UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 30 2013

REPLY TO THE ATTENTION OF:

WC-15J

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

Ms. Deborah Wyler Allison
Assistant City Solicitor for the City of Cincinnati
801 Plum Street, Suite 214
Cincinnati, Ohio 45202

Mr. James A. Parrott
Executive Director
Metropolitan Sewerage District of Greater Cincinnati
1600 Gest Street
Cincinnati, Ohio 45204

Re: Revised Original Lower Mill Creek Partial Remedy

Dear Commissioners, Ms. Allison and Mr. Parrott:

On December 18, 2012, the Board of County Commissioners of Hamilton County and the City of Cincinnati (Defendants) submitted a proposed Revised Original Lower Mill Creek Partial Remedy (Revised Original LMCPR) to the U.S. Environmental Protection Agency, the Ohio Environmental Protection Agency, and the Ohio River Valley Water Sanitation Commission (the "Regulators"). Defendants submitted the proposal in accordance with Paragraph A.2.a of the Wet Weather Improvement Program that the Regulators approved on January 6, 2010 (2010 WWIP). On January 10, 2013, EPA issued public notice of Defendants' proposal and requested public comment on the proposal. On May 29, 2013, Defendants submitted a modified proposal for a Revised Original LMCPR. The modified proposal for a Revised Original LMCPR consists of proposed revised Attachments 1A, 1B and 1C to replace those attached to the 2010 WWIP; and proposed revised Lines 452-453 and accompanying footnotes 7-9 in Attachment 2, which would replace Lines 452-471 in Attachment 2 to the 2010 WWIP. The proposed revisions to the final lines of Attachment 2 to the 2010 WWIP are included as Exhibit 1 to Defendants' modified proposal.

The Regulators have reviewed Defendants' proposals, the information Defendants submitted in support of those proposals, and the public comments that EPA received in response to its January 10, 2013, public notice. By this letter, which is being sent on behalf of all of the Regulators, the Regulators approve Defendants' modified proposal for a Revised Original LMCPR in accordance with the WWIP and Section XXX of the Consent Decree on Combined Sewer Overflows, Wastewater Treatment Plants and Implementation of Capacity Assurance Program Plan for Sanitary Sewer Overflows. Specifically, by this action, the Regulators approve Defendants' proposals to replace1) Attachments 1A, 1B and 1C to the 2010 WWIP with the Revised WWIP Attachments 1A, 1B and 1C that Defendants submitted on May 28, 2013; *and* 2) Lines 452-471 of Attachment 2 to the 2010 WWIP with Lines 452-453 and their accompanying footnotes 7-9, as set forth in Exhibit 1 that Defendant submitted on May 28, 2013.

All other aspects of Attachment 2 to the 2010 WWIP other than Lines 452-471 remain fully effective. The Revised WWIP Attachments 1A, 1B and 1C, and the revised Lines 452-453 and their accompanying footnotes 7-9 in Attachment 2, are included as Enclosure A to this letter. A summary of the differences between the December 18 proposal and the May 28, 2013, modified proposal is included as Enclosure B. The Regulators' responses to the public's comments are included as Enclosure C.

It is our understanding that Defendants believe that additional changes to other aspects of the 2010 WWIP may be warranted to reflect modeling work done over the past three years, to address lessons learned in the development of the Revised Original LMCPR, and to address other issues. The Regulators agree that additional changes might be warranted, and look forward to discussing these issues further with Defendants in the near future.

The Regulators commend the Metropolitan Sewer District of Greater Cincinnati, the City of Cincinnati and the Hamilton County Board of County Commissioners for the hard work and incisive analyses that went into development of the Revised Original LMCPR, and the frequent communications organized with the Regulators as the proposal was being developed. If you have any questions about this letter, please contact Ms. Barbara VanTil of my staff at, (312) 886-3164, or vantil.barbara@epa.gov.

Sincerely,

Tinka G. Hyde
Director, Water Division

Enclosures

Enclosure A

REVISED 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)	6/30/2015	6/30/2016	6/30/2017
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			6/30/2009
10120420	Diamond Oaks		12/31/2009	12/31/2010
10120460	Towers East	12/31/2011	12/31/2012	12/31/2013
10130560	Muddy Secondary			6/30/2010
10130565	Muddy Pump Upgrade			6/30/2010
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			6/30/2009
10141520	Arrowood			6/30/2009
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			6/30/2009
10144880	Mill Grit		12/31/2010	6/30/2013
10144884	Mill Secondary	12/31/2009	12/31/2010	12/31/2014
10145180	Mill Diversion			12/31/2009
10145280	Mitchell RTC			11/1/2009
10145300	Badgely RTC			11/1/2009
10145320	Lick RTC			5/31/2010
10150012	Polk Phase 3B			6/30/2009
10160005	Sycamore 3			12/31/2010
10160010	Sycamore 4			12/31/2010
10170081	Montgomery		12/31/2011	12/31/2012
10170560	Woodruff			6/30/2009
10170780	LM WWTP Thickening			6/30/2010
10171900	Eastern Delta (Bundle)		12/31/2013	12/31/2015
10172090	Kenwood			6/30/2009
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	Revised LMCPR (Bundle)	12/31/2016	12/31/2017	12/31/2018

"Bundle" means the aggregated group of Final WWIP projects. The milestone date listed above for each action for each bundle is the final date by which all of the projects within a distinct bundle must meet the specified project status.

