

ATTACHMENT

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA, )  
and the STATE OF ILLINOIS, )

Plaintiffs, )

v. )

METROPOLITAN WATER RECLAMATION )  
DISTRICT OF GREATER CHICAGO, )

Defendant. )  
\_\_\_\_\_ )

Civil Action No.

CONSENT DECREE

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Plaintiff United States of America, on behalf of the United States Environmental Protection Agency (“EPA”), has filed a complaint in this action (“Complaint”) concurrently with this Consent Decree alleging that Defendant, the Metropolitan Water Reclamation District of Greater Chicago (“Defendant” or “MWRD”), violated Section 301(a) of the Clean Water Act (“Act”), 33 U.S.C. § 1311(a), and terms and conditions of National Pollutant Discharge Elimination System (“NPDES”) permits issued by the Illinois Environmental Protection Agency (“Illinois EPA”).

The State of Illinois (“Co-Plaintiff” or the “State”) has joined the Complaint as a co-plaintiff.

MWRD is a municipal authority organized under Illinois Statute 70 ILCS 2605/1 *et seq.*, which operates a conveyance and treatment system, including Water Reclamation Plants (“WRPs”) that serve an area of approximately 883.6 square miles, including the City of Chicago and 128 surrounding municipalities, all of which are located within the jurisdiction of the United States District Court for the Northern District of Illinois.

MWRD holds certain NPDES permits for the Calumet, North Side and Stickney WRPs issued by the Illinois EPA pursuant to Section 402 of the Act, 42 U.S.C. § 1342 and 35 Ill. Adm. Code § 309.101 *et seq.* Those WRPs receive flows from combined sewer collection systems in the MWRD service area.

In 1972, the Flood Control Coordinating Committee, consisting of representatives of MWRD (then MSDGC), Chicago, Cook County and the State of Illinois, adopted the *Development of a Flood and Pollution Control Plan for the Chicagoland Area – The Chicago Underflow Plan*. The twin purposes of the plan, now known as the Tunnel and Reservoir Plan or TARP, are flood control and pollution prevention.

In 1975, EPA awarded the first federal grant funding for the tunnel portions of TARP as a pollution abatement project. EPA determined that the reservoir portions of TARP would not be eligible for federal grant funding since they were found to serve primarily flood control rather than pollution control purposes.

Congress authorized the reservoirs portion of TARP as a U.S. Army Corps of Engineers (“Corps”) flood control project in Section 3(a)(5) of the Water Resources Development Act of 1988 (Public Law 100-676). MWRD is the non-federal sponsor of the McCook Reservoir project under a Project Cooperation Agreement with the Corps.

In 1995, Illinois EPA approved TARP as MWRD’s long term control plan under the presumption approach of EPA’s Combined Sewer Overflow Control Policy (“CSO Policy”), dated April 19, 1994.

TARP includes 109 miles of tunnels in four separate systems, each with tunnels leading to a terminal reservoir: the Upper Des Plaines, the Mainstream, the Lower Des Plaines, and the Calumet TARP Systems. The Upper Des Plaines tunnel system was completed in 1980. Portions of both the Mainstream and the Calumet tunnel systems began operation in 1985 and in 1986, respectively. The Mainstream tunnel system was completed in 1998, the Lower Des Plaines tunnel system was completed in 2001 and the Calumet tunnel system was completed in 2006. The design storage capacities of the tunnel systems are as follows: Mainstream – approximately 1.2 billion gallons; Lower Des Plaines - approximately 405 million gallons; Calumet - approximately 630 million gallons; and Upper Des Plaines – approximately 71 million gallons.

The reservoir for the Upper Des Plaines TARP System, the Gloria Alitto Majewski Reservoir (formerly the O'Hare Reservoir), has a design capacity of 350 million gallons, and has been operational since 1998.

MWRD has entered into long-term contracts with private mining operators, who are commercially mining the large rough holes for the Thornton Composite and McCook Reservoirs by extracting limestone for commercial use. When completed, the Thornton Composite Reservoir, for the Calumet TARP System, will measure approximately 2,500 by 1,600 feet with a maximum water depth of 292 feet. The amount of limestone expected to be mined for the Thornton Composite Reservoir is approximately 76 million tons. Mining began in 1997 and is approximately 92 percent complete, with the remaining 7 million tons scheduled to be removed by the end of 2013. The Thornton Composite Reservoir is scheduled to be operational by December 31, 2015.

When completed, Stage 1 of the McCook Reservoir, the reservoir for the Mainstream/Lower Des Plaines TARP System, will measure approximately 3,000 by 600 feet with a maximum water depth of 254 feet. Stage 2 of the McCook Reservoir will measure approximately 3,400 by 950 feet with a maximum water depth of 249 feet. The amount of limestone expected to be mined for the McCook Reservoir is approximately 114 million tons. Mining began in 2008, and is approximately 10 percent complete, with Stage 1 mining scheduled for completion in 2016 and the remainder scheduled for completion in 2028. It is anticipated that an average of over 19,000 tons of rock per day will be removed from the site. Stage 1 of the McCook Reservoir is scheduled to be operational by December 31, 2017, while Stage 2 is scheduled to be operational by December 31, 2029.

The Complaint against MWRD pertains only to discharges from combined sewer outfalls (CSO discharges) and alleges only that MWRD violated the following combined sewer overflow provisions of its NPDES permits: The requirement to provide the equivalent of primary treatment for at least ten times the average dry weather flow for the average design year, and the prohibition on discharging pollutants into waters of the United States that cause or contribute to violations of applicable water quality standards for dissolved oxygen, solids, and floatables.

The Consent Decree resolves the civil claims of the United States and the State alleged in the Complaint as set forth in Section XVII of the Consent Decree (Effect of Settlement/Reservation of Rights).

MWRD does not admit any liability to the United States or the State arising out of the transactions or occurrences alleged in the Complaint.

The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I, below, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

#### I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 309 of the Act, 33 U.S.C. § 1319, and

over the Parties. Venue lies in this District pursuant to Section 309 of the Act, 33 U.S.C. § 1319, and 28 U.S.C. §§ 1391 and 1395(a), because the violations alleged in the Complaint are alleged to have occurred in, and MWRD is located in, this judicial district. For purposes of this Decree, or any action to enforce this Decree, MWRD consents to the Court's jurisdiction over this Decree or such action and over MWRD, and consents to venue in this judicial district.

2. For purposes of this Consent Decree, MWRD agrees that the Complaint states claims upon which relief may be granted pursuant to Section 309 of the Act, 33 U.S.C. § 1319.

## II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States, the State, MWRD and any successors, assigns, or other entities or persons otherwise bound by law.

4. No transfer of ownership or operation of any Facility subject to this Consent Decree, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve MWRD of its obligation to ensure that the terms of the Decree are implemented. At least 30 days prior to such transfer, MWRD shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to the United States and the State, in accordance with Section XIX of this Decree (Notices). Any attempt to transfer ownership or operation of any Facility subject to this Consent Decree without complying with this Paragraph constitutes a violation of this Decree.

5. MWRD shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, and to municipalities whose CSO Outfalls are referenced in Paragraphs 8(d) and 8(t) as well as to any contractor retained to perform work required under this Consent Decree. MWRD shall condition any such contract (other than the Thornton Composite Reservoir Agreement dated June 18, 1998 and all amendments to such Agreement (hereinafter, collectively, the “Thornton Agreement”), the McCook Reservoir Excavation Agreement dated October 1, 2003, all existing amendments and one or more future amendments to such Agreement or a separate agreement as contemplated in the Agreement (hereinafter, collectively, the “McCook Agreement”), and any such contractual agreement with the Corps) upon performance of the work in conformity with the terms of this Consent Decree. Notwithstanding the above, MWRD shall not agree to any amendment or new version of the Thornton Agreement or the McCook Agreement, as described above, or any such contractual agreement with the Corps that is contrary to the terms of this Consent Decree or that would prevent the timely performance of MWRD’s obligations under this Consent Decree.

6. In any action to enforce this Consent Decree, MWRD shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

### III. PURPOSE

7. It is the express purpose of the Parties in entering this Consent Decree to further the objectives of the Act, as enunciated in Section 101 of the Act, 33 U.S.C. § 1251 *et seq.*, and the objectives of the Illinois Environmental Protection Act, 415 ILCS

5/1 *et seq.* All plans, reports, construction, maintenance and other obligations in this Consent Decree or resulting from the activities required by this Consent Decree shall have the objective of causing MWRD to come into and remain in full compliance with the terms of its Calumet, North Side and Stickney NPDES Permits, as applicable to CSO discharges, including water quality standards, and as required by 33 U.S.C. § 1342(q)(1) to meet the objectives of EPA's Combined Sewer Overflow Control Policy, as these terms are defined in Section IV (Definitions) of this Consent Decree.

#### IV. DEFINITIONS

8. Terms used in this Consent Decree that are defined in the Act or in the regulations promulgated pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. "100 Percent Equivalent Open" shall mean the position of a TARP sluice gate that allows 100 percent of the connected CSO outfall sewers' design flow to pass through that sluice gate and enter the TARP tunnel;

b. "BGD" or "bgd" shall mean billion gallons per day;

c. "Calumet NPDES Permit" means MWRD's NPDES Permit No. IL0028061, for the Calumet WRP, issued by Illinois EPA on January 22, 2002, and all future extensions, modifications, amendments, renewals or reissuances of this permit;

d. "Calumet TARP System" includes: the Calumet tunnels and associated control structures; Thornton Composite Reservoir; all CSO Outfalls from the associated Combined Sewer System connected to the Calumet tunnels, including

municipal CSO outfalls directly connected to those tunnels; and the Calumet Water Reclamation Plant (“WRP”);

e. “Calumet WRP” means the Calumet Water Reclamation Plant;

f. “Combined Sewer Overflow” or “CSO” shall mean any discharge from any outfall specifically identified in Special Condition 10 (“Authorization of Combined Sewer and Treatment Plant Discharges”) in MWRD’s Calumet, North Side or Stickney NPDES Permit;

g. “Combined Sewer Outfall” or “CSO Outfall” shall mean the MWRD or municipal outfall from which CSOs are discharged;

h. “Combined Sewer System” shall mean the portion of MWRD’s sewer system designed to convey municipal sewage (domestic, commercial and industrial wastewaters) and stormwater runoff through a single pipe system to a water reclamation plant, to TARP or to a combined sewer overflow structure;

i. “Complaint” means the complaint filed by the United States and the State in this action;

j. “Consent Decree” or “Decree” shall mean this Decree and all appendices attached hereto (listed in Section XXVIII);

k. “Day” shall mean a calendar day unless expressly stated to be a working day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day;

l. “Defendant” shall mean MWRD;

m. “Effective Date” shall have the definition provided in Section XX (Effective Date);

n. “EPA” shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States;

o. “EPA’s Combined Sewer Overflow Control Policy” shall mean the policy issued by EPA regarding combined sewer overflows, entitled “Combined Sewer Overflow (CSO) Control Policy,” 59 Fed. Reg. 18,688 (April 19, 1994);

p. “Facilities” shall mean the Calumet, North Side, and Stickney WRPs, the MWRD’s interceptors and conveyances feeding those WRPs, the MWRD’s pump stations, and all tunnels, reservoirs, and combined sewage collection system improvements known as the Tunnel and Reservoir Plan (“TARP”), all of which are currently owned and operated by the MWRD;

q. “Full,” with respect to the Thornton Composite Reservoir, means that the reservoir contains no less than 90 percent of its 4.8 billion gallon capacity of combined sewage. With respect to the McCook Reservoir, “full” means that the reservoir contains no less than 95 percent of its 10 billion gallon capacity of combined sewage;

r. “Green Infrastructure” shall mean the range of stormwater control measures that use plant/soil systems, permeable pavement, stormwater harvest and reuse, or native landscaping to store, infiltrate, and/or evapotranspire stormwater and reduce flows to sewer systems or to surface waters. Green Infrastructure may include, but is not limited to bioretention, extended detention wetland areas, green roofs and permeable pavement. Green Infrastructure practices also include control measures to harvest and reuse stormwater, such as rain barrels and cisterns.

s. “Illinois EPA” shall mean the Illinois Environmental Protection Agency and any successor departments or agencies of the State of Illinois;

t. “Mainstream/Lower Des Plaines TARP System” includes: the Mainstream tunnels and the Lower Des Plaines tunnels and associated control structures; McCook Reservoir; all CSO outfalls from the associated Combined Sewer System connected to the Mainstream tunnels or the Lower Des Plaines tunnels, including municipal CSO outfalls directly connected to those tunnels; the Stickney WRP; and the North Side WRP;

u. “Maximum Practical Flow” shall mean the maximum flow accounting for all hydraulic and hydrologic factors that can pass through the Calumet WRP, North Side WRP or Stickney WRP within the then existing capacity constraints of the applicable WRP and receive full treatment in compliance with the NPDES Permit(s) for the WRP(s) receiving the flow;

v. “Maximum Practical Pumping Rate” shall mean the maximum flow that can be delivered from TARP to the Calumet WRP or Stickney WRP within the constraints of the pump capacities and good operating practice of the Calumet TARP Pumping Station pumps and the Mainstream Pump Station pumps and without exceeding the relevant WRP’s Maximum Practical Flow;

w. “North Side NPDES Permit” means MWRD’s NPDES Permit No. IL0028088 for the North Side WRP, issued by Illinois EPA on January 22, 2002 and all future extensions, modifications, amendments, renewals or reissuances of this permit;

x. “North Side WRP” shall mean the North Side Water Reclamation Plant;

y. “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral;

z. “Parties” shall mean the United States, the State and MWRD;

aa. “Pump-back” shall mean combined sewage flow from Calumet TARP Pump Station to the Calumet WRP or combined sewage pumped from the Mainstream Pump Station to the Stickney WRP;

bb. “Request for Termination” shall mean any request for Partial Termination-Calumet TARP System, Partial Termination-Mainstream/Lower Des Plaines TARP System, Final Termination-Calumet TARP System or Final Termination-Mainstream/Lower Des Plaines TARP System, each as set forth in Paragraph 94 or 95 of this Consent Decree;

cc. “Retained Amount” shall mean the amount of combined sewage left in the Thornton Composite Reservoir or the McCook Reservoir, as applicable. The Retained Amount in the Thornton Composite Reservoir will be no more than 5.6 percent of the storage capacity of the total Thornton Composite Reservoir capacity (“Thornton Retained Amount”), and the Retained Amount in the McCook Reservoir will be no more than 4 percent of the storage capacity of the total McCook Reservoir capacity (“McCook Retained Amount”). Notwithstanding the above, if the TARP Operational Plan is revised to include a new Thornton Retained Amount or McCook Retained Amount, the new Thornton Retained Amount or McCook Retained Amount, as applicable, shall replace the Retained Amounts set forth in this definition;

dd. “Section” shall mean a portion of this Decree identified by a roman numeral;

- ee. “State” shall mean the State of Illinois, including the Illinois Attorney General and Illinois EPA;
- ff. “Stickney NPDES Permit” means MWRD’s NPDES Permit No. IL0028053, for the Stickney WRP, issued by Illinois EPA on January 22, 2002 and all future extensions, modifications, amendments, renewals or reissuances of this permit;
- gg. “Stickney WRP” shall mean the Stickney Water Reclamation Plant;
- hh. “TARP” shall mean MWRD’s Tunnel and Reservoir Plan, which is described in Appendix A attached to the Consent Decree;
- ii. “TARP Operational Plans” shall mean the Calumet TARP System Operational Plan, the Mainstream TARP Operational Plan and Lower Des Plaines TARP Operational Plan;
- jj. “Transient Event” means a pressure differential in a TARP tunnel that necessitates closure or partial closure of one or more sluice gates prior to TARP reaching full capacity, in order to prevent harm to people, property, or MWRD facilities. Transient Events can result from uneven filling, significant hydraulic head differential, wave action, valve closures or openings, backflow, water dams or water hammer, and variations in tunnel geometry, including without limitation a bifurcation, variation in diameter or tunnel end; and
- kk. “United States” shall mean the United States of America, acting on behalf of EPA.

V. CIVIL PENALTY

9. Within 30 days after the Effective Date of this Consent Decree, MWRD shall pay the sum of \$350,000 to the United States as a civil penalty, together with interest accruing from the date on which the Consent Decree is entered by the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of entry.

10. MWRD shall pay the civil penalty due to the United States by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice according to written instructions to be provided to MWRD, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney’s Office for the Northern District of Illinois, 219 South Dearborn St., 5th Floor, Chicago, IL, 60604, phone, (312) 353-5300. At the time of payment, MWRD shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States v. Metropolitan Water Reclamation District of Greater Chicago*, and shall reference the civil action number and DOJ case number 90-5-1-1-07679, to the United States in accordance with Section XIX of this Decree (Notices); by email to [acctsreceivable.CINWD@epa.gov](mailto:acctsreceivable.CINWD@epa.gov); and by mail to:

EPA Cincinnati Finance Office  
26 Martin Luther King Drive  
Cincinnati, Ohio 45268

11. Within 30 days after the Effective Date of this Consent Decree, MWRD shall pay the sum of \$325,000 to the State as a civil penalty.

12. MWRD shall pay the civil penalty due to the State by certified check payable to the Illinois EPA for deposit into the Environmental Protection Trust Fund (“EPTF”). Payments shall be sent by first class mail and delivered to:

Illinois Environmental Protection Agency  
Fiscal Services  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

The name and case number shall appear on the face of the check. A copy of the certified check and any transmittal letter shall be sent to:

Thomas Shepherd  
Environmental Bureau  
Illinois Attorney General’s Office  
69 West Washington Street, Suite 1800  
Chicago, IL 60602

13. MWRD shall not deduct any penalties paid under this Decree pursuant to this Section or Section XIII (Stipulated Penalties) in calculating its federal or state income taxes.

