

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF OHIO  
WESTERN DIVISION

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UNITED STATES OF AMERICA,  
THE STATE OF OHIO, and  
OHIO RIVER VALLEY WATER  
SANITATION COMMISSION

Plaintiffs,

v.

THE BOARD OF COUNTY  
COMMISSIONERS OF HAMILTON  
COUNTY, OHIO and THE CITY OF  
CINCINNATI,

Defendants.

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Civil Action No. C-1-02-107  
Judge S. Arthur Spiegel

CONSENT DECREE ON COMBINED SEWER OVERFLOWS, WASTEWATER TREATMENT  
PLANTS AND IMPLEMENTATION OF CAPACITY ASSURANCE PROGRAM PLAN FOR  
SANITARY SEWER OVERFLOWS

TABLE OF CONTENTS

I.	<u>JURISDICTION AND VENUE</u> . . . . .	6
II.	<u>PARTIES</u> . . . . .	7
III.	<u>BINDING EFFECT</u> . . . . .	8
IV.	<u>OBJECTIVES</u> . . . . .	11
V.	<u>DEFINITIONS</u> . . . . .	12
VI.	<u>CAPITAL IMPROVEMENT PROJECTS</u> . . . . .	18
VII.	<u>LONG TERM CONTROL PLAN UPDATE</u> . . . . .	19
VIII.	<u>IMPLEMENTATION OF CAPACITY ASSURANCE PROGRAM PLAN</u> .	27
IX.	<u>COMPLETION OF CONSTRUCTION DEADLINES</u> . . . . .	30
X.	<u>POST-CONSTRUCTION MONITORING STUDY</u> . . . . .	34
XI.	<u>REMEDIAL MEASURES ADDRESSING NINE MINIMUM CONTROLS</u>	37
XII.	<u>COMPLIANCE WITH EFFLUENT LIMITATIONS; MONITORING, RECORD-KEEPING AND REPORTING REQUIREMENTS; AND OPERATION AND MAINTENANCE REQUIREMENTS AT WASTEWATER TREATMENT PLANTS</u> . . . . .	46
XIII.	<u>WATER-IN-BASEMENT PROGRAM</u> . . . . .	46
XIV.	<u>SUPPLEMENTAL ENVIRONMENTAL PROJECTS</u> . . . . .	48
XV.	<u>REPORTING REQUIREMENTS</u> . . . . .	50
XVI.	<u>DOCUMENT RETENTION/CERTIFICATION OF SUBMISSIONS</u> . .	53
XVII.	<u>STIPULATED PENALTIES</u> . . . . .	54
XVIII.	<u>FORCE MAJEURE BETWEEN DEFENDANTS AND THE UNITED STATES</u> . . . . .	68
XIX.	<u>POTENTIAL FORCE MAJEURE BETWEEN DEFENDANTS AND THE STATE</u> . . . . .	71
XX.	<u>FORCE MAJEURE BETWEEN DEFENDANTS AND ORSANCO</u> . . .	73
XXI.	<u>DISPUTE RESOLUTION</u> . . . . .	75

XXII.	<u>CIVIL PENALTY</u> . . . . .	80
XXIII.	<u>RIGHT OF ENTRY</u> . . . . .	83
XXIV.	<u>NOT A PERMIT/COMPLIANCE WITH OTHER STATUTES/REGULATIONS</u> . . . . .	85
XXV.	<u>FAILURE OF COMPLIANCE</u> . . . . .	86
XXVI.	<u>EFFECT OF CONSENT DECREE AND NON-WAIVER PROVISIONS</u>	86
XXVII.	<u>COSTS OF SUIT</u> . . . . .	91
XXVIII.	<u>NOTICES</u> . . . . .	92
XXIX.	<u>MODIFICATION</u> . . . . .	93
XXX.	<u>REVIEW OF SUBMITTALS</u> . . . . .	96
XXXI.	<u>CONTINUING JURISDICTION</u> . . . . .	98
XXXII.	<u>CONTINGENT LIABILITY OF STATE OF OHIO</u> . . . . .	99
XXXIII.	<u>TERMINATION</u> . . . . .	99
XXXIV.	<u>PUBLIC COMMENT</u> . . . . .	100
XXXV.	<u>SIGNATORIES/SERVICE</u> . . . . .	101

EXHIBIT 1: CAPITAL IMPROVEMENT PROJECTS

EXHIBIT 2: PUBLIC PARTICIPATION PLAN

EXHIBIT 3: MONITORING AND MODELING WORK PLAN

EXHIBIT 4: LONG TERM CONTROL PLAN UPDATE WORK PLAN

EXHIBIT 5: CSO PUBLIC NOTIFICATION PROGRAM

EXHIBIT 6: WATER-IN-BASEMENT PREVENTION PROGRAM PLAN

EXHIBIT 7: WATER-IN-BASEMENT CUSTOMER SERVICE PROGRAM PLAN

EXHIBIT 8: WATER-IN-BASEMENT CLAIMS PROCESS PLAN

EXHIBIT 9: SUPPLEMENTAL ENVIRONMENTAL PROJECTS PLAN

WHEREAS, Plaintiff United States of America ("United States"), on behalf of the United States Environmental Protection Agency ("U.S. EPA"), filed a Complaint in this matter on February 15, 2002, alleging that Defendants Board of County Commissioners of Hamilton County, Ohio (the "County") and the City of Cincinnati (the "City") (collectively, "Defendants"), acting through the Metropolitan Sewer District of Greater Cincinnati ("MSD"), have Sanitary Sewer Overflows ("SSOs") in the MSD Sanitary Sewer System, which have violated and continue to violate Section 301 of the Federal Water Pollution Control Act (the "Clean Water Act" or the "Act"), 33 U.S.C. § 1311;

WHEREAS, Plaintiff State of Ohio, on behalf of the Ohio EPA, filed a separate Complaint on February 15, 2002, against Defendants concerning the SSOs, alleging violations of the Act, 33 U.S.C. § 1251 et seq., and Chapter 6111 of the Ohio Revised Code ("O.R.C"), and the SSO Complaints filed by the United States and the State of Ohio were consolidated on March 7, 2002;

WHEREAS, the SSO Complaints alleged that Defendants had discharged pollutants from their Sanitary Sewer System, which discharges were not authorized under Section 301(a) of the Act, 33 U.S.C. § 1251 et seq., and the Complaints sought injunctive relief for those SSOs, but not civil penalties;

WHEREAS, MSD has engaged in environmental research both through studies and pilot-scale operations conducted by its own

staff and funding of cooperative research performed by the University of Cincinnati, the Water Environment Research Foundation, ORSANCO, U.S. EPA and other organizations;

WHEREAS, MSD has been an active participant in the national discussion of SSO and CSO policy through the Association of Metropolitan Sewerage Agencies and the Water Environment Federation;

WHEREAS, an Interim Partial Consent Decree on Sanitary Sewer Overflows ("SSO Decree") was lodged in this matter on February 15, 2002, requiring, among other things, the Defendants: 1) to continue work they had already begun to address certain SSOs by implementing certain capital improvement projects, which Defendants had already planned; 2) to implement interim and permanent remedial measures at SSO 700; and 3) to evaluate their Sewer System and develop and propose a Capacity Assurance Program Plan for elimination of all SSOs other than SSO 700;

WHEREAS, Plaintiffs maintain and the SSO Decree states that various other wet weather issues, including Combined Sewer Overflows (CSOs) from Defendants' Combined Sewer System and capacity-related issues at certain of Defendants' Wastewater Treatment Plants ("WWTPs"), have led to additional violations of the Act beyond those alleged in the SSO Complaints, but Plaintiffs' claims for those violations were not addressed by the SSO Decree, because the Parties intended for those claims to be

resolved through later negotiations designed to achieve a global solution to these issues, and/or by other future enforcement efforts;

WHEREAS, the Parties nevertheless recognize and the SSO Decree states that wet weather issues in and remedial measures for the Sanitary Sewer System are directly related to wet weather issues in and remedial measures for other parts of MSD's collection system. (This is especially true with respect to CSOs from Defendants' Combined Sewer System and capacity-related issues at certain of Defendants' WWTPs.);

WHEREAS, the confluence of these and other factors requires an integrated and costly response that addresses SSOs, CSOs and WWTP issues;

WHEREAS, MSD asserts that it has undertaken a program to address CSOs by implementation of the Nine Minimum Controls and preparation and submission to U.S. EPA and Ohio EPA of a Long Term Control Plan in 1996, which efforts are being updated and supplemented by this Consent Decree;

WHEREAS, at the time the SSO Decree was entered, Defendants were in the process of analyzing and considering global solutions for these wet weather issues and other Sewer System challenges, including possible construction of a deep storage tunnel beneath Mill Creek that could be approximately 16 miles in length and in excess of thirty feet in diameter ("the Mill Creek Deep Tunnel");

WHEREAS, the SSO Decree includes specific recognition of the need expeditiously to commence discussions concerning global solutions to address the remaining Sewer System issues, and further recognizes that because the schedule for implementing the SSO remedial measures that are to be proposed under the Capacity Assurance Program Plan required by the SSO Decree is related to certain other Sewer System solutions, the SSO Decree neither requires implementation of, nor provides a final construction completion date for, the SSO remedial measures that will be proposed under the Capacity Assurance Program Plan pursuant to the SSO Decree;

WHEREAS, the SSO Decree states that the Parties intend expeditiously to commence negotiations concerning: provisions for implementation of the Capacity Assurance Program Plan's SSO remedial measures, including a completion date for such measures; solutions for other alleged violations of the Act (including, among other things, CSOs and discharges at certain WWTPs); and for a civil penalty to address both the unauthorized discharges from the Sanitary Sewer System (some of the injunctive relief for which was incorporated in the SSO Decree) and the other alleged violations;

WHEREAS, the Parties did commence those negotiations and have reached agreement on a resolution of these issues in this Consent Decree on Combined Sewer Overflows, Wastewater Treatment

Plants and Implementation of Capacity Assurance Program Plan for Sanitary Sewer Overflows ("Consent Decree" or "Decree");

WHEREAS, the United States, on behalf of the U.S. EPA, is filing a Joint Amended Complaint herein (with the State of Ohio and ORSANCO, as discussed below) concurrently with lodging of this Consent Decree, alleging that Defendants' discharges from their Combined Sewer System, Sanitary Sewer System and Wastewater Treatment Plants have violated and will continue to violate Section 301 of the Federal Water Pollution Control Act (the "Clean Water Act" or the "Act"), 33 U.S.C. § 1311;

WHEREAS, Plaintiff State of Ohio, on behalf of the Ohio EPA, is joining the Joint Amended Complaint against Defendants, alleging that Defendants' discharges from their Combined Sewer System, Sanitary Sewer System and Wastewater Treatment Plants have violated and will violate the Act, 33 U.S.C. § 1251 et seq., and Chapter 6111 of the Ohio Revised Code ("O.R.C");

WHEREAS, Plaintiff Ohio River Valley Water Sanitation Commission ("ORSANCO") is joining the Joint Amended Complaint and bringing claims against the Defendants pursuant to ORSANCO's authority under the Ohio River Valley Water Sanitation Compact, June 30, 1948 (the "Compact"), alleging that Defendants' discharges from their Combined Sewer System, Sanitary Sewer System, and Wastewater Treatment Plants violate the Compact and the pollution control standards promulgated thereunder, and



negatively impact the quality of water and impair uses thereof in the Ohio River Basin;

WHEREAS, the Joint Amended Complaint seeks injunctive relief and civil penalties for these violations;

WHEREAS, the Parties agree and the Court, by entering this Decree, finds that settlement of this matter without further litigation is in the public interest and that entry of this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, upon consent of the Parties hereto, before the taking of testimony, without any adjudication of issues of fact or law, and without admission by the Defendants of the non-jurisdictional allegations in the Joint Amended Complaint, it is hereby ORDERED, ADJUDGED AND DECREED as follows:

**I. JURISDICTION AND VENUE**

A. This Court has jurisdiction over the subject matter of this action and over the Parties, pursuant to Sections 309(b) and 505(a) of the Act, 33 U.S.C. §§ 1331, 1365(a), and 28 U.S.C. §§ 1331, 1345, and 1355. This Court has supplemental jurisdiction over the state law claims asserted by the State of Ohio pursuant to 28 U.S.C. § 1367. The Joint Amended Complaint states claims upon which relief can be granted pursuant to Sections 309 and 505(a) of the Act, 33 U.S.C. §§ 1319, 1365(a), and pursuant to O.R.C. §§ 6111.04, 6111.07 and 6111.09. This Court has

jurisdiction over the claims of ORSANCO pursuant to the Compact, Articles VI and IX, O.R.C. § 6113.03, and 33 U.S.C. § 1365(b)(1)(B). The Defendants agree not to contest the jurisdiction of the Court to enter and enforce this Decree.

B. Venue is properly in this District pursuant to Section 309(b) of the Act, 33 U.S.C. §§ 1319(b), 1365(c), and under 28 U.S.C. §§ 1391 and 1395. Venue in this District is also proper under the Compact, Art. IX.

## II. PARTIES

A. Plaintiff, United States of America, is acting at the request and on behalf of the Administrator of the United States Environmental Protection Agency.

B. Plaintiff, State of Ohio, is acting at the written request of the Director of Environmental Protection of the State of Ohio.

C. Plaintiff, ORSANCO, is acting pursuant to its authority under the Compact, Art. VI, IX and its statutory authority conferred by O.R.C. § 6113.03.

D. Defendant, Board of Commissioners of Hamilton County ("the County"), is the duly authorized governing body of Hamilton County, Ohio, pursuant to the laws of the State of Ohio. The County is the holder of various NPDES permits that govern discharges from the County's Wastewater Treatment Plants and

Sewer System. As such, it is responsible for operating the County's Wastewater Treatment Plants and Sewer System. The County has established the MSD, a county sewer district established pursuant to Chapter 6117 of the Ohio Revised Code, and acts as the principal of MSD, including maintenance of funding authority for MSD. Prior court decisions in Ohio hold that MSD cannot be sued in its own name, and thus, MSD is not made a Party to this action.

E. Defendant, City of Cincinnati ("the City"), is a chartered municipal corporation, organized and existing under the laws of the State of Ohio. Pursuant to an agreement with the County, and subject to the pertinent provisions of the Ohio Revised Code, the City also serves as the agent for the County in the management and operation of MSD. It is in this capacity that the City is named as Defendant.

### **III. BINDING EFFECT**

A. The provisions of this Consent Decree shall apply to, and be binding upon the Defendants and their officers, directors, employees, agents, servants, successors and assigns, and upon all persons, firms and corporations in active concert or participation with the Defendants or the Defendants' officers, directors, employees, agents, servants, successors or assigns, and upon the United States, the State of Ohio, and ORSANCO.

B. Effective from the Date of Lodging of this Consent Decree until its termination, any sale or transfer of either Defendants' interests in or operating role with respect to the Sewer System or WWTPs shall not in any manner relieve either Defendant of its responsibilities for meeting the terms and conditions of this Consent Decree, except as provided in Paragraph III.C.

C. If either Defendant seeks to name a successor in interest to assume any or all of its interests in, or operating role with respect to, the Sewer System or WWTPs, such Defendant may request modification of this Consent Decree from U.S. EPA/Ohio EPA/ORSANCO to amend this Consent Decree in accordance with the role to be assumed by the proposed successor in interest. Upon such Defendant's request, the Parties shall discuss the matter. If the Parties agree on a proposed modification to the Consent Decree, they shall prepare a joint motion to the Court requesting such modification and seeking leave to join the proposed successor in interest. If the Parties do not agree, and the Defendant still believes modification of this Decree and joinder of a successor in interest is appropriate, it may file a motion seeking such modification in accordance with Federal Rule of Civil Procedure 60(b); provided, however, that nothing in this Paragraph is intended to waive the

Plaintiffs' right to oppose such motion and to argue that such modification is unwarranted.

D. If this Consent Decree is modified to allow a successor in interest to assume any or all of the obligations hereunder, Defendants shall give written notice of and provide a copy of this Consent Decree to any such successor in interest prior to transfer of ownership or operation of any portion of their WWTPs or Sewer System.

E. Defendants shall notify U.S. EPA, Ohio EPA, and ORSANCO in writing, as specified in Section XXVIII, of any successor in interest at least twenty-one (21) days prior to any such transfer.

F. Defendants shall advise each engineering, consulting and contracting firm to be retained to perform any activities described in this Decree of the existence of this Decree and shall make copies of this decree available to such firms upon execution of any contract relating to such work. Defendants shall also advise each engineering, consulting and contracting firm, already retained for such purpose, of the existence of this Decree and shall make copies of this Decree available to such firms no later than thirty (30) days after the Date of Lodging of this Consent Decree.

#### IV. OBJECTIVES

It is the express purpose of the Parties entering into this Partial Consent Decree to further the objectives set forth in Section 101 of the Act, 33 U.S.C. § 1251, and to resolve the claims of the Plaintiffs for injunctive relief and civil penalties for the violations alleged in Plaintiffs' Joint Amended Complaint in the manner set forth in Section XXVI. In light of these objectives, Defendants agree, inter alia: to use sound engineering practices, consistent with industry standards, to perform investigations, evaluations and analyses and to design and construct any remedial measures required by this Decree; to use sound management, operational, and maintenance practices, consistent with industry standards, to implement all the requirements of this Consent Decree; and to achieve expeditious implementation of the provisions of this Decree with the goals of eliminating all Sanitary Sewer Overflows and Unpermitted Overflows and coming into and remaining in full compliance with the requirements of the Clean Water Act, U.S. EPA's 1994 Combined Sewer Overflow (CSO) Policy, Chapter 6111 of the Ohio Revised Code and the rules promulgated thereunder, the Compact and the pollution control standards promulgated thereunder, and Defendants' Current Permits.

V. DEFINITIONS

A. Unless otherwise defined herein, terms used in this Consent Decree shall have the meaning given to those terms in the Clean Water Act, 33 U.S.C. §§ 1251 et seq., and the regulations promulgated thereunder.

B. The following terms used in this Consent Decree shall be defined as follows:

"Calendar Quarter" shall mean the three-month periods ending on March 31st, June 30th, September 30th, and December 31<sup>st</sup>.

"Capacity Assurance Program Plan" or "CAPP" shall mean the plan that is required to be developed pursuant to Paragraph VII.E of the SSO Consent Decree and that shall be implemented pursuant to Section VIII of this Consent Decree.

"City" shall mean the City of Cincinnati, Ohio.

"Combined Sewer System" means the portion of the Defendants' Sewer System designed to convey municipal sewage (domestic, commercial and industrial wastewaters) and stormwater runoff through a single-pipe system to the Defendants' Wastewater Treatment Plants or Combined Sewer Overflow Outfalls.

"Combined Sewer Overflow" or "CSO" shall mean any discharge from any outfall identified as a combined sewer overflow or CSO in Defendants' Current Permits as defined below.

"Combined Sewer Overflow Outfall" or "CSO Outfall" shall mean the outfall from which CSOs are discharged.

"Compact" shall mean the Ohio River Valley Water Sanitation Compact, an interstate compact entered into by signatory states on June 30, 1948, and Pollution Control Standards promulgated by ORSANCO pursuant to the Compact.

"Consent Decree" shall mean this Consent Decree on Combined Sewer Overflows, Wastewater Treatment Plants and Implementation of Capacity Assurance Program Plan, including all attached Exhibits and all subsequently approved submittals.

"County" shall mean Hamilton County, Ohio and the Board of County Commissioners of Hamilton County.

"CSO and Unpermitted Overflow Outfalls" shall refer to CSO Outfalls and Unpermitted Overflow Outfalls collectively.

"CSO Policy" shall mean U.S. EPA's "Combined Sewer Overflow (CSO) Policy," which was published in the Federal Register on April 19, 1994 (59 Fed. Reg. 18688).

"Current Permits" means all National Pollutant Discharge Elimination System ("NPDES") permits pertaining to Defendants' Wastewater Treatment Plants and Sewer System that are in effect at a particular time in question. "Current Permits" include, but are not limited to, NPDES Permit Nos. IPX00022\*AD (CSO Permit); 1PM00001\*ID (Mill Creek WWTP); 1PK00006\*ID (Muddy Creek WWTP); 1PK00005\*HD (Sycamore WWTP); 1PL00000\*KD (Little Miami WWTP); 1PK00019\*ED (Polk Run WWTP); 1PK00006\*ID (Indian Creek WWTP); 1PK00015\*CD (Taylor Creek WWTP), and any such permits that



succeed those permits and are in effect at a particular time in question.

"Date of Entry" shall mean the date the Consent Decree is approved and signed by a United States District Court Judge.

"Date of Lodging" shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Southern District of Ohio, Western Division.

"Day" or "Days" as used herein shall mean a calendar day or calendar days, unless otherwise indicated. When the day a report or other deliverable is due under this Consent Decree falls on a Saturday, Sunday, federal holiday or legal holiday for Defendants, Defendants shall have until the next calendar day that is not one of the aforementioned days for submittal of such report or other deliverable.

"Mill Creek Deep Tunnel" shall mean a tunnel designed to provide flood control and CSO control in the Mill Creek drainage basin.

"Non-MSD Sewer System" shall mean any wastewater collection and transmission system or piping that is designed to collect and convey domestic, commercial or industrial sewage and/or stormwater, but that is not owned or controlled by MSD during the pendency of this Decree or the SSO Decree. The wastewater collection and transmission system and the piping comprising the

Non-MSD Sewer System, at the time of lodging of the SSO Decree, are generally depicted in Exhibit 1 to the SSO Decree.

"Ohio River Basin" shall mean the waters of the Ohio River and its tributaries.

"ORSANCO" shall mean the Ohio River Valley Water Sanitation Commission.

"Paragraph" shall mean a portion of this Consent Decree identified by an uppercase letter.

"Parties" shall mean the United States, the State of Ohio, ORSANCO, and/or the Defendants.

"Plaintiff" or "Plaintiffs" shall mean the United States, the State of Ohio, and/or ORSANCO, as appropriate.

"Sanitary Sewer Discharge" and "SSD" shall mean any discharge to waters of the State or United States from Defendants' Sanitary Sewer System through a point source not specified in any NPDES permit.

"Sanitary Sewer Overflow" and "SSO" shall mean any discharge to waters of the State or United States from Defendants' Sanitary Sewer System through point sources not specified in any NPDES permit, as well as any release of wastewater from Defendants' Sanitary Sewer System to public or private property that does not reach waters of the United States or the State, such as a release to a land surface or structure that does not reach waters of the United States or the State; provided, however, that wastewater

backups into buildings that are caused by blockages, flow conditions, or malfunctions in a building lateral, other piping or conveyance system that is not owned or operationally controlled by Defendants are not SSOs for the purposes of this Consent Decree. As such, the term SSO includes Water-in-Basements ("WIBs") released from Defendants' Sanitary Sewer System.

"Sanitary Sewer System" or "SSS" shall mean all portions of the Defendants' Sewer System that are not a part of the Defendants' Combined Sewer System. SSS does not include any non-MSD Sewer System.

"Section" shall mean a portion of this Consent Decree identified by an uppercase Roman Number.

"Sewage" shall mean municipal sewage, including domestic, commercial and industrial sewage.

"Sewer System" shall mean the wastewater collection and transmission system owned or operated by Defendants designed to collect and convey municipal sewage (domestic, commercial and industrial) to the Defendants' Wastewater Treatment Plants or overflow structures.

"Sewer System Hydraulic Model" shall mean the hydraulic model developed in accordance with Paragraph VII.B of the SSO Decree.

"SSO Decree" shall mean the Interim Partial Consent Decree on Sanitary Sewer Overflows that was lodged in this case on February 15, 2002.

"SSO Outfall" shall mean an outfall from which SSOs are discharged.

"Substantial Completion of Construction" shall mean completion of construction and installation of equipment such that the system may be placed in full operation, and will both function and perform as designed. This specifically includes all control systems, instrumentation and all residual handling systems.

"Ten-Year Storm" shall mean a SCS Type II storm with a ten-year return and 24-hour duration.

"Unpermitted Overflow" shall mean any discharge to waters of the United States from Defendants' Sewer System that is not a CSO or SSO as defined by this Consent Decree.

"Unpermitted Overflow Outfall" shall mean the outfall from which Unpermitted Overflows are discharged.

"U.S. EPA/Ohio EPA/ORSANCO" shall mean "U.S. EPA and Ohio EPA and ORSANCO" unless Plaintiffs jointly elect (in their unreviewable discretion) to assign a particular task or responsibility to one or more of them. To make that election, Plaintiffs shall notify Defendants in writing of the task or responsibility that U.S. EPA or Ohio EPA or ORSANCO is assigned. Collectively, U.S. EPA/Ohio EPA/ORSANCO are referred to as

"Plaintiffs," and each individually is a "Plaintiff" under this Decree.

"Wastewater Treatment Plant(s)" ("WWTP(s)") shall refer to: 1) the following wastewater treatment plants: Mill Creek, Little Miami, Muddy Creek, Sycamore, Polk Run, Indian Creek, and Taylor Creek; and 2) the permitted treatment facilities owned or operated by Defendants identified in Exhibit 2 to the SSO Decree.

"Water-in-Basement(s)" ("WIB(s)") shall mean any release of wastewater from Defendants' Sewer System to buildings that (i) is not the result of blockages, flow conditions, or malfunctions of a building lateral or other piping/conveyance system that is not owned or operationally controlled by Defendants; and (ii) is not the result of overland, surface flooding not emanating from Defendants' Sewer System.

#### **VI. CAPITAL IMPROVEMENT PROJECTS**

Defendants shall construct Capital Improvement Projects (CIP) consistent with the descriptions set forth in Exhibit 1 to this Consent Decree and in accordance with the Substantial Completion of Construction Dates for each project set forth in Exhibit 1. In light of the substantial costs and magnitude of the remedial measures that will be required to be implemented by Sections VI (Capital Improvement Projects); VII (Long Term Control Plan Update); and VIII (Implementation of Capacity

Assurance Program Plan) of this Consent Decree; and by Section VI of the SSO Decree (Capital Improvement Projects and SSO 700), the Parties expect that proper construction and implementation of the remedial measures for the Sycamore WWTP in Exhibit 1 to this Consent Decree will be the feasible alternatives to bypassing at the Sycamore WWTP.

## **VII. LONG TERM CONTROL PLAN UPDATE**

### **A. Long Term Control Plan Update Report**

1. As further set forth in this Section, Defendants shall undertake a comprehensive program to identify remedial measures and a schedule (the "Long Term Control Plan Update") with the goals of insuring that: (1) Defendants construct and implement all feasible alternatives to eliminate bypasses at Defendants' WWTPs or, if Defendants demonstrate during the course of developing the Long Term Control Plan Update that elimination of bypassing is not feasible, to reduce bypasses at the WWTPs to the maximum extent feasible and to provide maximum feasible treatment for any remaining bypasses (where appropriate, feasible alternatives to bypassing may include, without limitation, high rate physical-chemical treatment units and/or primary clarification and disinfection); (2) Defendants' CSOs comply with the requirements of the Clean Water Act, U.S. EPA's CSO Policy, Chapter 6111 of the Ohio Revised Code and the rules promulgated

thereunder, the Compact and the pollution control standards promulgated thereunder, and Defendants' Current Permits; and (3) Defendants eliminate Unpermitted Overflows. In the development of the Long Term Control Plan Update, Defendants shall implement the Public Participation Program attached to this Consent Decree as Exhibit 2; utilize a planning-level model based on their Sewer System Hydraulic Model; develop and utilize water quality models in accordance with the Monitoring and Modeling Work Plan attached to this Consent Decree as Exhibit 3; and implement the Long Term Control Plan Update Work Plan attached to this Consent Decree as Exhibit 4.

2. By June 30, 2006, Defendants shall submit a report, the "Long Term Control Plan Update Report," to U.S. EPA/Ohio EPA/ORSANCO for review, comment and approval. The Long Term Control Plan Update Report shall be developed in accordance with the Long Term Control Plan Update Work Plan, and shall contain the information specified in Section II of the Long Term Control Plan Update Work Plan attached to this Consent Decree as Exhibit 4, including, but not limited to: the Long Term Control Plan Update, and a schedule that is developed in accordance with Paragraph II.F of the Long Term Control Plan Update Work Plan and coordinated with projects developed pursuant to the Capacity Assurance Program Plan prepared under the SSO Decree as required by Section II.F of the Long Term Control Plan Update Work Plan.

The schedule shall be as expeditious as practicable for design, construction and utilization of the remedial measures specified in the Long Term Control Plan Update and shall contain a deadline for Substantial Completion of Construction of all remedial measures that is as expeditious as practicable. Except as provided in Section IX (Completion of Construction), the date for Substantial Completion of Construction of all construction under the Long Term Control Plan Update shall be no later than February 28, 2022.

3. U.S. EPA/Ohio EPA/ORSANCO may approve the Long Term Control Plan Update Report or decline to approve it and provide written comments. Within 120 days of receiving U.S. EPA/Ohio EPA/ORSANCO's written comments, Defendants shall either: (i) alter the Long Term Control Plan Update Report consistent with U.S. EPA/Ohio EPA/ORSANCO's written comments, and submit the Long Term Control Plan Update Report to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

4. Upon receipt of U.S. EPA/Ohio EPA/ORSANCO's final approval of the Long Term Control Plan Update Report, or upon completion of the Report pursuant to dispute resolution, Defendants shall implement the Long Term Control Plan Update contained in the Long Term Control Plan Update Report in



accordance with the schedule in the approved Long Term Control Plan Update Report.

B. Modification of Long Term Control Plan Update if Anticipated Changes to Legal Requirements Do Not Occur

1. The CSO Policy recognizes that information developed during the course of long term control planning may serve as a basis for seeking revisions to water quality standards or NPDES permit requirements, particularly where that information demonstrates that it will not be feasible to attain water quality standards. If the Long Term Control Plan Update in the Long Term Control Plan Update Report is based upon Defendants' belief that the requirements of the Clean Water Act, U.S. EPA's CSO Policy, Chapter 6111 of the Ohio Revised Code and/or the rules promulgated thereunder, and/or the Compact, and/or the pollution control standards promulgated thereunder will be revised, and if information subsequently becomes available that indicates that those revisions are not going to occur in the manner set forth in Defendants' Long Term Control Plan Update Report, U.S. EPA, Ohio EPA, or ORSANCO may notify Defendants in writing that the expected revisions are not going to occur.

2. Within 180 days of their receipt of the written notice described above, Defendants must submit to U.S. EPA/Ohio EPA/ORSANCO for review and approval a Revised Long Term Control Plan Update that includes all of the elements of a Long Term

Control Plan Update set out in Paragraph VII.A above and Paragraph II.H.4 of the Long Term Control Plan Update Work Plan (including a schedule that is as expeditious as practicable for completion of the remedial measures but that may be later than February 28, 2022, if it is not practicable to complete those measures by that date), but does not assume or rely on water quality standards that have not been revised or approved by Ohio EPA, U.S. EPA and ORSANCO, and does not assume or rely on NPDES permit requirements that have not been included in an NPDES permit to which U.S. EPA did not object.

3. U.S. EPA/Ohio EPA/ORSANCO may approve the Revised Long Term Control Plan Update or decline to approve it and provide written comments. Within 90 days of receiving U.S. EPA's/Ohio EPA's/ORSANCO's written comments, Defendants shall either: (i) alter the Revised Long Term Control Plan Update consistent with U.S. EPA's/Ohio EPA's/ORSANCO's written comments, and submit the Revised Long Term Control Plan Update to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

4. Upon receipt of U.S. EPA's/Ohio EPA's/ORSANCO's final approval of the Revised Long Term Control Plan Update, or upon completion of the Revised Long Term Control Plan Update pursuant to dispute resolution, Defendants shall implement the Revised Long Term Control Plan Update in accordance with the

schedule included in the approved Revised Long Term Control Plan Update.

**C. Evaluation and Correction Period**

1. At any point following the Substantial Completion of Construction and implementation of any measures specified in the Long Term Control Plan Update, up to and including two years after Substantial Completion of Construction of all measures specified in the Long Term Control Plan Update, Defendants may evaluate the effectiveness of the work completed.

2. If Defendants need additional time to implement additional remedial measures necessary to meet the requirements set forth in Subparagraph VII.D.2, they may petition U.S. EPA/Ohio EPA/ORSANCO for an extension of the previously applicable deadline for Substantial Completion of Construction of all of the measures specified in the Long Term Control Plan Update to allow for the implementation of additional remedial measures. Such petition shall include the reason(s) that the deadline extension is deemed necessary and a general description of the additional measures that may be needed (if known) and shall be submitted no later than thirty (30) days from the end of the two-year evaluation period. Defendants shall submit a petition as soon as practicable after they identify a problem(s) that they believe warrants correction, and may submit more than one petition if they identify multiple problems.

3. U.S. EPA/Ohio EPA/ORSANCO may approve the petition or decline to approve it and provide written comments, provided however, that U.S. EPA's/Ohio EPA's/ORSANCO's approval shall not be arbitrarily and capriciously denied if the measures have been designed and constructed in accordance with the Long Term Control Plan Update or Revised Long Term Control Plan Update approved by U.S. EPA/Ohio EPA/ORSANCO pursuant to Paragraph VII.A.4 or VII.B.4 of this Decree, as applicable. Within 45 days of receiving U.S. EPA's/Ohio EPA's/ORSANCO's written comments, Defendants shall either: (i) alter the petition consistent with U.S. EPA's/Ohio EPA's/ORSANCO's written comments, and submit the petition to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree. Upon receipt of U.S. EPA's/Ohio EPA's/ORSANCO's final approval of the petition, or upon completion of the petition pursuant to dispute resolution, Defendants shall have 90 days to submit an Addendum to the Long Term Control Plan Update that identifies the additional remedial measures that need to be implemented and includes all of the elements set forth in VII.A, above, and Paragraph II.H.4 of the Long Term Control Plan Update Work Plan (Exhibit 4) (including a schedule that is as expeditious as practicable for completion of the additional remedial measures) to U.S. EPA/Ohio EPA/ORSANCO for review and approval.

4. U.S. EPA/Ohio EPA/ORSANCO may approve the Addendum to the Long Term Control Plan Update or decline to approve it and provide written comments. Within 90 days of receiving U.S. EPA's/Ohio EPA's/ORSANCO's written comments, Defendants shall either: (i) alter the Addendum to the Long Term Control Plan Update consistent with U.S. EPA's/Ohio EPA's/ORSANCO's written comments, and submit the Addendum to the Long Term Control Plan Update to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

5. Upon receipt of U.S. EPA's/Ohio EPA's/ORSANCO's final approval of the Addendum, or upon completion of the Addendum pursuant to dispute resolution, Defendants shall implement the Addendum to the Long Term Control Plan Update in accordance with the schedule included in the approved Addendum.

**D. Compliance after Implementation**

1. The remedial measures specified in the Long Term Control Plan Update, the Revised Long Term Control Plan Update, or the Addendum to the Long Term Control Plan Update, as applicable, shall be constructed in accordance with the design criteria set forth in the Long Term Control Plan Update, as applicable, the Revised Long Term Control Plan Update, or the Addendum; and once constructed and placed in service, shall meet the performance criteria set forth in the Long Term Control Plan

Update, the Revised Long Term Control Plan Update, or the Addendum to the Long Term Control Plan Update, as applicable, and shall be operated and maintained in a manner consistent with the goal of reducing pollutant discharges.