INDEX	REVISED WWIP ATTACHMENT 1B - MAY 2013		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)
44	10141500	Pleasant Run PS	Nov-06	$ 6,332,251	$ 485,377		Phase 2 - Replace existing FM - 3000 ft of 16" FM	FM		
45	10170800	Berkley Woods PS	Nov-06	$ 198,244	$ 123,747	PSO 851	Elim. PSO 851 w/Sewer - 1745 ft of 12"	CONV	2 yr	
46	10120340	Streamwood Pump Station	Dec-06	$ 270,665	$ 96,942		PS Elim w/sewer - 1072 ft of 12"	CONV		
47	10141380	N. Bend Rd./Connecticut Sewer	Dec-06	$ 908,577	$ 280,075	SSO 222	Relief sewer to Elim. SSO 222 - 1821 ft of 12-21"	CONV	2 yr	
48	10141820	SSO 700 CEHRS Treatment Facility	Dec-06	$ 12,730,053	$ 1,500,406	SSO 700	CEHRS Treatment Facility (Performance in 41180)	CEHRS		
49	10170840	Johnson Rd. PS	Mar-07	$ 605,979	$ 253,036		Phase 2 Elim. of P.S. w/Sewer - 834 ft of 30"	CONV		
50	10142000	W. Branch Mill Creek SSO 574	May-07	$ 444,930	$ 349,792	SSO 574	Elim. SSO 574 w/sewer - 950 ft of 15"	CONV	2 yr	
51	10141420	Centurion Estates PS	Jun-07	$ 385,144	$ 307,478	PSO	PS Elim w/sewer - 1570 ft of 12"	CONV	2 yr	
52	10141600	Mill Creek WWTP Replacement Screens Ph2	Jun-07	$ 2,919,250	$ 701,430		Phase II - Replace Screens	WWTP	NOTE 1	
53	10141340	Greenridge PS	Sep-07	$ 580,614	$ 87,582		PS and 1000 ft of 6" FM	PSU/FM		
54	10150011	Polk Run WWTP PS Elimination Sewer Ph3A	Sep-07	$ 522,457	$ 145,486		Polk Run WWTP PS Elimination Sewer Ph3A	Optimization	NOTE 1	
55	10145200	Butler St.	Oct-07	$ 94,432	$ -	CSO 450	Separation sewer to aid in elimination of CSO 450	PS		0.0
56	10172200	Broadview Dr./Country Club, SEP	Nov-07	$ 1,096,035	$ 425,547		Partial Separation	PS		
57	10141780	Arrowhead Ct. PS & Marview Terrace PS	Dec-07	$ 657,361	$ 131,280	PSO 790, 798	Relief sewer to Elim. Marview PS (900 ft of 8") & New PS/FM to Replace Arrowhead PS (245 ft of 4")	PSU/CONV	2 yr	
58	10145040	West 3rd St., Ph3 CSO 437	Dec-07	$ 301,714	$ 54,969	CSO 437	Partial Separation Phase 3 CIP 98-91 – 2006 Construction (CD Exhibit 1)	PS		0.2
59	10130420	Wulff Run Rd.	Jan-08	$ 94,677	$ 57,510		Parallel section of Wulff Run Interceptor - 200 ft of 24"	CONV		
60	10145220	Ross Run CSO 487 Twin Outfall	Jan-08	$ 3,658,803	$ 832,675	CSO 487	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	Ross Run	Apr-08	$ 1,614,452	$ 343,174	CSO 487	Aid in separation of existing combined sewer	SEP		in 45220
62	10160000	Sycamore WWTP Ph 1&2	Apr-08	$ 26,566,214	$ 3,035,574	SSO 1052	Sycamore WWTP Upgrade - 50 MGD, Phase 1 and 2	Optimization	NOTE 1	
63	10131200	Mt. St. Joseph Sewer Replacement	Jul-08	$ 511,347	$ 519,479	CSO 406	Mount St. Joseph Sewer Replacement	PS		in 30780
64	10120380	Hengehold 4th & Yates 3rd PSE	Oct-08	$ 703,189	$ 397,965	PSO 774, 783	PS Elim w/sewer - 2708 ft of 12"	CONV	2 yr	
65	10141839	McGrew Ave. PSU	Oct-08	$ 304,233	$ 5,020		McGrew Ave. PSU	PSU		
66	10120360	Pebble Creek WWTP	Oct-08	$ 828,541	$ 647,905		WWTP replaced w/PS & FM	WWTP Elim.		
67	10142440	7601 Production Dr. Grating	Dec-08	$ 122,447	$ 104,550	CSO 191	Regulator Improvements -0.20 cfs	RI		0.2
68	10172090	Kenwood Rd. PSU	Dec-08	$ 757,102	$ 1,375,273		Upgrade of Existing Kenwood PS No. 724	PSU		
69	10150012	Polk Run WWTP Expansion Ph3B	Dec-08	$ 1,188,153	$ 938,980		Polk Run WWTP Expansion Ph3B	Optimization	NOTE 1	
70	10141440	Millbrook 1 PSU	Dec-08	$ 402,371	$ 302,501	PSO 799	PS and 600 ft of 6" FM	PSU/FM	2 yr	
71	10170560	Woodruff Rd. @ 8 Mile/Britney Acres PSU	Jan-09	$ 630,061	$ 371,610	PSO 852	P.S. Upgrade - 1.2 MGD, 600 ft of 6" F.M.	PSU/FM	2 yr	
72	10141520	Arrowood PSE	Jan-09	$ 425,199	$ 613,609	PSO 861	Eliminate PSO 861	CONV	2 yr	
73	**REMAINING PHASE 1 PROJECTS TO BE CONSTRUCTED**			$ 114,204,002	$ 807,433,016					
74	10145280	Mitchell Ave. RTC		$ 1,127,341	$ 1,516,011	CSO 482	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	Badgeley Run RTC		$ 305,854	$ 2,617,058	CSO 125	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	Mill Creek Interceptor Diversion Chamber		$ 1,223,735	$ 365,126	CSO 181	Bloody Run & Spring Grove Ave - Phase 2 - REG	RI		in 42700
77	10145320	Lick Run RTC		$ 76,572	$ 1,376,762	CSO 5	Real Time Control Project to retain water in CSO with inflatable dam (CSO annual reduction of approximately 200 MG/year)	RTC		in 45660 NOTE 5
78	10130560	Muddy Creek WWTP Secondary Enhancement		$ 5,734,429	$ 5,289,057		W-102 WWTP Optimization Secondary Enhancement (98-09),	WWTP	NOTE 1	
79	10130565	Muddy Creek WWTP Effluent Pump Upgrade		$ 608,071	$ 2,801,053		W-102 WWTP Optimization Raw Sewage Pump Upgrade, Effluent Pump Upgrade	WWTP	NOTE 1	
80	10170780	LM WWTP, Activated Sludge Thickening		$ 2,429,843	$ 3,346,832		E-503 Activated sludge thickening (CIP 2005-31)	WWTP	NOTE 1	
81	10130680	Harwinton Lane		$ 117,431	$ 1,049,285	SSO 1012	Replace sewer - 2000 ft of 12"	CONV	2 yr	
82	10141540	Winton and Sherwood Ph1 PS		$ 338,400	$ 2,060,694	PSO 805	Phase I - New PS, gravity sewer from Winton 2 to Winton 1, and New FM in Winton Rd	CONV	2 yr	
83	10141560	Winton and Sherwood Ph2 PS		$ 297,485	$ 1,362,778	PSO 805	Phase II - New sewer to Elim. Sherwood PS - 2300 ft of sewer & 4730 ft of FM	CONV	2 yr	
84	10160005	Sycamore WWTP Ph 3		$ 770,557	$ 8,114,644	SSO 1052	Sycamore WWTP Upgrade - 50 MGD, Phase 3	Optimization	NOTE 1	
85	10160010	Sycamore WWTP Ph 4		$ 216,253	$ 2,550,814	SSO 1052	Sycamore WWTP Upgrade - 50 MGD, Phase 4	Optimization	NOTE 1	
86	10180600	Mill Creek WWTP, TPE Incinerator		$ 35,021,978	$ 36,057,036		Mill Creek WWTP, TPE Incinerator	WWTP	NOTE 1	
87	10120420	Diamond Oaks, Windmere 3rd & Regency Ridge PS		$ 306,882	$ 1,336,137	PSO	PS Elim w/sewer - 3200 ft of 8"	CONV	2 yr	
88	10170081	Montgomery Rd & Lester Ave		$ 57,618	$ 984,962		Montgomery Rd & Lester Ave	CONV		
89	10144441	1852 Columbia Pkwy Sewer		$ 242,189	$ 1,744,316	CSO 455	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.	PS		in 44440
90	10144880	Mill Creek WWTP Grit Removal		$ 667,744	$ 36,263,529		C-402 Mill Creek Grit Removal Improvements (CIP 2006-30)	WWTP	NOTE 1	