VI. COMPLIANCE REQUIREMENTS PRIOR TO TARP COMPLETION

14. MWRD selected the tunnel and reservoir plan (“TARP”) as the Chicago area’s plan for controlling combined sewer overflows in 1972. TARP is MWRD’s CSO long term control plan (“LTCP”). Illinois EPA approved TARP as MWRD’s LTCP by letter dated June 28, 1995. TARP as currently designed is described in detail in Appendix A to this Consent Decree and consists of the following:

a. Phase I of TARP required construction of 109.4 miles of tunnels and associated pumping stations, and was divided into the Upper Des Plaines, Calumet, and Mainstream/Lower Des Plaines TARP Systems. Phase II of TARP required

construction of three storage reservoirs for the four TARP Systems. The Gloria Alitto Majewski Reservoir is the reservoir for the Upper Des Plaines drainage basin. The Thornton Composite Reservoir is the reservoir for the Calumet drainage basin. The McCook Reservoir is the reservoir for the Mainstream/Lower Des Plaines drainage basins.

b. MWRD has completed and placed in operation the Phase I TARP tunnels and the Gloria Alitto Majewski Reservoir. MWRD has been working to complete the remaining portions of TARP, comprised primarily of the Thornton Composite and McCook Reservoirs.

15. Until the Calumet TARP System is completed, MWRD shall comply with Paragraphs 16 and 18 below. Until the Mainstream/Lower Des Plaines TARP System is completed, MWRD shall comply with Paragraphs 17 and 18 below.

16. Thornton Composite Reservoir. MWRD shall complete construction of the Thornton Composite Reservoir pursuant to the Thornton Composite Reservoir Agreement dated June 18, 1998 and all existing amendments to such Agreement to meet a total design storage capacity for combined sewage of approximately 4.8 billion gallons, as part of the Calumet TARP System. The Thornton Composite Reservoir is further described in Appendix A. MWRD shall construct and place into operation the Thornton Composite Reservoir at any time up to, but no later than the following schedule:

a. Complete reservoir mining, described in Appendix A, no later than December 31, 2013;

b. Complete Tollway Dam, Grout Curtain, and Quarry Plugs as set forth in Appendix A, no later than December 31, 2015;

- c. Complete Connecting Tunnels and Gates, described in Appendix A, no later than December 31, 2015;
- d. Place Thornton Composite Reservoir in operation for the Calumet TARP System no later than December 31, 2015; and
- e. Verify operational plan and commence full operation of the Thornton Composite Reservoir no later than one year after the Thornton Composite Reservoir is placed into operation as set forth in Paragraph 16(d).

17. McCook Reservoir. MWRD shall complete construction of the McCook Reservoir in two stages pursuant to the McCook Reservoir Excavation Agreement dated October 1, 2003, all existing amendments and one or more future amendments to such Agreement or a separate agreement as contemplated in the Agreement, to meet a total design storage capacity of approximately 10 billion gallons, as part of the Mainstream/Lower Des Plaines TARP System. The McCook Reservoir is further described in Appendix A. MWRD shall construct and place into operation the McCook Reservoir at any time up to, but no later than the following schedule:

- a. Complete mining of Stage 1, described in Appendix A, no later than December 31, 2016;
- b. Place Stage 1 of the McCook Reservoir in operation for the Mainstream/Lower Des Plaines TARP System no later than December 31, 2017;
- c. Verify operational plan and commence full operation of Stage 1 of the McCook Reservoir no later than one year after Stage 1 of the McCook Reservoir is placed into operation as set forth in Paragraph 17(b);

- d. Complete Stage 2 overburden removal, described in Appendix A, no later than December 31, 2017;
- e. Complete mining of Stage 2, described in Appendix A, no later than December 31, 2028;
- f. Place Stage 2 of the McCook Reservoir in operation for the Mainstream/Lower Des Plaines TARP System no later than December 31, 2029; and
- g. Verify operational plan and commence full operation of Stage 2 of the McCook Reservoir for the Mainstream/Lower Des Plaines TARP System no later than one year after Stage 2 of the McCook Reservoir is placed into operation as set forth in deadline established in Paragraph 17(f).

18. Floatables Control: MWRD shall implement the comprehensive Floatables Control Plan (“Floatables Plan”) in accord with Appendix B of this Consent Decree no later than 30 days from the Effective Date of this Consent Decree.

#### VII. CONTINGENCY EVENT

19. The Parties recognize that the schedule for completion of the Thornton Composite Reservoir and McCook Reservoir is based, in part, on the completion of excavation of the respective reservoirs by private quarry operators and, for the McCook Reservoir, on the timely completion of specific project elements by the Corps. Because reliance upon these non-party entities is an integral part of MWRD’s plan to comply with the obligations set forth in this Consent Decree, and because the rate of progress achieved by each of these non-party entities may be subject to factors beyond MWRD’s control, the Parties provide the following mechanism to address disruptions of the schedules set forth in Paragraphs 16 and 17 for the completion of TARP that may result from such

factors. Nothing in this Section VII (Contingency Event) shall be construed to limit or supersede rights conferred by Section XIV (Force Majeure), and no exercise by MWRD of rights conferred by this Section VII shall preclude its exercise of rights conferred by Section XV (Dispute Resolution).

20. A “Contingency Event” for purposes of this Consent Decree is defined as (1) a delay beyond December 31, 2013 for completion of the excavation of the Thornton Composite Reservoir being conducted by Hanson Material Service or its successor pursuant to the Thornton Agreement (hereinafter a “Thornton Event”); or (2) a delay beyond December 31, 2016 for completion of the excavation of Stage 1 of the McCook Reservoir, or beyond December 31, 2028 for completion of the excavation of Stage 2 of the McCook Reservoir, each being conducted by Vulcan Materials Company or its successor pursuant to the McCook Agreement (hereinafter a “McCook Event”); or (3) a delay by the Corps of any project identified in Appendix A to this Consent Decree that causes a delay beyond December 31, 2017 in the commencement of operation of Stage 1 of the McCook Reservoir, or delay by the Corps of any project identified in Appendix A to this Consent Decree that causes a delay beyond December 31, 2029 in the commencement of operation of Stage 2 of the McCook Reservoir, excluding any such delay that is caused solely by the unavailability of federal funds necessary to complete the subject work by the respective deadlines provided that advancement of sufficient funds by MWRD is not precluded by law (hereinafter, a “Corps Event”), including by Section 103 of the Water Resources Development Act of 1986 (P.L. 99-662).

For such delays to qualify as a Contingency Event, MWRD must satisfy the following criteria:

a. For a Thornton Event, MWRD has satisfied all obligations that impact the projected mining schedule that are due and owing to Hanson Material Service or its successor under the Thornton Agreement; or

b. For a McCook Event, MWRD has satisfied all obligations that impact the projected mining schedule that are due and owing to Vulcan Materials Company or its successor under the McCook Agreement; or

c. For a Corps Event, MWRD has satisfied all obligations that impact reservoir completion that are due and owing to the Corps under the Project Cooperation Agreement or any amendments thereto (the "Project Cooperation Agreement"); and

d. For a Thornton Event or a McCook Event, MWRD has made all practical efforts consistent with the applicable Agreement to avoid the occurrence of a Contingency Event and mitigate the impact thereof; and

e. Such delay is caused entirely by an event or events beyond the control of MWRD. For a Thornton Event or a McCook Event, delay resulting solely from market conditions that precludes the sale in the ordinary course of commerce by the applicable quarry operator of a quantity of mined rock sufficient to satisfy the schedule set forth in Paragraph 16 or 17 shall be deemed caused entirely by an event or events beyond the control of MWRD.

21. MWRD shall provide the United States and the State with annual written reports reflecting the mining rate progress and whether the mining is on schedule for each of the non-party entities. These reports shall be submitted not later than 30 days after MWRD receives the annual progress reports required under the Thornton Agreement and the McCook Agreement.

22. If MWRD believes that a Contingency Event within the meaning of Paragraph 20 has occurred, MWRD shall provide written notice to the United States and the State within 60 days of its knowledge that a contingency event has occurred such that the final completion date cannot be met, and shall provide the following information in the notice:

a. A description of the rate of the mining operator's progress and the reason(s) such progress has fallen below expectations to the extent then known;

b. A demonstration that any mining delay or Corps delay, as appropriate, has arisen totally from causes beyond MWRD's control to the extent then known;

c. The anticipated duration of the delay to the extent then known;

d. A detailed projection of the revised, proposed schedule for completion of the excavation of the reservoir(s) or completion of Corps work subject to the Contingency Event;

e. A showing that the dates in the projected schedule are as expeditious as possible;

f. A statement of MWRD's intention to claim such delay as a Contingency Event;

g. For a Thornton Event or a McCook Event, a statement of any practical efforts consistent with the applicable Agreement to avoid the occurrence of the Contingency Event and to mitigate the impact thereof; and

h. A demonstration that MWRD has satisfied all obligations that impact the projected mining schedule and that are due and owing to the private quarry operator as applicable.

23. If, after receiving the information required in Paragraph 22 from MWRD, EPA or the Illinois EPA requests additional information to assist in evaluating MWRD's extension request, MWRD shall submit such additional information as is in its possession or control within 30 days of receiving EPA's or Illinois EPA's request. MWRD shall also use its best efforts to obtain relevant information relating to EPA's or Illinois EPA's request from the Corps and/or the mining companies, as applicable. Failure by MWRD to give notice and otherwise respond within the time periods established above shall preclude MWRD from asserting any claim under Paragraph 22.

24. If EPA, after consultation with Illinois EPA, agrees that a Contingency Event has occurred, the time for performance of the obligations under this Consent Decree that are affected by the Contingency Event will be extended by EPA for a period of time that is as expeditious as possible to complete those obligations. An extension of time to perform the obligations affected by the Contingency Event shall not, by itself, extend the time to perform any other obligation. EPA will notify MWRD in writing of the length of the extension, if any, for performance of the obligations affected by the Contingency Event. If EPA, after consultation with Illinois EPA, agrees that a Contingency Event has occurred, MWRD must comply with Section IV of Appendix E, in addition to the requirements of this Section VII, subject to MWRD's right to invoke dispute resolution pursuant to Section XV of this Consent Decree (Dispute Resolution).

25. If EPA, after consultation with Illinois EPA, does not agree that a Contingency Event has occurred, or if the Parties, after consultation, disagree with respect to the length of any extension as a result of a Contingency Event, EPA will notify MWRD in writing of its decision and the reasons therefor.

26. If MWRD elects to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), it shall do so no later than 30 days after receipt of EPA's notice. In any such proceeding, MWRD shall have the burden of demonstrating by a preponderance of the evidence that a Contingency Event has occurred, that the duration of the delay or extension sought is as short as practicable under the circumstances, that MWRD made all practical efforts consistent with the applicable Agreement to avoid the Contingency Event and to mitigate its impact, and that MWRD provided the United States and the State with all information required in this Section. If MWRD carries this burden, the delay at issue shall be deemed not to be a violation by MWRD of the affected obligation of this Consent Decree identified to EPA and the Court, and the time for performance of the obligations under this Consent Decree that are affected by the Contingency Event will be extended for such time as is necessary for the entity performing such work to complete those obligations. An extension of time to perform the obligations affected by the Contingency Event shall not, by itself, extend the time to perform any other obligation. Upon receipt of EPA's approval of a request submitted pursuant to Paragraph 22, or upon resolution of any disputes pursuant to Section XV, MWRD shall perform the work set forth in Paragraphs 16 and 17 for the completion of TARP in accordance with the revised schedule approved by EPA or

resolved pursuant to Section XV (Dispute Resolution) for completion of the Thornton Composite Reservoir or McCook Reservoir, as applicable.

27. If MWRD claims a Contingency Event pursuant to this Section as a result of: (1) the bankruptcy or insolvency of the mining operator conducting the mining at the McCook Reservoir or Thornton Composite Reservoir at the time MWRD claims a Contingency Event; (2) the appointment of a receiver to take possession of the business or property of either applicable mining operator; (3) a general assignment for the benefit of creditors with respect to either applicable mining operator; or (4) any other action or inaction by either applicable mining operator that materially affects MWRD's ability to complete the applicable reservoir within a reasonable amount of time, and there is no successor enterprise willing and able to undertake those obligations within 6 months of any such occurrence described in (1) through (4) above, then MWRD shall:

a. Develop a revised work plan to complete the work remaining for the McCook Reservoir or the Thornton Composite Reservoir, as applicable, as expeditiously as practicable in a manner that is not prohibited or precluded by law, and may include, as appropriate, MWRD seeking to void contracts; and

b. Submit the revised work plan, including a proposed completion schedule, to EPA and Illinois EPA within 120 days after the inception of MWRD's obligation to develop a revised work plan under this Paragraph 27. The revised proposal submitted to EPA and Illinois EPA will be governed by Section X (Approval of Deliverables) of this Consent Decree. Upon approval by EPA, and with the assent of Illinois EPA, the revised work plan shall be incorporated into the Decree.

VIII. TARP SYSTEM PERFORMANCE CRITERIA

Calumet TARP System Performance Criteria

28. Upon completion of construction of the Thornton Composite Reservoir and initiation of full operation of the Calumet TARP System in accordance with Paragraph 16, MWRD shall operate and maintain the Calumet TARP System such that:

a. All flows that enter the Calumet TARP tunnels and Thornton Composite Reservoir are conveyed to the Calumet WRP for full treatment in accordance with the then current Calumet NPDES Permit, including the bypass provisions in that permit; provided, however, that, when the Cal Sag Tunnel is full, flow may leave the Calumet TARP tunnels through Outfall No. 158 on the Calumet 18EA branch tunnel without first being conveyed to the Calumet WRP for full treatment as described in Appendix A. Notwithstanding the above, Outfall No. 158 remains subject to the terms of the then current Calumet NPDES Permit;

b. During all precipitation events, MWRD shall accept and provide full treatment of the Maximum Practical Flow at the Calumet WRP;

c. Treatment at the Calumet WRP and capture of combined sewage in the Calumet TARP System is maximized at all times, consistent with the TARP Operational Plan approved by Illinois EPA and in accordance with the then current Calumet NPDES Permit (at the time the proposed Operational Plan is submitted to Illinois EPA for approval, MWRD must provide a copy of the proposed plan to the United States);

d. During all times when the Calumet TARP tunnels or Thornton Composite Reservoir contain combined sewage in excess of any Retained Amount,

MWRD shall pump combined sewage from the Calumet TARP Pump Station at the Maximum Practical Pumping Rate subject to the Maximum Practical Flow capable of receiving full treatment at the Calumet WRP;

e. All Calumet TARP drop shaft control structures (inlet sluice gates) must be maintained in the 100 Percent Equivalent Open position to receive maximum flow into the Calumet TARP tunnels and Thornton Composite Reservoir until the Thornton Composite Reservoir is Full or Transient Events would occur if the sluice gates remained in the 100 Percent Equivalent Open position;

f. For each precipitation event, no CSO Outfall in the Calumet TARP System shall discharge until conditions described in subparagraphs (a) through (e) preceding this subparagraph are achieved; and

g. If a Transient Event occurs or would occur if the sluice gates remained in the 100 Percent Equivalent Open position, MWRD may close the minimum number of sluice gates necessary in the exercise of reasonable judgment by a trained operator in possession of the information available to the MWRD operator at the time to avoid or minimize Transient Events. If MWRD's closure of sluice gates results in the discharge of combined sewage from any CSO Outfall in the Calumet TARP System, then MWRD shall submit a report to both Illinois EPA and EPA pursuant to Section XII (Reporting Requirements).

Mainstream/Lower Des Plaines TARP System Performance Criteria

29. Upon completion of construction of the McCook Reservoir and initiation of full operation of the Mainstream/Lower Des Plaines TARP System in accordance with Paragraph 17, MWRD shall operate and maintain the system such that:

a. All flows that enter the Mainstream/Lower Des Plaines TARP tunnels and McCook Reservoir are conveyed to the Stickney WRP for full treatment in accordance with the then current Stickney NPDES Permit, including the bypass provisions in that permit; provided, however, that flow may leave the Mainstream Tunnel through Outfall No. 042 on the Lawrence Avenue branch tunnel when the Addison to Wilmette Tunnel (Mainstream) is full; or through Outfall No. 189 on the Nashville Avenue branch tunnel and/or Outfall No. 146 on the Southwest 13A branch tunnel when the 59th to Central Tunnel (Mainstream) is full, without first being conveyed to the Stickney WRP for full treatment as described in Appendix A. Notwithstanding the above, Outfalls No. 042, 189 and 146 remain subject to the terms of the then current North Side and Stickney NPDES Permits, as applicable;

b. During all precipitation events, MWRD shall accept and provide full treatment of the Maximum Practical Flow at the Stickney and North Side WRPs;

c. Treatment at the Stickney WRP and capture of combined sewage in the Mainstream/Lower Des Plaines TARP System is maximized at all times, consistent with the TARP Operational Plan approved by Illinois EPA and in accordance with the then current Stickney NPDES Permit (at the time the proposed Operational Plan is submitted to Illinois EPA for approval, MWRD must provide a copy of the proposed plan to EPA);

d. During all times when the Mainstream/Lower Des Plaines TARP tunnels or McCook Reservoir contain combined sewage in excess of any Retained Amount, MWRD shall pump combined sewage from the Mainstream Pump Station at the

Maximum Practical Pumping Rate subject to the Maximum Practical Flow capable of receiving full treatment at the Stickney WRP;

e. All Mainstream/Lower Des Plaines TARP drop shaft control structures (inlet sluice gates) other than North Branch Pump Station sluice gates DS-M91 (a and b), DS-M90 (a and b), and North Side WRP sluice gate DS-M100 (b and c) must be maintained in the 100 Percent Equivalent Open position to receive maximum flow into the Mainstream/Lower Des Plaines TARP tunnels and McCook Reservoir until the McCook Reservoir is Full or Transient Events would occur if the sluice gates remained in the 100 Percent Equivalent Open position;

f. For each precipitation event, no CSO Outfall in the Mainstream/Lower Des Plaines TARP System shall discharge until conditions described in subparagraphs (a) through (e) that precede this subparagraph are achieved; and

g. If a Transient Event occurs, or would occur if the sluice gates remained in the 100 Percent Equivalent Open position, MWRD may close the minimum number of sluice gates necessary in the exercise of reasonable judgment by a trained operator in possession of the information available to the MWRD operator at the time to avoid or minimize Transient Events. If MWRD's closure of sluice gates results in discharge of combined sewage from any CSO Outfall from the Mainstream/Lower Des Plaines TARP System, then MWRD shall submit a report to both Illinois EPA and EPA pursuant to Section XII (Reporting Requirements).