2. Upon Substantial Completion of Construction of all measures under the Long Term Control Plan Update, the Revised Long Term Control Plan Update, or the Addendum to the Long Term Control Plan Update, as applicable, Defendants' CSOs shall comply with the Clean Water Act, U.S. EPA's CSO Policy, Chapter 6111 of the Ohio Revised Code and the rules promulgated thereunder, the Compact and the pollution control standards promulgated thereunder, and Defendants' Current Permits, and Defendants shall not have Unpermitted Overflows.

**VIII. IMPLEMENTATION OF CAPACITY ASSURANCE PROGRAM PLAN**

A. A Capacity Assurance Program Plan ("CAPP"), including a schedule for implementation, is required to be developed pursuant to Subparagraph VII.E.8 of the SSO Decree, although the SSO Decree does not specify a date for completion of construction. Pursuant to Subparagraph VII.E.8 of the SSO Decree, the CAPP must identify additional feasible remedial measures that have the goal of eliminating all capacity-related SSOs and/or that are necessary to insure that there is adequate capacity in the Sanitary Sewer System under current and projected future

conditions such that there will be no capacity-related SSOs under projected future conditions. The Parties intend that this Consent Decree shall govern the implementation schedule for the CAPP in that such schedule shall be as expeditious as practicable, but, except as provided in Section IX (Completion of Construction Deadlines), the date for Substantial Completion of Construction of all construction under the CAPP shall be no later than February 28, 2022. Upon receipt of U.S. EPA's/Ohio EPA's final approval of the CAPP in accordance with Subparagraph VII.E.8 of the SSO Decree, or upon completion of the CAPP pursuant to dispute resolution under the SSO Decree, the CAPP shall be incorporated into this Consent Decree, and Defendants shall implement the CAPP in accordance with the schedule included in the approved CAPP.

**B. Evaluation and Correction Period**

1. At any point following completion of construction and implementation of any measure specified in the CAPP, up to and including two years after completion of all measures specified in the CAPP for a particular Sub-Basin, Defendants may evaluate the effectiveness of the work completed.

2. If Defendants need additional time to eliminate SSOs from SSO Outfalls other than SSO 700 or to correct other problems identified during the evaluation period, they may petition U.S. EPA/Ohio EPA/ORSANCO for an extension of the

previously applicable deadline for completion of work in that Sub-Basin to allow for the implementation of additional remedial measures in or concerning that Sub-Basin. Such petition shall include the reason(s) that the deadline extension is deemed necessary and shall be submitted no later than thirty (30) days from the end of the two-year evaluation period. Defendants shall submit a petition as soon as practicable after they identify a problem(s) that they believe warrants correction, and may submit more than one petition if they identify multiple problems.

3. U.S. EPA/Ohio EPA/ORSANCO may approve the petition or decline to approve it and provide written comments, provided however, that U.S. EPA/Ohio EPA/ORSANCO's approval shall not be arbitrarily and capriciously denied if the permanent remedial measures have been designed and constructed in accordance with the CAPP approved by U.S. EPA/Ohio EPA/ORSANCO pursuant to Paragraph VII.E.8 of the SSO Decree. Within 45 days of receiving U.S. EPA/Ohio EPA/ORSANCO's written comments, Defendants shall either: (i) alter the petition consistent with U.S. EPA/Ohio EPA/ORSANCO's written comments, and submit the petition to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

4. Upon receipt of U.S. EPA/Ohio EPA/ORSANCO's final approval of the petition, or upon completion of the petition pursuant to dispute resolution, Defendants shall have 90 days to



submit a CAPP Addendum (including a schedule, including the critical construction milestones set forth in Subparagraph VII.E.5 of the SSO Decree, that is as expeditious as practicable for completion of the additional remedial measures) to U.S. EPA/Ohio EPA/ORSANCO for review and approval.

5. U.S. EPA/Ohio EPA may approve the CAPP Addendum or decline to approve it and provide written comments. Within 90 days of receiving U.S. EPA/Ohio EPA/ORSANCO's written comments, Defendants shall either: (i) alter the CAPP Addendum consistent with U.S. EPA/Ohio EPA/ORSANCO's written comments, and submit the CAPP Addendum to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

6. Upon receipt of U.S. EPA/Ohio EPA/ORSANCO's final approval of the CAPP Addendum, or upon completion of the CAPP Addendum pursuant to dispute resolution, Defendants shall implement the Addendum in accordance with the schedule included in the approved revised Plan.

#### **IX. COMPLETION OF CONSTRUCTION DEADLINES**

##### **A. Extension of Deadlines If There Are Not Adequate Precipitation Events to Allow for Collection of Monitoring Data**

The deadlines contained in Section VII of the Consent Decree for submission of the Long Term Control Plan Update Report and

Substantial Completion of Construction of all remedial measures specified in the Long Term Control Plan Update are premised on the assumption that there will be sufficient precipitation for Defendants to complete wet-weather sampling in accordance with the Monitoring and Modeling Work Plan attached to this Consent Decree as Exhibit 3. Specifically, the deadlines are premised on the assumption that there will be sufficient precipitation for Defendants to complete, by October 15, 2005: wet-weather sampling of CSOs, SSOs and stormwater discharges; and for wet-weather sampling in receiving streams other than the Ohio River, for three separate wet-weather events; and for wet-weather sampling in the Ohio River, for one or two events wet-weather events, as provided in Paragraph 2.2.2 of the Monitoring and Modeling Work Plan (see Dry and Wet-Weather Events). If there have not been adequate precipitation events to meet these requirement, Defendants shall notify U.S. EPA/Ohio EPA/ORSANCO in writing as to which requirement(s) has or have not been met and then shall continue performing wet-weather sampling, as expeditiously as practicable, until such requirement(s) has/have been met, and the deadlines for submission of the Long Term Control Plan Update Report and Substantial Completion of Construction of all remedial measures specified in the Long Term Control Plan Update shall be extended by the number of days after October 15, 2005, that it takes for Defendants to complete the

additional wet-weather sampling in accordance with the Monitoring and Modeling Work Plan.

**B. Extension of Deadlines If Capital Costs Exceed \$1.5 Billion**

The schedule for Substantial Completion of Construction for the remedial measures in the Long Term Control Plan Update and the Capacity Assurance Program Plan shall be as expeditious as practicable, but in no event later than February 28, 2022, unless Defendants demonstrate that the expected capital costs (in 2006 dollars) of the remedial measures in the Long Term Control Plan Update and the CAPP are expected to exceed \$1.5 billion. If such capital costs are expected to exceed \$1.5 billion, then the deadline for completion of all remedial measures specified in the Long Term Control Plan Update and the CAPP must be specified in the Plan(s) and must still be as expeditious as practicable, but may be later than February 28, 2022, if it is not practicable to complete the CAPP and Long Term Control Plan Update remedial measures by that date.

1. Sewer Relining and Manhole Rehabilitation

Measures: Defendants may include a Sewer Relining and Manhole Rehabilitation Program Plan (consisting of capital measures designed to reduce infiltration and inflow) as an element of their Long Term Control Plan Update, in accordance with the Paragraph II.E.3 of the Long Term Control Plan Update Work Plan

(Exhibit 4). The expected capital costs of any such measures included in the approved Long Term Control Plan Update may be included in determining whether the capital costs for remedial measures set forth above in this Paragraph are expected to exceed \$1.5 billion.

2. Water-in-Basement Capital Expenditures:

Defendants may include measures necessary to meet the adequate capacity requirements of Paragraph XIII.D, including measures implemented pursuant to the Water-in-Basement Prevention Program (Exhibit 6), as an element of their Long Term Control Plan Update, in accordance with Paragraph II.E.3 of the Long Term Control Plan Update Work Plan (Exhibit 4). The expected capital costs of any such measures included in the approved Long Term Control Plan Update may be included in determining whether the capital costs for remedial measures set forth above in this Paragraph are expected to exceed \$1.5 billion.

3. Remedial Measures for Complying With New Legal Requirements: The parties recognize that Defendants' NPDES permits pertaining to their WWTPs or Sewer System may be revised in the future to contain new or more stringent requirements, and that it may be necessary for Defendants to construct remedial measures in addition to those that will otherwise be required by the Long Term Control Plan Update and CAPP. Defendants may include remedial measures necessary to comply with new or more

stringent requirements that are included or expected to be included in future NPDES permits pertaining to their WWTPs or Sewer System as an element of their Long Term Control Plan Update, in accordance with Paragraph II.E.3 of the Long Term Control Plan Update Work Plan (Exhibit 4). The expected capital costs of any such measures included in the approved Long Term Control Plan Update may be included in determining whether the capital costs for remedial measures set forth above in this Paragraph are expected to exceed \$1.5 billion.

**X. POST-CONSTRUCTION MONITORING STUDY**

A. Within five years of approval of the Long Term Control Plan Update Report, Defendants shall submit to U.S. EPA/Ohio EPA/ORSANCO, for approval, a Work Plan for conducting an ongoing study or series of studies ("Post-Construction Monitoring Study") to help determine: 1) whether the Long Term Control Plan Update measures, when completed, meet all design criteria and performance criteria specified in the Long Term Control Plan Update; 2) whether Defendants' CSOs comply with the requirements of the Clean Water Act, U.S. EPA's CSO Policy, Chapter 6111 of the Ohio Revised Code and the rules promulgated thereunder, the Compact and the pollution control standards promulgated thereunder, and Defendants' Current Permits; and 3) that there are no Unpermitted Overflows.

B. The Work Plan shall contain a schedule for performance of the study or series of studies at key points during the course of implementation of the remedial measures, as well as after completion of the remedial measures, specified in the Long Term Control Plan Update and Capacity Assurance Program Plan. The Work Plan also shall indicate the years (at least biannually) in which data generated during implementation of the Work Plan will be included in the last Quarterly Report submitted under Section XV of this Consent Decree.

C. U.S. EPA/Ohio EPA/ORSANCO may approve the Post-Construction Monitoring Study Work Plan or may decline to approve it and provide written comments. Within sixty (60) days of receiving U.S. EPA's/Ohio EPA's/ORSANCO's comments, Defendants shall either: (i) alter the Post-Construction Monitoring Study Work Plan consistent with U.S. EPA's/Ohio EPA's/ORSANCO's comments, and submit the Work Plan to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

D. Upon receipt of U.S. EPA's/Ohio EPA's/ORSANCO's final approval of the Post-Construction Monitoring Study Work Plan, or upon completion of the Work Plan pursuant to dispute resolution, Defendants shall implement the approved Work Plan in accordance with the schedule in the approved Work Plan.

E. Within one hundred twenty (120) days after completion of the Post-Construction Monitoring Study, Defendants shall submit a Final Post-Construction Monitoring Report to U.S. EPA/Ohio EPA/ORSANCO, for review, comment and approval, that:

1. demonstrates that Defendants performed the Post-Construction Monitoring Study in accordance with the approved Work Plan and schedule set forth in the approved Work Plan; and

2. summarizes the data collected during the Post-Construction Monitoring Study and analyzes whether the completed control measures have met and/or are meeting the design and performance criteria specified in the Long Term Control Plan Update and whether Defendants' CSOs comply with the requirements of the Clean Water Act, U.S. EPA's CSO Control Policy, the Compact and the pollution control standards promulgated thereunder, and Defendants' Current Permits.

F. U.S. EPA/Ohio EPA/ORSANCO may approve the Final Post-Construction Monitoring Report or may decline to approve it and provide written comments. Within sixty (60) days of receiving U.S. EPA's/Ohio EPA's/ORSANCO's comments, Defendants shall either: (i) alter the Final Post-Construction Monitoring Report consistent with U.S. EPA's/Ohio EPA's/ORSANCO's comments, and submit the Report to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree. Approval of the Final Post-

Construction Monitoring Report only constitutes U.S. EPA's/Ohio EPA's/ORSANCO's approval that the report contains the information required by Paragraph X.E; it does not mean that U.S. EPA/Ohio EPA/ORSANCO believe Defendants have complied with any other requirement of this Consent Decree or the law.

**XI. REMEDIAL MEASURES ADDRESSING NINE MINIMUM CONTROLS**

**A. CSO Operation and Maintenance Plan Requirement**

Defendants shall comply with the operation and maintenance requirements of Defendants' Current Permits applicable to Defendants' Sewer System.

**B. CSO Public Notification Program**

Defendants shall implement the CSO Public Notification Program attached to this Consent Decree as Exhibit 5.

**C. Maximization of Transport and Storage**

1. Defendants shall perform a study, the "Maximization of Transport and Storage Study," that will focus on initial flow maximization opportunities already identified by Defendants' ongoing efforts known as the "Real Time Control Analysis" Project. The "Real Time Control Analysis" Project is an evaluation of Defendants' Combined Sewer System using Defendants' Sewer System Hydraulic Model, to identify opportunities for making Minor Modifications to Defendants' Sewer System to increase the amount of sewage that could be transported



through Defendants' Combined Sewer System, or stored for later transport, to Defendants' WWTPs for treatment. "Minor Modifications" shall include any of the measures described in Sections 3.1 and 5.1 of U.S. EPA's "Guidance for Nine Minimum Controls," but shall not include remedial measures for increasing capacity to address wet weather flows involving significant engineering studies or major construction, as such measures for increasing capacity to address wet weather flows will instead be addressed by the Long Term Control Plan Update. This evaluation has already identified opportunities for making Minor Modifications in the following five areas: four CSO areas in the Mill Creek Basin (Badgely Run, Ross Run, Lick Run, and Mitchell Avenue) where inflatable dams may be practical; and at the headworks of the Little Miami WWTP, where an alternative pumping strategy may provide additional capture of combined sewage. The "Maximization of Transport and Storage Study" shall focus on the assessment of the feasibility, cost, and expected performance of each of the opportunities in the five areas described in the preceding sentence.

2. By March 31, 2005, Defendants shall submit to U.S. EPA/Ohio EPA/ORSANCO for review, comment and approval, a report, the "Maximization of Transport and Storage Report," that contains the following:

(a) Information that demonstrates that Defendants performed the Maximization of Transport and Storage Study in accordance with Subparagraph XI.C.1;

(b) The results of the study including, but not limited to, an identification of all Minor Modifications that could practically be made to the five aforementioned areas of Defendants' Combined Sewer System to increase the amount of sewage that could be transported through Defendants' Combined Sewer System, or stored for later transport, to Defendants' WWTPs for treatment;

(c) To the extent that Defendants conclude that Minor Modifications could not be made with regard to each of the five areas specified in Subparagraph XI.C.1, a detailed explanation as to the basis of that conclusion for each specific location and Minor Modification; and

(d) For all Minor Modifications identified in accordance with Subparagraph XI.C.2(b) that could be made to the five aforementioned areas of Defendants' Combined Sewer System, a "Minor Modifications Implementation Plan" that identifies recommended measures, and includes an estimate of capital costs and a schedule that is as expeditious as practicable for implementation of those measures.

3. U.S. EPA/Ohio EPA/ORSANCO may approve the Maximization of Transport and Storage Report or decline to

approve it and provide written comments. Within 60 days of receiving U.S. EPA/Ohio EPA/ORSANCO's written comments, Defendants shall either: (i) alter the Maximization of Transport and Storage Report consistent with U.S. EPA/Ohio EPA/ORSANCO's written comments, and submit the Maximization of Transport and Storage Report to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

4. Upon receipt of U.S. EPA/Ohio EPA/ORSANCO's final approval of the Maximization of Transport and Storage Report, or upon completion of the Report pursuant to dispute resolution, Defendants shall implement the Minor Modifications Implementation Plan contained in the Maximization of Transport and Storage Report in accordance with the schedule in the approved Maximization of Transport and Storage Report.

**D. Non-High Water Dry Weather Combined Sewer Overflows**

1. Defendants shall perform a study, the "Non-High Water Dry Weather Overflow Study," of records that Defendants currently possess pertaining to CSOs (e.g., citizen complaints; Sewer System operation, maintenance and inspection records; CSO monitoring reports) that have occurred subsequent to April 30, 2001, to determine whether any of Defendants' CSO outfalls have discharged more than twenty-four hours after a precipitation event, as a result of other than High Water Conditions or as a

result of other than continued runoff or infiltration and inflow from a precipitation event, on more than one occasion subsequent to April 30, 2001; and to identify measures to prevent or reduce, to the maximum extent practicable, such discharges from such specified outfalls. For the purposes of this Study only, "High Water Conditions" shall mean situations where elevated surface water levels inundate portions of Defendants' collection system so as to cause discharge to take place more than 24 hours after a precipitation event, and the phrase "more than 24 hours after a precipitation event" shall mean the time period beginning 24 hours after the last precipitation fell in a particular event.

2. By October 31, 2004, Defendants shall submit to U.S. EPA/Ohio EPA/ORSANCO for review, comment and approval, a report, the "Non-High Water Dry Weather Overflow Report," that contains the following:

(a) Information that demonstrates that Defendants performed the Non-High Water Dry Weather Overflow Study in accordance with Subparagraph XI.D.1;

(b) Description of the records that Defendants reviewed and the methodology used to carry out the Study;

(c) The results of the study including, but not limited to, an identification of all CSO outfalls that discharged more than twenty-four hours after a precipitation

event, as a result of other than High Water Conditions or as a result of other than continued runoff or infiltration and inflow from a precipitation event, on more than one occasion subsequent to April 30, 2001;

(d) For each CSO outfall identified in accordance with Subparagraph XI.D.2(c), a description of the cause(s) (if known) of the CSO discharges that occurred more than twenty-four hours after a precipitation event, as a result of other than High Water Conditions or as a result of other than continued runoff or infiltration and inflow from a precipitation event, on more than one occasion subsequent to April 30, 2001; a description of remedial measures (such as repairing or replacing failing or outdated equipment; increasing maintenance activities; raising overflow weirs or increasing interceptor connection pipe size) that are needed to prevent or reduce, to the maximum extent practicable, future discharges occurring from the identified CSO outfalls as a result of other than High Water Conditions or as a result of other than continued runoff or infiltration and inflow from a precipitation event; and

(e) For all remedial measures identified in accordance with Subparagraph XI.D.2(d), a "Non-High Water Dry Weather Overflow Reduction Implementation Plan" that contains an estimate of capital cost and a schedule that is as expeditious as practicable for implementation of those measures, except that

Defendants need not include a schedule for implementation of remedial measures that are already included in the list of Capital Improvement Projects attached as Exhibit 1 to this Consent Decree or for remedial measures for increasing capacity to address wet weather flows, as measures for increasing capacity to address wet weather flows will instead be addressed by the Long Term Control Plan Update.

3. U.S. EPA/Ohio EPA/ORSANCO may approve the Non-High Water Dry Weather Overflow Report or decline to approve it and provide written comments. Within 60 days of receiving U.S. EPA/Ohio EPA/ORSANCO's written comments, Defendants shall either: (i) alter the Non-High Water Water Dry Weather Overflow Report, consistent with U.S. EPA/Ohio EPA/ORSANCO's written comments, and submit the Non-High Water Dry Weather Overflow Report to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.

4. Upon receipt of U.S. EPA/Ohio EPA/ORSANCO's final approval of the Non-High Water Dry Weather Overflow Report, or upon completion of the Report pursuant to dispute resolution, Defendants shall implement the Non-High Water Dry Weather Overflow Reduction Implementation Plan contained in the Non-High Water Dry Weather Overflow Report in accordance with the schedule in the approved Non-High Water Dry Weather Overflow Report.

**E. Control of Solid and Floatable Materials in CSOs**

1. Defendants shall comply with all requirements in Defendants' Current Permits regarding control of solid and floatable materials in CSOs.

2. Defendants shall perform an engineering study, the "Control of Solid and Floatable Materials in CSOs Study," to identify the costs, benefits and effectiveness of all past (within the last five years), current and future measures that Defendants have taken, are taking or will be taking to control solid and floatable materials in Defendants' CSOs; and to identify and evaluate the need, costs, benefits, effectiveness and feasibility of Defendants' implementing (in addition to those measures identified above that Defendants have, are or will be implementing) the measures described in Section 7 of U.S. EPA's "Guidance for Nine Minimum Controls."

3. By December 1, 2004, Defendants shall submit to U.S. EPA/Ohio EPA/ORSANCO for review, comment and approval, a report, the "Control of Solid and Floatable Materials in CSOs Report," that contains the following:

(a) Information that demonstrates that Defendants' performed the Control of Solid and Floatable Materials in CSOs Study in accordance with Subparagraph XI.E.2, including a description of the steps that Defendants took to obtain the information specified in Subparagraph XI.E.2;

(b) The results of the study including, but not limited to, a description of the need, costs, benefits and effectiveness of all past (within the last five years), current and future measures that Defendants have taken, are taking or will be taking to control solid and floatable materials in Defendants' CSOs; a description of the costs, benefits, effectiveness and feasibility of Defendants' implementing (in addition to those measures identified above that Defendants have, are or will be implementing) the measures described in Section 7 of U.S. EPA's "Guidance for Nine Minimum Controls;" and, to the extent that Defendants are not implementing any of the measures described in Section 7, an explanation as to why Defendants are not doing so.

4. U.S. EPA/Ohio EPA/ORSANCO may approve the Control of Solid and Floatable Materials in CSOs Report or decline to approve it and provide written comments. Within 60 days of receiving U.S. EPA/Ohio EPA/ORSANCO's written comments, Defendants shall either: (i) alter the Control of Solid and Floatable Materials in CSOs Report consistent with U.S. EPA/Ohio EPA/ORSANCO's written comments, and submit the Control of Solid and Floatable Materials in CSOs Report to U.S. EPA/Ohio EPA/ORSANCO for final approval; or (ii) submit the matter for dispute resolution under Section XXI of this Decree.



**XII. COMPLIANCE WITH EFFLUENT LIMITATIONS; MONITORING, RECORD-KEEPING AND REPORTING REQUIREMENTS; AND OPERATION AND MAINTENANCE REQUIREMENTS AT WASTEWATER TREATMENT PLANTS**

Defendants shall comply with the effluent limitations; monitoring, record-keeping and reporting requirements; and operation and maintenance requirements of Defendants' Current Permits applicable to Defendants' Wastewater Treatment Plants. These limitations and requirements include, but are not limited to, the requirements in Parts I.A, I.B, II (other than Pretreatment Requirements), and III.3-III.7 of Defendants' Current Permits applicable to Defendants' Wastewater Treatment Plants.

**XIII. WATER-IN-BASEMENT PROGRAM**

Defendants shall implement the Water-in-Basement Program components set forth in Paragraphs XIII.A, XIII.B, and XIII.C, below, and Exhibits 6, 7, and 8, until the Consent Decree terminates in accordance with Section XXXIII.

**A. Prevention of Water-in-Basement**

Defendants shall implement, in accordance with the requirements and schedules therein, the Water-in-Basement (WIB) Prevention Program, attached to this Consent Decree as Exhibit 6. The WIB Prevention Program shall utilize a variety of remedial

measures to address WIBs, including but not limited to, installation of grinder pump systems, and property purchase.

**B. Water-in-Basement Customer Service Program**

1. Defendants shall implement, in accordance with the requirements and schedules therein, the Water-In-Basement Customer Service Program Plan, attached to this Consent Decree as Exhibit 7, to promptly clean up WIB and to otherwise assist customers who experience WIB with cleanup activities.

2. Defendants shall initially fund the Water-in-Basement Customer Service Program from the monies currently accumulated in the Environmental Security Account established pursuant to Section XVIII of the Consent Order dated August 16, 1985 in Civil Action C-1-85-0693. When those funds are depleted, Defendants shall continue to implement the program in accordance with the requirements and schedules in Exhibit 7.

**C. Water-in-Basement Claims Program**

Defendants shall implement, in accordance with the requirements and schedules therein, the Water-in-Basement Claims Process Plan, attached to this Consent Decree as Exhibit 8, to compensate customers who experience WIB for real or personal property losses or expenses. Such losses may include, inter alia, building restoration costs, and loss of furniture and/or property stored in the flooded areas.

**D. Adequate Capacity**

Defendants shall implement remedial measures, including the WIB Prevention Program, to ensure that upon completion of implementation of the remedial measures required by the CAPP and the Long Term Control Plan Update, 1) Defendants' Sanitary Sewer System has adequate capacity to meet the requirements of Paragraph VIII.A of this Consent Decree, which includes not having any capacity-related SSOs under current and projected future conditions; and 2) Defendants' Combined Sewer System shall have capacity that is consistent with appropriate design standards or be equipped with other measures so as to prevent capacity-related WIBs. Such "other measures" shall be consistent with the WIB Prevention Plan (Exhibit 6) and shall specifically not preclude continued discharge to Defendants' Sewer System by "WIB properties" during frequently encountered wet weather conditions.

**XIV. SUPPLEMENTAL ENVIRONMENTAL PROJECTS**

A. Defendants shall complete Supplemental Environmental Projects ("SEPs"), in accordance with the Supplemental Environmental Project Plan ("SEP Plan") attached to this Consent Decree as Exhibit 9, which the parties agree are intended to secure significant environmental protection and improvements that are not otherwise required by law.

B. Defendants shall complete the SEPs pursuant to the plans and the time schedules set forth in the SEP Plan.

C. Defendants shall spend at least \$5.3 million implementing the SEPs identified in the SEP Plan. No part of this expenditure shall include federal or State funds, including federal or State low interest loans, contracts, or grants. Defendants shall include documentation of expenditures made in connection with the SEPs as part of the SEP Completion Reports required by Paragraph XIV.D, below.

D. Defendants shall submit to U.S. EPA/Ohio EPA/ORSANCO a SEP Completion Report for each SEP described in the SEP Plan no later than 60 days from the date for completion of the SEP set forth in the SEP Plan. The Report shall contain the following information for the SEP: a) a detailed description of the SEP as implemented; b) a description of any operating problems encountered and the solutions thereto; c) itemized costs; d) certification that the SEP has been fully implemented pursuant to the SEP Plan and the provisions of this Consent Decree; e) a description of the environmental and public health benefits resulting from implementation of the SEP.

E. U.S. EPA/Ohio EPA/ORSANCO may, in their discretion, require information in addition to that described in Paragraph XIV.D, in order to determine the adequacy of SEP completion or

eligibility of SEP costs, including additional cost documentation to support the itemized costs.

F. Defendants hereby certify that they are not required to perform or develop the SEPs by any federal, state or local law or regulation; nor are Defendants required to perform or develop the SEPs by agreement, grant or as injunctive relief in this or any other case or in compliance with state or local requirements. Defendants further certify that they have not received, and are not presently negotiating to receive, credit for the SEPs in any other enforcement action or any proceeding involving the U.S. EPA or the Ohio EPA.

**XV. REPORTING REQUIREMENTS**

A. Beginning within the thirty (30) days of the close of the first full Calendar Quarter following the Date of Lodging of this Consent Decree, and within thirty (30) days of the close of each subsequent Calendar Quarter, Defendants shall submit to U.S. EPA, Ohio EPA, and ORSANCO a summary report containing the following information pertaining to the Calendar Quarter just concluded: a brief synopsis of the current status of the major remedial measures (e.g., CIP projects, the Long Term Control Plan Update and its components, implementation of the CAPP, Post-Construction Monitoring, Nine Minimum Controls and its components, and the deliverables associated with, and

implementation of, those measures) specified in Sections VI - XI of this Consent Decree and of the SEPs (specified in Section XIV and the SEP Plan, Exhibit 9) and progress made with respect to such remedial measures and SEPs since the last report; an itemized accounting of costs expended for each SEP during the quarter; the number of Permit(s) to Install that have been applied for and/or issued; and a description of compliance or non-compliance with the requirements of this Consent Decree and, if applicable, reasons for non-compliance. This report shall also identify any anticipated delays in the completion of any of the remedial measures specified in Sections VI - XI of this Consent Decree or of the SEPs specified in Section XIV and the SEP Plan, Exhibit 9. It is anticipated that these reports will provide summary information, preferably in the form of narrative tables. Notification to U.S. EPA, Ohio EPA, or ORSANCO pursuant to this Paragraph of any anticipated delay, shall not, by itself, excuse the delay.

B. Defendants also shall include in the quarterly reports required by Paragraph XV.A a description of whether any CSO or bypass that occurred in the previous Calendar Quarter was caused by Defendants' failure to comply with their Operation and Maintenance Program (SSO Consent Decree Exhibit 7), their Pump/Lift Station Operation and Maintenance Procedures (SSO Consent Decree Exhibit 9), or the operation and maintenance

requirements of Defendants' Current Permits applicable to Defendants' Sewer System or Wastewater Treatment Plants; or whether Defendants' failure to comply with any of these O&M requirements contributed to the volume or the duration of any CSO or bypass that occurred in the previous Calendar Quarter.

C. Defendants also shall include in the quarterly reports required by Paragraph XV.A, a report concerning implementation of the Water-in-Basement Program, required by Section XIII and Exhibits 6, 7, and 8. This report shall include for the previous calendar quarter: 1) as to the Water-in-Basement Prevention Program (Exhibit 6), the date and address of any requests for installation of devices, the date and disposition of any such requests (including what type of device, if any, was installed), the address, date, and disposition of any other investigations or installations that defendants initiate under the program; 2) as to the Water-in-Basement Customer Service Program (Exhibit 7), the address of each customer that has requested customer service under the program, the date of the request, the disposition of the request (e.g., service request denied, initial investigation completed, cleanup completed) and the date of the disposition; 3) as to the Water-in-Basement Claims Program (Exhibit 8), the address of the claimant, the date the claim was made, the amount of the claim, the disposition of the claim (including the amount paid if any), the date of the disposition, or whether the claim

is still pending. In addition, defendants shall report annually, beginning with the quarterly report submitted after the first anniversary of the Date of Lodging of this Decree, the amount Defendants spent in the previous year on remedial measures under the WIB Prevention Program (Exhibit 6).

**XVI. DOCUMENT RETENTION/CERTIFICATION OF SUBMISSIONS**

A. Defendants shall maintain copies of any underlying research and data in their possession, custody or control for any and all documents, reports, or permits submitted to U.S. EPA/Ohio EPA/ORSANCO pursuant to this Consent Decree for a period of five (5) years after submission. Defendants shall require any independent contractor(s) implementing this Consent Decree to also retain such materials for a period of five (5) years. Defendants shall submit such supporting documents to U.S. EPA/Ohio EPA/ORSANCO upon request.

B. At the conclusion of this document retention period, Defendants shall notify U.S. EPA, Ohio EPA, ORSANCO, U.S. Department of Justice, and the Ohio Attorney General at least 90 days prior to the destruction of any such materials, and upon request by any of these agencies, Defendants shall deliver any such materials to that agency or other specified agency.

C. In all notices, documents or reports submitted to the United States, the State, and ORSANCO pursuant to this Consent



Decree, Defendants shall, by a senior management official, sign and certify such notices, documents and reports as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**XVII. STIPULATED PENALTIES**

A. Defendants shall pay stipulated penalties, as set forth below, for each day they fail to timely submit submittals or meet any of the milestones or requirements set forth in Paragraphs XVII.C through XVII.H, below. Except as provided in Paragraph XVII.H, one-third of the total stipulated penalty amount due shall be paid to the United States, one-third shall be paid to the State, and one-third shall be paid to ORSANCO. All stipulated penalties arising under this Section shall, in the first instance, be levied against funds collected under Section 6117 of the Ohio Revised Code for the operation of MSD to the extent such funds are available, without limitation on recourse by the United States, the State, or ORSANCO in the event that such funds are not available within the sixty (60) day period for

payment specified by Paragraph XVII.J or are insufficient to pay such stipulated penalties.

B. "Timely submit", as used in this Section, shall mean that the submittal is made by the date specified in this Consent Decree or in a document approved pursuant to this Consent Decree. "Timely submit" shall further mean that the submittal must include all of the elements pertaining to the submittal as set forth in this Consent Decree or in a document approved pursuant to this Consent Decree.

**C. Stipulated Penalties for Critical Path Submittals and Critical Remedial Milestones**

1. Defendants shall be subject to the following stipulated penalties for a failure to timely submit the submittals listed in Subparagraph XVII.C.2, below, or for a failure to meet the critical remedial milestones set forth in Subparagraph XVII.C.2, below, in accordance with all requirements and objectives provided under this Consent Decree or in submittals subsequently approved by U.S. EPA/Ohio EPA/ORSANCO pursuant to the provisions of this Consent Decree:

1-30 days	\$1500/day
31-60 days	\$3000/day
over 60 days	\$5000/day

2. The following submittals are "critical path submittals," subject to the stipulated penalties of Subparagraph XVII.C.1, above:

- Long Term Control Plan Update Report
- Addendum to the Long Term Control Plan Update
- Revised Long Term Control Plan Update
- CAPP Addendum
- Post-Construction Monitoring Study Work Plan
- Final Post-Construction Monitoring Report
- Maximization of Transport and Storage Report
- Non-High Water Dry Weather Overflow Report
- Control of Solid and Floatable Materials in CSOs Report

The following deadlines are "critical milestones," subject to the stipulated penalties of Subparagraph XVII.C.1, above:

- the Dates for Substantial Completion of Construction for each CIP set forth in Exhibit 1
- the "critical construction milestones" set forth in the construction schedules contained in the approved Long Term Control Plan Update, Addendum to the Long Term Control Plan Update or Revised Long Term Control Plan Update
- the "critical construction milestones," as required by Subparagraph VII.E.5 of the SSO

Decree, set forth in the construction schedules contained in the approved Capacity Assurance Program Plan and/or Capp Addendum

- the date for completion of all measures under the Minor Modification Implementation Plan, as required by Subparagraph XI.C.4, set forth in the approved Maximization of Transport and Storage Report
- the date for completion of all measures under the Non-High Water Dry Weather Overflow Reduction Implementation Plan, as required by Subparagraph XI.D.4, set forth in the approved Non-High Water Dry Weather Overflow Report

**D. Stipulated Penalties for Reporting Requirements**

Defendants shall be subject to the following stipulated penalties for a failure to timely submit any of the reports required by Section XV or any post-construction monitoring reports required by Paragraph X.B of this Consent Decree:

1-7 days	\$500/day
8-60 days	\$1000/day
over 60 days	\$1500/day

**E. Stipulated Penalties for Bypasses, CSOs, Unpermitted Overflows, and SSDs**

1. Bypasses and Pre-Remedial Measures CSOs and Unpermitted Overflows

Defendants shall be subject to stipulated civil penalties of \$1000 per day for each day of each bypass, CSO or Unpermitted Overflow that was caused by Defendants' failure to comply with their O&M Program (SSO Decree Exhibit 7), their Pump/Lift Station O&M Procedures (SSO Decree Exhibit 9), the operation and maintenance requirements of Defendants' Current Permits applicable to Defendants' Sewer System, or the operation and maintenance requirements of Defendants' Current Permits applicable to Defendants' Wastewater Treatment Plants; or for which Defendants' failure to comply with any of these O&M requirements contributed to the volume or the duration of such CSO or bypass. These stipulated civil penalties shall be in addition to any stipulated penalties under Paragraph XI.H of the SSO Decree for Defendants' failure to comply with their O&M Program (SSO Decree Exhibit 7) or their Pump/Lift Station O&M Procedures (SSO Decree Exhibit 9); or under Paragraph XVII.F of this Consent Decree for Defendants' failure to comply with the operation and maintenance requirements of Defendants' Current Permits applicable to Defendants' Sewer System and Wastewater Treatment Plants. Defendants shall not be liable for stipulated

penalties under this subparagraph for CSOs or Unpermitted Overflows for which Defendants are liable for stipulated penalties under subparagraph XVII.E.2.