INDEX	REVISED WWIP ATTACHMENT 1B - MAY 2013		Project Completion	Sunk Costs	Remaining Costs	CSO SSO Identifier	Description/Design (NOTE 4)	Technology	Plan CAPP	Plan Remaining CSO (MG/year)
			Actual	2006 Dollars	2006 Dollars					
1	10141660	Norman Ave.	Jan-04	$ 137,501		SSO 585	Relief sewer to Elim. SSO 585 - 285 ft of 12"	CONV	2 yr	
2	10141480	Mill Rd. Sewer	Apr-04	$ 1,855,869			Phase 2 - Relief sewer to replace sewer - 2200 ft of 30"	CONV		
3	10142040	Compton Rd.	Apr-04	$ 210,603			Relieve WIBs w/sewer - 62 ft of 12"	CONV		
4	10144980	Ross Run Grit Pit	Apr-04	$ 523,746			Grit Pit	-		
5	10170040	SSO 570 & 1017 in Madeira	Jun-04	$ 3,357,676		SSO 570 & 1017	Elim. SSOs 570 & 1017 w/Sewer. 3800 ft of 24 - 30 inch	CONV	2 yr	
6	10141260	Springdale - Sharonville Sewer	Jul-04	$ 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.	Aug-04	$ 1,607,061		SSO 531, 577, 1002, 1005, 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 Face	Sep-04	$ 64,109			HWDW – Tide Gate Replacement	HW		
9	10170820	Gungadin/Paddison Rd.	Sep-04	$ 3,126,594			Replace existing pipe - Approx. 2800 LF of 12-27"	CONV		
10	10141700	Mill Creek WWTP Aux. Air Supply	Oct-04	$ 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	Nov-04	$ 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	Samoht Ridge	Nov-04	$ 2,144			Solve WIB problems - 924 ft of 12-24"	CONV		
13	10141220	North College Hill	Dec-04	$ 5,391,761		SSO 530, 531, 567, 577, 634	Phases 2C &3 - Relief sewer to eliminate SSOs 530, 531, 567, 577, & 634 - 9980 ft of 12-42"	CONV	2 yr	
14	10141740	St. Clair Sewer	Dec-04	$ 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	Jan-05	$ 2,813,073			Phase I - Replace Screens	WWTP	NOTE 1	
16	10145000	Mitchell Ave.	Feb-05	$ 615,916		CSO 29	New sewer to eliminate CSO 29 and abandon siphon line under Mill Creek	RI		0
17	10141240	Sewer 155 Cooper Creek	Mar-05	$ 5,104,573		SSO 620	Contract 2B - Relief sewer to eliminate SSO 620 - 7410 ft of 8-36"	CONV	2 yr	
18	10141300	Camberly Acres PS	Mar-05	$ 321,573			PS Elim w/sewer - 659 ft of 8"	CONV		
19	10170020	SSO 1053 East Fork Ave. Grating	Mar-05	$ 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	Apr-05	$ 2,076,612		SSO 1023, 600, & 601	Relief sewer to Elim. SSOs 1023, 600, & 601 - 3600 ft of 30" & 570 ft of 21"	CONV	2 yr	
21	10144940	Sawyer Point	Apr-05	$ 33,298			sewer, remove diversion dam, and plugging existing dry line conduit	-		
22	10141880	Laboiteaux Ave.	Jun-05	$ 181,725		SSO 597	Elim. SSO 597 w/sewer - 559 ft of 15"	CONV	2 yr	
23	10110300	Durango Green - Shadely Lane PS	Jul-05	$ 540,150			Elimination of PS w/Sewer - 2861 ft of 12-in.	CONV		
24	10150000	Polk Run WWTP Ph 2 STO	Sep-05	$ 11,186,361			WWTP Optim. - Phase 2	Optimization	NOTE 1	
25	10150240	Maple Ave.	Sep-05	$ 233,361			Loveland Supplemental Agreement	-		
26	10144920	Harrison & State Ave. West 4	Oct-05	$ 171,990		CSO 4	HW/DW Protection	HW		
27	10145020	Montana Ave.	Oct-05	$ 138,382		CSO 89	New sewer and building connections to eliminate CSO 89	SEP		0.05
28	10141680	406 Elliot Ave.	Nov-05	$ 130,892		SSO 572	Relief sewer to Elim. SSO 572 - 203 ft of 16"	CONV	2 yr	
29	10145080	Eastern Ave. (Collins to Bayou)	Nov-05	$ 451,318			Phase 2 – Express Sewer to allow for development and conveyance of wet weather flows	CONV		
30	10170940	Stewart Rd. East Regulator	Nov-05	$ 412,420		CSO 557	Completed; CIP 2002-05 Full Separation – Elimination Exhibit 1	FS		0.0
31	10141360	Garden Hills PS	Dec-05	$ 1,065,355			PS Elim w/sewer - 4068 ft of 15 & 16"	CONV		
32	10141620	Mill Creek WWTP Solids Mgmt Centrifuge Procurement	Dec-05	$ 2,616,020			Solids Management Program Centrifuge Procurement - Cost in WWTP Optimization	WWTP	NOTE 1	
33	10144960	Harrison & State Ave. West 3	Dec-05	$ 325,357		CSO 3	HW/DW Protection	HW		
34	**PROJECTS IN CLOSEOUT**			$ 93,631,813	$ 18,938,454					
35	10141760	Mill Creek WWTP Raw Sewage Pumps	Dec-05	$ 3,153,931	$ 864,295		Replace depleted wastewater Pumping System	WWTP	NOTE 1	
36	10120400	Arrow St. WWTP Elimination & North Bend Crossing	Jan-06	$ 1,371,433	$ 26,412		PS Elim & WWTP Elim. w/sewer - 6108 ft of 8-12"	CONV		
37	10141640	Mill Creek WWTP Solids Mgmt. Centrifuge Install.	Feb-06	$ 10,208,487	$ -		Solids Management Program Centrifuge Installation	WWTP	NOTE 1	
38	10144900	Ludlow Run	Mar-06	$ 2,615,592	$ 490,658	CSO 151	Collector Upgrade CIP 83-10 Exhibit 1	CONV		16.8
39	10145240	Este Ave.	Jul-06	$ 90,636	$ 76,915		Flood Remediation Sewer Este Ave. Overflow	-		
40	10145140	Givaudan Sewer	Sep-06	$ 67,933	$ -		Removal of process flow from combined sewer to interceptor	-		
41	10170060	Mariemont SSO Elimination 679A, 679B & 680	Sep-06	$ 8,271,513	$ 809,602	SSO 679A, 679B & 680	Elim. of SSOs 679, 679A, & 680 w/sewer. 5800 ft of 36 inch & 2000 ft of 8-21 inch	CONV	2 yr	
42	10171420	Archer St. Div Dam, HDW	Sep-06	$ 244,636	$ -	CSO 86	HW/DW Protection	HW		
43	10171820	Beechmont Sluice Gate Rehabilitation	Oct-06	$ 1,753,157	$ 226,600		E-504 Beechmont Sluice Gate WWTP Rehabilitation	WWTP		