30. MWRD shall use the TARP drop shaft sluice gate, CSO Outfall tide gate, and other CSO outfall monitoring systems (collectively "CSO monitoring systems"), as well as Calumet, North Side and Stickney WRP treatment records (supplemented by

other available records where necessary to demonstrate a failure or inaccuracy of the monitoring system) to document compliance with Paragraphs 28(a)–(g) and 29(a)–(g), above. MWRD shall keep records of TARP drop shaft sluice gate positions and data from other CSO monitoring systems in the Calumet or Mainstream/Lower Des Plaines TARP Systems during the course of each precipitation event. If all drop shaft gates other than North Branch Pump Station sluice gates DS-M91(a and b), DS-M90 (a and b), and North Side WRP sluice gate DS-M100 (b and c) are maintained in the 100 Percent Equivalent Open position, allowing maximum flow into TARP, it will be considered that the associated CSO Outfalls are not discharging. If a sluice gate is positioned in less than the 100 Percent Equivalent Open position, then the associated CSO Outfalls are presumed to be discharging unless all associated CSO monitoring systems indicate that no activation occurred. Demonstrated failure or inaccuracy of a CSO monitoring system shall not be a basis for any determination that a CSO discharge has occurred, provided that (1) such system is maintained and repaired in accordance with standard MWRD procedures, which are included in Appendix D attached to this Decree; and (2) MWRD determines the source of the inaccuracy, reports the circumstances regarding the inaccuracy to EPA and Illinois EPA, and promptly remedies the cause of the inaccuracy. (A table of TARP drop shaft sluice gates and associated CSO Outfall tide gates is provided as Appendix C).

31. MWRD shall use the Calumet, North Side, and Stickney WRPs' flow rate records, TARP pump-back records and reservoir level records, as well as treatment unit operation records for the above listed water reclamation plants to document compliance with Paragraphs 28(a)–(f) and 29(a)–(f), above. For all days on which a CSO discharges

from any CSO Outfall connected to the Calumet or Mainstream/Lower Des Plaines TARP System, MWRD shall identify in its annual reports submitted pursuant to Paragraph 44(b) all treatment units not in service at the applicable WRP, provide the dates that the subject unit has been out of service and provide the reason it has been out of service.

32. MWRD shall provide EPA with the written notice submitted to Illinois EPA by MWRD pursuant to MWRD's Calumet and Stickney NPDES Permits, of each bypass of any portion of the treatment works at either the Calumet or Stickney WRP that occurs concurrent with or is caused by pumping from that WRP's tunnel or related reservoir. MWRD shall provide such notice within 30 days of the date of the bypass.

33. MWRD shall demonstrate compliance with the performance criteria set forth in Paragraphs 28 and 29 for a time period of one year. MWRD shall provide the records specified in Paragraphs 28-32 to support any request for partial termination pursuant to Paragraphs 94(a) and 95(a) below.

34. Upon initiating full operation of the Calumet TARP System and the Mainstream/Lower Des Plaines TARP System in accordance with Subparagraphs 16(e) and 17(g), respectively, any CSO discharges shall comply with the CSO requirements of the then-effective Calumet, North Side, or Stickney NPDES Permit, as applicable, including all applicable water quality standards requirements incorporated therein.

#### IX. POST CONSTRUCTION MONITORING

35. Post Construction Monitoring Plan

a. Calumet TARP System. Within one year from the Effective Date of this Consent Decree, MWRD shall develop and submit to EPA and Illinois EPA for approval subject to Section X (Approval of Deliverables), a post construction monitoring

plan evaluating discharges from CSO Outfalls in the Calumet TARP System. Such post construction monitoring plan shall include the following elements:

- i. CSO Outfall monitoring location, frequency, duration and estimated volume;
- ii. Identification of water quality standards parameters of concern;
- iii. In stream water quality monitoring relating to applicable water quality standards;
- iv. Determination of whether MWRD's CSOs are in compliance with the then-effective Calumet NPDES Permit, including applicable water quality standards incorporated therein; and
- v. The minimum duration of such monitoring.

b. Mainstream/Lower Des Plaines TARP System. Within five years from the Effective Date of this Consent Decree, MWRD shall develop and submit to EPA and Illinois EPA for approval subject to Section X (Approval of Deliverables), a post construction monitoring plan to evaluate discharges from CSO Outfalls in the Mainstream/Lower Des Plaines TARP System. Such post construction monitoring plan shall include the following elements:

- i. CSO Outfall monitoring location, frequency, duration and estimated volume;
- ii. Identification of water quality standards parameters of concern;

- iii. In stream water quality monitoring relating to applicable water quality standards;
  - iv. Determination of whether MWRD's CSOs are in compliance with the then-effective North Side and Stickney NPDES Permits, including applicable water quality standards incorporated therein; and
  - v. The minimum duration of such monitoring.
- c. After approval of the post construction monitoring plan(s), but prior to implementation of the plan(s), MWRD may seek revision of the plan(s) based on technology or other changes subject to EPA and Illinois EPA approval; and
- d. MWRD shall implement the approved post construction monitoring plans after it has commenced full operation of each reservoir in accordance with Paragraphs 16(e) and 17(g) above.

36. Post Construction Monitoring Report and Review

- a. Within six months after the end of the monitoring specified in each plan, MWRD shall submit a final post construction monitoring report for each of the Calumet and Mainstream/Lower Des Plaines TARP Systems to EPA and Illinois EPA for approval pursuant to Section X (Approval of Deliverables). EPA, after consultation with Illinois EPA, shall approve or disapprove the report pursuant to Section X (Approval of Deliverables), based on whether the report adequately addresses the report requirements listed below in Subparagraphs 36(a)(i) and (a)(ii). The final post construction monitoring report shall include the following information:

- i. Description of waterway(s) and TARP System being evaluated; CSO Outfall monitoring results for frequency, duration and estimated volume; and
  - ii. Water quality monitoring results, including an analysis of the impact to water quality by discharges from CSO Outfalls in the immediate vicinity of those CSOs.
- b. After reviewing MWRD's final post construction monitoring report, if EPA or Illinois EPA finds that MWRD's CSOs in the Calumet or Mainstream/Lower Des Plaines TARP System are violating CSO requirements of the Calumet, Stickney or North Side NPDES Permits, including applicable water quality standards requirements incorporated therein, EPA shall convey that finding in writing to MWRD. Such finding shall be subject to Section XV (Dispute Resolution).
- c. Upon receipt of a written finding under Paragraph 36(b) or conclusion of Dispute Resolution under Section XV upholding such a finding, MWRD shall develop and submit to EPA and Illinois EPA, within 270 days of receiving EPA's written finding or the Court's final order, as appropriate, or within such longer period as EPA and Illinois EPA agree to in writing, a plan analyzing the range of alternatives available to come into compliance with such requirements and identifying the actions MWRD proposes to take to meet such requirements. The plan shall (1) review and consider the data and results contained in the post construction monitoring report; (2) discuss in detail the range of alternatives considered by MWRD to correct any deficiencies; (3) describe in detail the steps MWRD proposes to take to meet the applicable Permit requirements referenced above; and (4) include a schedule setting forth

the timeframe within which MWRD proposes to complete such steps, including dates for major milestones. MWRD shall make this plan public by posting it prominently on its website. EPA, after consultation with Illinois EPA, shall approve or disapprove the plan based on whether the plan contains all information required by this Subparagraph 36(c). This approval shall not be pursuant to Section X (Approval of Deliverables). Such determination shall be subject to Section XV (Dispute Resolution).

d. In any dispute resolution pursuant to Section XV of this Consent Decree arising under Subparagraphs 36(b) or (c), MWRD shall have the burden of demonstrating by a preponderance of the evidence that its position complies with and significantly furthers the purposes of this Consent Decree. In any dispute among the parties arising from Subparagraph 36(b) or (c), the informal dispute resolution period shall not exceed 90 days, unless the period is modified by written agreement between EPA and MWRD.

#### X. APPROVAL OF DELIVERABLES

37. After review of any plan, report, or other item that MWRD must submit for approval pursuant to this Section X (Approval of Deliverables), EPA, after consultation with Illinois EPA, shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission, and with respect to any disapproval in whole or in part, provide the reasons therefor.

38. If the submission is approved pursuant to Paragraph 37(a), MWRD shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the

submission is conditionally approved or approved only in part, pursuant to Paragraph 37(b) or (c), MWRD shall, upon written direction from EPA, take all actions required by the approved plan, report, or other item that EPA, after consultation with Illinois EPA, determines are technically severable from any disapproved portions, subject to MWRD's right to dispute only the specified conditions or the disapproved portions, under Section XV of this Decree (Dispute Resolution).

39. If the submission is disapproved in whole or in part pursuant to Paragraph 37(c) or (d), MWRD shall, within 45 days or such other time as the Parties agree to in writing, correct all deficiencies identified by EPA and resubmit the plan, report, or other item, or disapproved portion thereof, for approval in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, MWRD shall proceed in accordance with the preceding paragraph.

40. Any Stipulated Penalties applicable to the original submission, as provided in Section XIII (Stipulated Penalties) of this Decree, shall accrue during the 45-day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of MWRD's obligations under this Decree, the Stipulated Penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

41. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA, after consultation with Illinois EPA, may again require MWRD to correct any deficiencies, in accordance with the preceding Paragraphs,

subject to MWRD's right to invoke Dispute Resolution and the right of EPA to seek Stipulated Penalties as provided in the preceding Paragraphs.

42. Permits. Where any compliance obligation under this Section requires MWRD to obtain a federal, state, or local permit or approval, MWRD shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. MWRD may seek relief under the provisions of Section XIV (Force Majeure) of this Consent Decree for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if MWRD has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

#### XI. MWRD GREEN INFRASTRUCTURE PROGRAM

43. MWRD shall implement Appendix E (MWRD Green Infrastructure Program) in accordance with the requirements set forth therein.

#### XII. REPORTING REQUIREMENTS

44. Annual Report: Within 90 days after the end of each calendar-year after lodging of this Consent Decree, until termination of this Decree pursuant to Section XXIII (Termination), MWRD shall submit to EPA and Illinois EPA an Annual Report for the preceding year that shall include the information set forth in Paragraph 44(a) and (b), below.

a. MWRD shall include the following information in each Annual Report:

- i. The status of all design and construction activities undertaken pursuant to Section VI (Compliance Requirements Prior to TARP Completion) of this Decree;
- ii. Mining rate progress for the Thornton Composite Reservoir and the McCook Reservoir and a statement as to whether the mining is on schedule for each of the non-party entities, until completion of mining at each reservoir;
- iii. CSO monitoring reports and other CSO-related reports submitted to Illinois EPA including, but not limited to, all documentation of water quality data for the waterway systems within MWRD's jurisdiction, as required by the Calumet, North Side, and Stickney NPDES Permits;
- iv. A record of floatables control activities undertaken pursuant to Paragraph 18, above, and Appendix B, the Floatables Control Plan, including but not limited to, the dates of purchase and commencement of operations of each skimmer boat, the dates on which each skimmer boat, pontoon boat, or other piece of equipment was operated, the conditions that made Special Operation unsafe or infeasible under the Floatables Control Plan, the extent of the waterways in which each boat was employed for each date of its operation, and the quantities and types of

floatables, in cubic yards, collected by each boat for each date of its operation; and

- v. All reporting information as required in Section V of Appendix E (MWRD Green Infrastructure Program).

- b. Upon initiation of full operation of the Calumet TARP System pursuant to Paragraph 16, above, and upon initiation of full operation of the Mainstream/Lower Des Plaines TARP System pursuant to Paragraph 17, above, when there has been a discharge from a CSO Outfall in either the Calumet TARP System or the Mainstream/Lower Des Plaines TARP System, MWRD shall include the additional information set forth in Subparagraphs i. – v., below, in the Annual Report. MWRD shall provide that information for the time period from the start of the applicable CSOs to the cessation of the applicable CSOs:

- i. For each Transient Event pursuant to Paragraphs 28(g) and 29(g), above: (A) the location, estimated volume and duration of the combined sewage discharge; (B) an analysis of the cause of the discharge including triggering criteria and supporting documentation used by the TARP operators to initiate sluice gate closure, such as precipitation data, operator logs, pump-back rates, TARP hydraulic grade line measurements, and WRP flows; and (C) an analysis of each Transient Event to identify any operational modifications that could prevent or mitigate future similar events, which MWRD shall incorporate into its TARP Operational Plan;

- ii. Information obtained from the CSO monitoring systems as required in Paragraph 30;
- iii. Influent and effluent flow data obtained from the Calumet, North Side and Stickney WRPs, as required in Paragraph 31;
- iv. TARP pump-back records and reservoir level records, as required in Paragraph 31; and
- v. Identification of WRP equipment not in service at the applicable WRP that impacts the WRP's Maximum Practical Flow, the dates the subject equipment has been out of service and the reason it has been out of service, as required under Paragraph 31.

45. If MWRD violates, or has reason to believe that it has violated any requirement of this Consent Decree, MWRD shall notify the United States and the State of such violation and its likely duration in writing within 60 working days of the day MWRD first becomes aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, and/or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, MWRD shall so state in the report. MWRD shall investigate to determine the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 days of the day MWRD becomes aware of the cause of the violation. Notification provided by MWRD under Section VII (Contingency Event) or Section XIV (Force Majeure) shall serve as notification under

this Paragraph, provided that any such notification meets the substantive requirements of this Paragraph 45. Nothing in this Paragraph or the following Paragraph relieves MWRD of its obligation to provide the notice required by Section XIV of this Consent Decree (Force Majeure).

46. Whenever any violation of this Consent Decree or any other event affecting MWRD's performance under this Decree may pose an immediate threat to the public health or welfare or the environment, MWRD shall notify EPA and Illinois EPA orally or by electronic or facsimile transmission as soon as possible, but not later than 24 hours after MWRD first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.

47. All reports shall be submitted to the persons designated in Section XIX of this Consent Decree (Notices).

48. Each report submitted by MWRD under this Section shall be signed by a responsible official of the submitting party and include the following certification:

I certify under penalty of law that this document and its 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 the information, the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

49. The reporting requirements of this Consent Decree do not relieve MWRD of any reporting obligations required by the Act or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

50. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

### XIII. STIPULATED PENALTIES

51. If MWRD fails to pay the civil penalty required under Section V of this Decree (Civil Penalty) when due, MWRD shall pay a stipulated penalty of \$850 per day for each day that the payment is late. MWRD shall be liable for stipulated penalties to the United States and the State for violations of this Consent Decree as specified below, unless excused under Section VII (Contingency Event), Section XIV (Force Majeure), or as a result of dispute resolution proceedings under Section XV (Dispute Resolution). A violation includes failing to perform any obligation required by this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

#### 52. Compliance Milestones

a. The following stipulated penalties shall accrue per violation per day for each violation of following requirements: Failure to complete construction of those portions of the Thornton Composite and McCook Reservoirs within the time limits set forth in Paragraphs 16(a) through (c), 17(a), (d), and (e), or as extended pursuant to Paragraph 24 or 26 or Section XIV (Force Majeure); failure to place the completed Thornton Composite Reservoir and Stages 1 and 2 of the McCook Reservoir into operation as required by Paragraphs 16(d) and (e) and 17(b), (c), (f) and (g), or as extended pursuant to Paragraph 24 or 26 or Section XIV (Force Majeure), respectively:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 30th Day
\$2,000	31st through 60th Day
\$5,000	61st Day and beyond

b. The following stipulated penalties shall accrue per violation per day for each violation of the following requirements: Separately, for failure to comply with Section I, II.A, II.B, III, or IV of the Floatables Plan set forth in Appendix B within the time limits set forth therein:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,500	1st through 30th Day
\$2,000	31st through 60th Day
\$5,000	61st Day and beyond

c. The following stipulated penalties shall accrue per violation per day for each violation of the following requirements: Failure to comply with the requirements set forth in Paragraphs 28(f) and 29(f):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,500	1st through 30th Day
\$2,000	31st through 60th Day
\$5,000	61st Day and beyond

d. The following stipulated penalties shall accrue per violation per day for each violation of the following requirements: Failure to comply with the requirements set forth in Paragraph 35:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 30th Day
\$2,000	31st through 60th Day
\$2,500	61st Day and beyond

e. If MWRD materially fails to implement Appendix E (MWRD Green Infrastructure Program), Defendant shall pay a stipulated penalty of \$325,000. MWRD shall nonetheless remain responsible for implementing Appendix E (MWRD Green Infrastructure Program).

53. Reporting Requirements. The following stipulated penalties shall accrue per violation per day for each violation of the reporting requirements of Paragraphs 32, 36 (a) and (c), and Section XII (Reporting Requirements) of this Consent Decree:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 500	1st through 30th day
\$1,000	31st through 60th day
\$2,000	61st day and beyond

54. Stipulated penalties under this Section shall begin to accrue on the day after performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree. MWRD shall pay any stipulated penalty within 60 days of receiving the United States' or the State's written demand, subject to MWRD's right to seek dispute resolution pursuant to Section XV (Dispute Resolution). MWRD shall pay 50 percent of the total stipulated penalty amount due to the United States and 50 percent

to the State. The Plaintiff making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Plaintiff.

55. The United States or the State may, in the unreviewable exercise of its own discretion, reduce or waive stipulated penalties otherwise due it under this Consent Decree.

56. Stipulated Penalties shall continue to accrue as provided in Paragraph 54, above, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA or the State, as applicable, that is not appealed to the Court, MWRD shall pay accrued penalties determined to be owing, together with interest, to the United States and the State within 60 days of the effective date of the agreement or the receipt of EPA's (or the State's) decision or order; provided, however, that if EPA or the State, as applicable, requires more than 60 days to issue a final agency decision concerning the dispute, MWRD shall be liable only for 60 days of stipulated penalties for the period from submission of the Statements of Position until issuance of the final agency decision, as set forth in Section XV (Dispute Resolution). Stipulated penalties shall begin to accrue again upon issuance of the final agency decision;

b. If the dispute is appealed to the Court and the United States or the State, as applicable, prevails in whole or in part, MWRD shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 days of receiving the Court's decision or order, except as provided in Subparagraph (c), below, and provided that in the event that the District Court takes longer than 180 days to resolve the dispute, MWRD shall be liable only for 180 days of accrued stipulated penalties;

c. If any Party appeals the District Court's decision, MWRD shall pay all accrued penalties determined to be owing, together with interest, within 15 days of receiving the final appellate court decision; provided, however, in the event that the Court of Appeals takes longer than 270 days to resolve the dispute, MWRD shall be liable only for 270 days of accrued stipulated penalties.