2. CSOs and Unpermitted Overflows Following Completion of Remedial Measures Specified in the Long Term Control Plan Update

(a) Except as provided in Subparagraphs XVII.E.2(b)-(c), Defendants shall be subject to a stipulated penalty of \$3000 per day for each day of each CSO or Unpermitted Overflow that violates the Clean Water Act, U.S. EPA's CSO Policy, the Compact and the pollution control standards promulgated thereunder, or any of Defendants' Current Permits that occurs after the later of 1) the date for completion of all remedial measures specified in the Long Term Control Plan Update, the Addendum to the Long Term Control Plan Update, or the Revised Long Term Control Plan Update, as applicable, or 2) any schedule completion date extensions or revisions that are made pursuant to Paragraph VII.C of this Consent Decree. However, U.S. EPA/Ohio EPA/ORSANCO will not demand payment for stipulated penalties under this subparagraph until after the two-year evaluation period set forth in Paragraph VII.C of this Consent Decree and shall not be entitled to stipulated penalties under this subparagraph for CSOs or Unpermitted Overflows that occur prior to the later of 1) the date for completion of all remedial

measures specified in the Long Term Control Plan Update, the Addendum to the Long Term Control Plan Update, or the Revised Long Term Control Plan Update, as applicable, or 2) any schedule completion date extensions or revisions that are made pursuant to Paragraph VII.C of this Consent Decree.

(b) Defendants shall not be liable for stipulated penalties under Subparagraph XVII.E.2(a) during the six month period (a "shake down" period) following the date for completion of all remedial measures specified in the Long Term Control Plan Update, the Addendum to the Long Term Control Plan Update, or the Revised Long Term Control Plan Update, as applicable.

(c) Defendants shall not be liable for stipulated penalties for CSOs or Unpermitted Overflows that are caused by a ten-year or greater storm event.

3. SSDs Following Completion of Capacity Assurance Program Plan

(a) This Consent Decree does not include provisions governing stipulated penalties for SSDs that occur from any location prior to completion of the remedial measures set forth in the Capacity Assurance Program Plan because stipulated penalties for those SSDs are covered by Subparagraph XI.E.1 of the SSO Decree.

(b) Except as provided in Subparagraphs XVII.E.3(c)-(d), Defendants shall be subject to a stipulated penalty of \$3000 per day for each day of each SSD within any Sub-Basin that occurs after the later of: (1) the date for completion of all remedial measures for the particular Sub-Basin pursuant to the Capacity Assurance Program Plan of the SSO Decree; or (2) any schedule completion date extensions or revisions that are made for that Sub-Basin pursuant to Paragraph VIII.B of this Consent Decree. However, U.S. EPA/Ohio EPA/ORSANCO will not demand payment for stipulated penalties under this subparagraph until after the two-year evaluation period set forth in Paragraph VIII.B of this Consent Decree and shall not be entitled to stipulated penalties under this subparagraph for SSDs that occur prior to the later of the date for completion of all remedial measures for the particular Sub-Basin pursuant to the Capacity Assurance Program Plan of the SSO Decree or any schedule completion date extensions or revisions for that particular Sub-Basin that are made pursuant to Paragraph VIII.B of this Consent Decree.

(c) Defendants shall not be liable for stipulated penalties under Subparagraph XVII.E.3(b) during the six month period (a "shake down" period) following the date for completion of all remedial measures for the particular Sub-Basin pursuant to the Capacity Assurance Program Plan.



(d) Defendants shall not be liable for stipulated penalties for SSDs that are caused by a ten-year or greater storm event.

**F. Stipulated Penalties for Violations of Exhibits, Submittals, and Permit O&M Requirements**

Unless already addressed in Paragraphs XVII.C-XVII.E, failure to comply with any of the following requirements shall subject Defendants to a stipulated penalty of \$2,000 per day for each violation:

1. The operation and maintenance requirements of Defendants' Current Permits applicable to Defendants' Sewer System and Wastewater Treatment Plants.

2. Material requirements set forth in the following Exhibits or submittals (subsequently approved by U.S. EPA/Ohio EPA/ORSANCO pursuant to the provisions of this Consent Decree):

- Public Participation Plan (Exhibit 2)
- Monitoring and Modeling Work Plan (Exhibit 3)
- Long Term Control Plan Update Work Plan (Exhibit 4)
- Long Term Control Plan Update
- Addendum to Long Term Control Plan Update
- Revised Long Term Control Plan Update
- CAPP
- CAPP Addendum

- Post-Construction Monitoring Study Work Plan
- CSO Public Notification Program (Exhibit 5)
- Minor Modification Implementation Plan
- Non-high Water Dry Weather Overflow Reduction Plan
- Water-in-Basement Prevention Plan (Exhibit 6)
- Water-in-Basement Customer Service Program Plan  
(Exhibit 7)
- Water in Basement Claim Process Plan (Exhibit 8)

**G. Stipulated Penalties for Violations of Effluent**

**Limitations; Monitoring, Record-keeping and Reporting**

**Requirements; and Control of Solid and Floatables Requirements**

1. Effluent Limit Violations

Defendants shall be subject to the following stipulated penalties for failure to comply as required by Section XII of this Consent Decree with any effluent limitations in Defendants' Current Permits applicable to Defendants' WWTPs:

Daily Effluent Limit	\$1,000 per violation
7-Day Average Limit	\$2,000 per 7-Day violation
30-Day Average Limit	\$8,000 per 30-Day violation

Loading limits and concentration limits for the same parameter are separate effluent limitations so that, for example, a violation of a 7-Day concentration limitation for suspended solids and a violation of a 7-Day loading limitation for suspended solids are separate violations. However, if Defendants

violate both the 7-Day average concentration limit and the 7-Day loadings limit for the same pollutant parameter for the same period of time at the same WWTP, Defendants shall only be subject a stipulated penalty for one of those violations. If Defendants violate a 30-Day average limit, Defendants shall not be subject to stipulated penalties for any violations of 7-Day average limitations for the same parameter that occurred during that 30-Day period at the same WWTP.

2. Monitoring, Record-keeping, Reporting; and Control of Solids and Floatables Requirements

Defendants shall be subject to the following stipulated penalties per day per violation for failure to comply with the monitoring, record-keeping, or reporting requirements of Defendants' Current Permits applicable to Defendants' WWTPs as required by Section XII of this Consent Decree, or the requirements in Defendants' Current Permits regarding control of solid and floatable materials in CSOs as required by Paragraph XI.E of this Consent Decree:

1-7 days	\$500/day
8-60 days	\$1000/day
over 60 days	\$1500/day

H. **Stipulated Penalties for the Supplemental Environmental Projects**

Defendants shall be subject to the following stipulated penalties for a failure to meet the milestones set forth in the SEP Plan (Exhibit 9), in accordance with all requirements and objectives provided under this Consent Decree or in submittals subsequently approved by U.S. EPA/Ohio EPA/ORSANCO pursuant to the provisions of this Consent Decree, or failure to timely submit the SEP Completion Reports, required by Paragraph XIV.D in accordance with the requirements of this Consent Decree:

Period of Noncompliance	Penalty per Milestone Date per Day of Violation
1st to 30th day	\$ 1,000
31st to 60th day	\$ 1,500
After 60 days	\$ 2,250

In addition, if the total amount expended on implementing the SEPs (including any SEP(s) pursuant to Section V (Additional Projects) of the SEP Plan) is less than \$5.3 million, Defendants shall be subject to a stipulated penalty equal to the difference between the amount spent and \$5.3 million. Penalties under this paragraph shall be paid, upon demand, 50% to the United States and 50% the State, in accordance with the provisions of Paragraphs XVII.I - XVII.L.

I. Stipulated civil penalties shall automatically begin to accrue on the first day Defendants fail either to meet any of the schedules of performance required by this Consent Decree or to

satisfy any other obligation or requirement of this Consent Decree.

J. Stipulated civil penalties shall be paid to all Plaintiffs within sixty (60) days of a written demand by any Plaintiff for payment of any stipulated penalty owing pursuant to this Consent Decree. The Plaintiff making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Plaintiffs. Any Plaintiff may, in the exercise of its unreviewable discretion, waive its right to any or all of its portion of the stipulated penalty amount.

K. Penalties owed to the United States shall be paid by submitting a cashier's or certified check payable to "Treasurer, United States of America", and shall be tendered to U.S. EPA Region V, Post Office Box 70753, Chicago, Illinois 60673. The transmittal letter accompanying the check shall specify the caption and docket number of this action, the facility and the violations for which the stipulated penalties are being paid, and DOJ Ref. No. 90-5-1-6-341A. A copy of the letter and the check shall simultaneously be sent to U.S. EPA Region V, Water Compliance Branch, Compliance Section, WCC-15J, 77 West Jackson Boulevard, Chicago, Illinois 60604, and to Chief, Environmental Enforcement Section, United States Department of Justice, Post Office Box 7611, Washington, D.C. 20044-7611.

L. Penalties owed to the State shall be paid by submitting a cashier's or certified check payable to "Treasurer, State of Ohio", and shall be tendered to Administrative Assistant, Ohio Attorney General's Office, 30 E. Broad Street, 25<sup>th</sup> floor, Columbus, Ohio 43215-3400. The transmittal letter accompanying the check shall specify the caption and docket number of this action and the facility and the violations for which the stipulated penalties are being paid. A copy of the letter and the check shall simultaneously be sent to Enforcement Coordinator, Division of Surface Water, P.O. Box 1049, Columbus, Ohio 43216.

M. Penalties owed to ORSANCO shall be paid by submitting a cashier's or certified check payable to, "Executive Director, Ohio River Valley Water Sanitation Commission," and shall be tendered to Ohio River Valley Water Sanitation Commission, 5735 Kellogg Avenue, Cincinnati, Ohio 45228. The transmittal letter accompanying the check shall specify the caption and docket number of this action, and reference the facility and the violations for which the stipulated penalties are being paid.

N. In the event that a stipulated civil penalty is not paid within sixty (60) days of a written demand as required by Paragraph XVII.J; the stipulated civil penalty shall, upon written demand of the United States, be payable with interest from the original due date (sixty days after the written demand)

to the date of payment, at the statutory judgment rate set forth at 28 U.S.C. § 1961(a).

O. Payment of stipulated civil penalties as set forth above shall be in addition to any other rights or remedies that may be available to the United States, the State, ORSANCO, or their agencies by reason of the Defendants' failure to comply with requirements of this Consent Decree, and all applicable Federal, state or local laws, regulations, the Compact and pollution control standards promulgated thereunder, NPDES permit(s) and all other applicable permits. The payment of such stipulated penalties shall not be construed to relieve Defendants from specific compliance with this Decree, applicable federal or State law, or the Compact and the pollution control standards promulgated thereunder, nor shall it limit the authority of U.S. EPA, Ohio EPA, or ORSANCO to require compliance with such laws.

**XVIII. FORCE MAJEURE BETWEEN DEFENDANTS AND THE UNITED STATES**

A. If any event occurs that causes or may cause Defendants to violate any provision of this Consent Decree, Defendants shall notify U.S. EPA in writing within fourteen (14) days from the date Defendants first knew, or in the exercise of reasonable diligence should have known, that compliance with the Consent Decree would be prevented or delayed. The notice shall reference this Section of the Consent Decree and shall describe in detail

the anticipated length of time the violation may persist, the precise cause or causes of the violation, the measures taken or to be taken by Defendants to prevent or minimize the violation and the timetable by which those measures will be implemented. Defendants shall adopt all reasonable measures to avoid or minimize any such violation. Defendants shall make all reasonable efforts to identify events that cause or may cause a violation of this Consent Decree. Failure by Defendants to comply with the notice requirements of this Paragraph shall constitute a waiver of Defendants' rights to obtain an extension of time or other relief under this Section based on such incident.

B. If U.S. EPA agrees that the violation has been or will be caused by circumstances beyond the control of Defendants or any entity controlled by it, including its consultants and contractors, and that Defendants could not have prevented such violation, the time for performance of the requirement in question may be extended for a period not to exceed the actual delay resulting from such circumstance, and stipulated penalties shall not be due for such delay or non-compliance. In the event U.S. EPA does not agree that the violation was caused by circumstances beyond the control of the Defendants and notifies Defendants of such determination, Defendants may invoke the



dispute resolution provisions in Section XXI of this Consent Decree.

C. If Defendants invoke dispute resolution and U.S. EPA or the Court determines that the violation was caused by circumstances beyond the control of Defendants or any entity controlled by it, and that Defendants could not have prevented such violation, Defendants shall be excused as to that violation, but only for the period of time the violation continues due to such circumstances.

D. Defendants shall bear the burden of proving that any delay or violation has been or will be caused by circumstances beyond its control, and that Defendants could not have prevented such violation, as set forth above. Defendants shall also bear the burden of establishing the duration and extent of any delay or violation attributable to such circumstances, that such duration or extent is or was warranted under the circumstances and that, as a result of the delay, a particular extension period is appropriate. An extension of one compliance date based on a particular circumstance beyond Defendants' control shall not automatically extend any subsequent compliance date or dates.

E. Changed financial circumstances or unanticipated or increased costs or expenses associated with implementation of this Consent Decree, shall not serve as a basis for excusing violations of or granting extensions of time under this Decree,

except as provided in Section IX (Completion of Construction Deadlines). Failure to apply for a required permit or approval or to provide in a timely manner all information required to obtain a permit or approval that is necessary to meet the requirements of this Consent Decree shall not, in any event, be considered Force Majeure events.

F. Defendants shall make a showing of proof regarding the cause of each delayed incremental step or other requirement for which an extension is sought. Defendants may petition for the extension of more than one compliance date in a single request.

**XIX. POTENTIAL FORCE MAJEURE BETWEEN DEFENDANTS AND THE STATE**

A. If any event occurs that causes or may cause the Defendants to violate any provision of this Consent Decree, Defendants shall notify the Ohio EPA in writing within fourteen (14) days from when they knew, or in the exercise of reasonable diligence under the circumstances should have known, that compliance with the Decree would be prevented or delayed, describing in detail the precise cause or causes of the delay or violation, the anticipated length of the delay if applicable, the measures taken by Defendants to prevent or minimize the delay and the timetable by which those measures will be implemented. Defendants shall adopt all reasonable measures to avoid or minimize any such violation. Defendants shall make all

reasonable efforts to identify events that cause or may cause a violation of this Consent Decree.

B. In any action by the State of Ohio to enforce any of the provisions of this Consent Decree, Defendants may raise at that time the question of whether they are entitled to a defense that their conduct was caused by circumstances beyond their control such as, by way of example and not limitation, acts of God, strikes, acts of war or civil disturbances. While the State of Ohio does not agree that such a defense exists, it is, however, hereby agreed by Defendants and the State of Ohio that it is premature at this time to raise and adjudicate the existence of such a defense and that the appropriate point at which to adjudicate the existence of such a defense is at the time, if ever, that the proceeding to enforce this Consent Decree is commenced by the State. At that time the burden of proving that any delay was or will be caused by circumstances beyond the control of Defendants shall rest with Defendants. Failure by Defendants to timely comply with the notice requirements of Paragraph XIX.A shall, at the option of Ohio EPA, constitute a waiver by Defendants of any right they may have to raise such a defense. Changed financial circumstances or increased costs associated with the implementation of any action required by this Consent Decree shall not in any event constitute circumstances entirely beyond the control of Defendants or serve as a basis for

an extension of time under this Decree, except as provided in Section IX (Completion of Construction Deadlines).

**XX. FORCE MAJEURE BETWEEN DEFENDANTS AND ORSANCO**

A. If any event occurs that causes or may cause Defendants to violate any provision of this Consent Decree, Defendants must give ORSANCO written notice within fourteen (14) days from the date that Defendants first knew, or in the exercise of reasonable diligence should have known, that they faced the threat of prevention or delay of timely compliance with this Decree. The notice to ORSANCO shall reference this Section of the Consent Decree, and shall describe in detail how long the Defendants anticipate the violation will persist, the precise cause or causes thereof, any measures Defendants have taken or will take to prevent or minimize the violation, and the timetable for implementing those measures. Defendants shall adopt all reasonable measures to avoid violations, and to minimize any violations that do occur. Defendants' failure to comply with notice provisions of this paragraph shall waive Defendants' rights to an extension of time or other relief under this Section based on a Force Majeure incident.

B. If ORSANCO agrees that the violation has been or will be caused by circumstances beyond the control of Defendants, their agents, or any entity controlled by them, including their

contractors and consultants, ORSANCO may extend time for performance to reflect but not exceed the actual delay caused by the circumstances. If ORSANCO agrees that a Force Majeure event caused the delayed or failed compliance, ORSANCO agrees to waive any stipulated penalties due it, or other remedies available to it for such delayed or failed compliance. If ORSANCO notifies Defendants that it does not agree that circumstances beyond Defendants' control caused the violation, Defendant may invoke the dispute resolution provisions contained in Section XXI of this Consent Decree.

C. If Defendants invoke dispute resolution, and ORSANCO or the Court concludes that the violation was caused by circumstances beyond the control of Defendants, their agents, or any entity controlled by them, and that Defendants could not have prevented the violation, Defendants shall be excused for that violation, but only for the period of time the violation persists due to such circumstances.

D. Defendants bear the burden of proof for proving that any delay or violation was caused by circumstances beyond their control, and beyond their power to prevent. Defendants shall also bear the burden of proving the duration and extent of any delay or violation caused by uncontrollable circumstances. Defendants must also prove that the delay caused by such uncontrollable circumstances warranted an extension. An

extension granted on the basis of a particular uncontrollable circumstance shall not automatically extend any subsequent compliance date or dates.

E. Neither changed financial conditions nor unanticipated increased costs or expenses arising from implementation of this Consent Decree shall excuse violations or warrant granting extensions for compliance with this Decree, except as provided in Section IX (Completion of Construction Deadlines). Defendants' failure to timely apply for a required permit or approval, or to provide all required information to obtain such permit or approval, will not constitute a Force Majeure event.

F. Defendants shall show proof regarding the cause of each delayed incremental step or other requirement for which they seek an extension. Defendants may seek an extension of more than one compliance date in a single request.

#### **XXI. DISPUTE RESOLUTION**

A. This Court shall retain jurisdiction of this matter for the purposes of implementing and enforcing the terms and conditions of this Consent Decree and for the purpose of adjudicating all disputes among the Parties (including ORSANCO) that may arise under the provisions of this Consent Decree, to the extent that Paragraph XXI.D, below, provides for resolution of disputes by the Court.

B. The issuance, renewal, modification, denial or revocation of a permit and the issuance of orders or other actions of the Director of Environmental Protection (Ohio EPA), including but not limited to decisions with respect to revisions to water quality standards, are not subject to dispute resolution under this Decree but, rather, shall be subject to challenge under Chapter 3745, Ohio Revised Code. The term "actions of the Director of Environmental Protection" shall be consistent with the definitions set forth in Chapter 3745, Ohio Revised Code.

C. U.S. EPA actions to approve, disapprove, or promulgate new or revised water quality standards pursuant to 33 U.S.C. § 1313(c), and to object, not object or issue NPDES permits pursuant to 33 U.S.C. § 1342, are not subject to dispute resolution under this Decree.

D. Except as provided in paragraphs XXI.B and C, above, any dispute that arises with respect to the meaning, application, implementation, interpretation, amendment or modification of this Consent Decree, or with respect to Defendants' compliance herewith (including the adequacy of the Defendants' performance of the remedial measures and adequacy of the submittals required by this Decree) or any delay hereunder, the resolution of which is not expressly provided for in this Consent Decree, shall in the first instance be the subject of informal negotiations. If any Party believes it has a dispute with any other Party, it

shall notify all the other Parties in writing, including notice to the U.S. Department of Justice and the Ohio Attorney General, setting forth the matter(s) in dispute, and the Parties will proceed initially to resolve the matter in dispute by informal means. Such period of informal negotiations shall not exceed thirty (30) days from the date the notice was sent, unless the Parties agree otherwise.

E. In order for ORSANCO to take any position in either informal or formal dispute resolution that is materially different from the position taken by the United States and the State, ORSANCO must obtain the approval of its Executive Committee and the approval of two-thirds of the commissioners from the State of Ohio. Further, ORSANCO bears the burden of showing that its position will assure Defendants' compliance in a manner more appropriate with, the terms, conditions, requirements and objectives of this Consent Decree, the Clean Water Act, R.C. 6111, and the Compact than the position advanced by the United States and the State.

F. If the informal negotiations are unsuccessful, the position of the United States and the State and ORSANCO (assuming its position is not materially different) shall control unless, within twenty (20) days after the conclusion of the informal negotiation period, the Defendants or ORSANCO (assuming its position is materially different) (hereinafter, "Petitioner(s)")



invoke the formal dispute resolution procedures of this Section by serving on the other Parties, including on U.S. DOJ and the Ohio Attorney General, a written statement of position on the matter in dispute.

G. Within thirty (30) days of receiving the Petitioner's statement of position, the United States and/or the State and/or ORSANCO (assuming it is not the Petitioner) will serve on the Petitioner and the other Parties its/their written statement of position.

H. The United States' and/or the State's and/or ORSANCO's (assuming it is not the Petitioner) statement of position shall control unless Petitioner files a petition with the Court describing the nature of the dispute and a proposal for its resolution. Such petition must be filed no more than twenty (20) days after receipt of the United States' and/or the State's and/or ORSANCO's (assuming it is not the Petitioner) statement of position. The other Parties shall then have 30 days to file a response setting forth its/their position and proposal for resolution. In any such dispute, the Petitioner shall have the burden of proof, and the standard of review shall be that provided by applicable law.

I. Submission of any matter to the Court for resolution shall not extend any of the deadlines set forth in this Consent

Decree, unless the Parties agree to such extension in writing or the Court allows the extension upon motion.

J. If the United States and the State provide Defendants with materially different or irreconcilable positions on the issue(s) in dispute, or if ORSANCO has provided a materially different position on the issue than that provided by the United States and the State and has invoked dispute resolution with respect to such different position, Defendants' obligation to perform an action necessarily affected by the materially different or irreconcilable positions (and Defendants' liability for stipulated penalties concerning such obligation) shall be stayed until the dispute is resolved.

K. Stipulated penalties with respect to any disputed matter (and interest thereon) shall accrue in accordance with Paragraphs XVII.I and XVII.J; however, payment of stipulated penalties, and any accrued interest, shall be stayed pending resolution of the dispute, as follows:

1. If the dispute is resolved by informal agreement before appeal to this Court, Defendants shall pay accrued penalties (and interest), if any, determined to be owing within 60 days of the agreement or the receipt of the United States' and/or the State's and/or ORSANCO's (assuming its position is not materially different) final position in writing.

2. If the dispute is appealed to this Court and the United States and/or the State and/or ORSANCO (assuming its position is not materially different) prevails in whole or in part, Defendants shall pay all accrued penalties (and interest) determined to be owing within 60 days of the Court's decision or order.

3. In the event of an appeal, Defendants shall pay all accrued penalties (and interest) determined to be owing within 60 days of a final decision no longer subject to judicial review.

**XXII. CIVIL PENALTY**

A. Defendants shall pay a civil penalty of \$1.2 million (plus interest thereon) to the United States and the State of Ohio as required by Paragraph XXII.B. In lieu of paying \$100,000 of this civil penalty to the State of Ohio, Defendants shall pay \$100,000 to ORSANCO, as provided in Paragraph XXII.B, as partial funding to support ORSANCO's work to: 1) develop Wet Weather Bacterial Water Quality Standards for the Ohio River and 2) develop TMDLs for pollutants of concern in the Ohio River in the area around and below Cincinnati. The Parties all acknowledge: 1) that the payment to ORSANCO is being made by Defendants in satisfaction of a portion of the Defendants' civil penalty

liability to the State of Ohio; and 2) that Defendants do not owe ORSANCO a civil penalty in this matter.

B. Within 45 days after the Date of Lodging of this Consent Decree, Defendants shall deposit the amount of \$1.2 million into an escrow account bearing interest on commercially reasonable terms, in a federally-chartered bank (the "Escrow Account"). Such monies shall remain in escrow until entry of the Decree. If the Decree is not entered by the District Court, and the time for any appeal of that decision has run, or if the District Court's denial of entry is upheld on appeal, the monies placed in escrow, together with accrued interest thereon, shall be returned to Defendants. If the Decree is entered by the District Court, Defendants shall, within 15 days thereof, cause the monies in the Escrow Account to be released and disbursed as follows: \$600,000 and interest thereon to the United States; \$500,000 and the interest on \$600,000 to the State, and \$100,000 to ORSANCO, as follows:

1. Payment to the United States shall be made by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with instructions to be provided to Defendant following lodging of the Consent Decree by the Financial Litigation Unit of the U.S. Attorney's Office for the Southern District of Ohio. At the time of payment, Defendants shall simultaneously send written notice of payment and a copy of

any transmittal documentation (which should reference the civil action number and DOJ case number 90-5-1-6-341A) to the United States in accordance with Paragraph XVII.K, above.

2. Payment to Ohio shall be made by cashier's check or certified funds, payable to "Treasurer, State of Ohio," and shall be sent to:

Jena Suhadolnik, Administrative Assistant (or a person subsequently designated by the State of Ohio) at:  
Office of the Attorney General  
Environmental Enforcement Section  
30 East Broad Street, 25<sup>th</sup> Floor  
Columbus, Ohio 43215-3400

Payment may also be made by electronic transfer to the designated accounts pursuant to instructions sent by Ohio upon request by Defendants. A copy of the check and transmittal letter or other evidence of payment shall be sent to Ohio and Ohio EPA at the addresses set forth in Paragraph XXII.K, above.

3. Payment to ORSANCO shall be made by cashier's or certified check payable to, "Executive Director, Ohio River Valley Water Sanitation Commission," and shall be tendered to Ohio River Valley Water Sanitation Commission, 5735 Kellogg Avenue, Cincinnati, Ohio 45228. The transmittal letter accompanying the check shall specify the caption and docket number of this action.

C. In the event of late payment of the civil penalty required to be paid under this Section, Defendant shall pay a

stipulated penalty of \$200.00 per day for each day that the payment is late. Stipulated penalties shall, as directed by the United States, be paid by EFT, or by certified or cashier's check in the amount due payable to the "U.S. Department of Justice," referencing the civil action number of this case and DOJ No. 90-5-1-6-341A and delivered to: Financial Litigation Unit, Office of the United States Attorney, Southern District of Ohio, 303 Marconi Boulevard, Suite 200 Columbus, Ohio 43215. All transmittal correspondence shall state that any such payment tendered is for late payment of the civil penalty or for stipulated penalties for late payment, as applicable, and shall include the identifying information set forth in Paragraph XXII.B.1, above. The United States shall be entitled to collect the costs (including attorneys fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties for late payment of the civil penalty.

**XXIII. RIGHT OF ENTRY**

A. Until termination of this Consent Decree, the United States, the State, and ORSANCO and their authorized representatives and contractors, shall have authority at all reasonable times, upon the presentation of credentials, to enter Defendants' premises to:

1. Monitor the progress of activities required by this Consent Decree;
2. Verify any data or information submitted to the United States and/or the State;
3. Obtain samples from the WWTPs and Sewer System;
4. Inspect and evaluate Defendants' WWTPs and Sewer System; and
5. Inspect and review any records required to be kept under the terms and conditions of this Consent Decree or any NPDES Permit and the Clean Water Act.

B. The United States, the State, and ORSANCO agree to provide Defendants an opportunity to obtain split samples of wastewater samples taken by the United States, the State, or ORSANCO from the Sewer System. The United States, the State, and ORSANCO further agree to provide Defendants with the quality assured/quality controlled laboratory analytical results of samples obtained from the Sewer System, and any non-privileged (including non-attorney work product) reports prepared concerning such results. The United States, the State, and ORSANCO will use best efforts to coordinate field inspections of the Sewer System with Defendants by notifying them, if practicable, of such inspections prior to arrival at the field inspection location.

**XXIV. NOT A PERMIT/COMPLIANCE WITH OTHER STATUTES/REGULATIONS**

A. This Consent Decree is not and shall not be construed as a permit, or a modification of any existing permit, issued pursuant to Section 402 of the Clean Water Act, 33 U.S.C. § 1342, nor shall it in any way relieve Defendants of their obligations to obtain permits for their wastewater treatment facilities and discharges and to comply with the requirements of any NPDES permit or with any other applicable federal or state law or regulation, including the obligation to obtain Permits to Install, the Compact, and the pollution control standards promulgated thereunder. Any new permit, or modification of existing permits, must be complied with in accordance with applicable federal and State laws and regulations and the Compact and the pollution control standards promulgated thereunder.

B. The pendency or outcome of any proceeding concerning issuance, reissuance or modification of any NPDES permit shall not affect or postpone Defendants' responsibilities under this Decree. However if a permitting authority receives a timely, approvable application for a permit, renewal or modification, and the permitting authority does not issue the permit, renewal or modification or take a proposed action on the application in a timely manner, the Defendants may seek relief under the force majeure provisions of this Consent Decree.



C. Nothing herein, including the United States', the State's, and ORSANCO's review or approval of any plans, reports, policies or procedures formulated pursuant to this Consent Decree, shall be construed as relieving Defendants of the duty to comply with the Clean Water Act, the regulations promulgated thereunder, and all applicable permits issued thereunder; with State law and the regulations promulgated thereunder; or with the Compact and the pollution control standards promulgated thereunder.

**XXV. FAILURE OF COMPLIANCE**

The United States, the State, and ORSANCO do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Defendants' complete compliance with this Consent Decree will result in compliance with the provisions of the Clean Water Act, 33 U.S.C. §§ 1251 et seq., R.C. 6111, the Compact or the pollution control standards promulgated thereunder, or with Defendants' NPDES permits.

**XXVI. EFFECT OF CONSENT DECREE AND NON-WAIVER PROVISIONS**

A. Nothing contained in this Consent Decree shall be construed to prevent or limit the United States' or the State's rights to obtain penalties or further or additional injunctive relief under the Clean Water Act or other federal statutes or

regulations, including, but not limited to, criminal punishment under Section 309(c) of the Act, 33 U.S.C. § 1319(c), or state laws and regulations respectively except as expressly specified herein. Furthermore, nothing contained in this Consent Decree shall be construed to prevent or limit ORSANCO's rights to obtain further or additional injunctive relief under the Compact and the pollution control standards promulgated thereunder, except as expressly specified herein.

B. This Consent Decree resolves the civil claims of the United States and the State for injunctive relief and civil penalties for the Clean Water Act violations alleged in the Joint Amended Complaint filed herein through the Date of Lodging of this Decree, including any remaining claims for injunctive relief for the Clean Water Act violations alleged in the SSO Complaints through the Date of Lodging of this Consent Decree. Furthermore, this Consent Decree resolves the civil claims of ORSANCO for injunctive relief for violations of the Compact and the pollution control standards promulgated thereunder that are alleged in the Joint Amended Complaint filed herein through the Date of Lodging of this Decree.

C. Upon entry of this Consent Decree, Defendants' obligations under Section XVIII of the Consent Order dated August 16, 1985 in Civil Action C-1-85-0693 to implement approved environmentally beneficial project(s) with the funds deposited

and accrued in the MSD environmental security account are incorporated and enforceable under this Consent Decree as provided in Subparagraph XIII.B.2, and the 1985 Consent Order shall be terminated.

D. The United States and State reserve all rights against the Defendants with respect to any Clean Water Act violations by Defendants that occur after the Date of Lodging of this Consent Decree, and/or for any violations of the Clean Water Act not specifically alleged in the SSO Complaints or the Joint Amended Complaint filed herein, whether they occurred before or after the Date of Lodging of this Decree. Similarly, ORSANCO reserves all rights against the Defendants with respect to any violations of the Compact and the pollution control standards promulgated thereunder that occur after the Date of Lodging of this Consent Decree.

E. The Parties agree that in any future civil action pursuant to 33 U.S.C. § 1319(b) for injunctive relief to address Clean Water Act violations that occur after the Date of Lodging of this Consent Decree, Defendants' compliance or noncompliance with the remedial measures set forth in this Consent Decree may be taken into account by a District Court in fashioning appropriate injunctive relief. The Parties further agree that in any future civil action pursuant to 33 U.S.C. § 1319(d) for penalties for Clean Water Act violations that occur after the

Date of Lodging of this Consent Decree, Defendants' compliance or noncompliance with the remedial measures set forth in this Consent Decree shall be considered to be among the factors specified in 33 U.S.C. § 1319(d) that may be taken into account by a District Court in determining the amount of a civil penalty.

F. In any subsequent administrative or judicial proceeding initiated by the United States, the State, or ORSANCO for injunctive relief, penalties, or other appropriate relief relating to Defendants' violation of the Clean Water Act, or the Compact and the pollution control standards promulgated thereunder, Defendants shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States, the State, or ORSANCO in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph B of this Section.

G. The Consent Decree in no way affects or relieves Defendants of any responsibility to comply with any federal, state, or local law or regulation, including the Compact and pollution control standards promulgated thereunder.

H. The Parties agree that Defendants are responsible for achieving and maintaining complete compliance with all applicable

federal and state laws, regulations, permits, the Compact and pollution control standards promulgated thereunder, and that compliance with this Consent Decree shall be no defense to any actions commenced pursuant to said laws, regulations, permits, the Compact or pollution control standards promulgated thereunder, except as set forth herein.

I. This Consent Decree does not limit or affect the rights of the Parties as against any third parties that are not Parties to this Consent Decree. The Parties recognize that this Consent Decree resolves only matters between Plaintiffs and Defendants and that its execution does not preclude Defendants from asserting any legal or factual position in any action brought against them by any person or entity not a Party to this Consent Decree.

J. The United States, the State, and ORSANCO reserve any and all legal and equitable remedies available to enforce the provisions of this Consent Decree.

K. This Consent Decree shall not limit any authority of the United States or the State under any applicable statute, including the authority to seek information from Defendants, to require monitoring, to conduct inspections, or to seek access to the property of Defendants; nor shall anything in this Consent Decree be construed to limit the authority of the United States or the State to undertake any action against any person,

including Defendants, in response to conditions that may present an imminent and substantial endangerment to the environment or to the public health or welfare.

L. Application for construction grants, State Revolving Loan Funds, or any other grants or loans, or other delays caused by inadequate facility planning or plans and specifications, on the part of Defendants shall not be cause for extension of any required compliance date in this Consent Decree.

M. Obligations of Defendants under the provisions of this Consent Decree to perform duties scheduled to occur after the signing, but prior to the Date of Entry, shall be legally enforceable from the date this Consent Decree is signed by Defendants. Liability for stipulated penalties, if applicable, shall accrue for violation of such obligations and payment of such stipulated penalties may be demanded by the Plaintiffs as provided in this Consent Decree. The contempt authority of this Court shall also extend to violations of such obligations.

**XXVII. COSTS OF SUIT**

Each Party shall bear its own costs and attorneys' fees with respect to matters related to this Consent Decree.

XXVIII. NOTICES

All notices and correspondence under this Decree shall be sent to the following addresses:

For U.S. EPA:

Chief, Enforcement and Compliance  
Assurance Branch  
Water Division (WCC-15J)  
U.S. EPA, Region V  
77 West Jackson Blvd.  
Chicago, Illinois 60604

For U.S. Department of Justice

U.S. Department of Justice  
Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
Post Office Box 7611  
Washington, D.C. 20044-7611  
Reference DJ # 90-5-1-6-341A

For Ohio EPA:

Ohio EPA Southwest District Office  
ATTN: DSW Enforcement Group Leader  
401 East Fifth Street  
Dayton, Ohio 45402-2911.