INDEX	REVISED WWIP ATTACHMENT 1B - MAY 2013		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)
91	10120460	Towers East Pump Station		$ 20,305	$ 2,183,245	PSO 887, 891	Eliminate Towers East PS & Upgrade Ponderosa PS	PSE/PSU	2 yr	
92	10144884	Mill Creek WWTP Secondary Treatment Enhance. -		$ 985,315	$ 40,260,301		C-402 Secondary Treatment Enhancements	WWTP	NOTE 1	
93	10171980	**(A)** Eastern Delta Ave. Ph1		$ 4,552,591	$ 39,127,126		E-501 Construct Real Time Control Chamber at Little Miami WWTP, construct 72" intersecting sewer to Eastern Avenue	CONV		
94	10171920	**(A)** Eastern Delta Ave. Ph2		$ 1,139,074	$ 18,594,985	CSO 469	Extend interceptors to 2 new CSOs (469A & 469B)	CONV		75.9
95	10171900	**(A)** Eastern Delta Ave. Ph3		$ 1,009,542	$ 14,249,639	CSO 467A, 467, 468, 469, 657	Separation of area tributary to CSO 467A and 657; construction of new flow regulator and flap gate (HW/DW) structures at CSO 467, 468, and 469; demolision of Delta Ave Pump Station	CONV		47.5
96	10131220	Glenview PS at Wesselman		$ -	$ 760,302	PSO 773	Upgrade PS	PSU	2 yr	
97	10142240	Blue Rock Rd. Sewer Separation		$ 2,931	$ 1,897,181	CSO 180	Full Separation – CIP 94-25 and Regulator Improvements -7.7 cfs Community Priority	FS		0.1
98	10171840	**(B)** CSO 471 Grandin Rd. Reg. Improvements		$ 585	$ 286,093	CSO 471	Regulator Improvements - 9.3 cfs Premised on operational changes at Four Mile P.S.	RI		0.0
99	10171860	**(B)** CSO 470 Eastern Ave. Sewer Separation		$ 309	$ 1,607,283	CSO 470	Partial Separation & Regulator Improvements Construct storm sewer from Eastern Ave to Wilmer Rd	PS		0.0
100	10131180	**(C)** Muddy Creek WWTP New Belt Filter Press			$ 1,248,000		W-102 Add new Belt Filter Press-B&N Proj. DR-2	WWTP	NOTE 1	
101	10131240	**(C)** Muddy Creek WWTP Grit Replacement			$ 4,470,000		Muddy Creek WWTP Grit Replacement	WWTP	NOTE 1	
102	10142020	Daly Rd. to Compton Rd.		$ 505,196	$ 13,742,834		Replace sewer #161 - 6500 ft of 21-30"	CONV		
103	10145500	**(D)** Mill Creek WWTP Outfall Improvements			$ 15,163,200		Additional Optimization - Auxiliary Outfall Improvements	WWTP	NOTE 1	
104	10145560	**(D)** Mill Creek WWTP Secondary Bypass Weir			$ 137,000		Secondary Bypass Weir	WWTP	NOTE 1	
105	10145580	**(D)** Mill Creek WWTP Added Sludge Pumping			$ 1,315,000		Additional Primary Sludge Pumping	WWTP	NOTE 1	
106	10143920	**(E)** CSO 194 High Point Sewer Separation		$ 13,317	$ 4,105,549	CSO 194	Partial Separation Community Priority	PS		3.0
107	10143940	**(E)** CSO 195 Westwood Northern Sewer Separation		$ 13,170	$ 2,808,123	CSO 195	Partial Separation Community Priority	PS		3.7
108	10143960	**(E)** CSO 525 Mt. Airy Grating Sewer Separation		$ 6,619	$ 2,407,688	CSO 525	Partial Separation Community Priority	PS		2.5
109	10130740	Werk & Westbourne Grating		$ 374,405	$ 26,259,984	CSO 522	EHRT - 106 MGD Community Priority (NOTE 2)	EHRT		64.7
110	10141080	**(F)** Ludlow and Lafayette Parallel Sewer			$ 865,920	SSO 645, 225-A	New parallel sewer to follow original alignment - 1700 ft of 15"	CONV	2 yr	
111	10143220	**(F)** Scarlet Oaks Regulator			$ 1,306,000	CSO 179	Partial Separation	PS		0.4
112	10145660	Revised Original LMCPR		$ -	$ 244,342,000	CSO 5, 125, 127, 128, 181, 217A, 482, 483, 487	Strategic separation and watershed approach, plus storage and multiple RTCs, resulting in removal of 1.78BG overflow (using Model v. 3.2), which removal includes both (i) 4 RTC projects (#45220, 45280, 45300, 45320) and (ii) work in the following watersheds: Lick Run: Approx. 65,000 LF of storm, combined and/or sanitary pipe; approx. 8 storm water detention basins; multiple vortech units; and valley conveyance system with daylighting. Kings Run: Approx. 17,000 LF of storm, combined and/or sanitary pipe; approx. 4 storm water detention basins; stream bank restoration; and combined overflow storage tank. West Fork: Approx. 2 storm water detention basins; approx. 7,600 discharge pipe; and approx. 500 LF of storm water pipe. Bloody Run: RTC at CSO 181 Additional descriptions of the Revised Original LMCPR and the Performance Criterion are included as Attachment 1C.	Sep, Conv., RTC, Storage, Watershed		
113		Allowances		$ 56,038,261	$ 252,000,000					
114	10170080	**(G)** SSO 1000 Elimination			$ 1,815,294	SSO 1000	Replace existing pipe - Approx. 4400 LF of 15-24"	CONV	2 yr	
115	10170100	**(G)** SSO 228 Elimination			$ 1,381,001	SSO 228	Replace existing pipe - Approx. 3100 LF of 15-18"	CONV	2 yr	
116	10171580	**(G)** CSO 54 Elimination			$ 277,344	CSO 54	Regulator Improvements-10.0 cfs CAPP P-LM-LIT-CAPP-C-064	RI		0.1
117	10171620	**(G)** CSO 187 Improvements			$ 277,345	CSO 187	No modification-Int 0.50 cfs 0.0 MGD to UD Channel HRT	RI		0.0
118	10171740	**(G)** CSO 551 Sewer Separation			$ 3,781,924	CSO 551	Sewer Separation	SEP		13.1
119	10171780	**(G)** CSO 553 Sewer Separation			$ 1,926,561	CSO 553	Sewer Separation	SEP		5.4
120	**PHASE 1 PROJECTS/BUNDLES - PLANNING and DESIGN ONLY**			$ 3,344,857	$ 57,119,240					
121	10171540	CSO 135 Elimination			$ 33,629	CSO 135	Regulator Improvements - 2.4 cfs	RI		
122	10171560	CSO 43 Elimination			$ 33,185	CSO 43	Regulator Improvements - 2.8 cfs	RI		
123	10171600	CSO 170 Elimination			$ 34,664	CSO 170	Regulator Improvement - 3.1 cfs	RI		
124	10171640	CSO 214 Storage Facility			$ 2,348,676	CSO 214	Storage - 2.00 MG	STO		
125	10171660	CSO 500 Improvements			$ 34,275	CSO 500	Regulator Improvement - 1.5 cfs. See E-500	RI		
126	10171680	CSO 501 Improvements			$ 33,971	CSO 501	Regulator Improvement - 0.1cfs. See E-500	RI		
127	10171700	CSO 549 Improvements			$ 33,731	CSO 549	Regulator Improvement - 5.0 cfs. See E-500	RI		