57. MWRD shall pay stipulated penalties owing to the United States and the State in the manner set forth in Paragraphs 10 and 12 and with the confirmation notices required by those Paragraphs, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

58. If MWRD fails to pay stipulated penalties according to the terms of this Consent Decree, MWRD shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States or the State from seeking any remedy otherwise provided by law for MWRD's failure to pay any stipulated penalties.

59. Subject to the provisions of Section XVII of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States or the State for MWRD's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Act, MWRD shall be allowed a credit, for any Stipulated Penalties paid, against any statutory penalties imposed for such violation.

#### XIV. FORCE MAJEURE

60. A “force majeure event” for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of MWRD, of any entity controlled by MWRD, or of MWRD’s contractors, that delays or prevents the performance of any obligation under this Consent Decree despite MWRD’s best efforts to fulfill the obligation. The requirement that MWRD exercise “best efforts to fulfill the obligation” includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. “Force Majeure” does not include MWRD’s financial inability to perform any obligation under this Consent Decree.

61. MWRD shall provide notice orally or by electronic or facsimile transmission as soon as possible, as provided in Section XIX of this Consent Decree (Notices), but not later than 96 hours after the time MWRD first knew of, or by the exercise of due diligence, should have known of, a claimed force majeure event and its impact on MWRD’s ability to perform an action required under this Consent Decree, including to meet one or more deadlines imposed hereunder. Within 14 days thereafter, MWRD shall provide in writing to EPA and Illinois EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or minimize the delay or the effect of the delay; MWRD’s rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of MWRD, such event

may cause or contribute to an endangerment to public health, welfare, or the environment. Failure to comply with the above requirements shall preclude MWRD from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. The notification provisions of this Paragraph 61 shall not apply to Contingency Events. The notification provisions of Paragraph 22 shall apply to Contingency Events.

62. If EPA, after consultation with Illinois EPA, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of time to perform the obligations affected by the force majeure event shall not, by itself, extend the time to perform any other obligation. EPA will notify MWRD in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

63. If EPA, after consultation with Illinois EPA, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify MWRD in writing of its decision.

64. If MWRD elects to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), it shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, MWRD shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and

mitigate the effects of the delay, and that MWRD complied with the requirements of Paragraphs 60 and 61, above. If MWRD carries this burden, the delay at issue shall be deemed not to be a violation by MWRD of the affected obligation of this Consent Decree identified to EPA and the Court.

#### XV. DISPUTE RESOLUTION

65. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. MWRD's failure to seek resolution of a dispute under this Section shall preclude MWRD from raising any such issue as a defense to an action by the United States to enforce any obligation of MWRD arising under this Decree.

66. Informal Dispute Resolution. Any dispute subject to dispute resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when MWRD sends the United States and the State a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States, after consultation with the State, shall be considered binding unless, within 20 days after the conclusion of the informal negotiation period, MWRD invokes formal dispute resolution procedures as set forth below.

67. Formal Dispute Resolution. MWRD shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving

on the United States and the State a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting MWRD's position and any supporting documentation relied upon by MWRD.

68. The United States, after consultation with the State, shall serve its Statement of Position within 45 days of receipt of MWRD's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documents relied upon by the United States. The United States' Statement of Position shall be binding on MWRD, unless MWRD files a motion for judicial review of the dispute in accordance with the following Paragraph.

69. MWRD may seek judicial review of the dispute by filing with the Court and serving on the United States and the State, in accordance with Section XIX of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 10 days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of MWRD's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

70. The United States, after consultation with the State, shall respond to MWRD's motion within the time period allowed by the Local Rules of this Court. MWRD may file a reply memorandum, to the extent permitted by the Local Rules.

71. Standard of Review

a. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 67 pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA and/or Illinois EPA under this Consent Decree; the adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, MWRD shall have the burden of demonstrating, based on the administrative record, that the position of the United States, after consultation with the State, is arbitrary and capricious or otherwise not in accordance with law; and

b. Other Disputes. Except as otherwise provided in this Consent Decree, in any other dispute brought under Paragraph 67, MWRD shall bear the burden of demonstrating that its position complies with this Consent Decree and better furthers the objectives of the Consent Decree.

72. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of MWRD under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 56. If MWRD does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIII (Stipulated Penalties).

XVI. INFORMATION COLLECTION AND RETENTION

73. The United States, the State and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credentials to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States or the State in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by MWRD or its representative, contractors, or consultants;
- d. obtain documentary evidence, including photographs and similar data; and
- e. assess MWRD's compliance with this Consent Decree.

74. Upon request, MWRD shall provide EPA, the State or their authorized representatives splits of any samples taken by MWRD. Upon request, EPA or the State shall provide MWRD splits of any samples taken by EPA or the State related to compliance with this Consent Decree.

75. Maintaining Records

- a. MWRD shall maintain the following documents for five years from the date that they are created:
  - i. All complaints received by MWRD from any person or entity pertaining to the matters addressed by this Consent Decree and all actions taken in response to such complaints;

- ii. All the documents required to be maintained pursuant to Appendix B (Floatables Plan), including collection logs; and
- b. MWRD shall maintain records of the following information for a period of 5 years after termination of the Consent Decree pursuant to Paragraph 94(b) or 95(b), as applicable:
  - i. All data and information developed by MWRD pursuant to the monitoring requirements set forth in Section IX (Post Construction Monitoring);
  - ii. All reports, plans, permits and documents submitted to EPA and Illinois EPA pursuant to this Consent Decree; and
  - iii. All reports prepared pursuant to Sections VI (Compliance Requirements Prior to TARP Completion) and VIII (TARP System Performance Criteria) of this Consent Decree; and
- c. Notwithstanding the above, MWRD shall maintain all underlying research and data supporting all reports, plans, permits and documents submitted to EPA and Illinois EPA pursuant to this Consent Decree for a period of 5 years after submission of the relevant report, plan, permit or document.

76. At the conclusion of the information-retention period provided in the preceding Paragraph, MWRD shall notify the United States and the State at least 90 days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States or the State, MWRD shall deliver any such documents, records, or other information to EPA or the State. MWRD may assert that certain documents, records, or other information is

privileged under the attorney-client privilege or any other privilege recognized by federal law. If MWRD asserts such a privilege, it shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by MWRD. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

77. MWRD may also assert that information required to be provided under this Section is protected as Confidential Business Information (“CBI”) under 40 C.F.R. Part 2. As to any information that MWRD seeks to protect as CBI, MWRD shall follow the procedures set forth in 40 C.F.R. Part 2.

78. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States or the State pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of MWRD to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

79. This Consent Decree resolves the civil claims of the United States and the State for the violations alleged in the Complaint filed in this action through the date of lodging.

80. The United States and the State reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in

Paragraph 79. This Consent Decree shall not be construed to limit the rights of the United States or the State to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal laws, regulations, or permit conditions, except as expressly specified in Paragraph 79.

81. In any subsequent administrative or judicial proceeding initiated by the United States or the State for injunctive relief, civil penalties, other appropriate relief relating to the Facilities or MWRD's violations, MWRD shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State 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 79 of this Section.

82. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. MWRD is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and MWRD's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States and the State do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that MWRD's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 33 U.S.C. § 1251 *et seq.*, or with any other provisions of federal, State, or local laws, regulations, or permits.

83. The Parties agree that in any future civil action by EPA or by the State of Illinois for injunctive relief to address federal Clean Water Act (the “Act”) or Illinois Environmental Protection Act violations that occur after the Date of Lodging of this Consent Decree, MWRD’s compliance or noncompliance with the remedial measures set forth in this Consent Decree may be taken into account by a District Court fashioning appropriate injunctive relief. The Parties further agree that in any future civil action for penalties for violations that occur after the Date of Lodging of this Consent Decree, MWRD’s compliance or noncompliance with the remedial measures set forth in this Consent Decree shall be considered to be among the factors (including the factors specified in 33 U.S.C. § 1319(d) or 415 ILCS 5/42(h), as applicable) that may be taken into account by a federal District Court or a State Circuit Court in determining the amount of a civil penalty.

84. This Consent Decree does not limit or affect the rights of MWRD or of the United States or the State against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against MWRD, except as otherwise provided by law.

85. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

#### XVIII. COSTS

86. The Parties shall bear their own costs of this action, including attorneys fees, except that the United States and the State shall be entitled to collect the costs (including attorneys fees) incurred in any action necessary to collect any portion of a civil penalty or any stipulated penalties due but not paid by MWRD.

XIX. NOTICES

87. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To the United States:

Department of Justice:

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
Box 7611 Ben Franklin Station  
Washington, D.C. 20044-7611  
Re: DOJ No. 90-5-1-1-07679

EPA:

Chief  
Water Enforcement and Compliance Assurance Branch  
Water Division  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

Regional Counsel  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

and

To EPA only:

Chief  
Water Enforcement and Compliance Assurance Branch  
Water Division  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

and

Regional Counsel  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

To the State:

Thomas Shepherd or designee  
Assistant Attorney General  
Environmental Bureau  
Illinois Attorney General's Office  
69 West Washington, Suite 1800  
Chicago, IL 60602

Rob Sulski or Manager, Field Operations Section  
Illinois EPA  
Division of Water Pollution Control  
Des Plaines Regional Office  
9511 West Harrison Street  
Des Plaines, IL 60016

Roger Callaway or Manager, Compliance Assurance Section  
Illinois EPA  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, IL 62794-9276

and

To Illinois EPA:

Rob Sulski or Manager, Field Operations Section  
Illinois EPA  
Division of Water Pollution Control  
Des Plaines Regional Office  
9511 West Harrison Street  
Des Plaines, IL 60016

Roger Callaway or Manager, Compliance Assurance Section  
Illinois EPA  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, IL 62794-9276

To MWRD:

David St. Pierre  
Executive Director  
Metropolitan Water Reclamation District of Greater Chicago  
100 East Erie Street  
Chicago, IL 60611

and

General Counsel  
Metropolitan Water Reclamation District of Greater Chicago  
100 East Erie Street  
Chicago, IL 60611

A single notification of any individual listed under more than one party or entity shall be deemed sufficient as to that individual.

88. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

89. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XX. EFFECTIVE DATE

90. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

XXI. RETENTION OF JURISDICTION

91. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XV (Dispute Resolution) and XXII (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XXII. MODIFICATION

92. This Consent Decree may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to any term of this Decree, it shall be effective only upon approval by the Court.

93. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 71, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXIII. TERMINATION

94. Calumet TARP System

a. Partial Termination: After MWRD has completed the requirements of Paragraph 16 (Thornton Composite Reservoir) of this Decree and, thereafter, has maintained satisfactory compliance with Paragraph 28 (TARP System Performance Criteria; for Calumet TARP System) for one year, and has paid any accrued stipulated penalties as required by this Consent Decree, MWRD may serve upon the United States and the State a request for Partial Termination-Calumet TARP System,

stating that MWRD has satisfied those requirements, together with all necessary supporting documentation. Upon approval by the Court pursuant to this Paragraph, Partial Termination-Calumet TARP System shall terminate the following paragraphs of this Consent Decree as applied to the Calumet TARP System: Paragraph 21 (obligation to provide annual reports of mining schedule), Paragraph 28 (Calumet TARP System Performance Criteria) and those subparagraphs of Paragraph 52 (Compliance Milestones/Stipulated Penalties) that relate to obligations enumerated immediately above in this Paragraph 94(a).

b. Final Termination: If MWRD has completed the requirements of Paragraph 16 (Thornton Composite Reservoir) of this Decree and, thereafter, has maintained satisfactory compliance with Section VIII (TARP System Performance Criteria; for Calumet TARP System) for one year and after MWRD has completed the requirements of Paragraph 36 (Post Construction Monitoring) of this Decree as they apply to the Calumet TARP System, and has paid any accrued stipulated penalties as required by this Consent Decree, MWRD may serve upon the United States and the State a request for Final Termination-Calumet TARP System, stating that MWRD has satisfied those requirements, together with all necessary supporting documentation. Upon approval by the Court pursuant to this Paragraph, Final Termination-Calumet TARP System shall terminate all provisions of this Consent Decree relating to the Calumet TARP System, including Section XIII (Stipulated Penalties) and Section XII (Reporting Requirements). If Final Termination-Mainstream/Lower Des Plaines TARP System has been approved by the Court, approval by the Court of Final Termination-Calumet TARP System shall terminate this Consent Decree.

95. Mainstream/Lower Des Plaines TARP System

a. Partial Termination: After MWRD has completed the requirements of Paragraph 17 (McCook Reservoir) of this Decree and, thereafter, has maintained satisfactory compliance with Paragraph 29 (TARP System Performance Criteria; for Mainstream/Lower Des Plaines TARP System) for one year, and has paid any accrued stipulated penalties as required by this Consent Decree, MWRD may serve upon the United States and the State a request for Partial Termination-Mainstream/Lower Des Plaines TARP System, stating that MWRD has satisfied those requirements, together with all necessary supporting documentation. Upon approval by the Court pursuant to this Paragraph, Partial Termination-Mainstream/Lower Des Plaines TARP System shall terminate the following paragraphs of this Consent Decree as applied to the Mainstream/Lower Des Plaines TARP System: Paragraph 21 (obligation to provide annual reports of mining schedule), Paragraph 29 (Mainstream/Lower Des Plaines TARP System Performance Criteria) and those subparagraphs of Paragraph 52 (Compliance Milestones/Stipulated Penalties) that relate to obligations enumerated immediately above in this Paragraph 95(a).

b. Final Termination: If MWRD has completed the requirements of Paragraph 17 (McCook Reservoir) of this Consent Decree and, thereafter, has maintained satisfactory compliance with Section VIII (TARP System Performance Criteria; for Mainstream/Lower Des Plaines TARP System) for one year and after MWRD has completed the requirements of Paragraph 36 (Post Construction Monitoring) of this Consent Decree as they apply to the Mainstream/Lower Des Plaines TARP System, completed the requirements of Appendix E of this Consent Decree and has paid any

accrued stipulated penalties as required by this Consent Decree, MWRD may serve upon the United States and the State a request for Final Termination-Mainstream/Lower Des Plaines TARP System, stating that MWRD has satisfied those requirements, together with all necessary supporting documentation. Upon approval by the Court pursuant to this Paragraph, Final Termination-Mainstream/Lower Des Plaines TARP System shall terminate all provisions of this Consent Decree relating to the Mainstream/Lower Des Plaines TARP System, including Section XIII (Stipulated Penalties) and Section XII (Reporting Requirements). If Final Termination-Calumet TARP System has been approved by the Court, approval by the Court of Final Termination-Mainstream/Lower Des Plaines TARP System shall terminate this Consent Decree.

96. Following receipt by the United States of MWRD's Request for Termination pursuant to Paragraph 94(a) or (b) or Paragraph 95(a) or (b), the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether MWRD has satisfactorily complied with the applicable requirements set forth in those paragraphs. If the United States, after consultation with the State, agrees that the applicable requirements have been satisfied, the Parties shall submit, for the Court's approval, a joint stipulation for the appropriate partial or final termination of this Consent Decree.

97. If the United States, after consultation with the State, does not agree that the applicable requirements for termination of the Decree have been satisfied, MWRD may invoke Dispute Resolution under Section XV of this Decree. However, MWRD shall not seek Dispute Resolution of any dispute regarding termination under Paragraph

67 of Section XV (Dispute Resolution), until 90 days after service of its Request for Termination.

#### XXIV. PUBLIC PARTICIPATION

98. 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 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. MWRD consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Consent Decree, unless the United States has notified MWRD in writing that it no longer supports entry of the Decree.

#### XXV. SIGNATORIES/SERVICE

99. Each undersigned representative of MWRD, the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice and the undersigned representatives of the State certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

100. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis.

101. MWRD agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service

requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXVI. INTEGRATION

102. This Consent Decree and its Appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersede all prior agreements and understandings, whether oral or written concerning the settlement embodied therein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXVII. FINAL JUDGMENT

103. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, the State, and MWRD.

XXVIII. APPENDICES

104. Appendix A, the Description of TARP, is attached hereto and provided for informational purposes only.

105. Appendices B through E are attached to and incorporated into this Consent Decree:

“Appendix B” is the Floatables Control Plan.

“Appendix C” is the Table of TARP Drop Shaft Sluice Gates and CSO Outfall Tide Gates.

“Appendix D” is the Maintenance Procedures for TARP Sluice Gate and  
Tide Gate Monitoring Systems.

“Appendix E” is the MWRD Green Infrastructure Program.

Dated and entered this \_\_\_ day of \_\_\_\_\_, 2012.

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United States District Judge  
United States District Court  
Northern District of Illinois

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and State of Illinois v. Metropolitan Water Reclamation District of Greater Chicago* (N.D. Illinois).

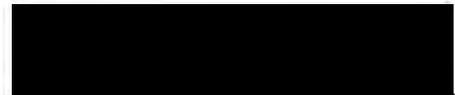
FOR PLAINTIFF UNITED STATES OF AMERICA:

DATE: 12/13/11



IGNACIA S. MORENO  
Assistant Attorney General  
Environment and Natural Resources Division  
U.S. Department of Justice

DATE: 12/13/11



CATHERINE BANERJEE ROJKO  
Senior Attorney  
STEVEN D. ELLIS  
Trial Attorney  
Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, D.C. 20044

DATE: 12/13/11

PATRICK J. FITZGERALD  
United States Attorney



KURT N. LINDLAND  
Assistant United States Attorney  
United States Attorney's Office  
219 South Dearborn Street, Suite 500  
Chicago, Illinois 60604

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and State of Illinois v. Metropolitan Water Reclamation District of Greater Chicago (N.D. Illinois)*

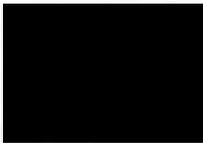
FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

DATE: 11/30/11



CYNTHIA GILES  
Assistant Administrator  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency

DATE: November 21, 2011



ADAM M. KUSHNER  
Office Director  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency

DATE: November 21, 2011



MARK POLLINS  
Division Director  
Water Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency

DATE: November 21, 2011



SUSHILA NANDA  
Water Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and State of Illinois v. Metropolitan Water Reclamation District of Greater Chicago* (N.D. Illinois).