For Ohio Attorney General:

Chief, Environmental Enforcement Section  
Ohio Attorney General's Office, 25<sup>th</sup> floor  
30 E. Broad Street  
Columbus, Ohio 43215-3428

For ORSANCO:

ORSANCO  
Executive Director and Chief Engineer, Alan H. Vicory  
5735 Kellogg Avenue  
Cincinnati, Ohio 45228-1112

For the County:

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

For the City of Cincinnati:

Jennifer Langen  
Assistant City Solicitor for the City of Cincinnati  
801 Plum Street, Suite 214  
Cincinnati, Ohio 45202

For MSD:

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

**XXIX.      MODIFICATION**

A.      Except as further set forth in this Paragraph, there shall be no material modification of this Consent Decree without written approval by all of the Parties and the Court; and any non-material modification of this Consent Decree shall be in writing and signed by the Parties. Modifications (whether material or not) to this Consent Decree that are specifically allowed under the terms of this Consent Decree may be made in accordance with the terms of this Consent Decree.

B.      It is the intention of the Parties to this Consent Decree that the Defendants shall have the opportunity, consistent with applicable law, to conform compliance with this Consent Decree to any modifications in U.S. EPA's regulations or national



policies governing SSOs, CSOs or bypassing; to conform compliance with this Consent Decree to any applicable new or revised water quality standards that have been approved or promulgated by U.S. EPA in accordance with 33 U.S.C. § 1313(c) and 40 CFR § 131.21 and 131.22; to conform compliance with this Consent Decree to any new or revised regulations that have been approved by ORSANCO in a manner consistent with its Compact and pollution control standards; and to conform compliance with this Consent Decree to any new or more stringent requirements that are included in Current Permits pertaining to Defendants' WWTPs or Sewer System.

1. Consequently, upon issuance of any new U.S. EPA final regulation (as promulgated in the Federal Register) or national policy governing SSOs, CSOs or bypassing; upon U.S. EPA approval or promulgation of new or revised water quality standards in accordance with 33 U.S.C. § 1313(c) and 40 CFR § 131.21 and 131.22; upon ORSANCO's approval of new or revised regulations in a manner consistent with its Compact and pollution control standards; or upon the issuance of a Current Permit that contains new or more stringent requirements pertaining to Defendants' WWTPs or Sewer System, Defendants may request modification of this Consent Decree (including requests for extensions of time) from U.S. EPA/Ohio EPA/ORSANCO to conform this Consent Decree to such regulation, national policy, new or revised water quality standard, or Current Permit. For the

purposes of this Paragraph, "national policy" refers to a formal written policy statement issued by the Assistant Administrator for the Office of Water and the Assistant Administrator for the Office of Enforcement and Compliance Assurance. Upon Defendants' request, the Parties shall discuss the matter. If the Parties agree on a proposed modification to the Consent Decree, they shall prepare a joint motion to the Court requesting such modification.

2. If the Parties do not agree, and Defendants still believe modification of this Decree is appropriate, they may file a motion seeking such modification in accordance with Federal Rule of Civil Procedure 60(b); provided, however, that nothing in this subparagraph is intended to waive the Plaintiffs' rights to oppose such motion and to argue that such modification is unwarranted.

3. Following the filing of a motion under Rule 60(b), stipulated penalties shall accrue due to Defendants' failure, if any, to continue performance of obligations under the Decree that are necessarily the subject of the Rule 60(b) motion; provided, however, that such penalties need not be paid unless the Court resolves the Rule 60(b) motion in the Plaintiffs' favor. If the Court resolves the motion in Defendants' favor, Defendants shall comply with the Decree as modified.

**XXX. REVIEW OF SUBMITTALS**

A. U.S. EPA/Ohio EPA/ORSANCO agree to use their best efforts to expeditiously review and comment on deliverables that Defendants are required to submit to U.S. EPA/Ohio EPA/ORSANCO for approval pursuant to the terms and provisions of this Consent Decree. Where the Consent Decree both requires Defendants to submit a plan or report or other submittal to U.S. EPA/Ohio EPA/ORSANCO for review and approval and establishes a specific timeline for Defendants to resubmit such plan, report or other submittal after comments by U.S. EPA/Ohio EPA/ORSANCO, U.S. EPA/Ohio EPA/ORSANCO shall, as expeditiously as possible, review and approve or decline to approve and provide written comments to the Defendants on the submittal.

B. If U.S. EPA/Ohio EPA/ORSANCO cannot complete their review of the submittal within 60 days of receipt of the submittal, U.S. EPA/Ohio EPA/ORSANCO shall so notify Defendants. Such notice shall be given within the 60-day period following receipt of the submittal, and U.S. EPA/Ohio EPA/ORSANCO shall identify a schedule for completion of their review.

C. If U.S. EPA/Ohio EPA/ORSANCO fail to approve or decline to approve and provide written comments within 60 days of receipt of the submittal, any subsequent milestone date dependent upon such approval or any resubmission dependent upon such comments shall be extended by the number of days beyond 60 days that U.S.

EPA/Ohio EPA/ORSANCO use for their comment or decision on that submittal.

D. The following procedures shall apply to ORSANCO's review and approval of submittals pursuant to this Consent Decree.

1. In an effort to coordinate a consistent response among the regulators, within 30 days of receipt of a submittal that requires ORSANCO's approval, ORSANCO shall provide its preliminary comments and response to the submittal to U.S. EPA/Ohio EPA.

2. ORSANCO shall provide its final response to the submittal to the Defendants on or before the date that U.S. EPA/Ohio EPA provide their response. In its response, ORSANCO may approve the submittal or decline to approve it and provide written comments; provided, however, that ORSANCO may take a position that is materially different from that taken by U.S. EPA/Ohio EPA only in accordance with subparagraph D.3 below. If ORSANCO does not submit its final response to the Defendants on or before the date that U.S. EPA/Ohio EPA provide their response, it shall be deemed to have waived its approval authority with respect to that submittal.

3. In order for ORSANCO to take any position in its review and approval of a submittal under this Decree pursuant to subparagraph D.2, above, that is materially different from the

position taken by the United States and the State, ORSANCO must obtain the approval of its Executive Committee as defined in ORSANCO's bylaws (Executive Committee) and the approval of two-thirds of the commissioners from the State of Ohio. Further, any such position taken by ORSANCO must assure Defendants' compliance in a manner more appropriate with the terms, conditions, requirements and objectives of this Consent Decree, the Clean Water Act, R.C. 6111, and the Compact and the pollution control standards promulgated thereunder than the position advanced by the United States and the State.

4. In the event that ORSANCO takes a position on a submittal that is materially different from that taken by U.S. EPA/Ohio EPA, Defendants shall comply with the position of U.S. EPA/Ohio EPA unless, within ten (10) days after receipt of U.S. EPA's/Ohio EPA's or ORSANCO's approval or comments, whichever is received later, ORSANCO sends a notice of dispute invoking the informal dispute resolution procedures of Paragraph XXI.D.

**XXXI. CONTINUING JURISDICTION**

The Court shall retain jurisdiction to enforce the terms and conditions and achieve the objectives of this Consent Decree and to resolve disputes arising hereunder as may be necessary or appropriate for the construction, modification, implementation or execution of this Decree.

**XXXII. CONTINGENT LIABILITY OF STATE OF OHIO**

Section 309(e) of the Act, 33 U.S.C. § 1319(e), requires that the State be a Party to this action insofar as it may be liable in the event the laws of Ohio prevent Defendants from raising revenues needed to comply with this Decree. The State of Ohio, by signing this Decree, certifies that the current laws of the State do not prevent Defendants from raising revenues needed to comply with this Decree. Except as required by Section 309(e) of the Act, the State of Ohio shall have no liability under this Consent Decree.

**XXXIII. TERMINATION**

A. Upon motion filed with the Court by the United States, the State, ORSANCO, or the Defendants, the Court may terminate the terms of this Consent Decree after each of the following has occurred:

1. Defendants have achieved compliance with all provisions contained in this Consent Decree, and subsequently have maintained compliance with each and every provision of this Consent Decree for twelve consecutive months;

2. Defendants have paid all penalties and other monetary obligations due hereunder and no penalties or other monetary obligations due hereunder are outstanding or owed to the United States, the State, or ORSANCO;

3. Defendants have certified compliance pursuant to Subparagraphs XXXIII.A.1 and .2 above to the Court and all Parties; and

4. The United States, the State, and ORSANCO within forty-five (45) days of receiving such certification from the Defendants have not contested, in writing, that such compliance has been achieved.

B. If the United States, the State, and/or ORSANCO dispute(s) Defendants' full compliance, this Consent Decree shall remain in effect pending resolution of the dispute by the Parties or the Court.

**XXXIV. PUBLIC COMMENT**

This Consent Decree shall be lodged with the Court for a period of not less than 30 days, for public notice and comment in accordance with the provisions of 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments received disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper or inadequate. Defendants hereby agree not to withdraw from, oppose entry of, or to challenge any provision of this Consent Decree, unless the United States has notified Defendants in writing that it no longer supports entry of the Consent Decree.

**XXXV.        SIGNATORIES/SERVICE**

A.     This Consent Decree may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

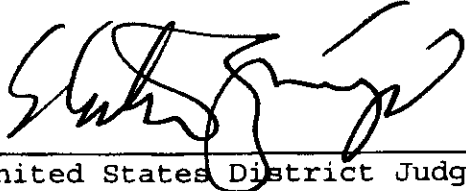
B.     The Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice, on behalf of the United States, the Ohio Assistant Attorney General signing this Decree, on behalf of the State, the Executive Director, on behalf of ORSANCO, and the undersigned representatives of the Defendants each certifies that he or she is authorized to enter into the terms and conditions of this Consent Decree and to execute and bind legally such Party to this document.

C.     Each Defendant shall identify, on the attached signature page, the name and address of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to all matters arising under or relating to this Consent Decree. Defendants hereby agree to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including but not limited to, service of a summons. The Parties agree that Defendants need not file an answer to the complaints in this action unless or



until the Court expressly declines to enter this Consent Decree.

SO ORDERED, this 9<sup>th</sup> day of June, 2004.

  
\_\_\_\_\_  
United States District Judge

THE UNDERSIGNED Parties enter into this Consent Decree, subject to the public notice requirements of 28 C.F.R. § 50.7, and submit it to the Court for entry.

FOR THE UNITED STATES OF AMERICA:

S/Thomas L. Sansonett  
THOMAS L. SANSONETTI  
Assistant Attorney General  
Environment and Natural  
Resources Division  
U.S. Department of Justice

S/Leslie Allen  
LESLIE ALLEN  
Senior Attorney  
Environmental Enforcement Section  
Environmental and Natural  
Resources Division  
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Washington, D.C. 20044-7611  
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GREGORY G. LOCKHART  
United States Attorney for the  
Southern District of Ohio

By: S/Donetta D. Wiethe  
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S/Thomas V. Skinner  
THOMAS V. SKINNER  
Regional Administrator  
U.S. Environmental Protection  
Agency, Region V

S/Gary Prichard  
GARY PRICHARD  
Associate Regional Counsel  
U.S. Environmental Protection  
Agency, Region V

S/John Peter Suarez  
JOHN PETER SUAREZ  
Assistant Administrator  
for Enforcement and Compliance  
Assurance  
U.S. Environmental Protection  
Agency

S/Amanda Gibson  
AMANDA GIBSON  
ANDREW R. STEWART  
Attorney-Advisor  
Office of Enforcement and  
Compliance Assurance  
U.S. Environmental Protection  
Agency

FOR STATE OF OHIO:  
JIM PETRO  
Attorney General

By: S/Margaret A. Malone  
MARGARET A. MALONE (0021770)  
Assistant Attorney General  
Environmental Enforcement Section  
30 East Broad Street  
25<sup>th</sup> Floor  
Columbus, Ohio 43215-3400

FOR OHIO RIVER VALLEY WATER  
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# Exhibit 1 – CSO Capital Improvement Projects Muddy Creek Drainage Basin

PROJECT NAME	CSO NUMBERS	PROJECT DESCRIPTION	Substantial Completion of Construction (All dates are Dec 31)
East Branch Muddy Creek CSO HW/DW relocate and/or eliminate	223, 408, 410-416, 541, 654	Provide HW/DW protection or eliminate by separation.	2010
East Branch Muddy Creek Interceptor Relocation – Phase I-A, Interceptor Relocation West	223, 408, 410-416, 541, 654	Relocation of interceptor in River Road from Ohio River to River Road – West.	2009
East Branch Muddy Creek Interceptor Relocation – Phase I-B, Interceptor Relocation East	223, 408, 410-416, 541, 654	Relocation of interceptor in River Road from Ohio River to River Road – East.	2010
East Branch Muddy Creek P.S. Relocation, Phase 1-C	223, 408, 410-416, 541, 654	Relocation and replacement of four (4) pump stations.	2010

# Exhibit 1 – CSO Capital Improvement Projects

## Mill Creek Drainage Basin

PROJECT NAME	CSO NUMBERS	PROJECT DESCRIPTION	Substantial Completion of Construction (All dates are Dec 31)
CSO Modification – Contract A; CSO # 3 – HW/DW	3	Relocation of interceptor for HW/DW protection and installation of separate sanitary sewer line.	2005
CSO Modification – Contract A; CSO # 4 -HW/DW	4	Installation of check valve for backflow prevention during HW/DW conditions.	2005
Kroger’s – Spring Grove/Mitchell Sewer Separation – CSO #29 Elimination (Mitchell Avenue); SS# 4674	29	Project will eliminate CSO # 29 by separating area storm inlets through construction of approx. 1200’ of 12” sanitary sewer.	2006
Montana Avenue Sewer Separation	89	Project will eliminate CSO # 89 by separating area storm inlets through installation of 300’ of 8” sanitary sewer.	2006
Ludlow Run Sewer	109, 151, 162, 165	Replacement of existing interceptor w/ approx. 7700’ of 24” – 42” sanitary interceptor sewer.	2007
Scarlet Oaks CSO Improvements, CSO #179, CSO Modification – Contract B	179	Installation of flexible flap gates for HW/DW protection.	2004
Tide gate replacement	419	Replacement of failed flap gate for HW/DW protection.	2004
Tide gate replacement	461	Replacement of failed flap gate for HW/DW protection.	2005

# Exhibit 1 – CSO Capital Improvement Projects Mill Creek Drainage Basin

PROJECT NAME	CSO NUMBERS	PROJECT DESCRIPTION	Substantial Completion of Construction (All dates are Dec 31)
CSO # 450 Elimination (Butler Street)	450	This project will eliminate CSO 450 by connecting two area sanitary laterals to area sanitary sewer. A HW/DW chamber had previously been constructed.	2007
CSO Modification – Contract A; CSO # 451; HW/DW	451	Elimination of CSO 451 by sewer separation.	2005
Eastern Avenue – Collins to Bayou – Express Sewer; Phase 2	456-460, 658	Project will provide for separation of existing area combined sewers.	2005

# Exhibit 1 – CSO Capital Improvement Projects

## Mill Creek Drainage Basin

PROJECT NAME	CSO NUMBERS	PROJECT DESCRIPTION	Substantial Completion of Construction (All dates are Dec 31)
Ross Run Grit Pit	487	Relocate CSO No. 487 to make CSO more accessible, and install a grit pit to improve maintenance at the Ross Run Interceptor Sewer.	2005
West Third Street Sewer Separation; CSO 437 elimination; Phase 3	437	Elimination of CSO 437 by sewer separation through construction of 350' of 8" sanitary sewer.	2007

# Exhibit 1 – CSO Capital Improvement Projects

## Little Miami River Drainage Basin

PROJECT NAME	CSO NUMBERS	PROJECT DESCRIPTION	Substantial Completion of Construction (All dates are Dec 31)
CSO HW/DW Regulator Mods-Little Miami Basin; CSO #86 Archer Street; HW/DW	86	Relocation of existing interceptor for HW/DW protection and construction of 170' of separate 8" sewer.	2006
Eastern and Delta Sewer Separation Phase 1 – HW/DW	467-469, 657	Install interceptor sewer from Little Miami WWTP to Eastern Avenue and Congress Avenue (approx. 5500' of 36" pipe). Perform some local sewer separation (approx. 5900' of 8" pipe).	2007
Eastern and Delta Sewer Separation Phase 2 – HW/DW	467-469, 657	Continue 36" interceptor sewer to Widman and Hogue Street near Delta Avenue.	2008
Eastern and Delta Sewer Separation Phase 3 – HW/DW	467-469, 657	Provide local sewer separation east and west of Delta Avenue Pump Station and north and south of Eastern Ave. to allow the relocation of CSO No.s 468 and 469 to provide HW/DW protection.	2009
Beechmont Sluice Gate	472, 656	Project consists of the replacement of multiple sluice/shear gates to provide flood protection to Lunken Airport area during high river stage.	2006
CSO # 557 Elimination	557	Elimination of CSO No. 557 by sewer separation.	2005

# Exhibit 1 – Capital Improvement Projects

## Sycamore WWTP HRTU

Project Name	Project Description	Substantial Completion of Construction
Sycamore WWTP HRTU	Construction of a ballasted flocculation (or equivalent) high rate treatment unit (“HRTU”) at the WWTP. After completion of all phases of the project, including conventional process capacity upgrades, flows over and above 18 MGD at the Sycamore WWTP would be diverted after fine screening and grit removal to the HRTU up to a maximum of 32 MGD. The first 18 MGD of flow would be treated by conventional primary, secondary and tertiary treatment processes. Flows through the HRTU would be subject to disinfection and post aeration after high rate treatment.	12/31/2006

**EXHIBIT 2**  
**PUBLIC PARTICIPATION PLAN**  
**FOR**  
**MSD OF GREATER CINCINNATI LONG TERM CONTROL PLAN UPDATE**

**I. Introduction**

As was the case with the development of MSD's original Long Term Control Plan ("LTCP"), public participation will be an integral part of the process for updating this document. As set out below, the public participation process will be divided into two primary components: 1) the LTCP Update Steering Committee; and 2) Public Outreach.

**II. Steering Committee**

The purpose of the Steering Committee will be to provide oversight and guidance to MSD throughout the development of the LTCP Update.

**A. Membership**

The Steering Committee will be comprised of authorized representatives of local organizations whose missions are focused on civic, engineering and environmental issues. Representatives from, at a minimum, the following organizations will be invited to serve on the Steering Committee:

City of Cincinnati - City Engineer; City of Cincinnati - Deputy City Manager;  
University of Cincinnati - College of Engineering; City of Cincinnati Health Department;  
Hamilton County Public Works; Mill Creek Watershed Council; Hamilton County  
Technical Advisory Committee; Hamilton County Health Commissioner; Greater  
Cincinnati Chamber of Commerce.

## **B. Steering Committee Operations**

The Steering Committee will provide high level oversight and guidance to the LTCP Update development process. MSD anticipates that the Steering Committee will provide advice to the MSD through an open, collaborative, consensus-based process, without formal votes or a need for excessive procedure. Although MSD hopes that the Steering Committee will work toward a consensus regarding the appropriate approach for MSD to take in addressing various CSO issues, Steering Committee members will be encouraged to offer their independent views on issues - even when those views might diverge from those of the rest of the Committee. MSD also expects that the Steering Committee's focus will be on "big picture" issues relating to the development and selection of remedial alternatives for addressing MSD's CSOs. MSD does not expect that the Steering Committee will provide detailed advice regarding the technical minutiae of LTCP Update development. MSD and its independent consultants can provide assistance regarding the details of technical studies and reports. Although they will not be members of the Steering Committee, Ohio EPA, U.S. EPA and ORSANCO will be invited to attend all Steering Committee meetings.

At the outset of the process, MSD will convene the Steering Committee within three months of the date of entry of the Consent Decree on Combined Sewer Overflows, Wastewater Treatment Plans, and Implementation of Capacity Assurance Program Plan for Sanitary Sewer Overflows ("final Consent Decree"). At that initial session, MSD will present to the Committee a "road map" of the LTCP process. At a minimum, this initial session will cover: 1) the history of MSD's wet weather overflow program; 2) the regulatory context in which the LTCP Update is being prepared; 3) the anticipated scope



of the monitoring and modeling to be performed in developing the LTCP Update; and 4) an overview of the alternatives analysis/remedy selection process. In the latter portion of this session, MSD would take questions and comments from the Steering Committee members regarding the plan for LTCP Update development.

Most of the Steering Committee's activities will be focused on the remedy selection phase of the LTCP Update development process. After completion of the monitoring and modeling portion of LTCP Update development and after a suite of remedial alternatives has been generated, MSD will convene the Steering Committee for a series of meetings. At these sessions, MSD will educate the Steering Committee regarding: 1) the results of the monitoring and modeling programs; 2) the views expressed in the public outreach program discussed below; and 3) the elements of each remedial alternative. Most importantly, MSD will solicit the views of the Steering Committee members regarding the various alternatives. The comments and recommendations of Steering Committee members will be considered by MSD in preparing the LTCP Update that is submitted to USEPA, OEPA and ORSANCO.

### **III. Public Outreach**

There are two aspects of public outreach with respect to the LTCP Update: A) Public Education; and B) Public Involvement.

#### **A. Public Education**

The first step in the public outreach process will be an effort to educate the public generally about CSO issues and the range of alternatives available for addressing CSOs. Among the topics that would be covered in the public education process are the following: 1) the history of MSD's wet weather overflow program; 2) the regulatory

context in which the LTCP Update is being prepared; 3) the scope and results of the monitoring and modeling being performed as part of the LTCP Update process; 4) the range of alternatives being considered; and 5) the process involved in the selection of alternatives.

Public education will be achieved through a variety of media. Press releases distributed to print, electronic and broadcast outlets will introduce the CSO issue and invite citizens to contact MSD by letter, phone call or e-mail to request an information packet on the LTCP Update. The press release will also announce the date and time for the initial LTCP Update public workshop. The information packet will contain a short overview of the MSD wet weather overflow program and the final Consent Decree as it relates to wet weather overflows. The packet will also contain a questionnaire that will solicit citizens' views regarding CSO issues. The packet will also invite recipients to visit MSD's website and/or attend the initial public workshop described below.

The information packet will also be mailed to community leaders, including city and township mayors, County Commissioners and civic association presidents. Additionally, copies of the packet will be made available at local libraries, as well as at MSD information booths at various public events such as the Hamilton County Fair and Earth Day.

As mentioned above, MSD will also hold an initial public workshop as part of the Public Education phase of the Public Outreach program. The location and time of the initial public workshop will be chosen to facilitate attendance by the public. This initial workshop will seek to educate members of the public about the history and scope of the MSD CSO program, explain the program's regulatory context and describe the various

categories of remedial alternatives being considered as part of the Long Term Control Plan Update. Technical issues and remedial alternatives will be presented in a simple, concise manner that is understandable to laypersons. The presentations will address progress to date on the LTCP Update, as well as the status of ongoing and planned LTCP Update activities. Charts and maps explaining in layperson's terms various CSO issues will be on display for viewing by the public at the workshop site before, during and after the workshop session.

**B. Public Involvement**

In the public education packet and at the initial public workshop, the public will be encouraged to submit to MSD comments, complaints, ideas or suggestions that they might have regarding MSD's CSO program. Written comments will be accepted at both regular and electronic mail addresses. MSD will also encourage the public to fill out public comment forms.

A public comment workshop will be a key component of the Public Involvement phase of the Public Participation Program. As was the case with the initial public workshop, the public comment workshop will be publicized with advertisements in major local electronic, broadcast and print media, as well as press releases to these media outlets. The location and time of the public involvement workshop will be chosen to facilitate attendance by the public. The proceedings of the public involvement workshop will be recorded and made available to the public on request.

Although the public involvement workshop will begin with a brief overview of the CSO program information previously provided at the initial workshop, the primary focus of the public involvement workshop will be an open forum to obtain comments

from the public regarding its priorities for the LTCP Update. In particular, the public will be asked for its views regarding various remedial alternatives and its priorities with respect to goals for the CSO program.

The comments and recommendations received from the public during the Public Outreach process will be considered by MSD in preparing the LTCP Update that is submitted to USEPA, OEPA and ORSANCO. The LTCP Update will include a short section that recounts the events of the Public Outreach Program and briefly summarizes the public comments received. Where appropriate, the LTCP update will discuss the impact of public comments on the remedial measure selection process.

## **EXHIBIT 3**

# **MONITORING AND MODELING WORK PLAN IN SUPPORT OF THE LTCP UPDATE**

## TABLE OF CONTENTS

1.	INTRODUCTION .....	1
2.	WORK PLAN .....	1
2.1	Monitoring Program Planning .....	1
2.2	Ohio River Characterization .....	2
2.2.1	Ohio River Water Quality Modeling .....	2
2.2.2	Ohio River Water Quality Monitoring .....	2
2.3	Tributary Characterization .....	3
2.3.1	Tributary Water Quality Modeling .....	3
2.3.2	Tributary Water Quality Monitoring .....	3
2.4	Source Characterization .....	4
2.4.1	Source Modeling .....	4
2.4.2	Source Monitoring .....	4
2.5	Water Quality Model Application .....	5
2.5.1	Ohio River From RM 460 to RM 490, and Little Miami River River/Duck Creek, Mill Creek, Rapid Run Creek and Muddy Creek .....	5
2.5.2	Ohio River From RM 490 to Markland Dam .....	6

## FIGURES

- Figure 1 General Sample Station Locations for the Ohio
- Figure 2 Conceptual Little Miami River WASP Model
- Figure 3 Conceptual Mill Creek WASP Model
- Figure 4 Conceptual Muddy Creek/Rapid Run WASP Model
- Figure 5 Approximate Monitoring Locations for Little Miami River
- Figure 6 Approximate Monitoring Locations for Mill Creek
- Figure 7 Approximate Monitoring Locations for Muddy Creek/Rapid Run

## **1. INTRODUCTION**

The following Work Plan is presented to generally describe the work to be accomplished in the Monitoring and Modeling Program. The monitoring program will span two years (2004 and 2005) and will focus on water quality conditions from mid-April through to mid-October.

The work plan, described in the following sections, builds on previous modeling and monitoring efforts such as the recent Wet Weather Demonstration Study completed by ORSANCO.

The work plan presentation is organized into five main components:

1. Monitoring Program Planning,
2. Ohio River Characterization,
3. Tributary Characterization,
4. Source Characterization, and
5. Water Quality Model Application.

The work associated with each component is described below.

## **2. WORK PLAN**

### **2.1 Monitoring Program Planning**

The number of samples required and the timing of sample collection is an important component of the water quality monitoring strategy. MSD will strive to optimize the application of monitoring resources by careful program pre-planning and by the use of real time radar.

The response time to rainfall for the Ohio River, for each of the tributary streams and rivers, and sources differs. The size of the contributing watersheds during a storm, the individual river/stream hydraulics, as well as the nature of the individual rainfall event, all contribute to defining response characteristics. Similarly, the response times for the CSO, SSO and stormwater sewersheds differ based on similar factors.

MSD, through the use of existing river and sewershed monitoring data and with the application of modeling tools, will characterize the response of the watersheds and sewersheds to various historical rainfall inputs. From this collection of information, MSD will be able to pre-plan the duration and optimum inter-sample times for each sample location and establish sampling goals for each location. Through the pre-planning process MSD expects to obtain suitable coverage of river, stream and source hydrographs and pollutographs from the rising and receding limbs to characterize water quality.

In addition, MSD will employ real time radar data to assist in determining the areal extent and timing of storm events while monitoring is ongoing. The radar information will be used to make operational decisions to adjust sampling durations in river, streams and at source sampling locations. Pre-planning of the field activities with the ability to make operational decisions on a sampling event basis will maximize the use of MSD's resources.

The outcome of the pre-planning process will be a detailed Field Sampling and Monitoring Program (FSMP) and Quality Assurance Project Plan (QAPP). The FSMP and QAPP will identify monitoring and sampling stations, define sampling goals, detail monitoring and sampling protocols and define quality objectives. The QAPP will be prepared in accordance with the

appropriate applicable sections of US EPA Guideline EPA QA/G5 (EPA/600/R-98/018, February, 1998).

## **2.2 Ohio River Characterization**

### **2.2.1 Ohio River Water Quality Modeling**

*Update Hydrodynamic Model:* The existing hydrodynamic model (RMA-2V) structure will be updated for the river reach from RM 460 to RM 490 to facilitate the analysis of a wide range of flow conditions. The update will include conversion of the existing RMA-2V model to continuous operation, development of hydrodynamic models of the larger Ohio-side tributaries, and linkage of those tributary models to the Ohio hydrodynamic model. The update may also include the incorporation of lateral flow inputs from the major tributaries. The calibration of the hydrodynamic model will be updated as necessary.

*Update the Structure of the Existing Ohio River WASP Model:* The structure of the existing Ohio River WASP model will be reviewed in detail and refined as necessary consistent with the hydrodynamic model refinements described above. MSD expects that updates and refinements of the models' structures will extend downstream to a point immediately upstream of the Great Miami River confluence, at (approximately) Ohio River Mile 490.

*Update the Calibration of the Ohio River WASP Model and Hydrodynamic Model:* Using the results of the Ohio River monitoring program and the revised hydrodynamic model, the calibration of the Ohio River WASP model will be updated for the river reach between RM 460 and RM 490. The water quality calibration will be exclusively for *E. Coli*.

*Coordinate Ohio River Model Efforts with Tributary Modeling:* The updated Ohio River WASP model, as well as the supporting Ohio River hydrodynamic model, will be configured to accept tributary inflows for the river reach between RM 460 and RM 490.

### **2.2.2 Ohio River Water Quality Monitoring**

The Ohio River monitoring program includes both dry and wet weather monitoring. As illustrated in Figure 1, a combination of longitudinal and channel transect sample stations will be used. The monitoring program will span two years (2004 and 2005) and will focus on water quality conditions from mid-April through to mid-October.

*Ohio River Monitoring Limits:* The Ohio River monitoring will focus on a 30-mile stretch of the Ohio River. The upstream and downstream boundary locations are River Mile 460 (confluence of Four Mile Creek and the Ohio River) and River Mile 490 (immediately upstream of the confluence of the Great Miami River and the Ohio River), respectively.

*Longitudinal Sample Sites:* Mid-channel longitudinal sample sites will be located at approximately 2-mile intervals. Longitudinal sites will be sampled once per dry-weather event and approximately 5 times for each wet weather event. Although the goal of the wet weather sampling will be to take one sample daily for five days, this sampling frequency may be modified based on the pre-planning process described above and operational decisions associated with each sampling event, as appropriate to adequately characterize water quality.

*Transect Sample Sites:* Approximately 7 transects will be defined between River Mile 460 and 490. Each transect will consist of 5 stations, at least one of which should be located in the center channel. Approximately 5 samples will be collected from each transect station for



each wet weather event. Although the goal of the wet weather sampling will be to take one sample daily for five days at each transect station, this sampling frequency and the location of transect stations may be modified based on the pre-planning process described above and operational decisions associated with each sampling event, as appropriate to adequately characterize water quality.

*Dry and Wet Weather Events:* One to two wet weather events will be captured. Only one wet weather event will be sampled if the data developed is generally consistent with prior calibration of the river model. An additional two dry-weather events will be monitored.

*Water Quality Parameter List:* On-site monitoring will include dissolved oxygen, pH, conductivity and temperature. Based on the previous work carried out by ORSANCO, *E. Coli* will be the sole Pollutant of Concern (POC) for the Ohio River. Discrete samples will be collected for analysis of *E. Coli*.

## **2.3 Tributary Characterization**

Tributary stream models for the Little Miami River/Duck Creek, Mill Creek, Rapid Run Creek and Muddy Creek will be calibrated for flow and water quality.

### **2.3.1 Tributary Water Quality Modeling**

*Common Elements of All Tributary Models:* Model parameters will include *E. Coli* and other parameters as appropriate based on the results of the monitoring program. Existing data and wet weather monitoring carried out during the LTCP Update will be used to establish the POCs for each stream individually. POCs will be established to assure that all parameters for which CSOs are causing or contributing to exceedances of Water Quality Standards are addressed. The monitoring results, once validated, will be compared to the appropriate Ohio Water Quality Standards. On the basis of this comparison, a list of POCs will be prepared for inclusion in the subsequent water quality modeling conducted pursuant to this plan. Model calibration will focus on POCs to be modeled, with particular emphasis on *E. Coli*.

*Little Miami River:* A conceptual illustration of the proposed Little Miami River WASP model is provided as Figure 2. The upstream boundary will be located at approximately River Mile 8.2, near Newtown Road. The WASP model includes branches of Duck Creek and Clough Creek. The USGS gauging station at Milford will be used to help define upstream boundary flows for modeling purposes.

*Mill Creek:* A conceptual illustration of the proposed Mill Creek WASP model is provided as Figure 3. The upstream boundary will extend to approximately River Mile 18.2, near East Crescentville Road. The USGS gauging station at Carthage will be used to help define upstream boundary flows for modeling purposes.

*Muddy Creek and Rapid Run:* A conceptual illustration of the proposed Muddy Creek and Rapid Run WASP models is provided as Figure 4. The extent of the models will be the mouth of the creeks.

### **2.3.2 Tributary Water Quality Monitoring**

The approximate tributary monitoring locations for Little Miami River, Mill Creek, and Muddy

Creek and Rapid Run are provided in Figures 5 through 7.

The tributary monitoring program will span two years (2004 and 2005).

The dry-weather sampling program will include the collection of approximately 10 grab samples per site, as appropriate to adequately characterize water quality.

The parameter list will include total suspended solids, *E. Coli.*, dissolved metals, total phosphorus, soluble reactive phosphorus, ammonia, nitrite, nitrate, total Kjeldahl nitrogen, and total hardness.

Continuous flow and water quality (for pH, temperature, dissolved oxygen, and conductivity) measurements will be made at strategic stream locations during both wet and dry weather periods.

Wet weather sampling will be completed for a minimum of 3 events during the monitoring period.

Wet weather event sampling frequency goals (number of samples collected per storm event) at each sampling station will be established as part of the pre-planning process through the use of existing river and sewershed monitoring data and with the application of modeling tools to characterize the response of the watersheds and sewersheds to various historical rainfall inputs. Although the objective is to meet the sampling frequency goals set out, this sampling frequency may be modified based on operational decisions associated with each sampling event, as appropriate to adequately characterize the changes in discharge quality that take place over the course of each monitored event.

Event composite samples will be collected to determine average wet weather quality and will be analyzed for total suspended solids, dissolved metals, total phosphorus, soluble reactive phosphorus, ammonia, nitrite, nitrate, total Kjeldahl nitrogen and hardness.

Grab samples taken during a wet weather event will utilize the sampling frequency goals indicated above and will be analyzed for total suspended solids and *E. Coli.*

## **2.4 Source Characterization**

The source monitoring programs address wet weather flows and loads associated with stormwater runoff, CSOs and significant SSO sources for Ohio side-sources in the Ohio River from RM 460 to RM 490 and the tributary streams noted in Section 2.3. These modeling programs will also address Kentucky-side sources to the extent information has been provided as discussed in paragraph 2.5.1, below, or is otherwise made available to MSD by the United States, the State of Ohio or ORSANCO. Nothing in this plan will be read to impose on MSD the obligation to collect data on the Kentucky side of the Ohio River.

### **2.4.1 Source Modeling**

Modeling of significant SSO and CSO sources will be based upon the newly developed system wide collection system model. Stormwater flows will be generated using updated versions of the 1996 Long-Term Control Plan SWMM non-point source models.

### **2.4.2 Source Monitoring**

Source monitoring will be completed at a minimum of 13 combined sewer locations (CSOs), 4

sanitary sewer overflow locations (SSOs), and 4 storm sewer outfall locations. CSO sites will be selected based on location, sewershed characteristics, overflow size, average annual overflow volume and frequency, configuration, upstream land use, and accessibility. The sites will be selected to provide a reasonably representative sampling of Defendants' active CSOs, based on typical year discharge characteristics.