INDEX	REVISED WWIP ATTACHMENT 1B - MAY 2013		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)
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 EHRT Facility			$ 2,347,477		E-500 EHRT - 40-MGD - Serves CSOs 170, 549, 550, 501 & 500 (NOTE 2)	EHRT		
131	10170782	LM Four Mile Pump Station Upgrade			$ 542,498		E-503 - Four Mile Pump Station Rec Proj – PS-1	WWTP	NOTE 1	
132	10170783	LMWWTP Pump Station Reconfiguration			$ 467,842		E-503 - Modify LMR Pump Station Rec Proj – PS-5	WWTP	NOTE 1	
133	10170784	LMWWTP Grit Station Upgrade			$ 1,185,142		E-503 - Grit Collection Proj – SG-1	WWTP	NOTE 1	
134	10170785	LMWWTP Pump Station Hydraulic Improvements			$ 280,006		E-503 - Four Mile Pump Station to Screen Building Rec Proj - H-1	WWTP	NOTE 1	
135	10170786	LMWWTP Primary to Secondary Hydrau. Improvements			$ 231,868		E-503 - Primary to Secondary Conveyance Rec Proj – H-2	WWTP	NOTE 1	
136	10170787	LMWWTP Chemically Enhanced Primary			$ 899,299		E-503 - Chemical Enhance Primary Rec Proj – PT-2	WWTP	NOTE 1	
137	10170788	LMWWTP Secondary Treatmant Modifications			$ 1,372,476		E-503 - Modification to Secondary Treatment Rec Proj – ST-2	WWTP	NOTE 1	
138	10170790	LMWWTP Chemical Feed Upgrades			$ 541,064		E-503 - Upgrade Chemical Feed Sys Storage – D-2	WWTP	NOTE 1	
139	10170793	LMWWTP Sludge Receiving Improvements			$ 64,639		E-503 - Improvement to Sludge Receiving Facility Rec Proj – DR-6	WWTP	NOTE 1	
140	10170794	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			$ 5,286,355		E-505 - Wet Weather Pump Station with Screening 150 MGD to Auxiliary 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			$ 381,514	SSO 1045, 1010	Replace collector following original alignment - 7968 ft of 12-24"	CONV		
144	10142280	Oxley 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			$ 36,066	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			$ 36,066	CSO 538	Regulator Improvements-0.31 cfs	RI		
149	10142380	117 E. Charlotte Grating			$ 35,995	CSO 539	Regulator Improvements-5.0 cfs	RI		
150	10142400	428 South Cooper Grating			$ 35,994	CSO 562	Regulator Improvements-3.08 cfs	RI		
151	10130000	Muddy Creek Basin Storage & Conveyance Sewer		$ 42,512	$ 14,060,624	SSO 701, 702, 692, 697, 675-A, 1061	Storage & Conveyance Tunnel unloads Muddy Creek PS, Eliminating SSOs 692 & 697, provides CSO control for 518, 404, 405, and 406 - 25 ft diameter, 8500 ft long, 35 MGD pumps at WWTP	TUNNEL		
152	10130160	Muddy Creek Pump Station Upgrade and Forcemain		$ 4,043	$ 1,511,582	SSO 692, 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)	PSU/FM		
153	10130400	River Rd. Near Muddy Creek WWTP Conveyance Sewer		$ 3,725	$ 53,862	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 Ivanhoe 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	$ 564,167	CSO 404, 405, 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		
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			$ 275,637	SSO 587	Replace collector following original alignment - 4235 ft of 15-24"	CONV		
163	10140120	Sharonville/Evandale Trunk to SSO 700			$ 4,839,634	SSO 1048, 587	24,929 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 ft of 21-24"	CONV		
165	10141180	I-75 & Shepard Ave. SSO 700			$ 9,407,964	SSO 700	Increase Storage at existing site - Additional 24 MG (NOTE 3)	STOR		
166	10142120	Mill & Vine St. Grating			$ 36,064	CSO 512	Regulator Improvements-3.25 cfs	RI		
167	10142200	Bernard & Reisenberg Grating			$ 360,034	CSO 513	Partial Separation	PS		