DATE: 12-5-11



SUSAN HEDMAN  
Regional Administrator  
U.S. Environmental Protection Agency  
Region 5

DATE: 11-28-11



DEBORAH CARLSON  
Associate Regional Counsel  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and State of Illinois v. Metropolitan Water Reclamation District of Greater Chicago* (N.D. Illinois).

FOR PLAINTIFF THE STATE OF ILLINOIS:

LISA MADIGAN, Attorney General

MATTHEW J. DUNN, Chief  
Environmental Enforcement/Asbestos Litigation Division

DATE: 12/5/11



ROSEMARIE CAZEAU, Chief  
Environmental Bureau  
Assistant Attorney General  
69 West Washington Street, Suite 1800  
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THE ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

DATE:



JOHN J. KIM  
Interim Director  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States and State of Illinois v. Metropolitan Water Reclamation District of Greater Chicago* (N.D. Illinois).

FOR METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO:

DATE: 11/30/11

A solid black rectangular box redacting the signature of David St. Pierre.

\_\_\_\_\_  
DAVID ST. PIERRE  
Executive Director  
Metropolitan Water Reclamation District of  
Greater Chicago

**Metropolitan Water Reclamation District of Greater Chicago**  
**Appendix A- Description of TARP\***

Introduction:

After several years of study of numerous alternatives, the Flood Control Coordinating Committee (FCCC) consisting of representatives of the State of Illinois, County of Cook, Metropolitan Sanitary District of Greater Chicago (MSDGC), and the City of Chicago adopted the *Development of a Flood and Pollution Control Plan for the Chicagoland Area – THE CHICAGO UNDERFLOW PLAN* in December, 1972. The purpose of the plan was to create a cost-effective solution to the flooding and water quality problems caused by overflows from the combined sewer systems of numerous municipalities in metropolitan Chicago. The MSDGC, now the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), was designated as the implementation agency because of its regional authority, responsibility for wastewater treatment, and jurisdiction over urban drainage. The FCCC recognized long-standing drainage problems caused by rapid urban development following World War II and more recent federal legislation calling for states to develop water quality standards to address pollution from point and nonpoint sources. Some agencies continue to call the plan the Chicago Underflow Plan (CUP). The MSDGC eventually used the Tunnel and Reservoir Plan (TARP) for the name of this adopted plan recognizing its two principal features. A more popular term, Deep Tunnel, has also been used as a name for the project.

The MSDGC submitted grant applications for construction of the first segments of tunnels and related structures to the EPA for funding under the construction grant program authorized by Public Law 92-500. Upon review of the applications, questions were eventually raised by the Office of Management and Budget regarding the eligibility of flood control projects for funding through the EPA construction grants program. Therefore, the CUP or TARP was separated into two phases, with Phase I funding elements of the project that were deemed to be necessary to meet the pollution control objectives of the statute and Phase II funding project elements deemed to be non-water quality, flood control related project features. Phase I would be authorized under the EPA construction grants program, and Phase II would be subject to further study for authorization under the Water Resources Development Authority of the U.S. Army Corps of Engineers (Corps). These conclusions were confirmed in a letter from Mr. James L. Agee, EPA Assistant Administrator for Water and Hazardous Materials, to the EPA Region V Regional Administrator, dated July 3, 1975.

\* This Appendix A is provided by MWRD for informational purposes only.

General:

As stated above, the FCCC selected TARP as the most cost-effective means of achieving compliance with Federal and State water quality standards and providing significant protection against flooding in the 350 square mile combined sewer area consisting of Chicago and 51 suburbs in Cook County, Illinois. TARP's main goals are to protect Lake Michigan from raw sewage pollution; improve the water quality of area waterways; and provide an outlet for floodwaters to reduce street and basement sewage backup flooding. TARP is designed to capture and store combined sewer flows that otherwise would become combined sewer overflows (CSO's) in tunnels and reservoirs until they can be pumped to existing treatment plants for full secondary treatment prior to discharge to Chicago area waterways. In 1995, Illinois EPA approved TARP as MWRDGC's CSO long term control plan under the presumption approach of EPA's Combined Sewer Overflow Control Policy, dated April 19, 1994.

During dry weather, sanitary sewage is conveyed through local sewer systems to MWRDGC interceptors, which transport the waste to water reclamation plants (WRPs) for treatment and discharge in compliance with NPDES permits. During rainfall events, stormwater entering the combined sewer system increases the hydraulic loading in the local sewers, intercepting sewers and treatment plants. When the hydraulic capacity of this infrastructure is reached, additional stormwater runoff will cause combined sewage to overflow to the local waterways through numerous outfalls. Excessive stormwater inflows may also cause flooding, as shown on Figure 1. The TARP system was designed and has been constructed to alleviate this problem by providing an outlet for the excess combined sewer flow that would otherwise overflow to the waterways. A simplified schematic of how the TARP system works is shown on Figure 2.

Phase I of TARP consists of four distinct tunnel systems: Mainstream, Des Plaines (Lower Des Plaines), Calumet, and Upper Des Plaines, and their associated connecting structures, drop shafts, sluice gate regulating structures and pumping stations. Phase II of TARP consists of three large reservoirs: Gloria Alitto Majewski Reservoir (formerly called the O'Hare CUP Reservoir) to serve the Upper Des Plaines system, McCook Reservoir to serve the Mainstream and Lower Des Plaines systems, and Thornton Composite Reservoir to serve the Calumet system. The separate tunnel systems and their service areas are shown on Figure 3. Connecting structures, including junction structures and interceptor relief structures, are used to divert flow from combined sewers and overloaded interceptors to drop shafts, where the flow is conveyed down to the deep tunnels. Many larger sewers are connected to the tunnel systems through sluice gate regulating structures. Figure 4 is a schematic of a typical drop shaft and connecting structure. After a storm event, deep tunnel pumping stations dewater the system as WRP capacity becomes available, making the tunnel and reservoir capacity available for the next storm event. All captured combined sewer flow pumped to the WRP receives full secondary treatment prior to being discharged to the waterway pursuant to NPDES permits.

Upper Des Plaines Tunnel and Reservoir System:

The Upper Des Plaines TARP system is the smallest of the TARP systems and was the first one to be completed. The Phase I tunnels were built integral to and serve as the dry weather flow interceptors for the Kirie WRP, and went into service in 1980. The Phase II TARP Majewski Reservoir was constructed by the Corps and became operational in 1998. After a storm event, water captured in the tunnels and the Majewski Reservoir is pumped to the Kirie WRP when capacity is available, making the TARP system available for the next storm event. All captured combined sewer flow pumped to the Kirie WRP receives full tertiary treatment prior to being discharged to the Higgins Creek tributary of Des Plaines River pursuant to the WRP's NPDES permit.

Characteristics of the Upper Des Plaines Phase I Tunnels and Phase II Reservoir are shown below in Tables 1 and 2.

**Table 1: Characteristics of the Upper Des Plaines Phase I Tunnels.**

<b>Tunnel System</b>	<b>Upper Des Plaines</b>
Tunnel Diameter, feet	9 to 20
Miles of Tunnels	6.6
Volume of Storage for Combined Sewage, million gallons (MG)	71
Number of Drop Shafts	9
Number of Outfalls Connected	10
Number of Outfalls Monitored	10
Number of Regulating Gate Structures	7
Number of Connecting and Interceptor Relief Structures	16
Tunnel Outlet	Majewski Reservoir
Collected Flow Treated at:	Kirie WRP
Service Area, square miles	8
Population Served	62,000

**Table 2: Characteristics of the Upper Des Plaines Phase II Majewski Reservoir.**

<b>Reservoir</b>	<b>O'Hare CUP</b>
Approximate Horizontal Dimensions, feet	1,000 x 600
Maximum Water Depth, feet	80
Volume of Storage for Combined Sewage, MG	350
Completion Date	1998

Mainstream and Lower Des Plaines Tunnel and Reservoir Systems:

A major portion of the Phase I Mainstream Tunnel System was completed and began operation in 1985. The entire Mainstream Tunnel was completed in 1998. The Phase I Lower Des Plaines Tunnel System began operation in 1989 and was completed in 2001. The tunnels were constructed in segments and placed into service as they were completed, in order to achieve interim benefits. After a storm event, water captured in the tunnels is pumped to the Stickney WRP as capacity becomes available, making the tunnels available for the next storm event. All captured combined sewer flow pumped to the Stickney WRP receives full secondary treatment prior to being discharged to the Chicago Sanitary and Ship Canal pursuant to the WRP's NPDES permit.

Three branch tunnels, known as the Lawrence Avenue Tunnel, the Nashville Avenue Tunnel, and the Southwest 13A Tunnel, are connected to the Mainstream Tunnel System. These branch tunnels were constructed prior to TARP to serve as relief sewers and prototypes to the Mainstream Tunnel System. The Lawrence Avenue and Nashville Avenue branch tunnels were built and are owned by the City of Chicago, and Southwest 13A branch tunnel is owned by the District. Each branch tunnel has connecting structures and drop shafts to capture wet weather flow from the local combined sewers and a permitted CSO outfall to discharge its overflow to the waterways (Outfall Nos. 042, 189, and 146 are the CSOs for, respectively, Lawrence Avenue, Nashville Avenue and Southwest 13A). Originally, each branch tunnel had a pumping station for dewatering the tunnel to an interceptor sewer during dry weather. The branch tunnel pumping stations were decommissioned upon completion of associated sections of the Mainstream tunnel and the Mainstream Pumping Station. With reservoir capacity currently unavailable, combined sewers can overflow to the waterways as the Phase I tunnels fill during severe storms. The branch tunnels noted above can also overflow to the waterways, when their associated sections of the Mainstream tunnel are full.

The Mainstream and the Lower Des Plaines Tunnel Systems will ultimately connect to the McCook Reservoir, increasing the combined storage capacity of the Mainstream and Lower Des Plaines Tunnel Systems by 7.3 times, and thereby reducing the frequency and severity of CSO events in the future. The Mainstream tunnel will be directly connected to the McCook Reservoir via a series of large wheel gates. Depending on the stage elevation in the McCook Reservoir, the Lower Des Plaines tunnel will flow by gravity or

be pumped to the reservoir. In either case, Lower Des Plaines tunnel flow must pass through two 5' diameter conduits with plug valves associated with the Dewatering Valve Chamber and the Distribution Tunnels at the Mainstream Pumping Station, and the conduits act as flow restrictors. Due to such flow restrictions, the Lower Des Plaines system will not be able to drain to the reservoir as fast as it fills during severe storms. Therefore, in order to prevent overflowing of the tunnel, gate closing needs to begin when the Lower Des Plaines Tunnel System is 75% full, in accordance with operating plans previously developed by MWRDGC. Overflowing of the Lower Des Plaines Tunnel can lead to flooding of local sewer systems due to the significant grade change from the upstream to the downstream end of same.

Characteristics of the Mainstream and Lower Des Plaines Phase I Tunnels are shown below in Table 3.

**Table 3: Characteristics of Mainstream and Lower Des Plaines Phase I Tunnels.**

<b>Tunnel System</b>	<b>Mainstream</b>	<b>Lower Des Plaines</b>
Tunnel Diameter, feet	8 to 33	10 to 33
Miles of Tunnel	40.5	25.6
Volume of Storage for Combined Sewage, million gallons (MG)	1,200	405
Number of Drop Shafts	147	51
Number of Outfalls Connected	257	73
Number of Outfalls Monitored	94	65
Number of Regulating Gate Structures	85	48
Number of Connecting and Interceptor Relief Structures	227	69
Current Tunnel Outlet	Mainstream Pumping Station	
Future Tunnel Outlet	McCook Reservoir	
Collected Flow Treated at:	Stickney WRP	
Service Area, square miles	220	32
Population Served	2,700,000	263,000

\*Does not include Lawrence Avenue Tunnels and Nashville Avenue Tunnels

The Mainstream and Lower Des Plaines Tunnel Systems will be connected to the Phase II McCook Reservoir, which will be completed and placed on-line in two stages. All water captured in the McCook Reservoir will be pumped to the Stickney WRP and

receive full secondary treatment prior to being discharged to the Chicago Sanitary and Ship Canal in Hodgkins.

In 1986, the U.S. Army Corps of Engineers (Corps) recommended Federal participation with MWRDGC in the construction of the McCook Reservoir, using the existing McCook Quarry. MWRDGC was unable to come to an agreement with Vulcan Materials Company (Vulcan) for purchase of the property. Subsequently, in 1996, after having considered one or more alternate plans, MWRDGC proposed to construct the McCook reservoir on its own property, by removing a number of large sludge lagoons from operation and excavating a massive hole at MWRDGC's Lawndale Avenue Solids Management Area. The proposal was reviewed and approved by the Corps and a Project Cooperation Agreement (PCA) with the Corps was signed in 1999. Under the PCA, the MWRDGC is designated as the project's local sponsor and is responsible for relocating utilities and facilities as needed and providing a rough hole for the reservoir.

In order to fulfill its obligations under the PCA, the MWRDGC developed the following projects:

- Decommissioning of Low Solids Lagoons: Seventeen of the MWRDGC biosolids stabilization and drying lagoons were decommissioned to provide the land necessary for constructing the reservoir.
- Conveyance Tunnel: A 2000' long tunnel was constructed in rock to connect the reservoir site to the existing Vulcan Quarry, to facilitate the mining.
- Site Preparation: Sludge lines that cut through the reservoir footprint were relocated, and earthwork was performed to drain the reservoir footprint to facilitate future work.
- Willow Springs Berm: Approximately 300,000 cubic yards of the reservoir site overburden was hauled off-site in a test project, and placed as a berm along the canal.
- 73<sup>rd</sup> Street Tunnel Relocation: Approximately 7,000 feet of the Phase 1 Mainstream Tunnel cut through the location of the McCook Reservoir was therefore rerouted.
- Overburden Removal: An estimated 10 million cubic yards of overburden material must be removed to allow the rock to be mined from the site. The overburden removal is anticipated to be completed under three separate contracts, in addition to the Willow Springs Berm contract. One contract has been completed, the second is underway, and the third will be advertised in the future. Approximately 80% of the overburden has been removed as of February 2011.
- Vulcan Conveyance System and Maintenance Facilities: A rock crusher and conveyance system and related mining facilities were constructed to crush and transport the rock from the reservoir site to the existing Vulcan Quarry.

- **Vulcan Mining Equipment:** A fleet of mining trucks and other mining equipment were procured to facilitate mining of the reservoir.
- **Mining:** The MWRDGC entered into an agreement with Vulcan on October 1, 2003, to mine the rough hole required for the original two stage reservoir. Terms of the Agreement require Vulcan to mine the hole at the same production rates they would have achieved at the existing quarry, which is the largest rock quarry in the Chicago area. Mining of the rough hole for Stage 1 of the McCook Reservoir was 36 percent complete as of February 2011.
- **Expanded Stage 2 Mining:** The MWRDGC and Vulcan will amend the existing agreement or enter into a separate agreement to allow for Vulcan to expand the Stage 2 hole to accommodate the 10 billion gallon final reservoir.
- **Mining Demobilization:** The existing crusher and other mining facilities will be removed upon completion of mining.

Also under the PCA, the Corps is responsible for converting the rough hole into a functional reservoir. The following projects are being pursued by the Corps to complete the Stage 1 McCook Reservoir:

- **Test Grout Curtain:** A test grout curtain was constructed along 400 linear feet of the reservoir perimeter to test the effectiveness of a grout curtain to prevent polluted water in the reservoir from migrating into the groundwater aquifer.
- **Stage 1 Grout Curtain:** Based on the performance of the Test Grout Curtain, a grout curtain was constructed around the north and west sides of the reservoir perimeter, to create a full hydraulic barrier between the reservoir rock walls and surrounding groundwater.
- **Stage 1 Groundwater Cut-Off Wall:** A bentonite slurry wall was constructed through the overburden, around the perimeter of Stage 1 of the reservoir, to prevent migration of groundwater into the reservoir.
- **Addition of Pumps and Motors:** Two additional 330 cubic feet per second pumps were installed at the Mainstream Pumping Station to provide adequate pumping capacity to dewater the reservoir to the Stickney Water Reclamation Plant.
- **Distribution Tunnel System:** Tunnels and an underground control chamber were installed to connect the future reservoir to the Mainstream Pumping Station.
- **Distribution Tunnels Emergency Work:** Due to excessive infiltration in the new Distribution Chamber from the Distribution Tunnels, emergency leakage investigation and repair work is underway.
- **Distribution Tunnels Follow-on Contract:** Corroded equipment in the Distribution Chamber will need to be replaced and new communication for fire and gas alarms installed.
- **Stages 1A and 1B Rockwall Stability Contracts:** As the final vertical rock faces of the reservoir are exposed, scaling, rock bolting, or other ground support will be

installed as required to make the permanent walls stable. This work is being performed under at least two contracts for Stage 1 of the reservoir. The Stage 1A Rockwall Stability Contract has been completed.

- Stage 1 Overburden Retaining Walls: Retaining walls were constructed in several areas of Stage 1 where the top of rock is lower than expected, in order to allow the footprint of the reservoir to be mined (due to time constraints, MWRDGC did part of this work).
- Main Tunnels and Gates: The Mainstream Tunnel will be connected to the reservoir by a new set of tunnels and control gates. This work is split among three contracts: one to fabricate and deliver the gates, another to excavate the main shaft, and the third to complete the tunnels and install the gates in the shaft. The fabrication and delivery of the gates and the main shaft excavation contracts are underway.
- Hydraulic Structures: Final connections to the reservoir will be made, including completion of the Distribution Tunnel, the Distribution Tunnel Outlet Structure, and connection of the Main Tunnel.
- Stage 1 Miscellaneous Surface Features: Fencing, access roads and ramps, overburden stabilization, service facilities, and landscaping will be provided, under one or more contracts.
- Stage 1 Miscellaneous Floor Features: Drainage improvements to the reservoir floor and reservoir aeration provisions will be provided.
- Sump Weir: The Corps has not yet determined if a weir will be required to create a sump within Stage 1 of the reservoir.
- Bulkhead of 73<sup>rd</sup> Street Tunnel between Stages 1 and 2: In order to fully utilize Stage 1 during mining of Stage 2, an abandoned tunnel between the two stages will be plugged.
- Stage 1 Instrumentation and Groundwater Monitoring Wells: Groundwater monitoring wells, piezometers, inclinometers, and other instrumentation will be provided to monitor the reservoir.