1 to 2 stormwater sample locations will be selected per watershed.

SSO sites will be selected on the basis of location, overflow size, and accessibility.

Sites will be monitored for a minimum of 3 wet weather events.

Wet weather event sampling frequency goals (number of samples collected per storm event) at each sampling station will be established as part of the pre-planning process through the use of existing sewershed monitoring data and with the application of modeling tools to characterize the response of the sewersheds to various historical rainfall inputs. Although the objective is to meet the sampling frequency goals set out, this sampling frequency may be modified based on operational decisions associated with each sampling event, as appropriate to adequately characterize the changes in discharge quality which take place over the course of each monitored event.

Discrete source samples will be taken with the sampling frequency goals indicated above and will be analyzed for total suspended solids, and *E. Coli*.

Event composite samples will be collected at each site and will be analyzed for total suspended solids, dissolved metals, total phosphorus, soluble reactive phosphorus, ammonia, nitrite, nitrate, total Kjeldahl nitrogen, total carbonaceous biochemical oxygen demand and filtered carbonaceous biochemical oxygen demand.

## **2.5 Water Quality Model Application**

### **2.5.1 Ohio River From RM 460 to RM 490, and Little Miami River/Duck Creek, Mill Creek, Rapid Run Creek and Muddy Creek**

The water quality model application will involve the assessment of impacts, on Ohio-side tributaries and the mainstem of the Ohio River, for a representative year.

The water quality model application will include:

*Definition of Baseline Conditions:* Water quality models will be applied to generate water quality predictions for a representative year. In support of this baseline assessment, it will be necessary for regulatory authorities to provide flow time-series and pollutant data corresponding to Kentucky-side sources.

*Development and Analysis of Scenarios:* In conjunction with the development of the long-term control plan, a variety of management scenarios will be prepared. The corresponding water quality impacts, or improvements, will be assessed relative to the baseline case described above using the modeling tools. It is expected that regulatory authorities will provide the necessary flow time-series and pollutant data corresponding to Kentucky-side sources.

## 2.5.2 Ohio River From RM 490 to Markland Dam

Defendants will utilize the existing ORSANCO Ohio River model structure, operated in a continuous mode, to evaluate the impacts that Defendants' CSOs are expected to have on *E. Coli* levels in the Ohio River between River Mile 490 and the downstream Markland Dam if the proposed Long Term Control Plan Update is implemented. Defendants are only agreeing to perform this evaluation at the regulators' request. Defendants do not believe that the existing ORSANCO Ohio River model structure is adequate to perform this evaluation of the impacts beyond River Mile 490 and reserve the right to dispute the accuracy or reliability of the results of this evaluation of the impacts beyond River Mile 490.

Figure 1 General Sample Station Locations for the Ohio River

Figure 2 Conceptual Little Miami River WASP Model

Figure 3 Conceptual Mill Creek WASP Model

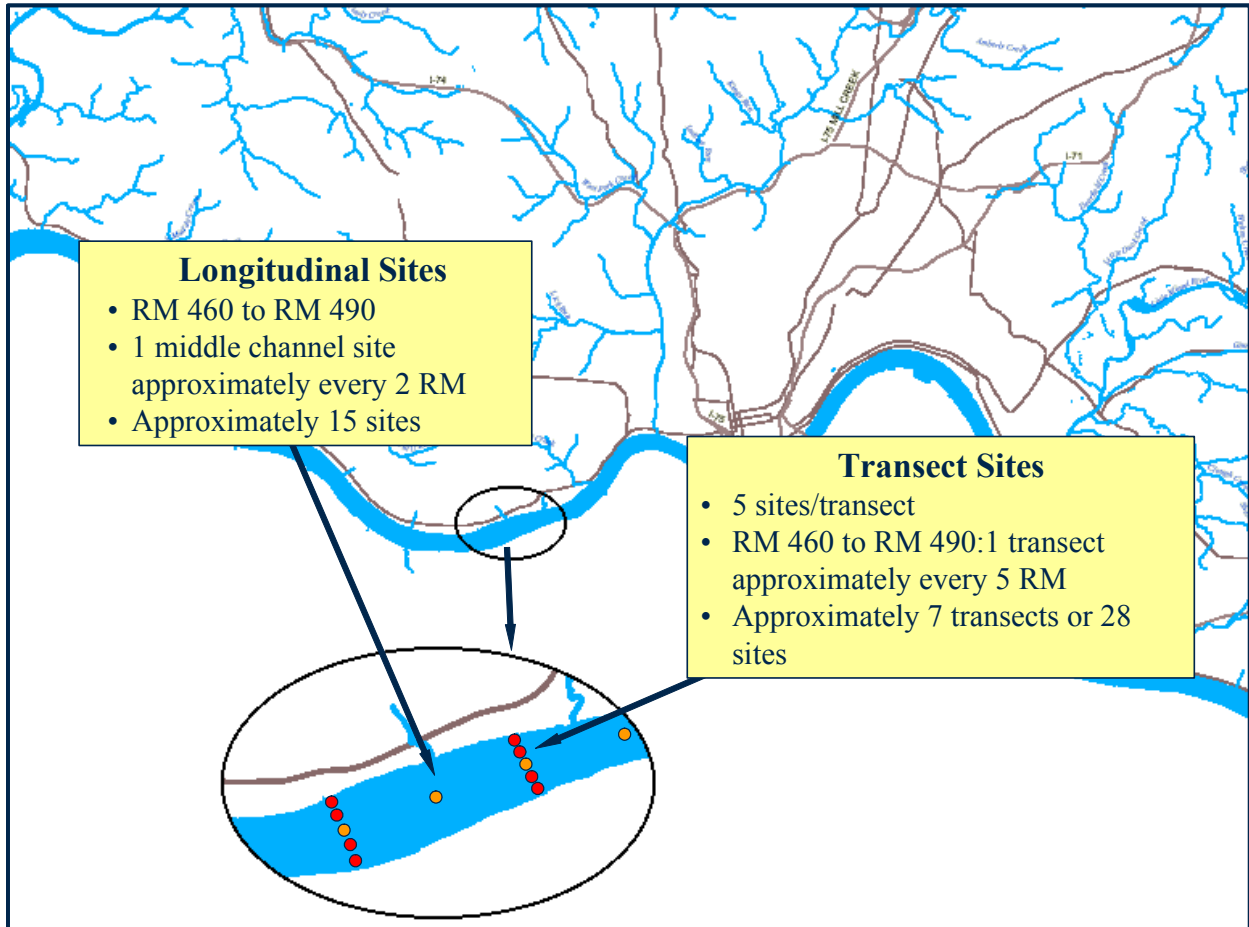
Figure 4 Conceptual Muddy Creek/Rapid Run WASP Model

Figure 5 Approximate Monitoring Locations for Little Miami River

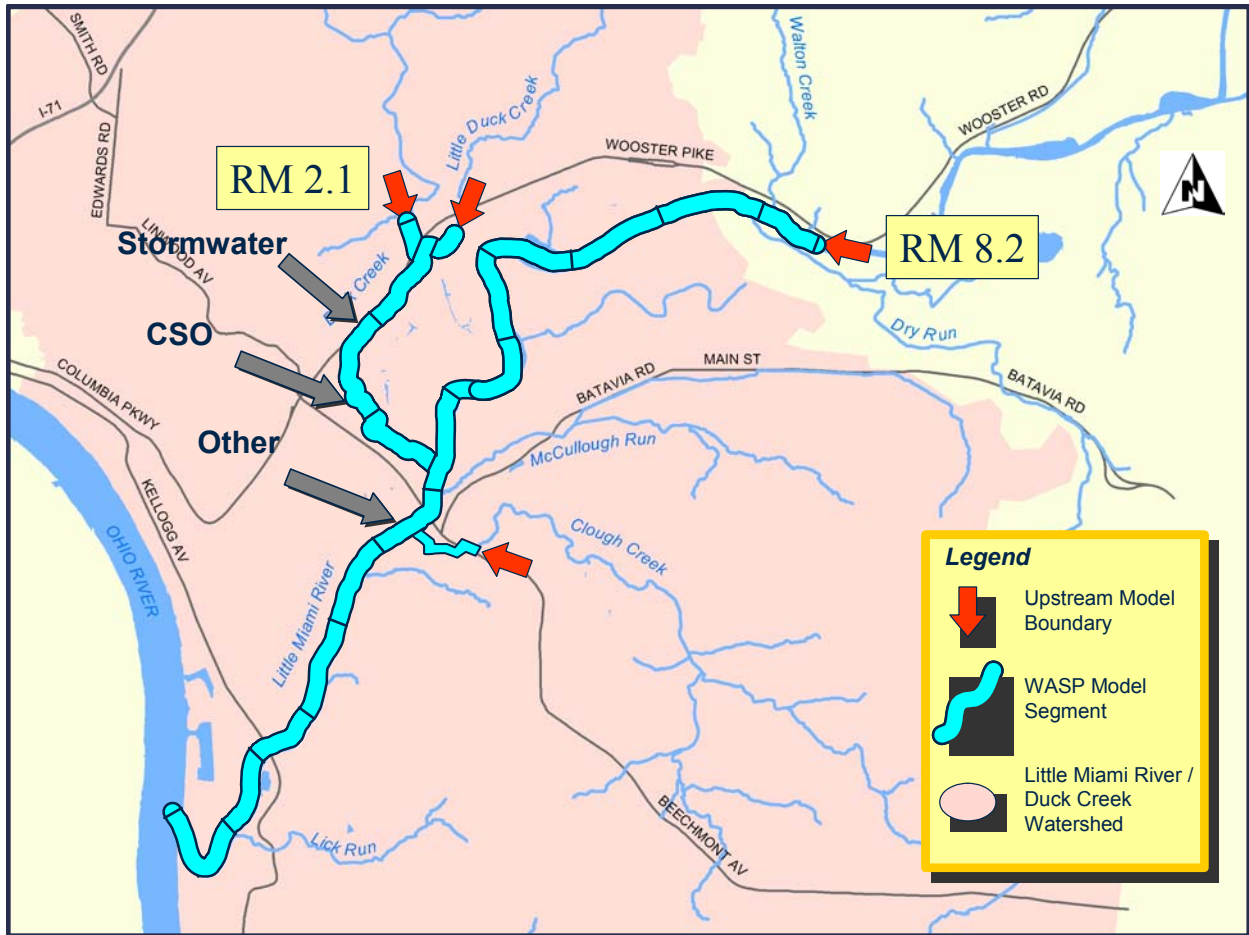
Figure 6 Approximate Monitoring Locations for Mill Creek

Figure 7 Approximate Monitoring Locations for Muddy Creek/Rapid Run

**Exhibit 3: Figure 1 General Sample Station Locations for the Ohio River**



**Exhibit 3: Figure 2 Conceptual Little Miami River WASP Model**



**Exhibit 3: Figure 3 Conceptual Mill Creek WASP Model**

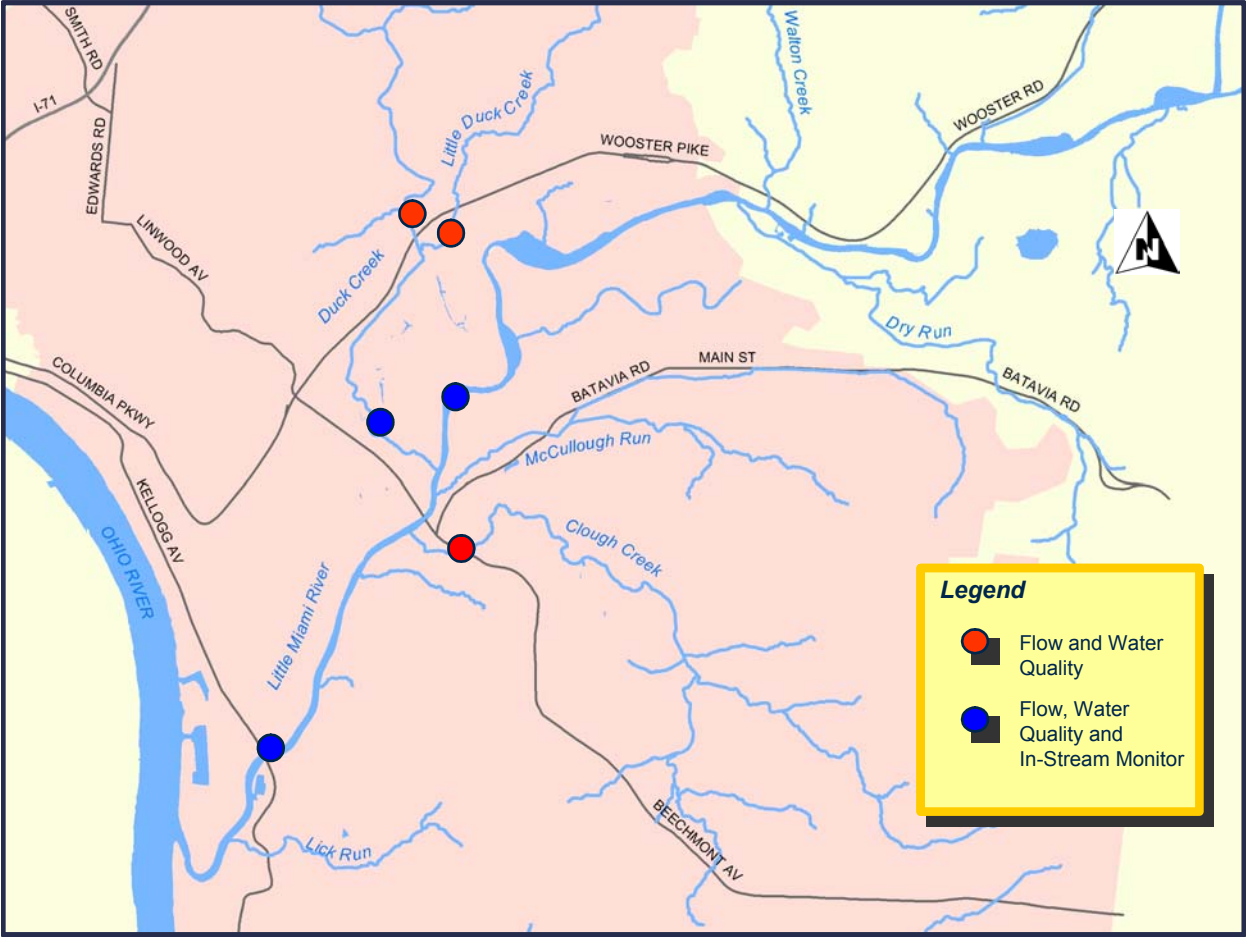


Exhibit 3: Figure 4 Conceptual Muddy Creek/Rapid Run WASP Model

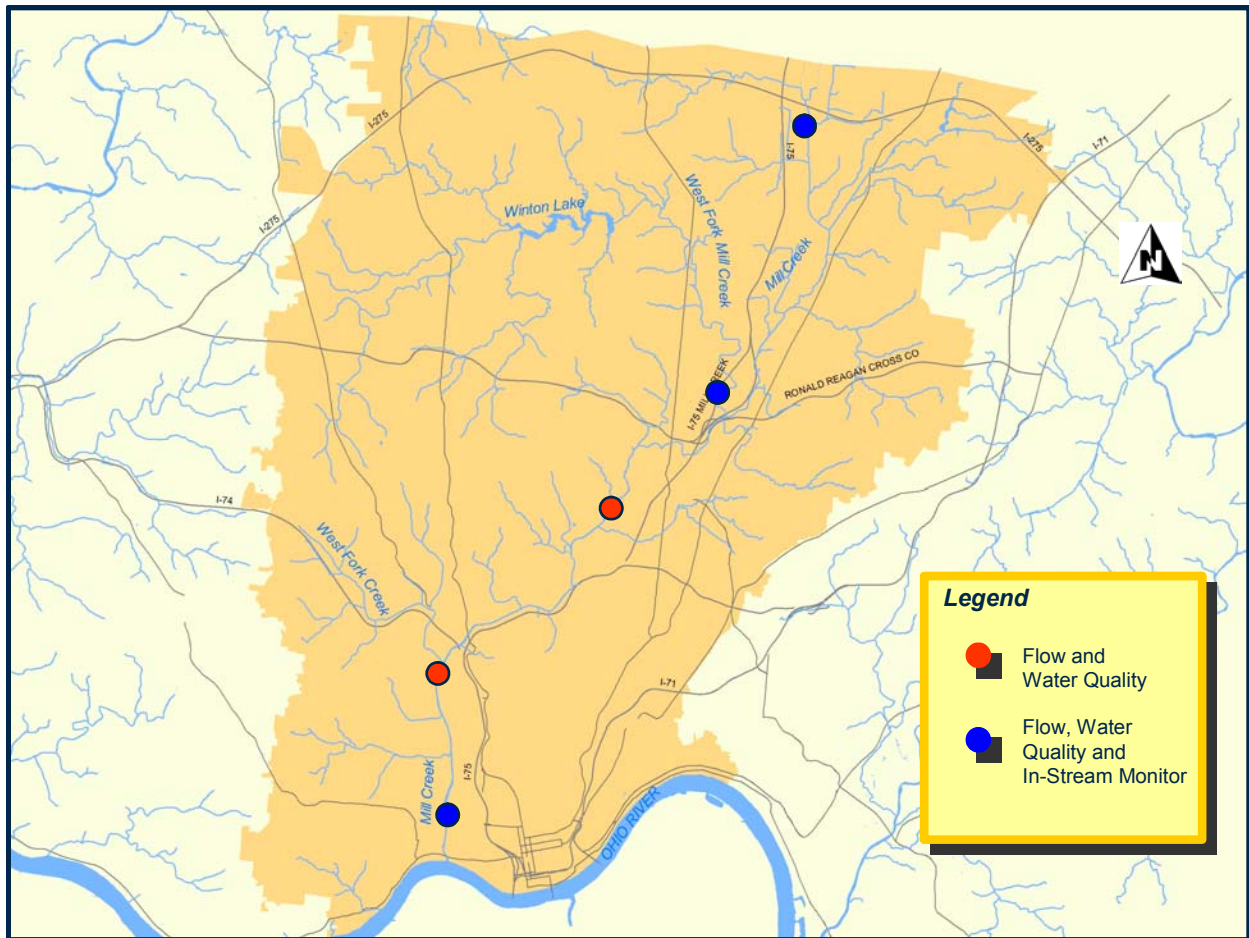




**Exhibit 3: Figure 5 Proposed Monitoring Locations for Little Miami River**



**Exhibit 3: Figure 6 Proposed Monitoring Locations for Mill Creek**



**Exhibit 3: Figure 7 Proposed Monitoring Locations for Muddy Creek/Rapid Run**



## **EXHIBIT 4**

# **LONG TERM CONTROL PLAN UPDATE WORK PLAN**

### **I. Introduction**

This Long Term Control Plan Update Work Plan describes the process and schedule that Hamilton County and the City of Cincinnati (“Defendants”) will follow, the analyses Defendants will perform, and the information Defendants will generate, obtain and provide, to develop a Long Term Control Plan Update Report and Long Term Control Plan Update in accordance with the Consent Decree on Combined Sewer Overflows, Wastewater Treatment Plants and Implementation of Capacity Assurance Program Plan for Sanitary Sewer Overflows (“Consent Decree”), and the steps Defendants will take to keep the United States Environmental Protection Agency, the Ohio Environmental Protection Agency, and the Ohio River Valley Water Sanitation Commission (the “regulators”) apprized of developments throughout the course of development of the Long Term Control Plan Update so the regulators can provide meaningful input throughout the process.

### **II. Long Term Control Plan Update**

Defendants will do the following to develop a Long Term Control Plan Update:

A. Defendants have prepared a comprehensive listing of all current CSOs, assigning them to clusters, sewersheds and watersheds; this listing is appended to this Work Plan as Attachment A. Defendants will review the permit status of each CSO with the state regulatory authorities. The Defendants may, after consultation with the regulators, adjust cluster definitions as necessary to facilitate consideration of more effective CSO control alternatives. Defendants anticipate that a number of CSOs will be identified as suitable for elimination (or control such that no overflows occur in a typical year) through sewer separation. In such cases, sewer separation shall be the selected alternative as part of the Long Term Control Plan Update for the CSOs at issue, and these projects will not be subject to further alternatives evaluation.

Defendants will complete an initial screening analysis of the alternatives in Attachment A, excluding CSOs to be separated as described above, to eliminate from further consideration any alternatives that are not feasible. Infeasibility may be due to factors such as site constraints, technology limitations, or exorbitant costs (in relation to other comparable alternatives being considered for the same CSO clusters, and in relation to costs expended by other CSO communities for similar technologies on a cost/performance or cost/unit size basis as reported in the literature (normalized to

current year dollars)).

Following the initial screening analysis, Defendants will integrate the clusters with interceptor and central/regional treatment alternatives to develop a minimum of 2 to 3 overall CSO control strategies for each of the three combined sewersheds (Mill Creek; Muddy Creek; and Duck Creek/East Little Miami). Defendants may develop one or more variations for any of these overall CSO control strategies. These variations (e.g., Mill Creek Alternatives 1A and 1B) would allow consideration of modifications of a particular strategy. An example might be an overall alternative that utilizes a storage tunnel to address all CSOs in a sewershed except one small, remote overflow. Two sub-alternatives might involve (a) separation or (b) local storage of that one small outfall.

B. Defendants will carry forward for cost-performance and other analysis a minimum of 2 to 3 overall CSO control strategies for each sewershed. Defendants' cost-performance analysis of these alternatives will consist of the following:

1. Use of a planning-level model based on Defendants' Sewer System Hydraulic Model, relevant information, and sound engineering judgment to develop reasonable, planning-level estimates of the sizes, capacities, performance in a typical year (i.e., number of activations and overflow volume), and other relevant characteristics of each of the alternatives being evaluated, for the following levels of typical year CSO volumetric control: 85%, 90%, 95%, 99+% typical year control;

2. Review of relevant information, including recent estimates and bids, to develop reasonable, planning level estimates of the "Project Costs," as that term is described on pages 3-49 through 3-51 of U.S. EPA's September 1995 "Combined Sewer Overflows: Guidance for Long Term Control Planning" for each alternative that is being evaluated. The determination of Project Costs will include: (i) "capital costs," "annual O & M costs," and the calculation of "life cycle costs" for each alternative and (ii) a break down of the "capital costs" and "annual O & M costs" that went into calculating the Project Costs for each alternative. The terms "capital costs," "annual O & M costs," and "life cycle costs" are described on pages 3-49 through 3-51 of U.S. EPA's September 1995 "Combined Sewer Overflows: Guidance for Long Term Control Planning." Data will be adjusted to suit local conditions based on size, site conditions, and construction features;

3. An evaluation of the costs and performance in terms of reducing overflow frequency and/or volume and/or loadings of Pollutants of Concern as determined through implementation of the Monitoring and Modeling Work Plan (Exhibit 3). The evaluations shall include, but not be limited to, "knee of the curve" cost-performance analyses. These analyses will allow for the comparison of the costs per unit of measure of frequency and/or volume reduction and/or pollutants removed from the discharge for each alternative that has been evaluated;

4. An evaluation of each alternative's performance with regard to the control of floatables and solids, in accordance with the CSO Policy. It is understood that this evaluation will be qualitative in nature and will address the general capability of the proposed alternative for floatables and solids removal; and

5. As part of the cost and performance analyses, Defendants shall consider all of the CSO-specific alternatives identified in Attachment A, to optimize the cost-performance of each of the overall control strategies identified for each sewershed.

C. If Defendants believe that a revision to water quality standards based upon affordability will be necessary to enable Defendants to meet the goals set forth below in Paragraph II.E.1; Defendants will generate the following financial information to assist the State of Ohio and ORSANCO with their decisions concerning any potential revisions to water quality standards:

1. The information pertaining to the impacts that the Updated Long Term Control Plan Update is expected to have on the community specified in Chapters 2 and 4 of U.S. EPA's March 1995 Interim Economic Guidance for Water Quality Standards: Workbook (EPA 823-B-95-002), derived in accordance with the instructions in that document; and a description of the sources used to derive the information. This information shall, at a minimum, include: 1) a "Municipal Preliminary Screener" (*i.e.*, "Average Total Pollution Control Cost per Household" divided by "Median Household Income") that is derived using the Median Household Income for the entire Metropolitan Sanitary District service population; and 2) a "Municipal Preliminary Screener" that is calculated on a community-by-community basis;

2. Information on availability of grants and/or loans for funding the alternatives that have been evaluated; bond capacity for the next twenty years; current and projected residential, commercial and industrial user fees; and other viable funding mechanisms and/or sources of financing construction of the alternatives; and

3. Any other information that Defendants believe is important in evaluating Defendants' financial capability to fund improvements to Defendants' Sewer System and WWTPs, including without limitation, information developed in accordance with U.S. EPA's February 1997 "CSO-Guidance for Financial Capability Assessment and Schedule Development" (EPA 832-B-95-06), and/or U.S. EPA's March 1995 Interim Economic Guidance for Water Quality Standards: Workbook (EPA 823-B-95-002).

4. As an alternative to providing the information described above, the Defendants may provide information consistent with the State of Ohio procedures for evaluating financial capability and other criteria suitable for water quality standards revisions.

D. Defendants will utilize a planning-level model based on Defendants' Sewer System Hydraulic Model, Defendants' water quality modeling capabilities developed as a result Defendants' implementation of the Monitoring and Modeling Work Plan (Exhibit 3), and water quality monitoring data developed in the course of implementing Exhibit 3 to evaluate the impacts that 85%, 90%, 95%, and 99+% typical year volumetric control by each of the minimum of 2 to 3 control strategies per watershed would have on the levels of POCs as determined through implementation of the Monitoring and Modeling Work Plan (Exhibit 3) in the receiving streams in areas affected by CSOs and bypassing during a "typical year." This will include:

1. Evaluating the impacts that the alternatives would have on reducing or eliminating days and hours of exceedances of water quality criteria for POCs in receiving streams impacted by CSOs and bypassing during a typical year when background sources including Kentucky-side discharges, boundary flows in the area rivers and streams, storm water, SSO, WWTP effluents and other discharges of the POCs are included in the evaluation;

2. Evaluating the impacts that background sources would have on exceedances of water quality criteria for POCs in receiving streams impacted by CSOs and bypassing during a typical year if CSOs and bypasses were assumed to be zero; and

3. In the event that Defendants intend to seek a revision to water quality standards, Defendants will carry out the analyses described in Paragraphs II.D.1 and II.D.2 using both the existing water quality criteria and the prospective water quality criteria for the parameters for which revision is sought. If Defendants intend to seek a revision to water quality standards, they may choose to apply for a revision pertaining to an entire sewershed or sewersheds or they may choose to seek a revision pertaining to only a portion or portions of a sewershed or sewersheds. If Defendants intend to seek a revision pertaining to only a portion or portions of a sewershed, Defendants shall carry out the analyses described in Paragraphs II.D.1 and II.D.2 for other cluster-specific alternatives identified in Attachment A, as may be appropriate to provide information necessary to support the request for water quality standard revision.

E. 1. Defendants will utilize the analysis, evaluations and information described in Paragraphs II.A - II.D along with other information and data pertaining to cost-effectiveness, financial capacity and affordability, community standards and other operating, socio-economic and environmental factors to identify proposed remedial measures, the "Long Term Control Plan Update," necessary to achieve the goals of insuring that: (1) Defendants construct and implement all feasible alternatives to eliminate bypasses at Defendants' WWTPs or, if Defendants demonstrate during the course of developing the Long Term Control Plan Update that elimination of bypassing is not feasible, to reduce bypasses at the WWTPs to the maximum extent feasible and to provide maximum feasible treatment for any remaining bypasses (where appropriate,

feasible alternatives to bypassing may include, without limitation, high rate physical-chemical treatment units and/or primary clarification and disinfection); (2) Defendants' CSOs comply with the requirements of the Clean Water Act, U.S. EPA's CSO Policy, Chapter 6111 of the Ohio Revised Code and the rules promulgated thereunder, the Compact and the pollution control standards promulgated thereunder, and Defendants' Current Permits; and (3) Defendants eliminate Unpermitted Overflows.

2. It is expected that the Defendants will meet with the regulators to review the proposed remedial measures and will work with the regulators to assess compliance with water quality standards and any necessary revisions to water quality standards.

3. In accordance with Paragraph IX.B of the Consent Decree, Defendants may also include the following as elements of their proposed Long Term Control Plan Update: a Sewer Relining and Manhole Rehabilitation Program Plan; measures for preventing Water-In-Basements ("WIB(s)"); measures necessary to meet the adequate capacity requirements of Paragraph XIII.D (Water-in-Basement Program: Adequate Capacity), including measures implemented pursuant to Exhibit 6 (Water-in-Basement Prevention Program) of the Consent Decree; and remedial measures necessary to comply with new or more stringent requirements that are included or expected to be included in future NPDES permits pertaining to Defendants' WWTPs or Sewer System. Capital costs required to implement the measures described in the immediately preceding sentence may be included by Defendants in calculating the \$1.5 billion cost estimate referenced in Paragraph II.F of this Work Plan.

F. Defendants will develop a schedule that is as expeditious as practicable for design, construction, implementation and utilization of the remedial measures proposed pursuant to Paragraph II.E, above (including any of the additional elements described in Paragraph II.E.3, above, that Defendants propose to include in the Long Term Control Plan Update). The schedule shall contain a deadline for substantial completion of construction of all remedial measures in a manner that is as expeditious as practicable, but in no event later than February 28, 2022, unless Defendants demonstrate that the capital costs (in 2006 dollars) of the remedial measures specified in the Long Term Control Plan Update and the Capacity Assurance Program Plan approved under the Interim Partial Consent Decree on Sanitary Sewer Overflows are expected to exceed \$1.5 billion. If Defendants demonstrate that such capital costs are expected to exceed \$1.5 billion, then the deadline for completion of all remedial measures specified in the Long Term Control Plan Update and the CAPP must be specified in the Plan(s) and must still be as expeditious as practicable, but may be later than February 28, 2022, if it is not practicable to complete the CAPP and Long Term Control Plan Update remedial measures by that date. The schedule will be developed in coordination with the schedule for implementing the Capacity Assurance Program Plan developed in accordance with the Interim Partial Consent Decree on Sanitary Sewer Overflows, and will also be based



on consideration of the following: water quality, human health, capacity-related “water in basement” issues, pollutant loadings, volume of discharge, community priorities, sensitive areas, U.S. EPA’s February 1997 “CSO-Guidance for Financial Capability Assessment and Schedule Development” (EPA 832-B-95-06), and/or U.S. EPA’s March 1995 Interim Economic Guidance for Water Quality Standards: Workbook (EPA 823-B-95-002), and reducing inefficiencies in the event that future contingencies do not occur as anticipated (e.g., water quality standards are not revised, see Paragraph III.G below, and so the Long Term Control Plan Update must be modified). The schedule will include critical construction milestones, including, at a minimum, deadlines for submission of Permits to Install; commencement of construction, and commencement of operations/substantial completion of construction.

G. The CSO Policy recognizes that information developed during the course of long term control planning may serve as a basis for seeking revisions to water quality standards or NPDES permit requirements, particularly where that information demonstrates that it will not be feasible to attain water quality standards. If the proposed Long Term Control Plan Update described in this Section II is not expected to ensure compliance with the requirements of the Clean Water Act, U.S. EPA’s CSO Policy, Chapter 6111 of the Ohio Revised Code and the rules promulgated thereunder, the Compact and the pollution control standards promulgated thereunder that are in effect as the plan is being developed, but is instead based upon Defendants’ belief that those requirements will be revised by the time Defendants complete implementation of the Long Term Control Plan Update, Defendants, working in conjunction with Ohio EPA and ORSANCO, will evaluate how those legal requirements will change (e.g., anticipated changes in NPDES permitting requirements or water quality standards applicable to Defendants). If Defendants’ proposed Long Term Control Plan Update is premised on Defendants’ belief that legal requirements will change, then Defendants will also identify, describe and evaluate at least one alternative set of remedial measures that would most cost-effectively ensure that Defendants’ CSOs during a typical year will comply with all legal requirements if those requirements are not changed. In providing the information required by the preceding sentence, Defendants are not proposing or agreeing to implement such measures.

H. By June 30, 2006, Defendants will submit a report, the Long Term Control Plan Update Report,” to U.S. EPA/Ohio EPA/ORSANCO. The Long Term Control Plan Update Report will contain the following:

1. A description of the steps Defendants took to comply with the Public Participation Plan attached to the Consent Decree as Exhibit 2, including how Defendants took information provided by the public into account in developing the Long Term Control Plan Update;
2. A narrative description of the Long Term Control Plan Update

development process and of the information gathered and the analyses conducted, including descriptions of how Defendants complied with the requirements of this Long Term Control Plan Update Work Plan and considered the various factors set forth in and information developed pursuant to this Long Term Control Plan Update Work Plan in selecting the recommended measures and the proposed construction schedule in the Long Term Control Plan Update;

3. Narrative discussions and appropriate graphical and tabular summaries of the results of the comparative water quality impacts of the various alternatives considered. It is anticipated that these will include tabular comparison of incremental cost/performance and graphics depicting the results of “knee of the curve” analyses;

4. A Long Term Control Plan Update that:

a. Identifies and provides detailed information (including appropriate design and performance criteria, as described in subparagraph 4.b, below) regarding additional remedial measures, if any, the “Long Term Control Plan Update,” that are necessary to achieve the goals set forth above in Paragraph II.E.1 of this Workplan;

b. Criteria necessary to ensure that the remedial measures are properly designed (“design criteria”) and to ensure that, once constructed, the remedial measures perform in the manner that they were expected to perform (“performance criteria”); and

c. Contains a schedule that complies with the requirements of Paragraph II.F, above.

5. A narrative description and summary graphs, tables and data, based on the analysis required by Paragraph 2.5.2 of the Monitoring and Modeling Work Plan (Exhibit 3) regarding the impacts that Defendants’ CSOs, among other pollutant sources, are expected to have on *E. coli* levels in the Ohio River between River Mile 490 and the downstream Markland Dam if the proposed Long Term Control Plan Update is implemented. Defendants are only agreeing to perform this evaluation at the regulators’ request. Defendants do not believe that the existing ORSANCO Ohio River model structure is adequate to perform this evaluation of the impacts beyond River Mile 490 and reserve the right to dispute the accuracy or reliability of the results of this evaluation of the impacts beyond River Mile 490.

6. If Defendants’ proposed Long Term Control Plan Update is premised on Defendants’ belief that legal requirements will change, an explanation as to why the suite of alternatives developed pursuant to Paragraph III.G, above was not selected;

7. If Defendants' proposed Long Term Control Plan Update is premised on Defendants' belief that water quality standards will be revised based on affordability, all of the information pertaining to the impacts that the Updated Long Term Control Plan Update is expected to have on the community specified in Chapters 2 and 4 of U.S. EPA's March 1995 Interim Economic Guidance for Water Quality Standards: Workbook (EPA 823-B-95-002), derived in accordance with the instructions in that document; and a description of the sources used to derive the information. This information shall, at a minimum, include: 1) a "Municipal Preliminary Screener" (*i.e.*, "Average Total Pollution Control Cost per Household" divided by "Median Household Income") that is derived using the Median Household Income for the entire Metropolitan Sanitary District service population; and 2) a "Municipal Preliminary Screener" that is calculated on a community-by-community basis. If State of Ohio or ORSANCO procedures are used to assess affordability, information developed to support that assessment will also be presented.