INDEX		REVISED WWIP ATTACHMENT 1B - MAY 2013	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)
168	10142220	Smalley Grating			$ 193,696		CSO 514	Partial Separation	PS		
169	10130020	Muddy Creek Interceptor Rehabilitation			$ 722		SSO CSO SSO 1061, CSO 518, MH 16006007	Clean Interceptor - 5000 ft of 36"	CLEAN		
170	10130040	CSO 518 Muddy Creek Conveyance Sewer			$ 856,426		SSO CSO SSO 1061, CSO 518, MH 16006007	Replace section of Muddy Creek Int. - 9000 ft of 36", Provides CSO interception capacity for CSO 518	CONV		
171	10130280	Addyston PS Elimination			$ 266,996		PSO 730, 10902003	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 Community Priority	RI		
174	10130780	CSO's 223, 408, 410, 541, 654		$ 281,421	$ -		CSO 223, 408, 410, 541, 654	CD Exhibit 1 Partial Separation	PS		
175	10130840	CSO's 411, 412, 413, 414, 415, 416		$ 208,080	$ 953		CSO 411, 412, 413, 414, 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	$ 103,652			W-103 - Exhibit 1 Interceptor Replacement Phase 1	CONV		
177	10131002	E. Branch Muddy Ph2 Interceptor		$ 432,610	$ 4,783			W-103 - Exhibit 1 Interceptor Replacement Phase 2	CONV		
178	10131003	E. Branch Muddy Ph3-A Pump Station (Changed to AM)		$ 861,975	$ -			W-103 - 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		CSO 408, 411, 412, 414, 415, 416	W-104 - Complete Partial Separation in CSOs areas 408, 411, 412, 414, 415, 416	PS		
182	TOTAL PHASE 1			$ 264,781,000	$ 883,490,710						

NOTES:

1 PROJECT COMPLETE AND IN SERVICE AT SPECIFIED CAPACITY

2 FOR ALL PROJETS 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 FACILITEIS 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.