The following projects are being pursued by the Corps to complete the Stage 2 McCook Reservoir:

- Stage 2 Grout Curtain: Based on the performance of the Test Grout Curtain Contract, a grout curtain is under construction around the south and east sides of the reservoir perimeter, to create a full hydraulic barrier between the reservoir rock walls and surrounding groundwater.
- Stage 2 Groundwater Cut-Off Wall: A bentonite slurry wall was constructed through the overburden, around the perimeter of Stage 2 of the reservoir, to prevent migration of groundwater into the reservoir.

- Stage 2 Rockwall Stability Contracts: As the final vertical rock faces of the reservoir are exposed, scaling, rock bolting, or other ground support will be installed as required to make the permanent walls stable.
- Stage 2 Overburden Retaining Wall: A retaining wall will be constructed in several areas where the top of rock is lower than expected, in order to allow the footprint of the reservoir to be mined.
- Stage 2 Miscellaneous Surface Features: Fencing, access roads and ramps, overburden stabilization, and landscaping will be provided, under one or more contracts.
- Stage 2 Miscellaneous Floor Features: Drainage improvements to the reservoir floor and reservoir aeration provisions will be provided.
- Bulkhead Removal for 73<sup>rd</sup> Street Tunnel between Stages 1 and 2: As mining is being completed, the bulkhead that will be constructed through the abandoned tunnel between Stage 1 and 2 will be removed.
- Stage 2 Instrumentation and Groundwater Monitoring Wells: Groundwater monitoring wells, piezometers, inclinometers, and other instrumentation will be provided to monitor the reservoir.

Characteristics of the Phase II McCook Reservoir are shown below in Table 4. The general layout of the McCook Reservoir is shown on Figure 5.

**Table 4: Characteristics of the Phase II McCook Reservoir.**

Reservoir	McCook	
	Stage 1	Stage 2
Approximate Horizontal Dimensions, feet	3,000 x 600	3,400 x 950
Maximum Water Depth, feet	254	249
Volume of Storage for Combined Sewage, MG	3,500	6,500
Service Area, square miles	252	
Population Served	2,963,000	

Calumet Tunnel and Reservoir System:

The Phase I Calumet Tunnel System began operation in 1986 and was completed in 2006. The tunnels were constructed in segments and placed into service as they were completed, in order to maximize interim benefits. After a storm event, water captured in the tunnels is pumped to the Calumet WRP as capacity becomes available, making the tunnels available for the next storm event. All captured combined sewer flow pumped to the Calumet WRP receives full secondary treatment prior to being discharged to the Little Calumet River pursuant to the WRP's NPDES permit.

Five branch tunnels, known as the Calumet 18EA Tunnel, the Mount Greenwood Tunnel, the Calumet 19R1 Tunnel, the Calumet 20R2 Tunnel and the Cal-Sag Relief Tunnel are connected to the Calumet Tunnel System. These branch tunnels serve as relief sewers to both the combined and separate sewer areas. The Mount Greenwood branch tunnels were built and are owned by the City of Chicago, and they serve combined sewer areas. Calumet 18EA, also serving combined sewer areas, is owned by the District and is the only branch tunnel in Calumet that has a permitted CSO outfall (Outfall No. 158) and a now decommissioned pumping station. The Calumet 19R1, Calumet 20R2, and Cal-Sag Relief Tunnels are all owned by the District but not considered TARP tunnels since they provide relief to separate sewer areas.

With reservoir capacity currently unavailable, combined sewers can overflow to the waterways as the Phase I Calumet tunnels fill during severe storms. The Calumet 18EA branch tunnel can also overflow to the waterway, when its associated section of the Calumet Tunnel is full. The Calumet Tunnel System will ultimately connect to the Thornton Composite Reservoir, increasing the storage capacity for the Calumet Tunnel System by 8.6 times, thereby reducing the frequency and severity of CSO events in the future.

Characteristics of the Calumet Phase I Tunnels are shown below in Table 5.

**Table 5: Characteristics of Calumet Phase I Tunnels.**

<b>Tunnel System</b>	<b>Calumet</b>
Tunnel Diameter, feet	9 to 30
Miles of Tunnel	36.7
Volume of Storage for Combined Sewage, million gallons (MG)	630
Number of Drop Shafts	52
Number of Outfalls Connected	63
Number of Outfalls Monitored	51
Number of Regulating Gate Structures	27
Number of Connecting and Interceptor Relief Structures	48
Current Tunnel Outlet	Calumet TARP Pumping Station
Future Tunnel Outlet	Thornton Composite Reservoir
Collected Flow Treated at:	Calumet WRP
Service Area, square miles	90
Population Served	510,000

\*Does not include Mount Greenwood Tunnels, Calumet 19R1 Tunnel, Calumet 20R2 Tunnel and Cal-Sag Relief Tunnel

The Calumet Tunnel System will be connected to the Phase II Thornton Composite Reservoir. The Thornton Composite Reservoir is unique from the other two TARP reservoirs because it will receive floodwater from Thorn Creek in addition to the combined sewer flow. All water captured in the Thornton Composite Reservoir will be pumped to the Calumet WRP and receive full treatment prior to being discharged to the Little Calumet River.

Design and construction of the Thornton Composite Reservoir was planned to be a joint venture between the U.S. Army Corps of Engineers (Corps) and the MWRDGC. However, due to uncertainties in federal funding that threatened to deprive the Corps of appropriations sufficient to work on both the McCook and Thornton projects simultaneously, the MWRDGC committed to proceed with the Corps work on the Thornton Composite Reservoir using MWRDGC's own resources. The following projects will be completed as part of construction of Thornton Composite Reservoir:

- Vincennes Avenue Relocation: Approximately 2,500' of roadway that cut through the footprint of the reservoir was relocated, in order to provide the required storage volume.
- Thornton Transitional Reservoir: This temporary reservoir was constructed to provide floodwater storage for Thorn Creek while the Thornton Composite Reservoir is being constructed. Many of the facilities constructed for the transitional reservoir will be reused at the composite reservoir.
- Mining: The MWRDGC entered an agreement with Material Service Corporation (MSC) to purchase a portion of its existing rock quarry to be used for the reservoir. Under the agreement, MSC will expand the existing quarry to neighboring lands purchased by the MWRDGC in order to achieve the required storage volume. Mining of the rough hole for the Thornton Composite Reservoir was 92 percent complete as of February 2011.
- Tollway Dam, Grout Curtain and Quarry Plugs: The south side of the reservoir is a rock dam that separates the reservoir from the rest of the quarry and carries the I-80 Tollway. A large opening and two haul tunnels in this wall will be plugged to separate the reservoir from the quarry. Also, as part of this contract, a grout curtain is being constructed around the entire reservoir perimeter, creating a hydraulic barrier and providing stability to the rock dam.
- Connecting Tunnels and Gates: The existing TARP tunnels will be extended to connect to the reservoir. A large gate chamber will be constructed to allow for isolation of the tunnels from the reservoir.
- Final Reservoir Preparation: All remaining items required for operation of the Thornton Composite Reservoir such as the Thorn Creek tunnel connection, plugging and abandoning the transitional reservoir, live connections to the existing TARP tunnel, creating a drainage conduit in the abandoned Thorn Creek tunnel, and stabilization of the finished reservoir walls will be provided.
- Surface Aeration: It is anticipated that floating solar aerators will be installed in the reservoir to mitigate any odors that may come from the reservoir.

Characteristics of Phase II Thornton Composite Reservoir are shown below in Table 6. The general layout of the Thornton Composite Reservoir is shown on Figure 6.

**Table 6: Characteristics of the Phase II Thornton Composite Reservoir.**

<b>Reservoir</b>	<b>Thornton Composite</b>
Approximate Horizontal Dimensions, feet	2,500 x 1,600
Maximum Water Depth, feet	292
Volume of Storage for Combined Sewage, MG	4,800
Volume of Storage for Surface Floodwater, MG	3,100
Service Area, square miles	90
Population Served	510,000

Summary

TARP was undertaken to solve the enormous pollution and flooding problems caused by CSOs in the Chicagoland area. The TARP system has been under continuous construction for more than 35 years and portions have been in operation since 1980. The 2.3 billion gallons of storage capacity provided by the Phase I tunnels has significantly reduced the average number of days that CSOs occur each year, and also significantly reduced the number of actual outfalls activated during any of these days. The duration, volume, and severity of CSO events are greatly reduced, since the tunnels are available to capture the initial CSO volume from storms, including the relatively more polluted first flush of the combined sewers. A large percentage of the CSO pollution from TARP's service area is now successfully captured by Phase I of TARP and treated at the WRPs. The remaining CSOs and resulting pollution of the waterways will be further reduced when the Phase II McCook and Thornton Composite Reservoirs are completed. Table 7 below summarizes the various TARP systems.

**Table 7: Characteristics on the Complete TARP System**

	<b>Phase I Tunnels</b>	<b>O'Hare CUP Reservoir</b>	<b>McCook Reservoir Stage 1</b>	<b>McCook Reservoir Stage 2</b>	<b>Thornton Composite Reservoir</b>	<b>Total TARP System</b>
CSO Storage Capacity, MG	2,300	350	3,500	6,500	4,800	17,450
Percent of Total Capacity	13.2	2.0	20.0	37.3	27.5	100
Completion Date	2006	1998				