### III. Updating the Regulators as the Long Term Control Plan Update is Being Developed

At least twice each year in 2004 and 2005, and at least once between January 1 and March 31 in 2006, Defendants will provide to the regulators oral and visual presentations, summary reports, data and paper copies of the presentation materials at the time of the presentation concerning the status of Defendants' implementation of this Long Term Control Plan Update Work Plan as well as preliminary results, as they become available, of the analysis described in Section II. The regulators will attempt to provide any written comments to the Defendants within 15 days of the presentation. Among other things, the presentations will address the following:

1. Summaries of the results of the initial screening analysis performed in accordance with Paragraph II.A of this Work Plan, including a description of all alternatives that were determined to be not feasible and, for each alternative eliminated from further consideration, an explanation as to the basis for Defendants' conclusion that the alternative was not feasible;
2. For each alternative being evaluated, a description of the measures (including various sizes associated with each level of control evaluated) that Defendants estimated would need to be constructed in accordance with Paragraph II.B.1;
3. Information concerning the costs and performance (in terms of volume and pollutant loading reductions, regardless of water quality impacts, and floatables and solids control) of each size of each of the alternatives evaluated. This information may include "knee of the curve" cost-performance analyses that will allow for the comparison of the costs per unit of measure of CSO volume or pollutants removed from the discharge for each alternative that has been evaluated. Measures to be used may include projected reductions in annual pollutant loads and/or discharge volumes and/or overflow

frequencies for each of the alternatives evaluated for each specific CSO cluster and bypassing point, as well as projected reductions in pollutant loads and/or discharge volumes and/or overflow frequencies on a receiving stream by receiving stream basis;

4. Summaries of the water quality monitoring data collected pursuant to the Monitoring and Modeling Work Plan (Exhibit 3);

5. The proposed Long Term Control Plan Update as set forth in Paragraphs II.E and II.F; and

6. Proposed modifications, if any, to existing water quality standards on a stream-by-stream basis.

**EXHIBIT 4, ATTACHMENT A-1 - MILL CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated							
				Base Assumption	SEP/ELIM	MILL CRK TUNNEL	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
667	EASTERN AND GOTHAM	Ohio River	MILL-1	Constructed/identified post-1996. Sep. to be considered.	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
460	BAYOU ST. 100 WEST DIV. DAM	Ohio River	MILL-1	HW/DW Improvement	X	---	X	X	X	Planned	Consolidation for storage/treatment of 460 & 458
459	BAYOU ST. 120 WEST REGULATOR	Ohio River	MILL-1	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage
458	COLLINS ST. EAST DIV. DAM	Ohio River	MILL-1	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 460 & 458
457	COLLINS ST. WEST DIV. DAM	Ohio River	MILL-1	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage
457A	COLLINS ST. WEST REGULATOR	Ohio River	MILL-1	Optimization	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
658	HAZEN ST. @ GLEN ALLEY DIV. DAM	Ohio River	NA	Constructed/identified post-1996. Sep. to be considered.	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
456	HAZEN ST. DIV. DAM	Ohio River	MILL-1	Optimization	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
455	WALDEN ST. DIV. DAM	Ohio River	MILL-1	Optimization	X	---	X	X	X	NA	Consolidation for storage/treatment of 454A & 455
454A	LITHEBURY ST. NORTH DIV. DAM	Ohio River	MILL-1	Optimization	X	---	X	X	X	NA	Consolidation for storage/treatment of 454A & 455
454B	LITHEBURY ST. SOUTH DIV. DAM	Ohio River	MILL-1	Constructed/identified post-1996. Sep. to be considered.	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
453A	COLLARD ST. REGULATOR	Ohio River	MILL-2	Relocate Div. Dam	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
452	PARSONS ST. DIV. DAM	Ohio River	MILL-2		X	---	X	X	X	NA	Storage/treatment of 452
451	SAWYER POINT EAST DIV. DAM	Ohio River	MILL-2	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage
465E	EGGLESTON & 3RD	Ohio River	MILL-2	Constructed/identified post-1996. Sep. to be considered.	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
466E	EGGLESTON AND PETE ROSE WAY DIV. DAM	Ohio River	MILL-2	HW/DW Improvement	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
464	EGGLESTON AND 3RD F. DIV. DAM	Ohio River	MILL-2	Optimization	X	---	X	X	X	Y	Consolidation for storage/treatment of 464 & 461
465	EGGLESTON AND 3RD E. DIV. DAM	Ohio River	MILL-2	Constructed/identified post-1996. Sep. to be considered.	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
461	EGGLESTON AND 4TH DIV. DAM SLUICE	Ohio River	MILL-2	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 464 & 461
450	BUTLER ST. DIV. DAM	Ohio River	MILL-2	HW/DW Improvement	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
449	PIKE ST. DIV. DAM	Ohio River	MILL-2	HW/DW Improvement	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
447	RIVERFRONT COLISEUM REGULATOR	Ohio River	MILL-2	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage
438	CENTRAL AVE. GRATING	Ohio River	MILL-3	HW/DW Improvement	X	---	*	X	X	Y	Consider HRT and storage.
437	SMITH ST. REGULATOR	Ohio River	MILL-4	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage
436	GEST AND FRONT REGULATOR	Ohio River	MILL-4	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 436 & 435
435	BAYMILLER ST. REGULATOR	Ohio River	MILL-4	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 436 & 435
434	CARR AND FRONT DIV. DAM	Ohio River	MILL-4	HW/DW Improvement	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
433	CARR ST. REGULATOR	Ohio River	MILL-4	HW/DW Improvement	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage.
422	MT. ECHO RD. REGULATOR	Ohio River	MILL-5	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 422, 423, 424 & 425B
423	MT. HOPE AVE. REGULATOR	Ohio River	MILL-5	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 422, 423, 424 & 425B
424	RIVER RD. @ STATE DIV. DAM	Ohio River	MILL-5	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 422, 423, 424 & 425B
427	PERIN AND EVANS DIV. DAM SLUICE	Ohio River	MILL-5	HW/DW Improvement	X	---	*	*	X	Under Const.	If not eliminating by separation, consider HRT and storage
668	EVANS AND 6TH STREET DIVERSION DAM	Ohio River	MILL-5	Constructed/identified post-1996. Sep. to be considered.	X	---	*	*	X		If not eliminating by separation, consider HRT and storage.

X Included in 1996 LTCP. Included in update.  
 --- Not included in Update.  
 \* See "Other" alternatives for this CSO  
 Note - Separation infers both street-level and complete separation.

**EXHIBIT 4, ATTACHMENT A-1 - MILL CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated							
				Base Assumption	SEP/ELIM	MILL CRK TUNNEL	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
425B	STATE AVE. DIV. DAM	Ohio River	MILL-5	HW/DW Improvement	X	---	X	X	X	Y	Consolidation for storage/treatment of 422, 423, 424 & 425B
426A	EVANS AND RIVER RD. #1 DIV. DAM	Ohio River	MILL-5	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage
426B	EVANS AND RIVER RD. #2 DIV. DAM	Ohio River	MILL-5	HW/DW Improvement	X	---	*	*	X	Planned	If not eliminating by separation, consider HRT and storage.
419	BOLD FACE SR. DIV. DAM	Ohio River	MILL-6	HW/DW Improvement	X	---	X	X	X	Y	Storage/treatment of 419
420	DELHI AVE. DIV. DAM	Ohio River	MILL-6	Optimization	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
421	RIVER ROAD @ DELHI DIV. DAM	Ohio River	MILL-6	Optimization	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
428	SOUTH ST. REGULATOR	Mill Creek	MILL-7	HW/DW Improvement	X	X	X	X	X	Y	Consolidation for storage/treatment of 428 & 429
429	GEST ST. EAST DIV. DAM	Mill Creek	MILL-7	HW/DW Improvement	X	X	*	X	X	Y	Consolidation for storage/treatment of 428 & 429
2	LIBERTY ST. REGULATOR	Mill Creek	MILL-8	Optimization	X	X	X	X	X	Y	Storage/treatment of 2
152	FITZPATRICK ST. REGULATOR	Mill Creek	MILL-8	Optimization	X	---	*	*	X	Y	If not eliminating by separation, consider HRT and storage
430	GEST ST. WEST-2-A DIV. DAM	Mill Creek	MILL-9	Pumped Storage CSO 430, 431A, 432, 489, 666	X	X	X	X	X	Y	Consolidation for storage/treatment of 430, 432, 489, 666 & 431A
432	9TH AND MCLEAN DIV. DAM	Mill Creek	MILL-9	Pumped Storage CSO 430, 431A, 432, 489, 666	X	X	*	X	X	Y	Consolidation for storage/treatment of 430, 432, 489, 666 & 431A
489	7TH AND MCLEAN DIV. DAM	Ohio River	MILL-9	Pumped Storage CSO 430, 431A, 432, 489, 666	X	X	*	X	X	Y	Consolidation for storage/treatment of 430, 432, 489, 666 & 431A
666	MCLEAN AND LIBERTY ST. DIVERSION DAM	Mill Creek	MILL-9	Pumped Storage CSO 430, 431A, 432, 489, 666	X	X	X	X	X	Y	Consolidation for storage/treatment of 430, 432, 489, 666 & 431A
431A	MCLEAN STREET DIVERSION DAM	Ohio River	MILL-9	Pumped Storage CSO 430, 431A, 432, 489, 666	X	X	X	X	X	Y	Consolidation for storage/treatment of 430, 432, 489, 666 & 431A
3	HARRISON AND STATE WEST REGULATOR	Mill Creek	MILL-10	Optimization	X	X	X	X	X	Planned	Consolidation for storage/treatment of 3, 4, 5, 6 & 7
4	HARRISON AND STATE EAST REGULATOR	Mill Creek	MILL-10	Optimization	X	X	X	X	X	Planned	Consolidation for storage/treatment of 3, 4, 5, 6 & 7
5	LICK RUN REGULATOR	Mill Creek	MILL-10	HRT	X	X	X	X	X	Y	Consolidation for storage/treatment of 3, 4, 5, 6 & 7
6	QUEEN CITY EAST REGULATOR	Mill Creek	MILL-10	Optimization	X	X	X	X	X	Y	Consolidation for storage/treatment of 3, 4, 5, 6 & 7
7	DRAPER ST. REGULATOR	Mill Creek	MILL-10	Optimization	X	X	X	X	X	Y	Consolidation for storage/treatment of 3, 4, 5, 6 & 7
8	VINTON ST. REGULATOR	Mill Creek	MILL-11	Optimization	X	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
9	MARSHALL AVE. REGULATOR	Mill Creek	MILL-11	HRT	X	X	X	X	X	Y	Storage/treatment of 9
10	DENHAM ST. REGULATOR	Mill Creek	MILL-12	HRT	X	X	X	X	X	Y	Storage/treatment of 10
11	HOPPLE ST. REGULATOR	Mill Creek	MILL-12	Optimization	X	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
12	BATES RUN REGULATOR	Mill Creek	MILL-13	HRT	X	X	X	X	X	Y	Consolidation for storage/treatment of 12 & 13
13	YONKERS ST. REGULATOR	Mill Creek	MILL-13	Optimization	X	X	X	X	X	NA	Consolidation for storage/treatment of 12 & 13
14	STATION 15 REGULATOR	Mill Creek	MILL-14	Optimization	X	X	X	X	X	Y	Consolidation for storage/treatment of 14 & 15
15	ARLINGTON ST. REGULATOR	Mill Creek	MILL-14	Optimization	X	X	X	X	X	Y	Consolidation for storage/treatment of 14 & 15
89	MONTANA GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
123	HOFFNER GRATING	West Fork Mill Creek	MILL-15	Separation CSO 123,527A	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
125	BADGELEY RUN GRATING	West Fork Mill Creek	MILL-15	Consolidate CSO 125,126 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 125, 126, 130, 203 & 117A
126	TODD #1 GRATING	West Fork Mill Creek	MILL-15	Consolidate CSO 125,126 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 125, 126, 130, 203 & 117A
127	HAYS GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT or storage.

X Included in 1996 LTCP. Included in update.  
 --- Not included in Update.

\* See "Other" alternatives for this CSO

Note - Separation infers both street-level and complete separation.

**EXHIBIT 4, ATTACHMENT A-1 - MILL CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated							
				Base Assumption	SEP/ELIM	MILL CRK TUNNEL	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
128	TODD #2 GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT or storage.
130	BUTTE GRATING	West Fork Mill Creek	MILL-15	Consolidate CSO 130,203 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 125, 126, 130, 203 & 117A
203	TWIN GRATING	West Fork Mill Creek	MILL-15	Consolidate CSO 130,203 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 125, 126, 130, 203 & 117A
117A	DREMAN GRATING	West Fork Mill Creek	MILL-15	HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 125, 126, 130, 203 & 117A
527A	POWERS #1 GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
528A	BEEKMAN NORTH GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
528B	BEEKMAN SOUTH GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
529B	LIEWELLEN GRATING	West Fork Mill Creek	MILL-15	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
18	COLERAIN AVE. DIV. DAM	Mill Creek	MILL-16	Optimization	X	X	X	X	X	NA	Consolidation for storage/treatment of 18, 21 & 17B
19	GERINGER ST. GRATING	Mill Creek	MILL-16	Optimization	X	X	*	*	X	NA	If not eliminating by separation, consider HRT or storage
21	STRENG ST. DIV. DAM	Mill Creek	MILL-16	HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 18, 21 & 17B
17B	DREMAN AVE. DIV. DAM	Mill Creek	MILL-16	Optimization	X	X	X	X	X	NA	Consolidation for storage/treatment of 18, 21 & 17B
194	HIGHPOINT GRATING	Tributary of West Fork	MILL-17	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
195	WESTWOOD NORTHERN GRATING	Tributary of West Fork	MILL-17	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
525	MT. AIRY GRATING	Tributary of West Fork	MILL-17	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
151	GROESBECK GRATING	Ludlow Run	MILL-18	Relief Sewer CSO 109,151,162,165	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
109	HILLCREST NORTH GRATING	Ludlow Run	MILL-18	Relief Sewer CSO 109,151,162,165	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
110	4710 HOWARD GRATING	Ludlow Run	MILL-18	Relief Sewer	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
112	1547 SPRINGLAWN GRATING	Ludlow Run	MILL-18	Relief Sewer	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
165	SPRINGLAWN @ BRIDGE GRATING	Ludlow Run	MILL-18	Relief Sewer CSO 109,151,162,165	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
162	THOMPSON HEIGHTS GRATING	Ludlow Run	MILL-18	Relief Sewer CSO 109,151,162,165	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
22	LUDLOW AVE. REGULATOR	Mill Creek	MILL-18	HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
23	ALIBONE ST. REGULATOR	Mill Creek	MILL-18	Consolidate CSO 23,24 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
24	LUDLOW RUN REGULATOR	Mill Creek	MILL-18	Consolidate CSO 23,24 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
179	SCARLET OAKS REGULATOR	Mill Creek	MILL-18	Express Sewer	X	X	X	X	X	Planned	Consolidation for storage/treatment of 151, 109, 110, 112, 165, 162, 22, 23, 24 & 179
28	CLIFTON AVE. EAST GRATING	Mill Creek	MILL-19	Consolidate CSO 28,30,482 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 28, 29, 30, 480, 481 & 25A
29	DONNELL ST. GRATING	Mill Creek	MILL-19	Regulator Improvement	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
30	LAFAYETTE CIR. GRATING	Mill Creek	MILL-19	Consolidate CSO 28,30,482 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 28, 29, 30, 480, 481 & 25A
480	CLIFTON AVENUE WEST GRATING	Mill Creek	MILL-19	Optimization	X	X	X	X	X	NA	Separation CIP Project
481	MITCHELL AND SPRING GROVE DIV. DAM	Mill Creek	MILL-19	Optimization	X	X	X	X	X	NA	Consolidation for storage/treatment of 28, 29, 30, 480, 481 & 25A
25A	WINTON RD. A REGULATOR	Mill Creek	MILL-19	Separation	X	X	X	X	X	NA	Consolidation for storage/treatment of 28, 29, 30, 480, 481 & 25A
26A	STATION AVE. A DIV. DAM	Mill Creek	MILL-19	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
482	MITCHELL AVE. REGULATOR	Mill Creek	MILL-20	Consolidate CSO 28,30,482 to HRT	X	X	X	X	X	NA	Storage/Treatment of 482

X Included in 1996 LTCP. Included in update.  
 --- Not included in Update.  
 \* See "Other" alternatives for this CSO  
 Note - Separation infers both street-level and complete separation.

**EXHIBIT 4, ATTACHMENT A-1 - MILL CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated							
				Base Assumption	SEP/ELIM	MILL CRK TUNNEL	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
217A	WOODEN SHOE REGULATOR	Kings Run	MILL-21	Sewer Extension	X	X	X	X	X	NA	Consolidation for storage/treatment of 217A, 483, 486, 485 & 33
483	KINGS RUN REGULATOR	Mill Creek	MILL-21	HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 217A, 483, 486, 485 & 33
486	KINGS RUN AND SPRING GROVE DIV. DAM	Mill Creek	MILL-21	Optimization	X	X	*	X	X	NA	Consolidation for storage/treatment of 217A, 483, 486, 485 & 33
485	ROSS RUN REGULATOR	Mill Creek	MILL-21	Separation	X	X	*	*	X		If not eliminating by separation, consider HRT or storage
33	BANK AVE. REGULATOR	Mill Creek	MILL-21	Express Sewer	X	X	X	X	X	NA	Consolidation for storage/treatment of 217A, 483, 486, 485 & 33
487	ROSS RUN GRATING	Mill Creek	MILL-22	HRT	X	X	X	X	X	NA	Storage/Treatment of 487
181	BLOODY RUN REGULATOR	Bloody Run Creek	MILL-23	Consolidate CSO 181,544,653 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 181 & 544
544	VINE ST. DIV. DAM	Bloody Run Creek	MILL-23	Consolidate 181,544,653 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 181 & 544
653	MURRAY RD. DIV. DAM	Bloody Run Creek	MILL-23	Consolidate 181,544,653 to HRT	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
655	25 SPRUCE DIV. DAM	Mill Creek	MILL-24	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
37	MAPLE ST. DIV. DAM	Mill Creek	MILL-25	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
39	64TH ST. DIV. DAM	Mill Creek	MILL-25	Express Sewer	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
488	68TH ST. DIV. DAM	Mill Creek	MILL-25	HRT	X	X	X	X	X	NA	Storage/Treatment of 488
53	HARVEST AND KINCAID GRATING	Amberly Creek	MILL-26	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
505	BEREDITH AND KINCAID	Tributary of Mill Creek	MILL-26	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
506	6536 CLIFFRIDGE GRATING	Tributary of Mill Creek	MILL-26	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
651	RIDGE @ LAKEVIEW DIV. DAM	Tributary of Mill Creek	MILL-26	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
191	7601 PRODUCTION DR. GRATING	Tributary of Mill Creek	MILL-27	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
171	VINE AND DECAMP DIV. DAM	Mill Creek	MILL-28	Express Sewer	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
490	LOCKLAND HIGHWAY GRATING	Mill Creek	MILL-28	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
535	146 RIDGEWAY GRATING	Cilley Creek	MILL-29	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage
537	#41 SHERRY GRATING	Cilley Creek	MILL-30	Separation	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
560	60 ST. CLAIR GRATING	Cilley Creek	MILL-30	Separation/Private	X	---	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
226	OXLEY GRATING	West Branch Mill Creek	MILL-31	Regulator Improvement	X	X	X	X	X	NA	Consolidation for storage/treatment of 226, 507, 508 & 670
507	214 CLARK ST. GRATING	Mill Creek	MILL-31	HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 226, 507, 508 & 670
508	245 CLARK ST. OVERFLOW	Mill Creek	MILL-31	Express Sewer	X	X	X	X	X	NA	Consolidation for storage/treatment of 226, 507, 508 & 670
562	428 SOUTH COOPER GRATING	West Branch Mill Creek	MILL-31	Optimization	X	X	*	*	X	NA	If not eliminating by optimization, consider HRT and storage.
670	MERRELL / DOW OVERFLOW	Mill Creek	MILL-31	Constructed/Identified post-1996. Sep. to be considered.		X	X	X	X	NA	Consolidation for storage/treatment of 226, 507, 508 & 670
559	914 OAK ST. GRATING	West Branch Mill Creek	MILL-32	Consolidate 538,539,559 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 559, 539, 538, 516 & 515
539	117 E. CHARLOTTE GRATING	West Branch Mill Creek	MILL-32	Consolidate 538,539,559 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 559, 539, 538, 516 & 515
538	#96 NORTH PARK GRATING	West Branch Mill Creek	MILL-32	Consolidate 538,539,559 to HRT	X	X	X	X	X	NA	Consolidation for storage/treatment of 559, 539, 538, 516 & 515
516	BACON ST. GRATING	West Branch Mill Creek	MILL-32	Separation	X	X	X	X	X	NA	Consolidation for storage/treatment of 559, 539, 538, 516 & 515
515	200' WEST OF BACON ST. GRATING	West Branch Mill Creek	MILL-32	Separation	X	X	X	X	X	NA	Consolidation for storage/treatment of 559, 539, 538, 516 & 515

X Included in 1996 LTCP. Included in update.  
 --- Not included in Update.  
 \* See "Other" alternatives for this CSO  
 Note - Separation infers both street-level and complete separation.



**EXHIBIT 4, ATTACHMENT A-1 - MILL CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated							
				Base Assumption	SEP/ELIM	MILL CRK TUNNEL	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
512	MILL AND VINE GRATING	Mill Creek	MILL-32	Express Sewer + Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
511	531 DAVIS GRATING	Mill Creek	MILL-32	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
510A	SOUTHERN AVE. GRATING	Mill Creek	MILL-32	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
509	GEBERT STREET		MILL-32	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
513	BERNARD AND REISENBERG GRATING	Mill Creek	MILL-33	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
514	150' NORTH OF SMALLEY GRATING	Mill Creek	MILL-33	Separation	X	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage.
532	DALY RD. VORTEX SEPARATOR	Compton Creek	MILL-34	Vortex Separator	X	---	*	*	X	NA	Consider facility upgrade, including higher level disinfection.
536	6246 MARIE GRATING	Compton Creek	MILL-35	Discharges to 532	---	---	*	*		NA	If not eliminating by separation, consider HRT and storage
180	BLUE ROCK REGULATOR	West Branch Mill Creek	MILL-36	Separation	x	---	*	*	X	NA	If not eliminating by separation, consider HRT an storage.
1	GEST STREET			ELIMINATED							
120	SYLVAN SOUTH			ELIMINATED							
121	SYLVAN AVENUE N			ELIMINATED							
174	SOUTH HAYES			ELIMINATED							
210	DUNAWAY-VEAZEY			ELIMINATED							
417	BOLD FACE #3			ELIMINATED							
418	RIVER ROAD A			ELIMINATED							
442	VINE STREET / BENGAL DRIVE			ELIMINATED							
445	RIVERFRONT STADIUM REGULATOR			ELIMINATED							
453	COLLARD STREET EAST			ELIMINATED							
517	510 SOUTH COOPER GRATING			ELIMINATED							
542	BOLD FACE			ELIMINATED							
546	VEAZY			ELIMINATED							
548	RIVERFRONT COLISEUM REGULATOR			(SEE CSO 447)							
561	STATION AVE. #2			ELIMINATED							
659	CENTRAL AVE. N. OF PRODUCE ALLEY			ELIMINATED							
661	PLUM STREET @ CORRIGAN ALLEY			ELIMINATED							
662	PLUM STREET @ PRODUCE ALLEY			ELIMINATED							
663	PLUM STREET N OF PRODUCE ALLEY			ELIMINATED							
25B	WINTON ROAD			ELIMINATED							
26B	STATION AVE DIVERSION MANHOLE			ELIMINATED							
425A	STATE ROAD A			ELIMINATED							
466W	EGGLESON AND PETE ROSE WAY DIV. DAM			ELIMINATED							
510B	SOUTHERN AVENUE			ELIMINATED							

X Included in 1996 LTCP. Included in update.  
 --- Not included in Update.  
 \* See "Other" alternatives for this CSO  
 Note - Separation infers both street-level and complete separation.

**EXHIBIT 4, ATTACHMENT A-1 - MILL CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated							
				Base Assumption	SEP/ELIM	MILL CRK TUNNEL	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
527B	POWERS #2			ELIMINATED							
527C	POWERS SOUTH #3			ELIMINATED							
558A	PROCTER & GAMBLE #1			ELIMINATED							
558B	PROCTER & GAMBLE #2			ELIMINATED							
558C	P & G #3 REGULATOR			PRIVATE/SEPARATE	X	---	---	---	X	---	
558D	PROCTER & GAMBLE #4			ELIMINATED							
660E	CENTRAL AVE. @ PRODUCE ALLEY E			ELIMINATED							
660W	CENTRAL AVE. @ PRODUCE ALLEY W			ELIMINATED							

X Included in 1996 LTCP. Included in update.

--- Not included in Update.

\* See "Other" alternatives for this CSO

Note - Separation infers both street-level and complete separation.

**EXHIBIT 4, ATTACHMENT A-2 - MUDDY CREEK DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated						
				Base Assumption	SEP/ELIM	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
402	TOPINABEE RD. DIV. DAM	Ohio River	MUD-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
403	ELCO ST. DIV. DAM	Ohio River	MUD-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
404	IVANHOE ST. DIV. DAM	Ohio River	MUD-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
405	REVERE ST. DIV. DAM	Ohio River	MUD-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
406	KENNEBEC ST. DIV. DAM	Ohio River	MUD-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
223	FOLEY RD. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
408	WOCHER ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
409	RIVER TRANSPORTATION	Ohio River	MUD-2	Eliminated	---	---	---	---	---	
410	FENIMORE ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
411	ANDERSON FERRY RD. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
412	COLAFAX ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
413	TYLER ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
414	MCGINNIS ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
415	FITHIAN ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
416	IDAHO ST. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
541	5678 RIVER RD. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
654	STILLE DR. DIV. DAM	Ohio River	MUD-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
523	RAPID RUN AND DEVILS BACKBONE GRATING	Rapid Run	MUD-3	HRT	X	X	X	X	NA	Evaluate Storage/Treatment
198	MUDDY CREEK @ WESTBOURNE GRATING	Muddy Creek	MUD-4	HRT	X	X	X	X	NA	Existing Facility - Evaluate provision of disinfection at higher levels of control
518	MUDDY CR. (WEST OF SIDNEY) GRATING	Muddy Creek	MUD-5	HRT	X	X	X	X	NA	Evaluate Storage/Treatment
521	GLENWAY & WESTBOURNE	Muddy Creek		Eliminated	X	---	---	---	---	
522	WERK AND WESTBOURNE GRATING	Muddy Creek	MUD-6	HRT	X	X	X	X	NA	Evaluate Storage/Treatment
520	ROBB AND WEST ST. GRATING	Muddy Creek	MUD-7	To CSO 522	X	---	---	---	NA	Elimination by relocation to CSO 522 assumed; if not, consider sep./HRT/Storage
637	CARRIE @ McFARREN GRATING	Muddy Creek	MUD-8	To CSO 522	X	---	---	---	NA	Elimination by relocation to CSO 522 assumed; if not, consider sep./HRT/Storage

X Included in 1996 LTCP. Included in Update.

--- Not included in Update.

\* See "Other" alternatives for this CSO.

Note - Separation infers both street-level and complete separation.

**EXHIBIT 4, ATTACHMENT A -3 - LITTLE MIAMI DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated						
				Base Assumption	SEP/ELIM	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
657	CORBIN ST. DIV. DAM	Ohio River	LIT-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
467	DELTA AVE. WEST REGULATOR	Ohio River	LIT-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
468	DELTA AVE. EAST REGULATOR	Ohio River	LIT-1	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
467A	DELTA AND HUMBERT DIV. DAM	Ohio River	LIT-1	Consolidate to CSO 467	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
469	DELTA @ EASTERN DIV. DAM	Ohio River	LIT-1	Relief Sewer + HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
669	KELLOGG, WEST OF WILMER	Ohio River	LIT-2	HW/DW Improvements	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
182	BERKSHIRE REGULATOR	Trib of Clough Creek	LIT-3	HRT	X	X	X	X	NA	
476	CLOUGH CR. DIV. DAM	Clough Creek	LIT-4	HW/DW Modification	X	*	*	X	Y	If not eliminating by separation, consider HRT and storage
470	EASTERN AVE. GRATING	Little Miami River	LIT-5	Regulator Improvement	X	X	X	X	NA	
471	GRANDIN ROAD GRATING	Little Miami River	LIT-5	Regulator Improvement	X	X	X	X	NA	
472	TURPIN ST. DIV. DAM	Duck Creek	LIT-6	HW/DW Impr. + Turpin St. HRT	X	X	X	X	Y	
85	5150 WOOSTER PIKE GRATING	Duck Creek	LIT-7	Regulator + HW/DW Improvements	X	X	X	X	Y	
86	ARCHER ST. DIV. DAM	Duck Creek	LIT-7	HW/DW Improvements	X	X	X	X	Y	
656	WOOSTER @ RED BANK DIV. DAM	Little Miami River	LIT-8	NA	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
503	ZAEH RD. GRATING	Duck Creek	LIT-9	Regulator Improvement	X	X	X	X	NA	
84	OLD RED BANK RD. GRATING	Duck Creek	LIT-9	Regulator Improvement	X	X	X	X	NA	
83	3675 FOREST HILLS GRATING	Duck Creek	LIT-9	Regulator Improvement	X	X	X	X	NA	
199	FORD GATE GRATING	Duck Creek	LIT-10	Regulator Improvement	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
80	BROTHERTON RD. GRATING	Duck Creek	LIT-11	Regulator Improvement	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
136	3979 ROSSLYN DR. GRATING	Trib of Duck Creek	LIT-12	HRT	X	X	X	X	NA	
64	END OF HARROW ST. DIV. DAM	Duck Creek	LIT-13	Regulator Improvement	X	X	X	X	NA	
205	CAMBERWELL AVE. DIV. DAM	Duck Creek	LIT-13	Regulator Improvement	X	X	X	X	NA	
188	3646 MADISON RD. DIV. DAM	Duck Creek	LIT-13	Regulator Improvement	X	X	X	X	NA	
61	4730 MADISON AVE. GRATING	Duck Creek	LIT-13	Regulator Improvement	X	X	X	X	NA	
43	5249 CHARLOE ST. GRATING	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
214	YONONTE CR. GRATING	Tributary of Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
553	NORTH TERM. MARBURG RD. REGULATOR	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
552	I-71 WEST OF MARBURG REGULATOR	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
551	I-71 OPP. LESTER RD. REGULATOR	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
170	NORWOOD INCINERATOR GRATING	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549

X Included in 1996 LTCP. Included in Update.  
 --- Not included in Update.  
 \* See "Other" alternatives for this CSO.  
 Note - Separation infers both street-level and complete separation.  
 Note - UDC consolidation may involve "Waters" issues.

**EXHIBIT 4, ATTACHMENT A -3 - LITTLE MIAMI DRAINAGE AREA ALTERNATIVES**

CSO	Location	Receiving Water	Alternative Group No.	Alternatives To Be Evaluated						
				Base Assumption	SEP/ELIM	CONSOL / HRT	CONSOL / STORE	SCREEN / OPTIM	HW/DW	OTHER
500	ROBERTSON SOUTH OF I-71 GRATING	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
501	4326 28TH ST. GRATING	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
550	NORTH TERM. EDWARDS RD. REGULATOR	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
549	WILLIAMS AND DUCK CR. REGULATOR	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 43,214,553,552,551,170,500,501,550,549
54	LAWNDALE GRATING	Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 187 to Upper Duck Creek HRT/Storage
187	5637 LESTER RD. GRATING	Tributary of Duck Creek	LIT-14	Regulator Improvement + Upper Duck Creek HRT	X	X	X	X	NA	Consider consolidation with 54 to Upper Duck Creek HRT/Storage
135	1351 KENNEDY AVENUE GRATING	Trib of Duck Creek	LIT-15	Regulator Improvement	X	---	---	X	NA	If not eliminating by separation, consider HRT and storage
79	SOUTHERN AVE. GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
78	3980 SOUTH WHETSEL GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
76	BRAMBLE AND HOMER GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
75	6333 ROE ST. GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
74	6402 ROE ST. GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
72	4800 JAMESON GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
71	PLAINVILLE AND INDIAN HILL GRATING	Little Duck Creek	LIT-16	Express Sewer	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
70	PLAINVILLE NORTH OF INDIAN HILL	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
69	CAMARGO AND EAST FORK GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
200	EAST FORK AVE. GRATING	Little Duck Creek	LIT-16	Static Screens	X	*	*	X	NA	If not eliminating by separation, consider HRT and storage
554	STEWART AND KEN ARBRE GRATING	Deerfield Creek	LIT-17	Consolidate to Upper Deerfield Creek HRT	X	X	X	X	NA	Consider existing stormwater conduit for consolidation
555	OPP. 6735 KEN ARBRE GRATING	Deerfield Creek	LIT-17	Consolidate to Upper Deerfield Creek HRT	X	X	X	X	NA	Consider existing stormwater conduit for consolidation
556	STEWART RD. WEST REGULATOR	Deerfield Creek	LIT-17	Consolidate to Upper Deerfield Creek HRT	X	X	X	X	NA	Consider existing stormwater conduit for consolidation
557	STEWART RD. EAST REGULATOR	Deerfield Creek	LIT-17	Consolidate to Upper Deerfield Creek HRT	X	X	X	X	NA	Consider existing stormwater conduit for consolidation
66	MADISON AND REDBANK GRATING	Deerfield Creek	LIT-18	Consolidate to Lower Deerfield Creek HRT	X	X	X	X	NA	Consider consolidation with 68
68	NU-TONE PARKING LOT GRATING	Deerfield Creek	LIT-18	Lower Deerfield Creek HRT	X	X	X	X	NA	Consider consolidation with 66

X Included in 1996 LTCP. Included in Update.  
 --- Not included in Update.  
 \* See "Other" alternatives for this CSO.  
 Note - Separation infers both street-level and complete separation.  
 Note - UDC consolidation may involve "Waters" issues.

# EXHIBIT 5

## Metropolitan Sewer District of Greater Cincinnati CSO Public Notification Program September 2003

The Metropolitan Sewer District of Greater Cincinnati ("MSD") has committed to developing a public notification program regarding the potential health impacts of combined sewer overflows ("CSOs"). MSD will begin to fully implement the public notification program described below by March 31, 2004.

### **Program Goals**

The goals of the public notification program are to notify interested MSD Service Area residents when wet weather sewer overflows are likely to occur, to educate them about the health hazards associated with wet weather overflows in our streams, and to enable them to protect themselves and their families from those hazards.

MSD's public notification program is designed to meet the following criteria:

- Timely:** Enable public access to CSO information and notifications 7 days a week and 24 hours a day - whenever conditions giving rise to CSOs exist.
- Reliable:** Be as fail-safe as possible so citizens can rely on the information and take appropriate actions.
- Easy to Administer:** MSD should be able to administer the program using existing staff and resources.
- Accurate:** Information should be accurate and not mislead the public regarding the safety of recreation in urban streams.
- Targeted:** The program should be targeted primarily toward citizens who live along or use the affected streams.
- Safe:** Give people the information they need to take steps to protect themselves and their families:
1. without overreacting to the hazard; and
  2. while recognizing that there is a residual hazard from wet weather overflows, failing septic, and other bacteria sources even when CSOs are not occurring.