5 FOR THESE RTC PROJECTS, THE STATED REDUCTION IN THE TYPICAL YEAR CSO DISCHARGE VOLUME SHALL ALSO BE THE PERFORMANCE CRITERIA FOR THE FACILITY.

6 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). 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 Little Lower 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.

Revised Attachment 1C (May 2013)
Revised Original LMCPR

The Revised Original Lower Mill Creek Partial Remedy will be a series of measures implemented during Phase 1 of the WWIP to significantly reduce the volume of combined sewer overflow discharges in the Lower Mill Creek basin. This Revised Attachment 1C (2013) replaces and supersedes Attachment 1C from the Final WWIP (2009) in its entirety; Attachment 1C from the Final WWIP (2009) is now null and void. The key elements of the Revised Original LMCPR are as follows:

Lick Run Strategic Sewer Separation and Valley Conveyance (CSO 5)*

- 54,300 feet of storm sewer
- 3,600 feet of relocated combined sewer
- 8 stormwater detention basins/floodplain enhancements; approximately 22 acre feet of storage
- 4 Vortech Units
- 8,700 feet of valley conveyance system with approximately 5,600 linear feet of naturalized above-ground stormwater conveyance system
- 9,900 feet of natural conveyance, inlet sealing and stream restoration

Estimated reduction from implementation of these measures: 0.624 BG

Kings Run Separation and Wooden Shoe Storage*

- 8,400 feet of storm sewer
- 3,300 feet of relocated combined sewer
- 4,600 feet of sanitary sewer
- 1.5 million gallons combined storage at CSO 217
- 4 stormwater detention basins; approximately 21 acre feet of storage
- Stream bank stabilization and restoration measures

Estimated reduction from implementation of these measures: 0.156 BG

West Fork Separation and Detention*

- 500 feet of storm sewer
- 7,600 feet of basin discharge pipe
- 2 stormwater detention basins; approximately 23 acre feet of storage

Estimated reduction from implementation of these measures: 0.173 BG

Bloody Run Real Time Control (RTC)*

- Bloody Run (CSO 181) watershed RTC

Estimated reduction from implementation of these measures: 0.093 BG

Existing RTCs*

- RTCs at CSOs 5, 482, 485, 125 and raising of the West Fork channel grates (already constructed)

Estimated reduction from implementation of these measures: 0.737 BG

The Performance Criterion for the Revised Original LMCPR is that these measures will reduce CSO volume by at least 1.78 billion gallons during MSDGC's Typical Rainfall Year (1970), which annual gallonage reduction amount was derived using SWMM baseline Model Version 3.2. Compliance with this Performance Criterion 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.

* Individual project statistics and descriptions listed above (for example 'length of feet of sewer,' and 'estimated reduction from implementation') are estimated values, subject to ongoing detailed design, and do not constitute performance criteria or design criteria.

New Line 452	Mill Creek "Lower 11 CSO" Phase 2 CSO controls			CSOs 2, 3, 4, 5, 6, 7, 9, 666,152, 428, and 429 ("Lower 11 CSOs"),	Storage, conveyance, strategic separation, green infrastructure, using MSD's Integrated Watershed Planning approaches at the listed CSOs or in the LMC basin	See Note 7.		85% capture or control (aggregate)[9]
New Line 453	Phase 2 Default (Lower Mill Creek Final Remedy)		$305,658,000	CSOs 33, 10, 11, 12, 13, 14, 15, 22, 23, 24, 482, 28, 29, 30, 025A, Este, 18, 21, 017B	Default tunnel/conveyance	See Note 8		85% capture or control (aggregate)[9]

Notes 1-6…

7 Defendants may propose work at additional CSOs in the LMC basin in accordance with the provisions of the WWIP.
8 The default final remedy for the Lower Mill Creek Final Remedy ("LMCFR") is a tunnel(s)/conveyance, to be designed with reference to the final LMCPR 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 85% 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 LMCPR, the Defendants propose and the Regulators understand that construction of the CSO tunnel is likely not the cost-effective alternative for the LMCFR. The WWIP envisioned that an alternative other than the LMCFR tunnel could be appropriate for the LMCFR and allows Defendants to propose a different LMCFR pursuant to the WWIP. The Defendants have expressed intent to timely submit an approvable proposal for a revised LMCFR 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.

9 "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 Update 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 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.

Enclosure B

Summary of Differences between the December 18, 2012 and the May 28, 2013 Proposed Revised Original LMCPR

On December 18, 2012, Defendants proposed a Revised Original Lower Mill Creek Partial Remedy ("Revised Original LMCPR"). The proposed Revised Original LMCPR consisted of revised Attachments 1A, 1B, 1C and 2 to the Wet Weather Improvement Program that had been approved on January 6, 2010 ("2010 WWIP"). The revised attachments were included as exhibits attached to an extensive technical report Defendants prepared pertaining to the proposal. The Regulators reviewed the December proposal and public comments received on that proposal. Based upon that review, the Regulators requested that Defendants modify their proposal by making certain changes to each of the revised attachments. Defendants worked with the Regulators to address the identified concerns, resulting in their submission of a modified proposal for a Revised Original LMCPR. The modified proposal for a Revised Original LMCPR was submitted to the Regulators in a letter dated May 28, 2013; this letter was transmitted to the Regulators via electronic mail on May 29, 2013. The following is a summary of the differences between the December and the May proposals.

1. Defendants added "(bundle)" after "LMCPR" at the bottom of the table in revised Attachment 1A. They also added the following clarifying footnote to regarding milestones for "bundled" projects:

   > "Bundle" means the aggregated group of Final WWIP projects. The milestone date listed above for each action for each bundle is the final date by which all of the projects within a distinct bundle must meet the specified project status.

   All other aspects of Attachment 1A other than the changes pertaining to the Revised Original LMCPR are unchanged from Attachment 1A to the 2010 WWIP.