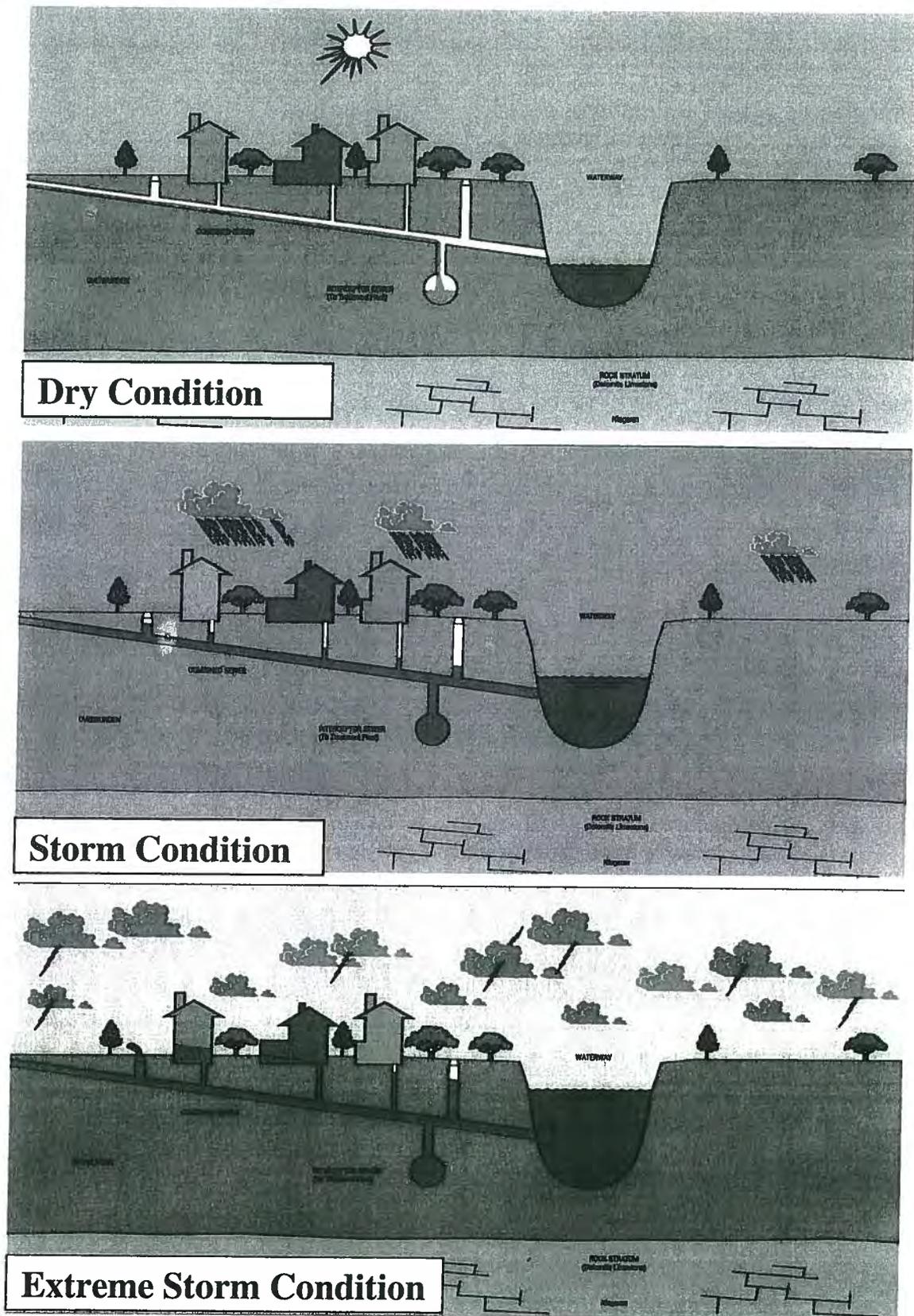


Figure 1: Combined Sewer System Operation

# Tunnel And Reservoir Plan

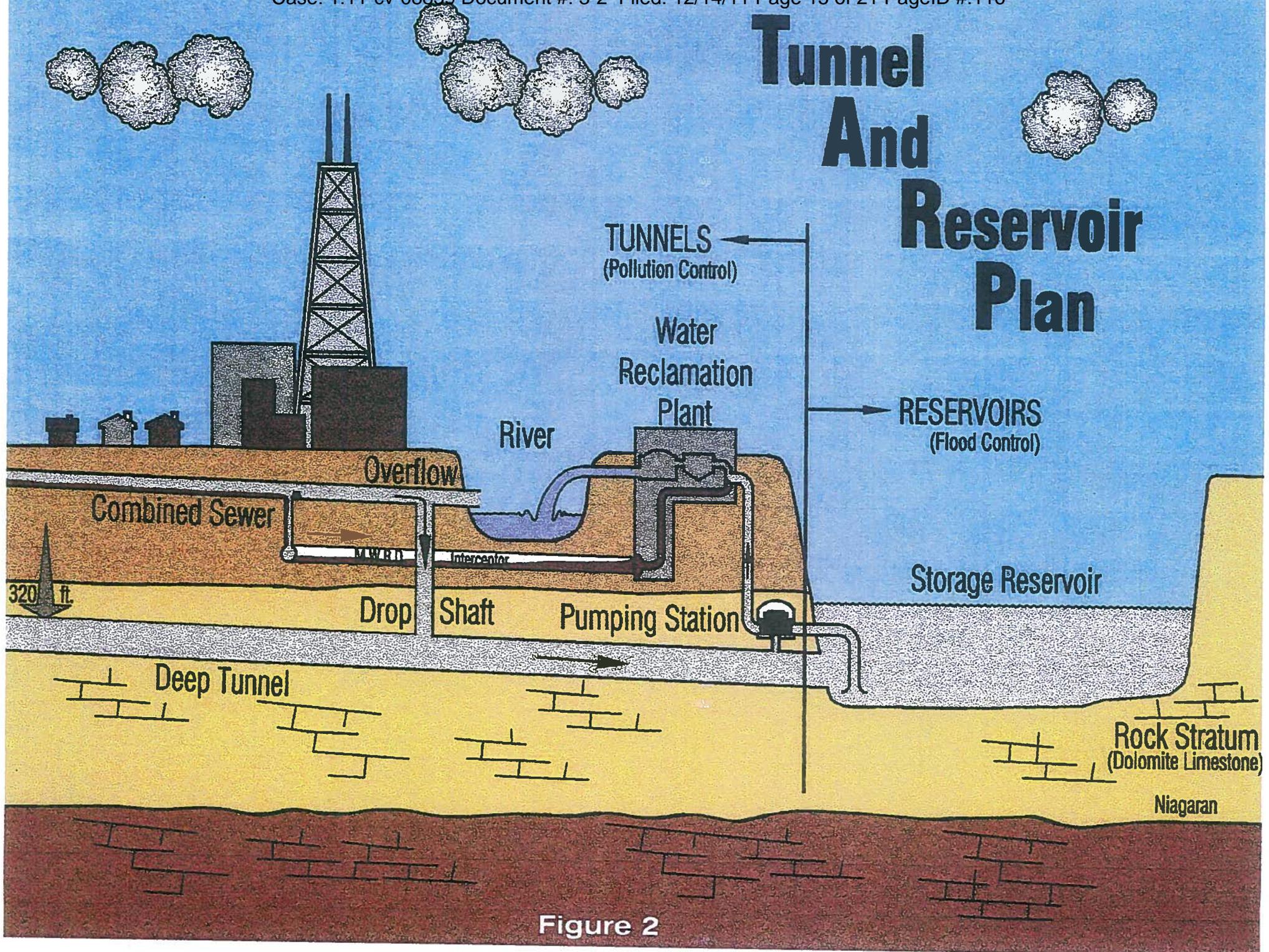


Figure 2

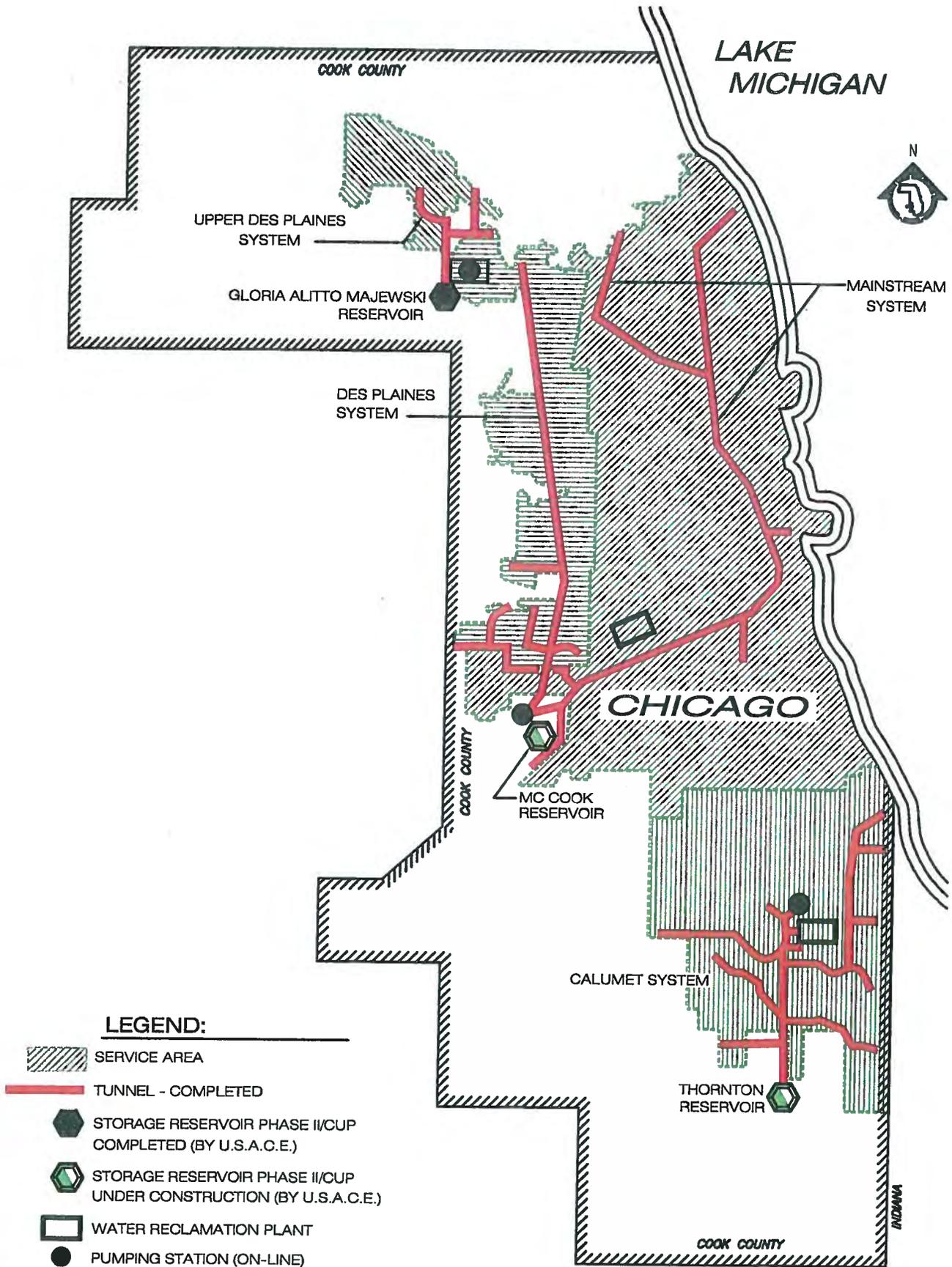


Figure 3: Tunnel and Reservoir Plan Project Status

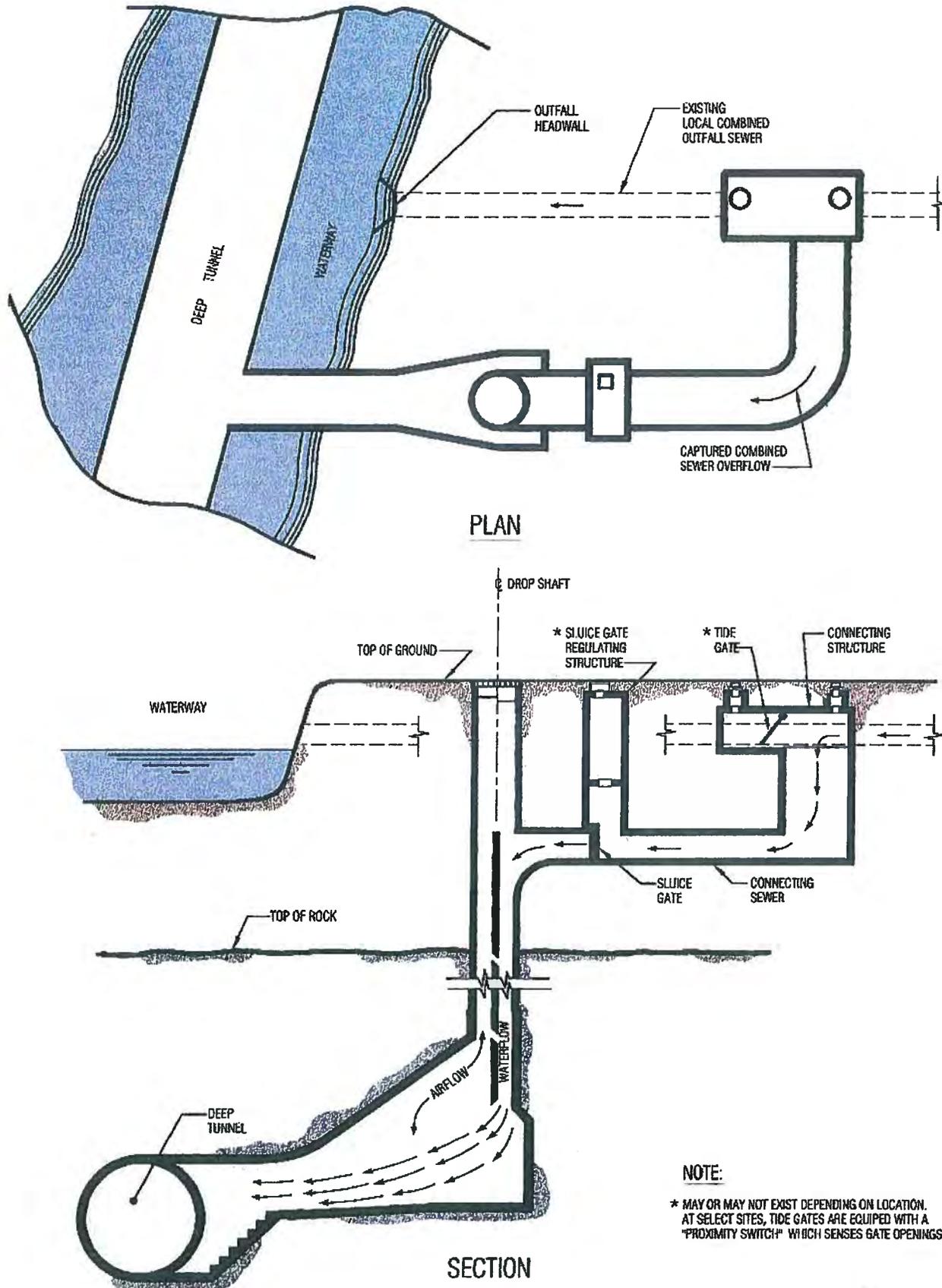


Figure 4: Drop Shaft Schematic

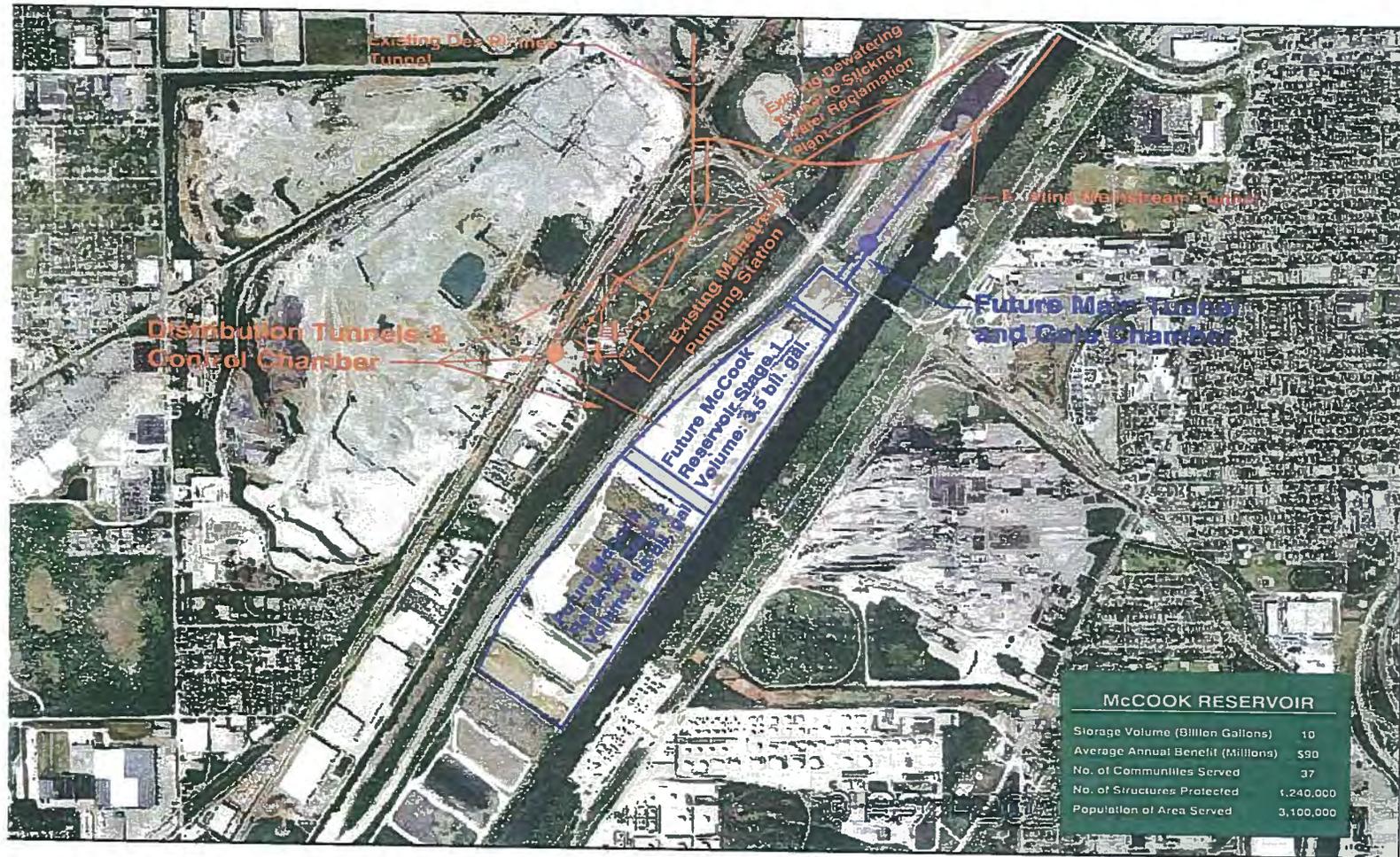


Fig. 5: McCook Reservoir



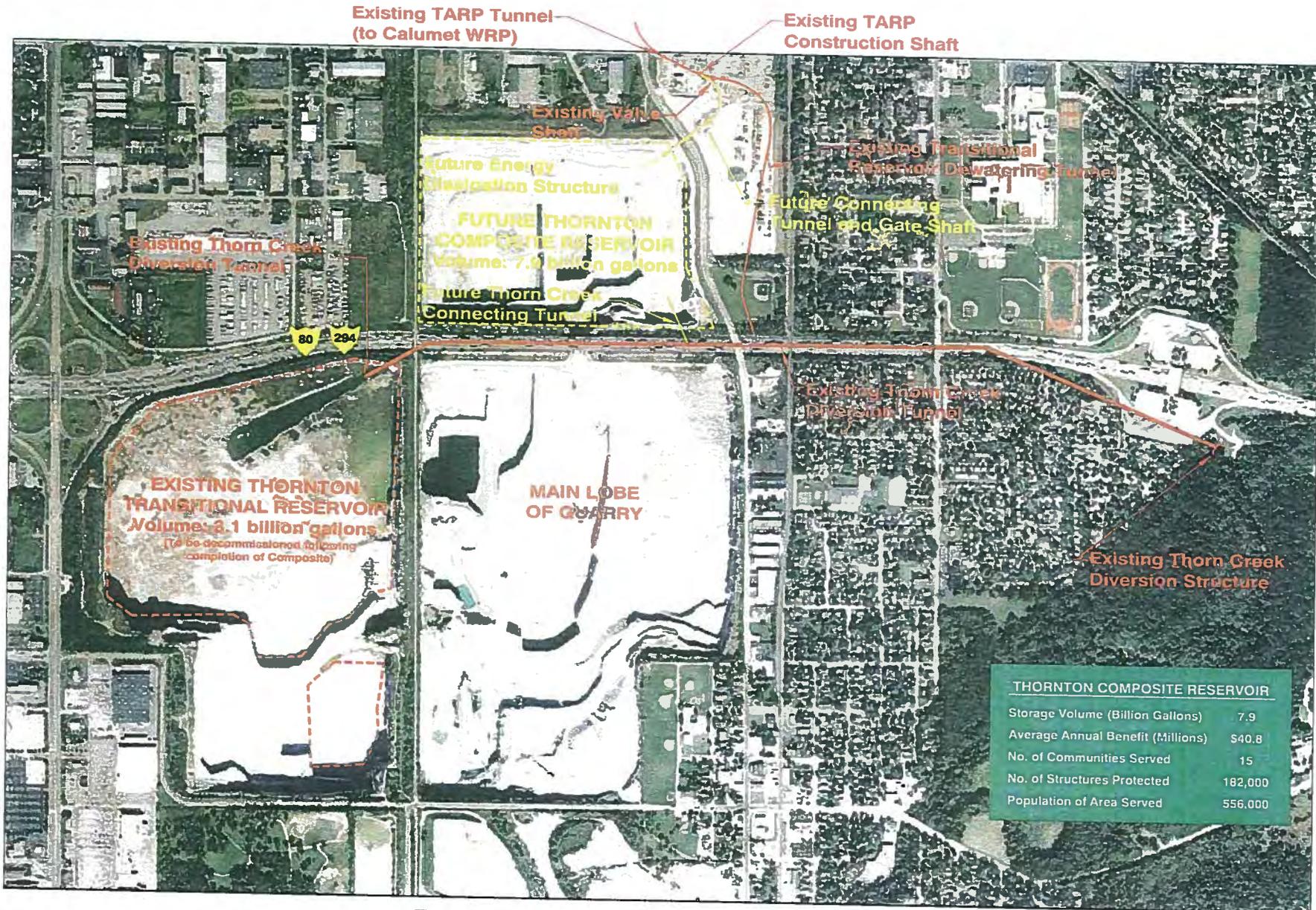


Figure 7: Thornton Composite Reservoir

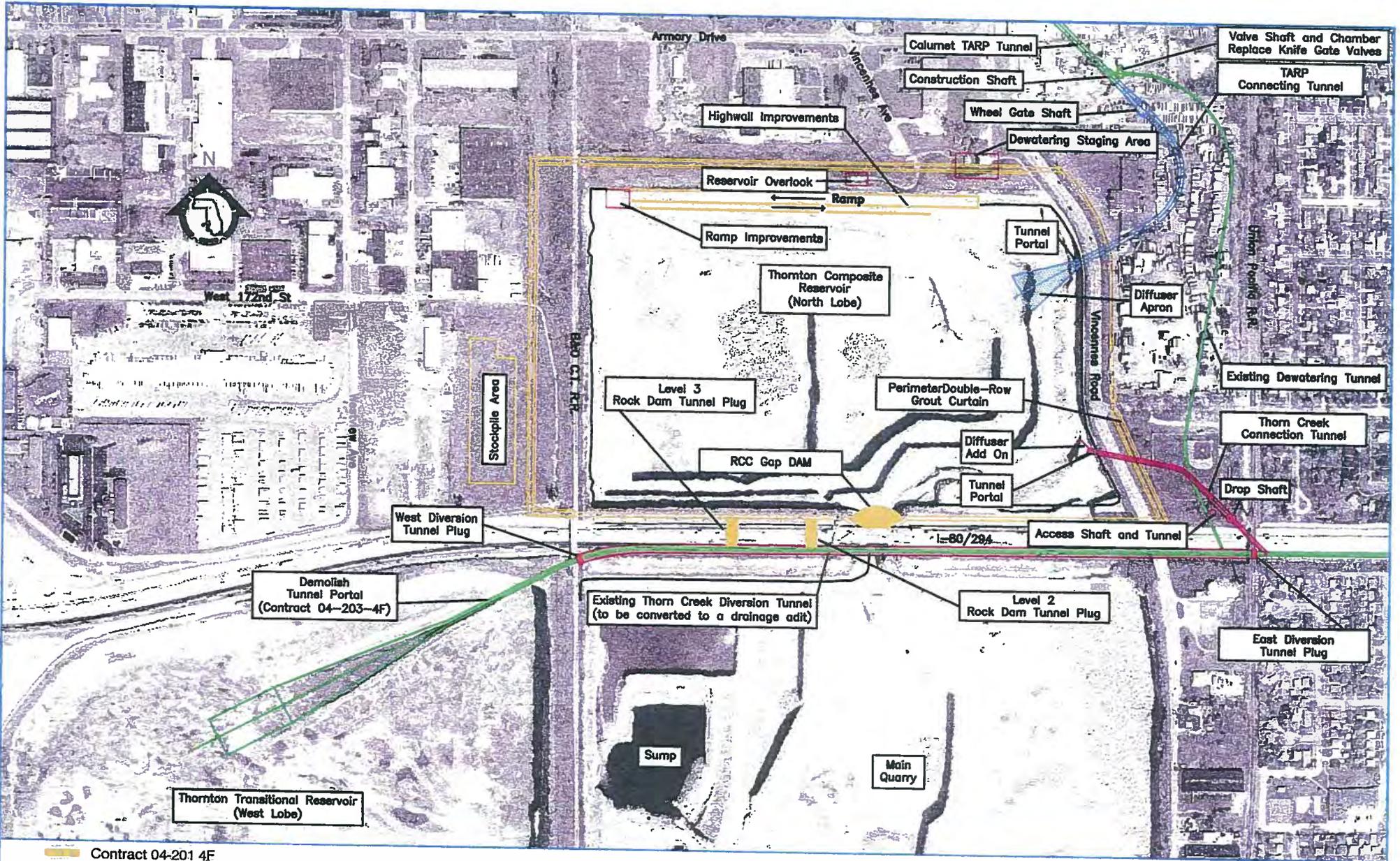


Fig. 8: Thornton Composite Reservoir

- Contract 04-201 4F
- Contract 04-202-4F
- Contract 04-203-4F
- Existing

## **APPENDIX B FLOATABLES CONTROL PLAN**

### **I. Routine Operations:**

MWRD operates two pontoon boats to collect CSO floatables and other debris from the Chicago Area Waterways (“CAWS”). The boats normally work the day shift, Monday through Friday, mid-April through mid-October. The area typically serviced by the boats is bordered by Goose Island (North Branch), the Amtrak Bridge (South Branch), and the Chicago River Controlling Works (Chicago River). On Tuesdays and Thursdays, a boat services the South Fork of the South Branch (a.k.a. Bubbly Creek). If any of the above areas are free of debris, the boats move to other areas of the CAWS that need to be cleaned. On occasion, the boats deviate from routine operations to respond to complaints, emergencies, investigations, or to prepare for and assist with special events.