## **Predicting Wet Weather Sewer Overflows**

At this time, MSD does not have a fail-safe method for predicting or monitoring combined sewer overflows on a real-time basis. There are many factors that can trigger overflows, including the length and intensity of rainfall, prior ground moisture conditions, sewer blockages, etc. The methods for predicting CSO overflows are expected to improve as MSD implements its Long-Term Control Plan Update. In the meantime, MSD will issue a CSO warning whenever its weather forecasting service predicts or records a rainfall of .25 inches or more in Hamilton County or whenever the water levels in area rivers and streams are elevated such that a CSO overflow is likely to occur. MSD dispatchers already review these forecasts to monitor weather that might affect road conditions, and MSD will likewise monitor existing river gauging stations to track river and stream levels. The warning will remain in place for 72 hours after a rainfall occurs and 72 hours after water levels in area rivers and streams have returned to normal elevation and CSO discharges related to elevated river and stream levels are known or believed to have ceased in Hamilton County.

## **Methods of Notification**

**Telephone Hotline:** Citizens may call a telephone hotline, which will play a recorded message describing current conditions (see below). Signs will be posted along waterways in the CSO area to notify citizens of the telephone hotline number.

**E-Mail List-server:** Citizens and other organizations also may sign up to receive notices via e-mail. A sample notice is below. MSD's Public Information Office will contact news media outlets and schools to invite them to sign up for the e-mail notification list.

## **Publicizing the Program**

Prior to March 31, 2004, MSD will send out a press release and post notices on its website to let citizens know that the hotline and e-mail list-server are available. Any citizen who asks to be on the list-server will be added to it. MSD also will notify the Hamilton County Health Department.

MSD will also work with the Hamilton County Health Department to review signage placed at public access points along the streams.

## **Record-Keeping**

MSD will document public notification efforts in its annual reports to USEPA, Ohio EPA and ORSANCO.

## DRAFT CSO PUBLIC NOTIFICATION LANGUAGE

### **Sample Telephone Hotline messages**

(exact language of message may vary from the following, and may be updated as conditions and tools progress)

#### **Default Message:**

You have reached the Metropolitan Sewer District of Greater Cincinnati sewer overflow information line. When it rains or when water levels in area rivers and streams are elevated, the sewers in the older parts of the MSD Service Area can overflow - sending untreated rainwater and sewage into our streams. Today, weather conditions and river and stream levels indicate that sewer overflows are not likely to occur. Even so, contaminants in the streams could make you sick. Even in dry weather, it's best to avoid contact with urban streams and teach children to stay away from waterways in the combined sewer area. MSD is implementing many projects to clean our water and reduce and eliminate sewage overflows. For more information, please visit the MSD website at [www.msdcg.org](http://www.msdcg.org). Thank you for calling.

#### **Warning Message:**

There is a sewage overflow warning today. You have reached the Metropolitan Sewer District of Greater Cincinnati sewer overflow information line. When it rains or when water levels in area rivers and streams are elevated, the sewers in the older parts of the MSD Service Area can overflow - sending untreated rainwater and sewage into our streams. Today, weather conditions or elevated water levels in area rivers and streams indicate a strong possibility that overflows could occur, or have occurred in the past 72 hours. Please avoid all contact with water near a combined sewer, especially after a rainstorm. Signs are posted along our waterways to identify more than 130 combined sewer overflow outfalls and areas where contact with the water could be hazardous. MSD is implementing many projects to clean our water and reduce and eliminate sewage overflows. For more information, please visit the MSD website at [www.msdcg.org](http://www.msdcg.org). Thank you for calling.

### **Sample Email message**

(exact language of message may vary from the following, and may be updated as conditions and tools progress)

**\*\*\*WET WEATHER SEWER OVERFLOW WARNING TODAY\*\*\***

Thank you for signing up to receive email information about wet weather overflows in the Metropolitan Sewer District of Greater Cincinnati service area. When it rains or when water levels in area rivers and streams are elevated, the sewers in the older parts of



the MSD Service Area can overflow -- sending untreated rainwater and sewage into our streams. Today, weather conditions indicate a strong possibility that overflows could occur. After a rainstorm, you should avoid contact with streams in the combined sewer area for at least 72 hours. You also should avoid contact with streams in the combined sewer area until 72 hours after water levels in area rivers and streams have returned to normal elevation. Signs are posted along our waterways to identify wet weather overflow outfalls and areas where contact with the water could be hazardous.

Even in dry weather, it's best to avoid contact with urban streams and teach children to stay away from waterways in the combined sewer area. MSD is implementing many projects to clean our water and reduce and eliminate sewage overflows. For more information and to learn about the steps MSD is taking to reduce wet weather overflows, please visit the MSD website at [www.msdbg.org](http://www.msdbg.org).

# EXHIBIT 6

## WATER IN BASEMENT PREVENTION PROGRAM PLAN

### **I. Introduction**

The Water in Basement ("WIB") Prevention Program is the component of the Metropolitan Sewer District of Greater Cincinnati's ("MSD") WIB Program designed to preclude the occurrence of building backups. Subject to the requirements of this Plan, eligible property owners whose property experiences the backup of wastewater into buildings due to inadequate capacity in MSD's Sewer System (both the combined and the sanitary portions) can receive, at no cost to the property owner, the installation of systems or devices to prevent the backup of wastewater in the future. The Prevention Program is not intended to address water in buildings caused by: 1) overland flooding not emanating from MSD's Sewer System; or 2) blockages in lateral or public sewer lines. Blockages, whether in lateral or public sewer lines, generally are temporary conditions that are better addressed by rodding and other measures that are less permanent than the systems and devices offered by this Plan.

This WIB Prevention Plan will become effective on January 1, 2004. MSD will provide WIB Prevention services to eligible buildings in a manner that is as expeditious as practicable. It is important to recognize that the speed with which MSD can implement the Prevention Program will be affected by a "ramp-up" time at the outset of this effort as MSD refines the logistics of this Program. Preliminary estimates indicate that more than 1000 properties (an amount that is less than 1% of the total connections to the system), may be eligible for this Program, but until the Program is implemented, MSD will not know for certain.

### **II. Public Notification regarding WIB Prevention Program**

MSD will notify the public regarding the key elements of the WIB Prevention Program in the various public notices issued regarding the WIB Customer Service Program under Section II of the WIB Customer Service Program Plan attached as Exhibit 7 to the Consent Decree. The information provided will include a brief description of the Prevention Program, information about eligibility for the Program, and contact information about participation in the Program.

### **III. Program Initiation**

There are two ways for properties to become part of the WIB Prevention Program.

First, MSD, on its own initiative, will contact property owners who, in the last five years, have experienced multiple backups of wastewater in buildings on their property as a result of inadequate capacity in MSD's Sewer System. MSD will identify the properties to be contacted by a review of its database of WIB complaints. MSD will contact property owners on a prioritized "worst first" basis.

Second, property owners wishing to explore participation in the WIB Prevention Program can call MSD to review their eligibility for the Program by calling (513) 352-4900. MSD will begin to investigate the eligibility of property owners making such requests within 30 days of the owner's call.

#### **IV. Program Eligibility**

The following guidelines will govern the eligibility of properties for participation in the WIB Prevention Program.

##### **A. Type of WIBs Covered:**

- ▶ The WIB Prevention Program only applies to buildings that have experienced the backup of wastewater due to inadequate capacity in MSD's sewer system or relative local hydraulic gradient.
- ▶ The WIB Prevention Program does not apply to building backups caused by:
  - overland flooding not emanating from MSD's Sewer System;
  - blockages in lateral or public sewer lines.

Blockages, whether in lateral or public sewer lines, generally are temporary conditions that are better addressed by rodding and other measures that are less permanent than the systems and devices offered by this Program.

**B. Frequency of WIBs Covered:** The WIB Prevention Program will apply to buildings that have suffered multiple reported capacity-related building back-ups in the five years immediately preceding the assessment of that building's eligibility.

**C. Assessment of Eligibility:** MSD will exercise its good faith reasonable engineering judgment to determine whether a property has suffered capacity-related building backups such that it is eligible for the Program. This determination will be based on a consideration of a variety of factors, which can include:

- property WIB history;
- condition of sewer system in neighborhood;
- results of a visual inspection of the neighborhood to look for signs of overland flooding;
- neighborhood WIB history;
- capacity of nearby public sewer lines; and
- topography.

Depending on the circumstances, the determination may also be based on an inspection of the private lateral and/or inspection of nearby public lines.

##### **D. Owner Permission**

- ▶ The owner of a property applying for the WIB Prevention Program will be required to give MSD written permission and approval to install building backup prevention devices on the property.
- ▶ The owner of a property applying for the WIB Prevention Program will also be required to execute an access agreement that allows MSD and its contractors to enter the property to assess the viability of, design and install backup prevention devices.

- ▶ If property owners refuse to grant MSD access to their property in connection with the WIB Prevention Program or refuse the installation of backup prevention equipment proposed by MSD based on MSD's good faith engineering judgment and an assessment conducted in accordance with Sections IV.C and V of this Plan, and subsequently experience a building backup, such refusal may be considered a failure to undertake reasonable mitigation measures under the WIB Claims Program set out in Exhibit 8 to the Consent Decree.

**E. Inflow Prevention:** In connection with the installation of backup prevention measures under the Program:

- properties in sanitary-only service areas must remove downspouts and storm connections from the sanitary sewer lateral completely; and
- properties in combined service areas must reroute downspouts to the discharge side of the device or system installed under this Program.

## **V. Prioritization of Program Candidates**

Every building and every backup situation is different. Accordingly, the solution to every backup situation will be different. MSD will exercise its good faith reasonable engineering judgment to prioritize candidate properties within the Prevention Program. MSD will provide WIB Prevention services to eligible buildings in a manner that is as expeditious as practicable. It is important to recognize that the speed with which MSD can implement the Prevention Program will be affected by a "ramp-up" time at the outset of this effort as MSD refines the logistics of this Program. Prioritization determinations will be based on an assessment comprised of a variety of components, which can include:

- review of the MSD WIB database for information about backup history at the subject property and the surrounding area;
- field investigations, potentially including inspection of the private lateral and/or inspection of nearby public lines;
- consideration of simple engineering practices, such as backflow prevention devices;
- collection of information on properties in the area affected by the backups;
- interviews with property residents and/or the property owner;
- consideration of potential for and timing of proposed sewer system capacity capital improvements in the area; and
- consideration of the complexity of the WIB prevention methodology identified by MSD.

## **VI. Building Backup Prevention Solutions**

Under the WIB Prevention Program, MSD will undertake to purchase and install, at its own cost, a variety of technologies designed to prevent future basement backups at eligible properties arising from inadequate capacity in MSD's Sewer System. Since no two buildings or building backup situations are the same, there is no single approach to preventing building backups. MSD

will exercise its reasonable good faith engineering judgment to determine the appropriate approach to building backup prevention at any particular property. This determination will be based on consideration of the various factors described in the assessments set out in Sections IV and V above, as well as consideration of the building backup technologies available on the market.

It is anticipated that the number of technologies available to MSD to address building backups will expand and change over time. MSD will consider technologies currently available at the time it performs its analysis of a particular property and select the technology that will be the most appropriate level of protection to the building backup at issue.

The technologies to be offered under this program will include backflow preventers and pumping systems. The particular technology offered at any property will depend on the assessment discussed above.

**A. Backflow Preventers:** MSD will purchase and install, at its own cost, backflow preventers in buildings where it is determined, in MSD's reasonable engineering judgment that backflow preventers are the appropriate solution to an eligible building backup situation. A backflow preventer is a mechanical device, installed in the lateral line, either inside the building or between the building and the main sewer that prevents water in the sewer from backing up into the building.

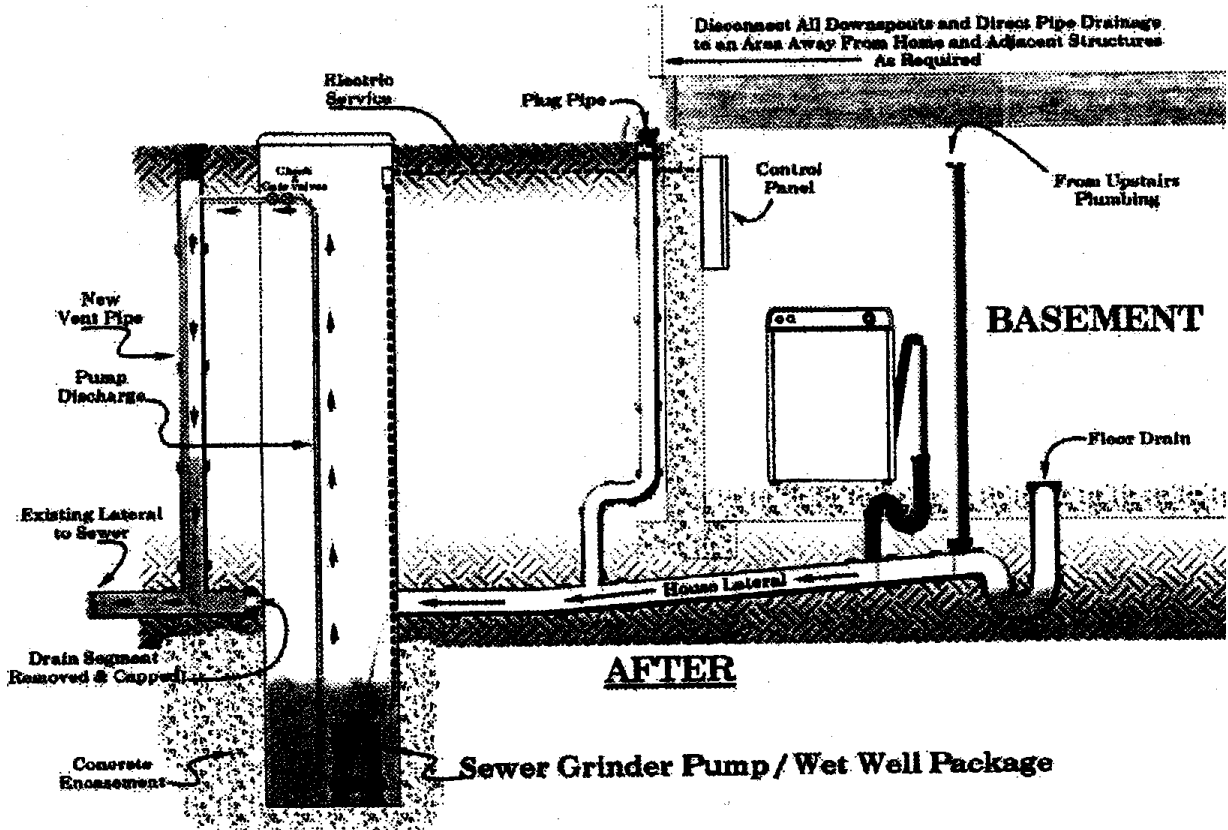
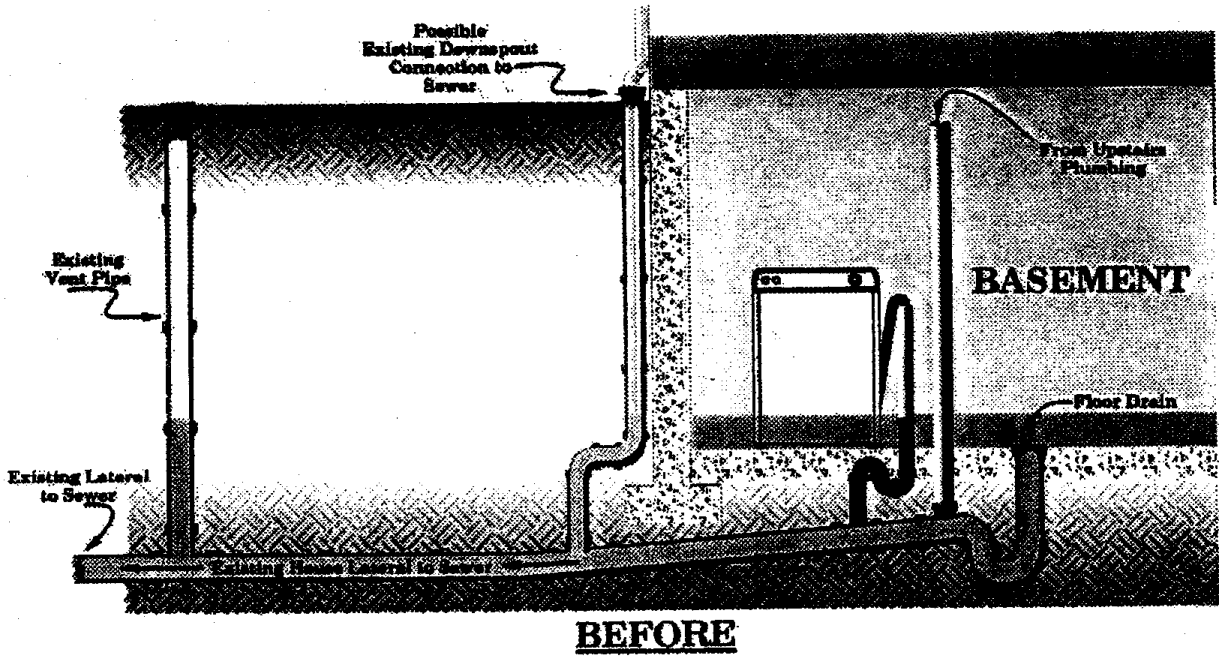
**B. Pumping Systems:** MSD will purchase and install, at its own cost, pumping systems in buildings where it is determined, in MSD's reasonable engineering judgment, that pumping systems are the appropriate solution to an eligible building backup situation. In general, a pumping system is installed in the lateral line and separates a building interior from the mainline sewer. In doing so, the building is isolated from the main line sewer. The wastewater generated inside the building is pumped into the mainline by the use of a motorized pump to convey wastewater into the Sewer System. Examples of the general types of pumping systems that will be offered in the WIB Prevention Program are shown in Attachment A to this Plan. The precise type and model pump to be installed will depend on MSD's reasonable good faith engineering judgment regarding the circumstances at an individual building.

**C. Property Purchase:** As a last resort and where a property owner is amenable, MSD will consider the purchase of properties where no feasible cost-effective alternative exists to a building backup situation. MSD does not intend for property purchases to be the remedy at a significant portion of the properties serviced by this Program.

**D. New Technologies:** As discussed above, it is anticipated that the number of technologies available to MSD to address building backups will expand and change over time. As such, MSD believes that technologies, systems and devices in addition to those discussed above will be offered in the future under this Plan. MSD will consider technologies currently available at the time it performs its analysis of a particular property and select the technology that will be the most appropriate level of protection to the building backup at issue.

EXHIBIT 6

ATTACHMENT A



**TYPICAL SEPARATE PLUMBING / GRINDER PUMP  
OUTSIDE INSTALLATION**

# EXHIBIT 6

## ATTACHMENT A

### TYPICAL EXTERIOR GRINDER PUMP INSTALLATION

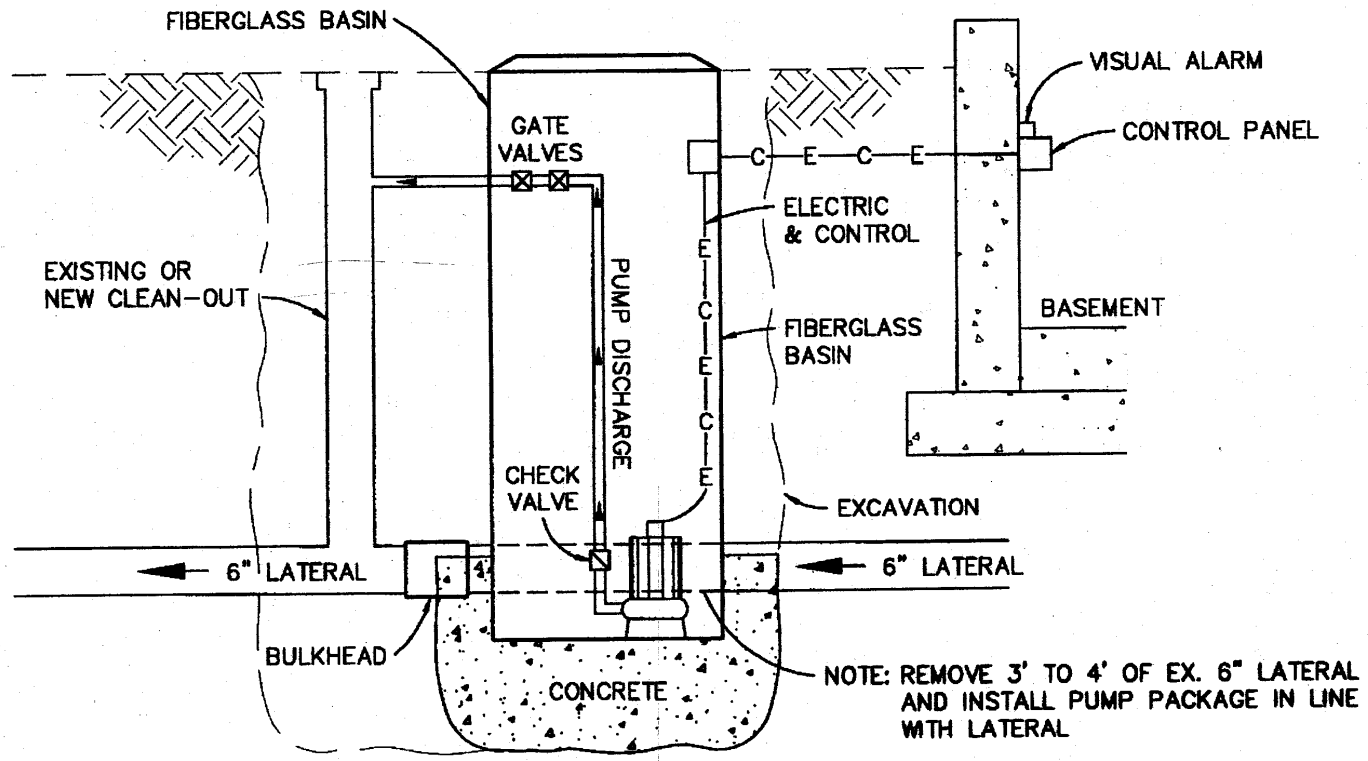


EXHIBIT 6

ATTACHMENT A

TYPICAL INTERIOR GRINDER PUMP INSTALLATION

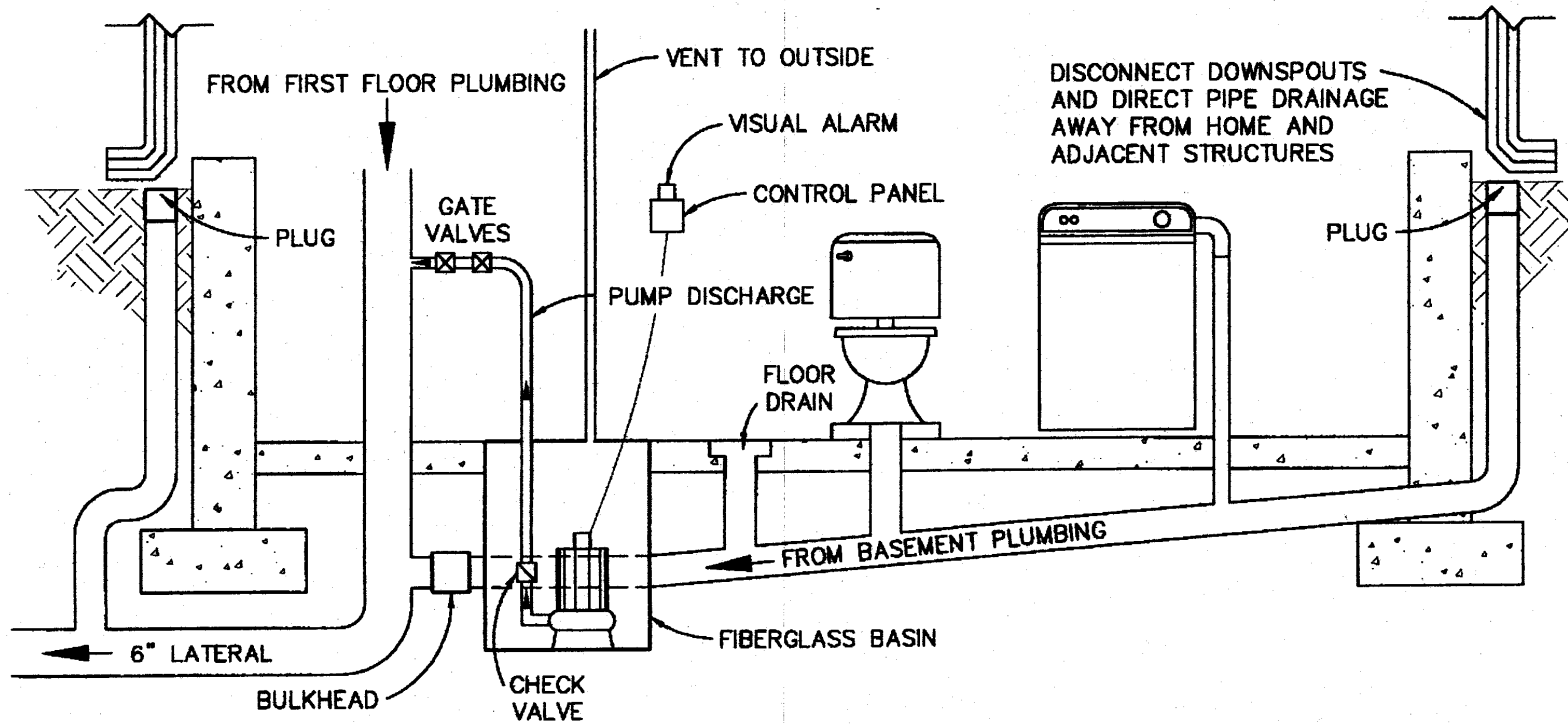
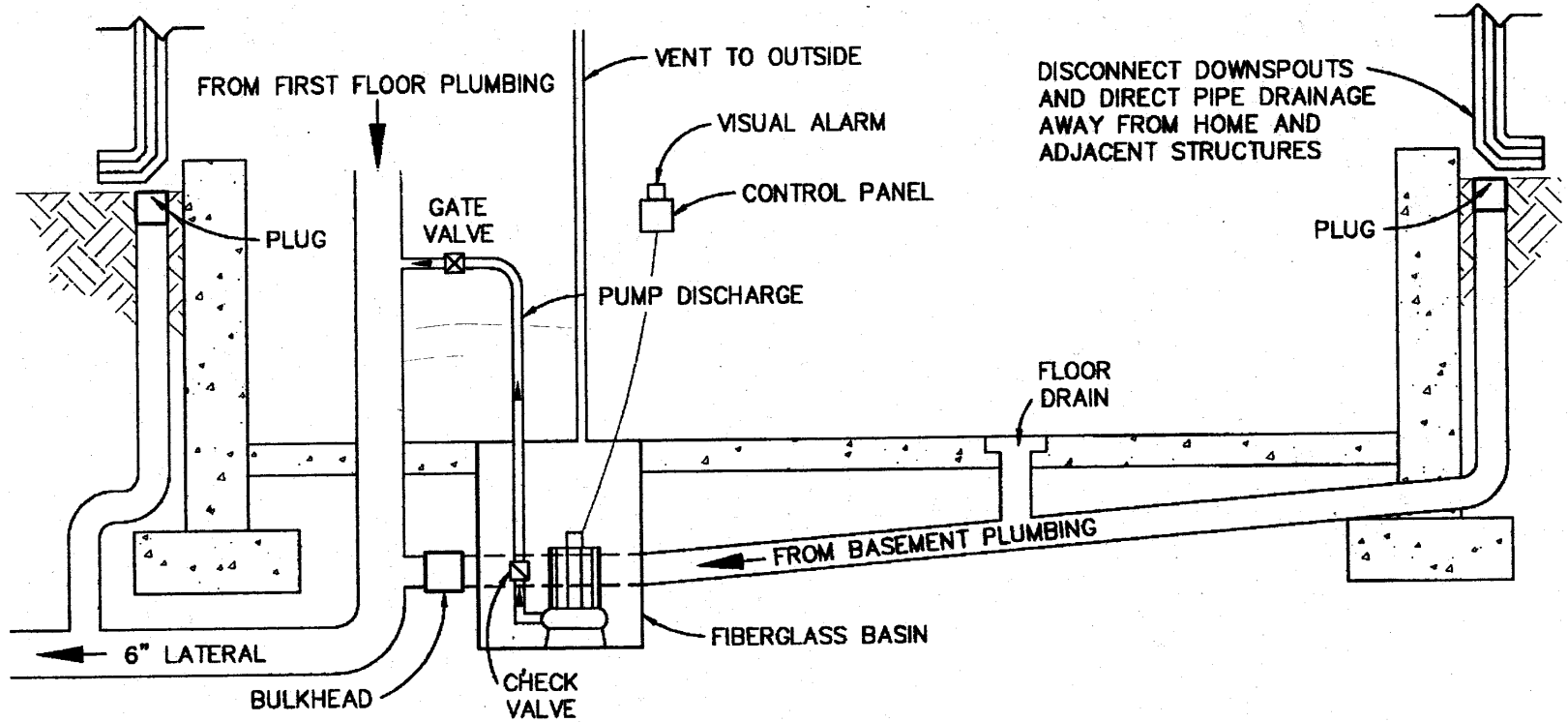




EXHIBIT 6

ATTACHMENT A

TYPICAL INTERIOR NON-CLOG SEWAGE PUMP INSTALLATION



# EXHIBIT 7

## WATER IN BASEMENT CUSTOMER SERVICE PROGRAM PLAN

### I. Introduction

The Water in Basement ("WIB") Customer Service Program is the rapid response and cleanup component of the Metropolitan Sewer District of Greater Cincinnati's ("MSD") WIB Program. The Customer Service Program is designed to clean up the immediate effects of the backup of wastewater from MSD's Sewer System (both the combined and sanitary portions) into buildings; except that the Customer Service Program is not intended to address WIBs caused by: A) overland flooding not emanating from MSD's Sewer System; or B) blockages in private laterals.

MSD intends to implement the Customer Service Program in a proactive, sensitive and customer-focused manner. The Customer Service Program will become effective on January 1, 2004.

### II. Public Notification Regarding Customer Service Program

MSD will notify the public of its WIB Customer Service Program through the following means:

- by placing two advertisements each in the *Cincinnati Post* and the *Cincinnati Enquirer*, one within two weeks of the effective date of this Plan and one within three weeks of the effective date of this Plan;
- by highlighting the Program on its web site within two weeks of the effective date of this Plan;
- by issuing two press releases to local print and electronic media – one within five days of the effective date of this Plan and another 30 calendar days later;
- by sending a direct mailing to all of its current customers;
- by a direct mailing to new customers within 30 days of initiating service; and
- by including the MSD Call Center phone number with each sewer bill.

The information in these notices will describe the Program, provide the number to call for assistance and outline the information that the occupant will need to provide to the call taker. These notices will also include a brief description of the key components of the WIB Claims Process implemented in accordance with Section XIII and Exhibit 8 of the Consent Decree.

### **III. Call Center Operations**

Occupants experiencing WIBs can request MSD service by calling the MSD Call Center at (513) 352-4900. The MSD Call Center will be staffed with actual personnel 24 hours a day, seven days a week.

### **IV. Initial Site Visit and Assessment**

Occupants requesting MSD service for WIBs will have a customer service representative on-site within four hours, up to a maximum rate of ten requests per hour, for the first eight hours of a precipitation event, followed by a maximum rate of four requests per hour for the second eight-hour period of a precipitation event, followed by one request per hour for the third eight-hour period of a precipitation event. The rate for the second 24-hour period will be one half of the rate of the first 24-hour period. For requests received at a rate higher than those set out above, requests will be serviced in the order received as soon as practicable.

Upon arriving at the affected property, the MSD customer service representative will conduct an assessment with the occupant or property owner in an effort to determine the cause of the WIB. MSD will exercise its good faith reasonable engineering judgment to determine the cause of a WIB. This determination will be based on a consideration of a variety of factors, which can include:

- amount of precipitation;
- property WIB history;
- condition of sewer system in neighborhood;
- neighborhood WIB history;
- capacity of nearby public sewer lines;
- visual inspection of the neighborhood or property to look for evidence of overland flooding; and
- topography.

Depending on the circumstances, the determination may also be based on an inspection of the private lateral and/or inspection of nearby public lines.

If the WIB is obviously the result of overland flooding not emanating from the MSD Sewer System or the result of blockage in the occupant's lateral line, MSD will provide the owner or occupant with instructions for a safe cleanup, general preventative information, referral to the local agency responsible for overland flooding issues, and further contact information should there be questions. An example of the type of information that will be left with occupants in this situation is attached as Appendix A to this Plan. The content and form of this notice may evolve over time. Because MSD does not control overland flooding not emanating from the MSD Sewer System or control private lateral lines, MSD cannot take further action with respect to WIBs caused by such flooding.

At locations that have experienced a building backup due to inadequate capacity within the previous two years and at which MSD has not resolved the capacity issue, MSD will treat the backup as MSD's responsibility and dispense with the preliminary assessment phase of the Program. In such cases, MSD will immediately engage a contractor to proceed with cleanup of the affected building in accordance with Section V below.

At locations that have experienced building backups caused by blockages in public sewer lines, MSD will presume that the backup is MSD's responsibility and dispense with the preliminary assessment phase of the Program. In such cases, MSD will immediately engage a contractor to proceed with cleanup of the affected building in accordance with Section V below.

## **V. Cleanup by MSD**

MSD will assist with the cleanup of the property at no charge to the occupant unless the WIB was caused by overland flow not emanating from MSD's Sewer System or a blockage in the private lateral. The determination of the cause of the WIB will be made based on the factors and assessment described in Section IV above.

The MSD customer service representative will inform the occupant of services that are available to clean up the effects of the backup and make arrangements for MSD contractors to provide such no-cost services on an expedited basis. The cleanup contractors will bill MSD directly for the services provided under this Plan.

MSD will have a cleanup contractor on-site at the affected location as soon as practicable after making arrangements with the occupant.

Specifically, the basic cleanup services to be provided by MSD's response contractors at no cost to occupants will include:

- wet vacuuming or other removal of spillage;
- mopping bare floors with cleaning solution and disinfectant;
- wiping walls with cleaning solution and disinfectant;
- flushing out and disinfecting plumbing fixtures; and
- basic carpet cleaning.

No two building backups are exactly alike. As such, MSD's response may include additional reasonably appropriate cleanup measures beyond those listed above that are appropriate to a particular situation.

In arranging to have a contractor clean up the impacts of a building backup, MSD will provide to

the affected occupant a telephone number to call with questions or complaints about the implementation of the cleanup. Such questions and/or complaints will be fielded by the MSD WIB Program Complaint Ombudsman, under the direct supervision of the MSD Director.

At the occupant's request, with the occupant's written authorization and in the occupant's presence, MSD will remove affected personal property items from the building. MSD will also arrange for any items it removes from the building to be disposed of by an authorized sanitation company at MSD's expense. MSD cannot arrange for the disposal of hazardous waste, however. Any materials damaged and removed from the building may be cataloged and photographed to document the loss.

MSD will also provide information to occupants on how to minimize future losses until system modifications can be completed to mitigate the potential for building backups caused by inadequate capacity in the Sewer System. An example of the type of information that would be provided is attached at Appendix B to this Plan. The form and content of this information sheet may evolve over time.

Prior to authorizing its contractors to begin expedited, no-cost cleanup of the effects of a basement backup, MSD's response team will review with the occupant and require the occupant to execute an access agreement that allows MSD and its contractors to enter the property and provide cleanup services.