2. Defendants modified the "Description/Design" for the Revised Original LMCPR in Line 112 of Attachment 1B from what was in the December proposal. Specifically, the December proposal included the following "Description/Design" for the Revised Original LMCPR:

   > Strategic separation and watershed approach, storage and one RTC in Lick Run, West Fork, Kings Run and Bloody Run to remove 1.78 BG overflows (under Model v. 3.2) (removal via RTC projects 45220, 45280, 45300, 45320 included).

   The May proposal replaced that "Description/Design Criteria" for the Revised Original LMCPR with the following:

   > Strategic separation and watershed approach, plus storage and multiple RTCs resulting in removal of 1.78BG overflow (using Model v. 3.2), which removal includes both (i) 4 RTC projects (#45220, 45280, 45300, 45320) and (ii) work in the following watersheds:
   > Lick Run: Approx. 65,000 LF of storm, combined and/or sanitary pipe; 8 stormwater detention basins; multiple Vortechs units; and valley conveyance system.

Kings Run: Approx. 17,000 LF of storm, combined and/or sanitary pipe; approx. 4 storm water detention basins; stream bank restoration; and combined overflow storage tank.
West Fork: Approx. 2 storm water detention basins; approx. 7,600 discharge pipe; and approx. 500 LF of storm water pipe.
Bloody Run: RTC at CSO 181
Additional descriptions of the Revised Original LMCPR and the Performance Criterion are included as Attachment 1C.

All other aspects of Attachment 1B are unchanged from Attachment 1B to the 2010 WWIP.

3. Defendants included in the May proposal a new revised Attachment 1C to replace Attachment 1C to the 2010 WWIP. The December proposal simply proposed to delete the current Attachment 1C without replacing it with anything else.

4. The December proposal included several changes to Attachment 2 to the 2010 WWIP. The December proposal also worked off of an erroneous version of Attachment 2, rather than the version of Attachment 2 that was attached to the 2010 WWIP. The May proposal, which is based on the correct version of Attachment 2, no longer contains any changes to Attachment 2, except for those made to Lines 452-471, which are described below:

   A. The May proposal includes a new Line 452 in Attachment 2 applicable to CSOs 2, 3, 4, 5, 6, 7, 9, 152, 428, 429 and 666, which are referred to as "the Lower 11 CSOs." Under the 2010 WWIP's default LMCPR, these CSOs had their own composite Performance Criterion of 451 million gallons Plan Remaining CSO (MG/year) for Defendants' typical year of 1970 to be achieved upon completion of the Original LMCPR default remedy (a volume that equated to 85% capture and control for the Lower 11 CSOs, based upon Defendants' old hydraulic modeling information). That criterion no longer makes sense as a means of measuring the effectiveness of the LMCPR, given the nature of the measures that Defendants are now implementing under the Revised Original LMCPR, and so that criterion was removed and replaced by a Performance Criterion requiring that the Revised Original LMCR achieve removal of at least 1.78 billion gallons of CSO.

   In addition, to ensure that Defendants ultimately achieve and maintain a minimum of at least 85% capture and control of combined sewage for the Lower 11 CSOs, an 85% composite capture and control criterion has been included in the new Line 452 in Attachment 2 for the Lower 11 CSOs. The Performance Criterion was changed from "Plan Remaining CSO" to "Percent Capture and Control" to account for the fact that Defendants have refined and upgraded the sewer system hydraulic model that had been the basis in the 2010 WWIP for establishing the 85% capture and control based performance criterion of 451 million gallons of Plan Remaining CSO in the 2010 WWIP. Defendants' updated model shows that there is less CSO volume in the Mill Creek sewershed than previously thought,

which means that 85% capture and control will result in less than 451 million gallons of Plan Remaining CSO. This number could change again in the future, as Defendants continue to refine and update their hydraulic model. Rather than including performance criteria expressed as a specific Plan Remaining CSO number that has been derived to reflect 85% capture and control based on current modeling information that could be outdated as Defendants refine and update their hydraulic model during implementation of the WWIP, the parties agreed that a better approach would be to express the Performance Criterion for the Lower 11 CSOs as 85% capture and control, determined using Defendants' refined, updated hydraulic model as it exists after the measures for the Lower 11 CSOs have been implemented.

A new footnote 7 pertaining to Line 452 was also added for informational purposes only, noting that the WWIP includes provisions under which Defendants can propose work at additional CSOs in the Lower Mill Creek basin in accordance with the WWIP. Finally, a new footnote 9 pertaining to both Lines 452 and 453 was added, defining 85% capture and control and specifying how compliance with that criterion will be evaluated.

B. Lines 452-471 in the 2010 WWIP pertain to the Lower Mill Creek Final Remedy (LMCFR) for the 19 CSOs that are not part of the LMCPR. The old Line 452 became Line 453 in the May proposal when the new Line 452 pertaining to the Lower 11 CSOs was added. Lines 453-471 in the 2010 WWIP included specific Plan Remaining CSO Performance Criteria for the 19 CSOs, a volume that equated to 85% capture and control for the 19 CSOs. As discussed above in 4.A, a better approach is to use a Performance Criterion for these 19 CSOs of 85% capture and control, determined using Defendants' refined, updated hydraulic model as it exists after the LMCFR has been implemented. This is reflected in Line 453 in the May proposal. Line 453 in the May proposal also includes a list of all of the 19 CSOs that are to be addressed by the LMCFR, rather than specifically listing each of the 19 CSOs in their own Lines, as had been done in the 2010 WWIP. A new footnote 8 pertaining to Line 453 was also added for informational purposes only, noting that the WWIP includes provisions under which Defendants can propose changes to the LMCFR. Finally, a new footnote 9 pertaining to both Lines 452 and 453 was added, defining 85% capture and control and specifying how compliance with that criterion will be evaluated.