CSO 004, CSO 003, CSO 002, CSO 666, CSO 152, CSO 429 and CSO 428;
- The tunnel will convey flows to an Enhanced High Rate Treatment (EHRT) facility with a capacity to treat 84 MGD, which will be located at or near the Mill Creek WWTP;
- Current Real Time Control projects at CSO 487- Ross Run, CSO 482- Mitchell, and CSO 125-Badgeley will be utilized;
- The currently identified projects will reduce an estimated CSO volume of 2,013 MG/year.

Performance and Design Criteria for the EHRT component of the Original LM CPR are set forth in Attachment 5.