## **VI. Claims Process Information**

In addition, MSD's customer service representatives will provide to occupants information relating to the Water In Basement Claims Program administered by the City Solicitor's Office to pay damages to real or personal property that result from a building backup. The details of the claims process are contained in the Water In Basement Claims Program Plan found at Exhibit 8 to the Consent Decree.

An occupant's acceptance of MSD's cleanup services under this program does not constitute a release or waiver of any claims that the occupant may have against MSD for real or personal property damage caused by the basement backup. Likewise, MSD's provision of cleanup services under this program does not constitute an admission of any liability by MSD with regard to any claims that the occupant may have against MSD for real or personal property damage caused by the building backup.

## ***EXHIBIT 7--APPENDIX A:***

***The following is presented as sample narrative for a customer service brochure. The content and form of the information presented may evolve over time.***

### **Overland/Surface Water Flooding**

Heavy storms can result in water in basements and other areas of buildings because of overland and surface flooding or seepage of water through wall. There is often little or no structural damage from the water, because the water inside braces the walls against the pressure of the outside water and waterlogged soil.

#### **What should I do after the flood?**

- Before entering a building, check for structural damage. Don't go in if there is any chance of the building collapsing.
- Upon entering the building, do not use matches, cigarette lighter or any other open flame since gas may be trapped inside. Instead, use a flashlight to light your way.
- Keep the power off until an electrician has inspected your system for safety.
- Flood waters can pick up sewage and chemicals from roads, farms and factories. If your home has been flooded, protect your family's health by cleaning up your house immediately; throw out foods and medicines that may have come into contact with flood water.
- Be careful walking around. After a flood, steps and floors are often slippery with mud and covered with debris, including nails and broken glass.
- Inspect foundations for cracks or other damage.
- Stay out of buildings if flood waters remain around the building.
- Do not wash mud down into the basement floor drain. Shovel mud from the basement as soon as all water has drained or has been pumped out to allow floors and walls to dry.

#### **How and when do I pump the water out?**

- Do not drain water inside the basement until most of the water on the outside of the walls has gone down. This will prevent the walls from being pushed in or the floors from heaving.
- If you have a large amount of water in your basement or if there is no basement drain, you may need to buy or rent a sump pump to get rid of the water.
- If your electrical panel is located in an area of your home that has been flooded, you will be unable to use an electric sump pump unless you use a pump driven by a 12-volt auto battery. A gasoline engine pump may be used if exhaust can be vented to the outside.

- Start pumping water out of your basement if the water inside is higher than the flood water level outside. You may need a measure to determine this.
- Stop pumping when the two water levels become equal.
- Service damaged septic tanks, cesspools, pits, and leaching systems as soon as possible. Damaged sewage systems are health hazards.

### **The safety of you and your family should come first.**

- Turn on a battery-powered radio or television to get the latest weather forecasts and flash flood warning. Listen for warnings and emergency instructions.
- Get your preassembled emergency supplies.
- Avoid walking through any flood waters. If it is moving swiftly, even water six inches deep can sweep you off your feet.
- Protect yourself when removing water and cleaning your basement by wearing rubber boots and gloves.
- Wash clothes and other items that come into contact with the backup water with soap and water.
- Wash your hands with soap and water.

### **Use caution when entering the building.**

- Wear sturdy shoes and use battery-powered lanterns or flashlights when examining the building.
- Examine wall, floors, doors, and windows to make sure that the building is not in danger of collapsing.
- Watch out for animals, and snakes, that may have come into your home with the flood waters. Use a stick to poke through debris.
- Flood waters may contain flammable or explosive materials coming from upstream. If you think there may be flammable or explosive materials in the structure vacate the structure and call 911.

### **Take pictures of the damage.**

- Take pictures of the basement and other areas affected.
- Take pictures of the contents for damage and insurance claims.

### **Inspecting utilities.**

- **Check for gas leaks** – If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.
- **Look for electrical system damage** – If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call the electric company or an electrician.

- **Check for sewage and water line damage** – If you suspect that the house's plumbing has been damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes.

### **How do I avoid shock hazards?**

- Be careful before using any electric appliance in a house that has been flooded.
- Never turn on wet electric appliances because they may cause an electric shock, overheat, or start a fire.

### **Flood mitigation actions check list.**

The following are actions that you can take to mitigate the damage caused by flooding.

- Store important documents and irreplaceable personal objects (such as photographs) where they will not get damaged.
- Elevate or relocate furnaces, hot water heaters and electrical panels above the level of potential flooding.
- Provide openings in foundation walls that allow flood waters in and out, thus avoiding structural collapse.
- For drains, toilets, and other sewer connections, install backflow valves or plugs to prevent flood waters from entering the building.
- Buy and install sump pumps with backup power.
- Move business inventory that may be flooded; reduce inventory that may be flooded, if possible elevate, relocate, and otherwise protect equipment that can be flooded.
- Throw away food – including canned goods – that has come in contact with flood waters.
- Identify stored hazardous materials or other chemicals that could be flooded; and relocated or elevate these.

Please note that cleanup from overland/surface water flooding not coming from the Metropolitan Sewer District's collection system is not the responsibility of the Metropolitan Sewer District; it is the responsibility of the property owner or resident. If you have any questions or need more information on cleanup: 1) if you live in the City of Cincinnati, you may call the City of Cincinnati Health Department staff at 357-7392 during office hours; 357-7435 after 5:00 p.m. or weekends; 2) if you live in Hamilton County, you may call the Hamilton County Board of Health at 946-7840 during office hours; 946-7878 after 4:30 p.m. or weekends.

If you have questions about the sewer system, you may contact the Wastewater Collection Division at 352-4900, between 7:30 a.m. and 4:00 p.m., Monday through Friday. If you have an emergency situation, after hours on a weekday or weekend, call 244-5500 or 911.

Source: King County (Seattle), American Red Cross, Federal Emergency Management Agency and MSD.



## ***EXHIBIT 7--APPENDIX B:***

***The following is presented as sample narrative for a customer service brochure. The content and form of the information presented may evolve over time.***

### **Water In Basements (WIBs)**

Heavy storms, blockages or breakdowns in sewer pipes, and other events can cause sewage to backup into basements. The water contains sewage, even when diluted by storm water. Children and pets should be kept out of the flooded areas until the areas have been cleaned.

Sewage has the potential of carrying microorganisms, which may cause diarrhea and other diseases, such as Hepatitis A, Salmonella, and Giardia, all of which can be killed readily with household disinfectants. The sewer odors may be unpleasant, but are not harmful.

#### **Safety First – Please use caution when entering the basement.**

- Be careful walking around. Floors and steps are often slippery.
- Protect yourself when removing water and cleaning your basement by wearing rubber boots and gloves.
- Wash clothes and other items which come into contact with the backup water with soap and water.
- Wear sturdy shoes and use battery-powered lanterns or flashlights when examining the basement.
- Wash your hands with soap and water.

#### **Inspect the area for hazards.**

- Broken or leaking gas lines.
- Flooded electrical circuits.
- Submerged furnaces or electrical appliances.

#### **Inspecting utilities for damage.**

- **Check for gas leaks** – If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.
- **Look for electrical system damage** – If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call the electric company or an electrician.

## Take pictures of the damage.

- Take pictures of the basement and other areas affected.
- Take pictures of the contents for damage and insurance claims.

## How should I clean the basement?

- Remove silt and dirt stains by rinsing concrete walls and masonry foundation walls with a high-pressure hose.
- If stains remain on the walls, scrub them with a stiff bristle brush and household detergent. Begin at the top and work down. Rinse often with clear water.
- Start drying the basement as quickly as possible in order to minimize wood decay or growth of mold.
- Open all doors and windows to allow the moisture to flow outside.
- Buy or rent a fan or dehumidifier to speed up the drying process.
- If you are sensitive to mold or mildew, wear a mask or respirator containing an appropriate filter.
- Before removing wallboard, paneling and insulation, it is recommended that a professional cleaning contractor be consulted.

## How do I clean up and get rid of odors?

- Mop concrete floor and walls with a bleach solution (three-fourths cup of household bleach to a gallon of water) or other household disinfectants.
- Rinse and dry after five minutes.
- Open windows when applying the bleach solution.
- Place a lump of dry charcoal in an open tin/metal container to absorb odors.
- **Do not use ammonia.**
- **It is important to clean thoroughly and rinse a surface before disinfecting.**
- Area should be air dried thoroughly after disinfecting.

## Available cleanup service.

MSD has a cleanup program that will assist in the cleanup of the water in your basement unless the backup is caused by a blockage in a private lateral line or is the result of overland flooding not coming from MSD's sewer system. This program is at no charge to the resident.

The MSD customer service representative will provide you with specific information about the service. The customer service representative will make arrangements for MSD contractors to provide the service on an expedited basis. The cleanup contractors will bill MSD directly for the services provided under this Plan.

Specifically, the basic cleanup services to be provided by the MSD's response contractors will include:

- wet vacuuming or other removal of spillage;
- mopping bare floors with cleaning solution and disinfectant;

- wiping walls with cleaning solution and disinfectant;
- flushing out and disinfecting plumbing fixtures; and
- basic carpet cleaning.

No two basement backups are exactly alike. Additional service will be evaluated on a case by case basis.

At the resident's request and with the resident's written authorization, MSD:

- Will remove affected personal property items from the basement.
- Will also arrange for any items it removes from the basement to be disposed of by an authorized sanitation company at MSD's expense.
- MSD cannot arrange for the disposal of hazardous waste, however.

The resident should take pictures, list and describe items removed from the basement.

Prior to authorizing its contractors to begin expedited, no-cost cleanup of the effects of a basement backup, MSD's customer service representative will review with the resident the necessary access agreement required to allow MSD and its contractors to enter the property and provide cleanup services.

## **Claims assistance**

In addition, MSD's customer service representatives will assist residents in filing claims with the City Solicitor's office for damages to real or personal property which resulted from a basement backup.

## **Flood mitigation actions check list.**

The following are actions that you can take to mitigate the damage caused by flooding.

- Store important documents and irreplaceable personal objects (such as photographs) where they will not get damaged.
- Elevate or relocate furnaces, hot water heaters and electrical panels above the level of potential flooding.
- For drains, toilets, and other sewer connections, install backflow valves or plugs to prevent flood waters from entering the building.
- Buy and install sump pumps with backup power.
- Move business inventory that may be flooded; reduce inventory that may be flooded, if possible elevate, relocate, and otherwise protect equipment that can be flooded.
- Throw away food – including canned goods – that has come in contact with flood waters.
- Identify stored hazardous materials or other chemicals that could be flooded; and relocated or elevate these.

If you have any questions or need more information on cleanup: 1) if you live in the City of Cincinnati, you may call the City of

Cincinnati Health Department staff at 357-7392 during office hours; 357-7435 after 5:00 p.m. or weekends; or 2) if you live in Hamilton County, you may call the Hamilton County Board of Health at 946-7840 during office hours; 946-7878 after 4:30 p.m. or weekends.

If you have questions about the sewer system, you may contact the Wastewater Collection Division at 352-4900, between 7:30 a.m. and 4:00 p.m., Monday through Friday. If you have an emergency situation, after hours on a weekday or weekend, call 244-5500 or 911.

Source: King County (Seattle), American Red Cross, Federal Emergency Management Agency and MSD.

# EXHIBIT 8

## WATER IN BASEMENT CLAIMS PROCESS PLAN

### **I. Introduction**

The Water in Basement ("WIB") Claims Process is the damages reimbursement component of the Metropolitan Sewer District of Greater Cincinnati's ("MSD") WIB Program. Subject to the requirements of this Plan, occupants who incur damages as a result of the backup of wastewater into buildings due to inadequate capacity in MSD's Sewer System (both the combined and the sanitary portions) can recover those damages. This plan also provides a means for occupants to recover damages arising from backups that are the result of MSD's negligent maintenance, destruction, operation or upkeep of the Sewer System. The Claims Process is not intended to address water in buildings caused by overland flooding not emanating from MSD's Sewer System or caused by blockages in occupants' own lateral sewer lines.

This WIB Claims Process Plan will become effective on January 1, 2004 for covered backups occurring on or after that date.

### **II. Public Notification regarding WIB Claims Process**

MSD will notify the public regarding the key elements of the WIB Claims Process in the various public notices issued regarding the WIB Customer Service Program under Section II of the WIB Customer Service Program Plan attached as Exhibit 7 to the Consent Decree. The information provided will include a brief description of the Claims Process and information about how to obtain and submit claim forms.

### **III. Claim Initiation**

There are three steps to initiating a claim for reimbursement of damages under this Plan.

First, an occupant who has incurred property damage as a result of a basement backup that it believes is MSD's responsibility under this Plan must notify MSD within 24 hours of the time that the occupant discovers the WIB. Such notification can be made by calling the MSD Call Center at (513) 352-4900. Section III of the WIB Customer Service Program Plan attached at Exhibit 7 of the Consent Decree establishes the operational parameters of the Call Center.

Second, the occupant must allow MSD personnel and/or contractors reasonable access to the affected property to investigate the cause of the WIB.

Third, the occupant must file a claim form. This form will be given to customers who request cleanup assistance under the WIB Customer Service Program implemented under Section XIII

and Exhibit 7 of the Consent Decree. Claim forms will also be provided to occupants who request them from MSD at (513) 352-4900. Additionally, claim forms will be available at MSD's internet site: [www.msdbg.org](http://www.msdbg.org). The content of this form may evolve over time.

#### **IV. Claim Eligibility**

The following guidelines will govern the reimbursement of damage claims submitted under this Plan.

##### **A. Scope of WIBs Covered.**

1. The Claims Process will only reimburse damages arising from basement backups caused by inadequate capacity in MSD's Sewer System or that are the result of MSD's negligent maintenance, destruction, operation or upkeep of the Sewer System. MSD will not pay claims for damages caused by WIBs arising from blockages in occupants' lateral lines or arising from overland flooding not emanating from MSD's Sewer System.

2. MSD will exercise its good faith reasonable engineering judgment to determine the cause of a WIB. This determination will be based on a consideration of a variety of factors, which can include:

- amount of precipitation;
- property WIB history;
- condition of sewer system in neighborhood;
- results of a visual inspection of the neighborhood to look for signs of overland flooding;
- neighborhood WIB history;
- capacity of nearby public sewer lines; and
- topography.

Depending on the circumstances, the determination may also be based on an inspection of the private lateral and/or inspection of nearby public lines.

3. At locations that have experienced a basement backup due to inadequate capacity within the previous two years and where MSD has not resolved the capacity issue, MSD will treat that backup as MSD's responsibility and dispense with the assessment phase of the Claims Process. In such cases, MSD will pay appropriately documented claims without further investigation as to the cause of the WIB incident. The same presumption and expedited process will apply to locations that experience basement backups caused by blockages in public sewer lines of which MSD had notice and opportunity to clear, but did not clear.

B. Damages will be paid for losses to real and personal property that can be documented. For that reason, claimants must, as a condition to the payment of any claim, cooperate with MSD's efforts to investigate and document the losses that have occurred as a result of a WIB

incident. Claimants will be asked to submit copies of any documents that they may have that substantiate the existence and/or extent of their damages. Among other measures taken to document losses, MSD may: prepare an inventory of damaged items, take photographs of the building or property present there during or after the WIB incident or the cleaning process, request information about the value, type, age or other characteristics of items for which damages are claimed, and require the owner or occupant to submit documentation about damaged items. The property owner or occupant must provide MSD reasonable access to the property for the purpose of documenting losses to personal property.

C. Claimants must notify MSD regarding the WIB within twenty-four hours of the time that the claimant discovers the WIB.

D. Claimants must allow MSD personnel and/or contractors reasonable access to the affected property to investigate the cause of the WIB.

E. Claims will be subject to the limitations on Ohio political subdivision liability imposed by ORC 2744.05.

#### **V. Future Claims Mitigation**

MSD may request in writing of occupants whom it has compensated under this Plan to undertake reasonable mitigation measures, which can include:

- A.  allowing MSD to install, at MSD's expense, a backflow prevention device and agreeing to maintain such backflow prevention device in working order;
- B.  refraining for two years from storing personal property below a previously documented high water line or less than two feet above the basement floor; or
- C.  refraining for two years from installing new carpet or drywall below a previously documented high water line or less than two feet above the basement floor.

If MSD makes such a request, and the occupant refuses and a WIB subsequently occurs, the extent to which the occupant complied with the request may be a factor that is considered by the Office of the Solicitor for the City of Cincinnati in determining the amount to pay for any claims pertaining to the subsequent WIB.

#### **VI. Claims Processing**

Claims will be made to the Office of the Solicitor for the City of Cincinnati. The Office of the Solicitor will make a final written decision regarding payment of claims made under this Plan within 60 days of receiving such claims. Any decision denying a claim in full or resulting in an offer of payment of an amount less than the full amount of the claim will include pertinent information regarding the process for pursuing the claim in Ohio State court.

# EXHIBIT 9

## Supplemental Environmental Projects Plan

### I. Introduction

Defendants shall perform the streambank stabilization, leachate control, greenway creation, and in-stream restoration projects described below. These Supplemental Environmental Projects (SEPs) shall be performed using sound, generally accepted engineering practices; in a manner consistent with industry standards, regulatory requirements and natural channel design techniques; and consistent with the goal of maximizing environmental benefits. Nothing herein shall be construed as relieving Defendants of the duty to comply with all federal, state and ORSANCO requirements that may be applicable to performance of these projects, including the duty to apply for and comply with any federal or state permitting requirements.

Defendants shall complete, and submit to U.S. EPA/Ohio EPA/ORSANCO, documents containing the detailed design for each of the project components described in Sections II - IV below at least 6 months before Defendants plan to commence construction on the specific component. If Defendants are required to apply for any federal or state permits as part of implementing these projects, Defendants also shall provide copies of all such permit applications to U.S. EPA/Ohio EPA/ORSANCO. If Defendants are required to submit notifications or other documents pursuant to the terms of any federal or state permits that are applicable to these projects, Defendants also shall provide copies of all such notifications and other documents to U.S. EPA/Ohio EPA/ORSANCO. Defendants shall send all such copies of applications, notifications or other documents to U.S. EPA/Ohio EPA/ORSANCO on the dates that Defendants submit the originals of those applications, notifications or other documents to the appropriate federal and/or State regulatory authorities in accordance with federal or State law. All documents described in this paragraph shall be submitted under this Consent Decree to U.S. EPA/Ohio EPA/ORSANCO for review only, although U.S. EPA/Ohio EPA/ORSANCO may provide comments to Defendants based upon their review of those documents. Submission of any documents to U.S. EPA/Ohio EPA/ORSANCO under the terms of this Consent Decree shall not be in lieu of submission of such documents to the appropriate federal and/or State regulatory authorities in the manner proscribed by law for submission of such documents.

### II. Caldwell Seymour Greenway and Ecological Restoration Project

The proposed streambank stabilization project to be implemented with SEP funds is designated as Reach 1, located between North Bend Road and Seymour Avenue, and Reach 2, located between the Seymour Avenue Bridge and the confluence of the Mill Creek with the Seymour Creek within the Caldwell Seymour (CS) area of the City of



Cincinnati (see attached maps). It consists of approximately 3,850 ft of stream length stabilization using a method known as Soil Bioengineering. The SEP funds will be used to provide geotechnical investigations, hydrologic/hydraulic studies, and soil bioengineering design and construction.

According to a 2002 physical inventory and assessment of streambanks, the Mill Creek (from the Caldwell parks upstream of North Bend Road downstream to Center Hill Road) suffers from streambank erosion from a number of natural and anthropomorphic causes. In addition, there is a major erosion problem along Seymour Creek at its confluence with Mill Creek. Generally, the streambanks have steep vertical slopes ranging from four feet to over fifteen feet high. There is an overall vegetative cover of about 30% to 50%. Streambank erosion affects the toe, lower bank, upper bank and whole bank. The erosion is contributing to water quality problems including nutrient pollution, sedimentation, total suspended solids and turbidity. Sedimentation is adversely affecting aquatic life by depleting oxygen and smothering aquatic habitat. In areas where riparian vegetation is sparse, stormwater runoff conveys nonpoint source pollutants and causes adverse physical impacts to the river system. Unstable streambanks must be addressed prior to, or in tandem with, other ecological restoration activities including riparian corridor and floodplain reforestation and greenway trail development.

Soil bioengineering is based on sound engineering and an understanding of river ecology, hydrology/hydraulics, and natural channel design techniques relying heavily on the use of vegetation to stabilize streambanks and may incorporate a rock toe and other traditional engineering treatments when necessary. Such systems are environmentally sustainable because they are self-maintaining and provide significant environmental benefits, including habitat and food sources for wildlife and improvements in water quality. All of these multiple benefits can strengthen and support the City's Mill Creek Greenway/Ecological Restoration Program and community development goals in this region of the city and maximize the value of the MSD SEP investment.

The cost estimate for construction includes labor, materials and equipment for excavation and earth moving; toe protection installation (full length); grade control (low head weirs in some sections); low flow channel construction (in some areas); compound channel (in some sections); upland riparian bank stabilization and restoration using soil bioengineering methods.

The scope and estimated costs of this streambank stabilization and greenway project are:

1. Streambank Restoration in Mill Creek, Reach 1: North Bend Road Bridge to Seymour Avenue Bridge -- Estimated Subtotal: \$1,600,000
  - Geotechnical investigation (for entire 1.3 miles)
  - Hydrology/hydraulics study (for entire 1.3 miles)
  - Soil bioengineering design (for River Reach 1-includes 2 years of monitoring)
  - Reach 1 soil bioengineering installation (1,300 linear feet Mill Creek, affecting 2,600 linear feet of streambanks)

MCRP environmental services consulting contract: \$60,000

2. Streambank Restoration in Mill Creek Reach 2A: Seymour Avenue Bridge to Seymour Creek Confluence -- Estimated Subtotal: \$2,100,000
  - Soil bioengineering design (includes two years of monitoring)
  - Reach 2A soil bioengineering installation (2,550 linear feet Mill Creek, affecting 5,100 linear feet of streambanks)
3. Caldwell Seymour Greenway Trail -- Estimated Subtotal: \$1,050,000
  - Final design, engineering and construction supervision
  - Trail construction (5,808 linear feet @ \$77.50/linear feet + 6% contingency)
  - Riparian restoration/landscaping
  - Fencing
  - (New) Greenway buffer between Center Hill Landfill, Seymour Creek and Mill Creek and trail extension to Center Hill Road

**Total Estimated Cost: \$4,750,000**

## **SCHEDULE**

1. Streambank Restoration in Mill Creek, Reach 1: North Bend Road Bridge to Seymour Avenue Bridge--- detailed design and construction to be completed within 42 months of entry of the Consent Decree. The parties recognize that Defendants may need to request extension to this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.
2. Streambank restoration in Mill Creek Reach 2A: Seymour Avenue Bridge to Seymour Creek Confluence--detailed design and construction to be completed within 24 months of the completion of Item 1 of this SEP. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.
3. Caldwell Seymour Greenway Trail--detailed design and construction to be completed within 18 months of completion of Items 1 & 2 of this SEP. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied

### **III. In-Stream Habitat Restoration Project**

Local environmental activists have identified the need to restore in-stream habitat via structural changes to the Mill Creek's channel/bed. Two such environmental projects have been identified and proposed in the lower reach of Mill Creek. This effort has been supported/encouraged by numerous local stakeholders including Ohio Kentucky and Indiana Regional Council of Governments (OKI), Dr. Michael Miller (University of

Cincinnati), Dr. Stan Hedeem (Xavier University), the Mill Creek Watershed Council and the Mill Creek Restoration Project.

### **A. Hopple Street Project**

Hopple Street Interceptor Sewer is an interceptor sewer crossing located downstream of the Hopple Street Viaduct. This interceptor sewer crossing is fully encased in concrete. There is a failure in the bank allowing the majority of flow to pass over the pipe on the western bank. There is a large gravel bar located along the western bank just downstream. This works as a barrier to fish migration.

The goals of this project will be to redirect the main flow of the stream back to the center of the channel and to allow the flow to dissipate energy across a structure on the backside of the interceptor sewer, thus preventing the creation of plunge pool while providing numerous benefits. Newbury riffle and bank stabilization are the proposed action.

### **B. Gest Street Project**

Low Water Crossing in the vicinity of the Gest Street Water Reclamation Facility is an abandoned road across Mill Creek. Severe bank erosion is a major feature of this location. The removal of this structure will enhance flow, reduce erosion, and provide aquatic habitat. Proposed action is removal of crossing road and bank stabilization.

This project accomplishes the following goals:

- Removes a significant barrier to fish migration up the Mill Creek, thus improving species propagation.

- Reoxygenation of water in the Creek via Newbury Riffle installation that will improve overall habitat and increase fish and aquatic biology diversification and health.

- Removes a barrier from the streambed that impedes recreational use and human exposure to the Creek.

- Extends the green space along the creek in accordance with the Mill Creek Restoration Project's Greenway Master Plan.

- Improves the environmental condition in an environmental justice community.

**Total Estimated Cost: \$250,000.**

## **SCHEDULE**

1. Hopple Street Interceptor/Newbury Riffle---detailed design and construction to be completed within 24 months of entry of the Consent Decree. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.
2. Gest Street Low Water Crossing removal---detailed design and construction to be completed within 24 months of entry of this Consent Decree. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.

### **IV. Village of Elmwood Place Waste Facility Remediation**

The Village of Elmwood Place Waste Facility is a six acre landfill that is owned and historically was operated by the Village of Elmwood Place. The landfill ceased operations in the mid-1960s. The landfill is located northeast of the junction of Este Avenue and Center Hill Road in Cincinnati, Hamilton County, Ohio, and it has approximately 1000 feet of frontage on the Mill Creek, a major urban waterway, which is the focus of significant local restoration efforts.

The Village of Elmwood Place has little or no control measures in place at the landfill. As such, garbage protrudes from the bank of the landfill into the Mill Creek, and leachate from the landfill flows to the Mill Creek. Although the Village of Elmwood Place has expressed willingness to clean up their landfill property and bring it into regulatory compliance, it does not have the financial capability to perform the needed assessment and remedial work. The Village of Elmwood is interested in restoring this property as green space to establish a green buffer between any new development in the area and the Mill Creek. This plan is consistent with the goals of the Mill Creek Restoration Project and the Mill Creek Watershed Council.

At a minimum, in order to abate continuous pollution from the landfill to the Mill Creek, the landfill bank bordering the Mill Creek must be stabilized, and a leachate collection system must be installed. Performing this work will accomplish the following goals:

Facilitates the environmental assessment of the landfill and the creation of a remedial action plan for the Elmwood Place landfill.

Abates pollution emanating from the Elmwood Place landfill to the Mill Creek.

Assists in extending green space along the bank of the Mill Creek in accordance with the Mill Creek Restoration Project's Greenway Master Plan.

Allows the abatement of potential human health threats in an environmental justice community.

The bank stabilization and leachate collection system would be similar to that installed by the City of Cincinnati at the Center Hill Landfill. The scope and estimated costs for this project would be:

1. Stabilization of bank of landfill along Mill Creek, using bioengineering: \$300,000.
2. Installation of leachate control system: \$55,000.

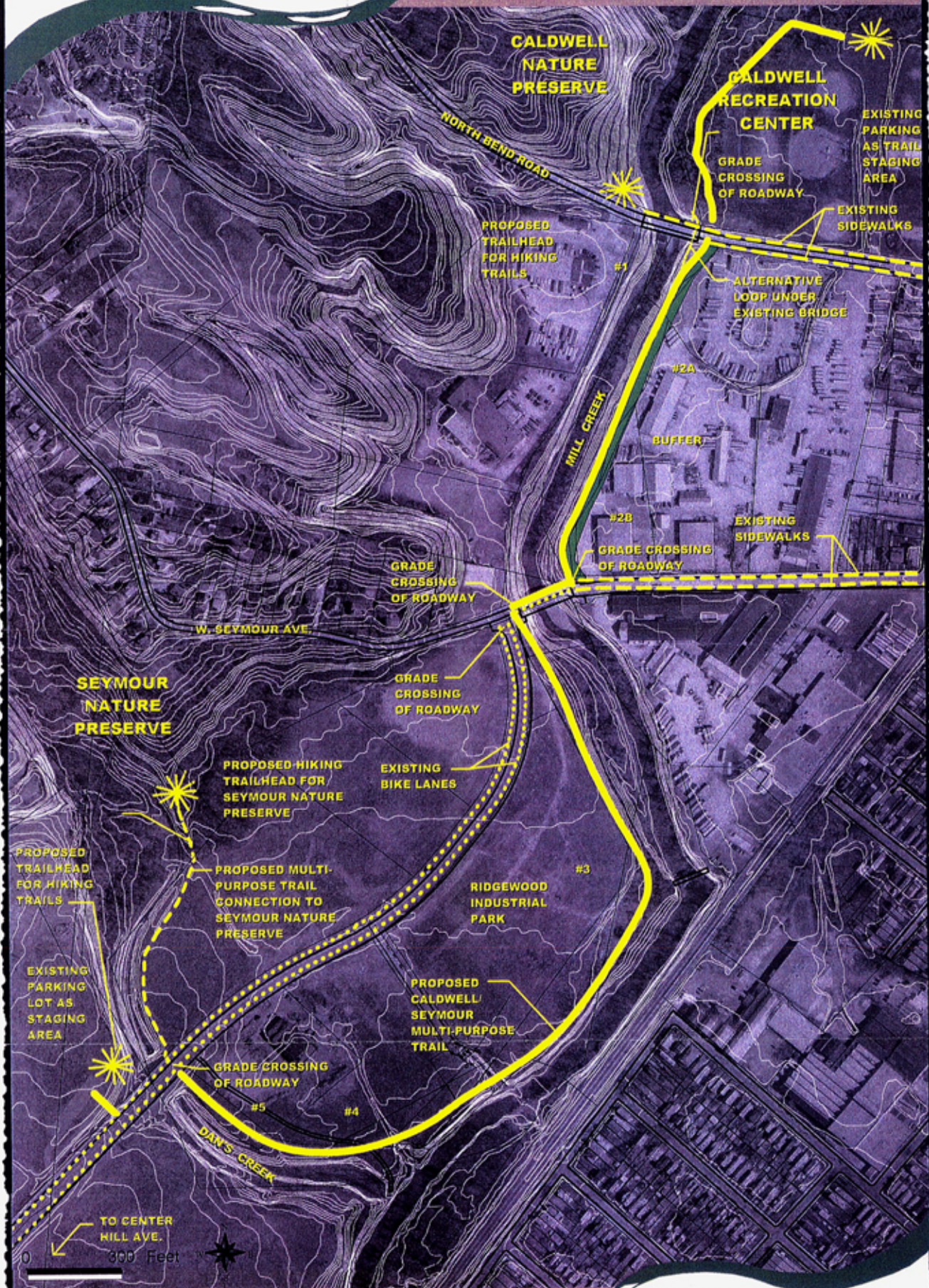
**Total Estimated Cost: \$355,000.**

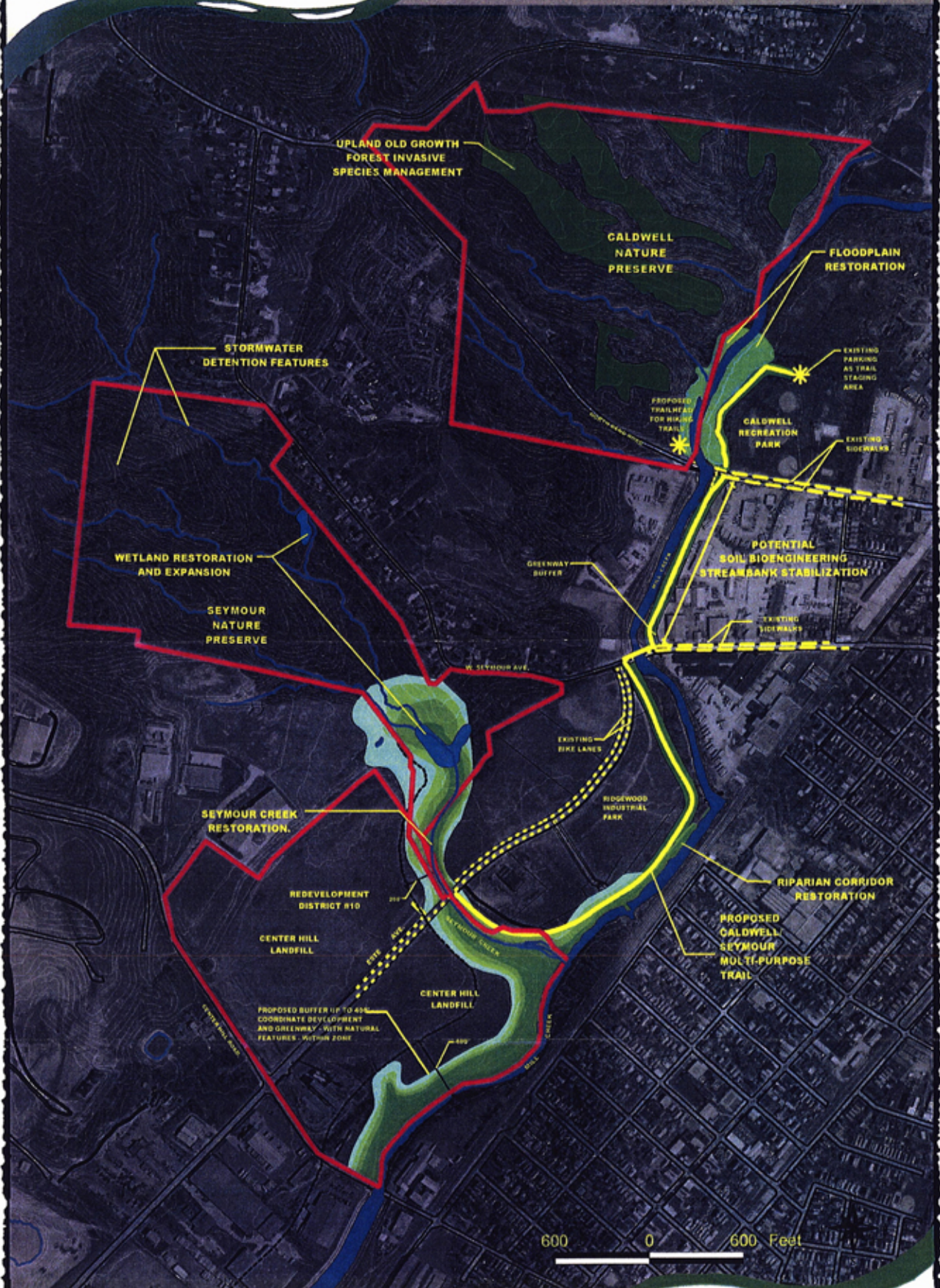
## **SCHEDULE**

Bank stabilization and installation of leachate control---detailed design and construction to be completed within 24 months of the entry of this Consent Decree. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.

## **V. Additional Projects**

Defendants expect to spend at least \$5,300,000 performing the projects described above. Defendants may perform additional streambank stabilization, greenway creation or in-stream restoration projects that are consistent with the goal of maximizing environmental benefits in or to the Mill Creek, provided that Defendants: (1) notify U.S. EPA/Ohio/ORSANCO in writing of their intention to perform such additional projects as soon as Defendants determine that they intend to perform such additional projects and include a detailed description of the project that they intend to perform. Upon approval of the proposed project(s) by U.S. EPA/Ohio EPA/ORSANCO, Defendants shall comply with the provisions described in Section I of this Plan and complete detailed design and construction of such additional projects, as expeditiously as practicable, but no later than 36 months following completion of the projects specified above in Sections II and III of this Plan.





MARCH 27, 2002

**Exhibit 9 - Map B**

14