MWRD shall continue routine operations as it has in the past, except when performing Special Operations as described below in response to a CSO event. As is the current practice, the boats will suspend operations for boat maintenance or if it is unsafe or infeasible to operate in the waterways. MWRD may substitute skimmer boats for pontoon boats.

### **II. Special Operations:**

**A. Response Activities:** In response to rain events that result in CSO events throughout the year, MWRD shall determine which Zone(s) of the CAWS had CSO events and dispatch a boat to the Zone(s) that experienced a CSO event as soon as possible consistent with day shift operations. These Special Operations shall start no later than 24 hours after the conclusion of the rain event, including on weekends, unless unsafe or infeasible. If such Special Operations are suspended due to safety concerns or other feasibility considerations described below, Special Operations shall resume as soon as it is deemed to be safe and feasible.

All boats shall be available for Special Operations under this Plan throughout the year subject to any required maintenance, unless these waterborne operations are unsafe or infeasible for reasons including but not limited to the presence of fog, ice, equipment icing, wind or limited visibility. The available boats shall include the two new trash collection boats to be procured pursuant to II.B below.

The waterways will be divided into five work zones:

1. Zone 1: North Branch and North Shore Channel, Kinzie Street to Main Street
2. Zone 2: Chicago River and South Branch of the Chicago River, Chicago River Lock to the Amtrak Bridge
3. Zone 3: South Branch of the Chicago River and South Fork of South Branch of the Chicago River, Amtrak Bridge to Racine Avenue Pump Station

4. Zone 4: Chicago Sanitary and Ship Canal, Damen Avenue to the Junction with the Cal-Sag Channel
5. Zone 5: Cal-Sag Channel and Little Calumet River, Bishop Ford Freeway Bridge to the Junction with the Chicago Sanitary and Ship Canal

Based on historical observations, the boats will travel to the “hot spots” within each zone. The hot spots are listed below. However, collection of floatables shall not be limited to areas designated as hot spots.

**ZONE 1**

<u>Location</u>	<u>River Mile</u>
1 Main Street	337.7
2 Oakton Street	337.0
3 Touhy Avenue	336.2
4 Foster Avenue	335.0
5 Lawrence Avenue	333.0
6 Irving Park Road	332.0
7 Addison Street	331.4
8 Diversey Avenue	330.2
9 Fullerton Avenue	329.5
10 Ashland Avenue	329.0
11 Armitage Avenue	328.7
12 Cortland Avenue	328.5
13 North Avenue	327.9
14 Chicago Avenue	326.4
15 Kinzie Street	325.8

**ZONE 2**

<u>Location</u>	<u>River Mile</u>
1 Michigan Avenue	326.4
2 Wolf Point	325.6
3 Lake Street	325.5
4 Randolph Street	325.4
5 Madison Street	325.3
6 Jackson Boulevard	325.0
7 18th Street	323.5

**ZONE 3**

<u>Location</u>	<u>River Mile</u>
1 AMTRAK Bridge	323.4
2 Halsted Street	322.9
3 Fisk Station	322.2
4 Loomis Street	321.9
5 Ashland Avenue	321.7
6 South Fork of SB	All

**ZONE 4**

<u>Location</u>	<u>River Mile</u>
1 Kedzie Avenue	319.5
2 Homan Avenue	319.0
3 Crawford Station	318.4
4 Cicero Avenue	317.2
5 Laramie Avenue	317.0
6 Central Avenue	316.2
7 Harlem	313.9
8 Corn Products/Argo	312.5
9 B&O Railroad	312.3
10 Willow Springs Road	307.9
11 Route 83	304.1
12 Junction	303.5

**ZONE 5**

<u>Location</u>	<u>River Mile</u>
1 Halsted Street	320.1
2 Ashland Avenue	319.1
3 Pulaski Road	316.0
4 Cicero Avenue	315.0
5 LaGrange Road	308.3
6 Route 83	304.3
7 Junction	303.2

MWRD shall have the following equipment available for responding to CSO events:

1. Debris Boat (DB 1)
2. Skimmer Boats (SB 1 and SB2)\*
3. Pontoon Boat (PB 1)

\* MWRD will perform Special Operations using its existing pontoon boats until they are replaced by SB 1 and SB 2.

**B. Procure SB1 and SB2:** MWRD shall procure the new SB1 and SB2 no later than 12 months after the Effective Date of this Consent Decree. SB1 and SB2 shall be trash collection boats designed to capture floatables and litter in a basket that skims the water between the hulls of the boat. The boats shall have a shallow draft to maximize the coverage area. SB1 and SB2 boats shall be equipped with outboard motors with minimal hydraulics or moving parts to allow for cold weather operations and to minimize downtime for maintenance. The boats shall be equipped with a wheelhouse to protect the operator. SB1 and SB2 shall be equipped with wheeled fenders to allow operation against vertical walls.

### **III. CSO Floatables Control in Addison Creek**

In an effort to further control floatables along Addison Creek, and subject to MWRD's ability to obtain permits from regulatory authorities and necessary easements from local agencies, MWRD shall install a containment boom downstream of Outfall #150 (Westchester Pump Station). MWRD shall conduct proper operation and maintenance of any such control measure installed.

### **IV. Reporting Requirements and Information Collection and Retention**

MWRD shall include information pertaining to activities taken under this Floatables Control Plan as required in the reporting requirements in Paragraph 44(a)(iv) of the Consent Decree and maintain records as required by Paragraph 75 of the Consent Decree.

## Appendix C

## Table of TARP Drop Shaft Sluice Gates and CSO Outfall Tide Gates

Mainstream		
Location	TARP Connection	Owner
Sheridan Rd (Wilmette P.S.) (W)	DS-M114N	MWRD
Sheridan Rd (W)	DS-M114N-2	Wilmette
Green Bay Rd & McCormick (W)	DS-M109N	MWRD
Green Bay Rd & McCormick (W)	DS-M109S	Evanston
Emerson St (W)	DS-M107-2	Evanston
Emerson St (W)	DS-M107-1	Skokie
Lake St (E)	DS-M106E	MWRD
Greenwood St & McCormick Blvd (W)	DS-M105W	Skokie
Greenleaf St (E)	TG-M105E	Evanston
Main St (W)	DS-M104W	Skokie
Main St (E)	DS-M104E	Evanston
Mulford St (E)	DS-M101	Evanston
Howard St (W)	DS-M100	MWRD
Pratt Ave (E)	DS-M97	Chicago
North Shore Ave (E)	DS-M97	Chicago
Ardmore Ave (E)	TG-M94	Chicago
Dempster St near Lincoln Ave (E)	DS-N19	Morton Grove
East of Caldwell Ave at Main St ext. (W)	DS-N18	Niles
Cleveland St east of Caldwell Ave (W)	DS-N17	Niles
Dobson St and Nordica Ave (W)	DS-N16	Niles
6872 Touhy Ave (Franks & Nieman) (W)	DS-N13R	Niles / Chicago
Caldwell Ave & Touhy Ave (Harts Rd & Touhy Ave) (E)	DS-N12	Niles
Forestview Lane & Riverside Dr (E of Milwaukee) (W)	DS-N11	Niles
Imlay St & Milwaukee (W)	DS-N10B	Chicago
Wildwood Ave ext. (Caldwell & Tonty) (E)	DS-N10A	Chicago
Miami Ave (Indian & Monitor) (W)	DS-N09	Chicago
Mango Ave ext. (Leonard & Miltmore) (W)	DS-N08	Chicago
Central Ave (5900 - 6100 North) (N)	DS-N07	Chicago
Ardmore Ave (Indian & Ardmore) (W)	DS-N06	Chicago
Forest Glen Ave (S), West of Cicero	DS-N05	Chicago
Cicero Ave (N), South of Forest Glen	DS-N04	Chicago
Kilbourn Ave & Bryn Mawr (N)	DS-N03	Chicago
Foster Ave & Keeler (W)	DS-N02	Chicago
Lawrence Ave (W)	DS-LAT	Chicago
North Branch P.S. (E)	DS-M90 & DS-M91	MWRD
Berteau Ave (W)	DS-M88	Chicago
Grace St (W), North of DS-M86	DS-M86	Chicago
Addison St (Inside ComEd's property) (E)	DS-M85	Chicago
Roscoe St (W)	DS-M84	Chicago
Melrose St & North Rockwell St (W)	DS-M83	Chicago
Belmont Ave (W)	DS-M82	Chicago
Western Ave East Bank (N)	TG-M81	Chicago
Leavitt St East Bank (N), Southwest of DS-M80	DS-M80	Chicago
Diversey Ave (W)	DS-M79	Chicago
Logan Blvd (W)	DS-M79	Chicago
Fullerton Ave (W)	DS-M76	Chicago
Fullerton Ave (E)	DS-M75	Chicago
McLean Ave (W)	DS-M73	Chicago
North Ave (W)	TG-M71	Chicago
North Ave (E)	DS-M70	Chicago
Blackhawk St (W)	DS-M66	Chicago
Cortez St & Elston (1030 N. Elston) (W)	DS-M64	Chicago
Fulton St & Canal St (W)	DS-M61A	Chicago
Beaubien Ct (St. Clair Street) (N)	TG-M60	Chicago
Michigan Ave (S)	DS-M55	Chicago
Franklin St (S)	DS-M54	Chicago
Washington St (W)	Indirect (TG-M53)	Chicago
Quincy St & Lower Wacker Dr (E)	DS-M52	Chicago
Harrison St (W)	DS-M51	Chicago
Polk St (W)	TG-I32	Chicago
Taylor St (W)	TG-I28 & I29	Chicago
Roosevelt Rd (Roosevelt & Lumber) (W)	DS-M49	Chicago
Maxwell St (Maxwell & Lumber) (W)	DS-M47	Chicago
14th St (E)	DS-M45	Chicago
Canal St & Grove St (S)	DS-M41	Chicago
Normal Ave (S)	DS-M40	Chicago
Union Ave (N)	DS-M38	Chicago
Lafin St (N)	DS-M35	Chicago
Paulina St (N)	DS-M25	Chicago
35th St. (W)	DS-M30	Chicago
Iron St (50' W of NW corner of RAPS) (S)	DS-M26	Chicago
Racine Ave P.S. (S)	DS-M27, DS-M28, DS-M29	MWRD
Oakley Ave (N)	TG-M22	Chicago

Western Ave (S)	DS-M21	Chicago
Rockwell St (N)	DS-M20	Chicago
California Ave (S)	DS-M19	Chicago
Albany Ave (N)	TG-I12	Chicago
Kedzie Ave (S)	DS-M17	Chicago
Lawndale Ave (N)	TG-M16	Chicago
Pulaski Rd (N)	TG-I9	Chicago
Pulaski Rd (S)	TG-I8	Chicago
Kenton Ave (Kostner Ave Ext.) (N)	DS-M15	Chicago
Cicero Ave (S)	TG-I5	Chicago
Leamington Ave (S)	DS-M12	Chicago
Laramie Ave ext. (Edmeir Rd, SE of SWRP guardhouse) (N)	DS-M13	MWRD
Lombard Ave (N)	DS-M10	MWRD
Hiawatha Ave (Highland Ave ext.) (N)	DS-M09	Stickney
East Ave (Ext.) (Hiawatha Ave, Highland Ave.) (N)	DS-M09	MWRD
Natchez Ave ext. (S)	DS-M08	Chicago
Nashville Ave P.S. (S)	TG-NASH	Chicago
Southwest Side 13A P.S./McCook P.S. (W)	TG-13A	MWRD
Lawndale Ave (E)	TG-M05	Summit
67th St ext. (E)	DS-M03	MWRD
47th St (41st St & DesPlaines River) (W)	DS-13A-4	Lyons

<b>Des Plaines</b>		
<b>Location</b>	<b>TARP Connection</b>	<b>Owner</b>
Prairie Ave (River Rd & Thacker St) (W)	DS-D01	Des Plaines
Algonquin Road (bridge abutment) (E)	DS-D02	Park Ridge
Des Plaines River Rd at Riverview Ave (W)	DS-D03R	Des Plaines
Howard St / Sibley Ave (E)	DS-D05	Park Ridge
Howard Street / Sibley Avenue (E)	DS-D05	Park Ridge
Touhy Ave (E)	DS-D06	Park Ridge
Touhy Ave (E)	DS-D06	Park Ridge
Devon Ave (E)	DS-D07	MWRD
Devon Ave (E)	DS-D07	Park Ridge
Devon Ave (E)	DS-D07	Park Ridge
Northwest Tollway (E)	DS-D08	MWRD
Foster Ave (N)	DS-D09	MWRD
Wilson Ave ext. (Wilson & East River Rd) (E)	DS-D10	Chicago
South of Irving Park Rd (W)	DS-D12I	Schiller Park
Robinson Rd (W)	DS-D13	Franklin Park
Belmont Ave (E)	DS-D11	Chicago
Belmont Ave (W)	DS-D14	Franklin Park
Franklin St (W)	DS-D15	River Grove / Franklin Park
Grand Ave (W)	DS-D16	River Grove
Herrick Ave (W)	DS-D17	River Grove
Fullerton Ave ext. (W)	DS-D17	River Grove
Fullerton Ave (Maple & Fullerton) (E)	DS-D18	River Grove
Lyndale/Palmer Ave (W)	DS-D20I	River Grove
North Ave (Thatcher Rd) (E)	DS-D19,23	MWRD
Division St & 1st Ave (W)	DS-D52	Melrose Park
Augusta St (W)	DS-D22,24,25	Maywood
Rice St (W)	DS-D22,24,25	Maywood
Huron/Superior Street (Forest Preserve) (W)	DS-D22,24,25	Maywood
Chicago Ave (Just south of the bridge) (E)	DS-D63	MWRD
Lake St. (Just S. of the Bridge) (W)	DS-D21,25	Maywood
Lake St (South of the bridge) (E)	DS-D26	River Forest
Lake St (Approx. 200' south of the bridge) (W)	DS-D21,25	Maywood
Lake St. (approx. 200' S. of the bridge) (W)	DS-D21,25	Maywood
N. of 1st Ave. & Oak St. (W)	DS-D27I	Maywood
1st Ave & Oak St (W)	DS-D27I	Maywood
1st Ave & Maple St (W)	DS-D27I	Maywood
Washington Blvd. (S. of the bridge) (W)	DS-D31	Maywood
School Street ext. (South of Washington Blvd) (W)	DS-D31	Maywood
Madison St (North of the bridge) (E)	DS-D29,64	River Forest
Maybrook Dr - C&NW RR (S)	DS-D32	Maywood
Van Buren ext. in Concordia Cemetery (At C&NW Rail Rd) (E)	DS-D28	Forest Park
Roosevelt Rd (East bridge abutment) (E)	DS-D28,30	Forest Park
Roosevelt Rd (W)	DS-D34-DI	MWRD
1st Ave & Roosevelt Rd (W)	DS-D33	Maywood
26th St (East abutment of the bridge) (E)	DS-D36	North Riverside
26th St (West abutment of the bridge) (W)	DS-D35	North Riverside
Extended Forest Ave. (SE corner of Forest Ave & 1st Ave) (W)	DS-D66	Riverside
Near Burling Rd (Library) (N)	DS-D43	Riverside
Near Junction of Gage & Riverside Rd (N)	DS-D44,45	Riverside
Olmstead Rd (N)	DS-D44,45	Riverside
Blackhawk Rd ext. (E)	DS-D44,45	Riverside
Ogden Ave (Approx. 50' north of the bridge) (E)	DS-D41	Riverside
Ogden Ave (SW wing wall of the bridge) (W)	DS-D49	Lyons
40th St ext. (40th St & Haas) (E)	DS-D48	Lyons
Westchester P.S.(N)	DS-D34-AI	MWRD
30th St ext. (W)	DS-D37,38	Brookfield
Logan Ave (31st St) (W)	DS-D37,38	Lagrange Park
Jackson Ave ext. (Jackson & Prairie) (W)	DS-D40	Brookfield
Jackson Ave (Brookfield Zoo, across from Wolf Den) (E)	DS-D62	Brookfield
Brookfield Ave (W)	DS-D39,42,46	Brookfield
Brookfield Ave (SE wing wall of the bridge) (E)	DS-D39,42,46	Brookfield
Brookfield Ave (Southwest wing wall of the bridge) (W)	DS-D39,42,46	Brookfield
Southview Ave ext. (W)	DS-D47,50,51	Brookfield
Extended Southview Ave (E)	DS-D47,50,51	Brookfield
41st & Custer (Konrad Ave) (S)	DS-D47,50,51 & DS-13A-1	LaGrange

<b>Calumet</b>		
<b>Location</b>	<b>TARP Connection</b>	<b>Owner</b>
94th Pl (95th St P.S.) (W)	CDS-34	MWRD
122nd St P.S. (E)	CDS-28	MWRD
Torrence Ave (134th & Brainard) (N)	CDS-20	Chicago
Dorchester Ave ext. (S)	CDS-18	Dolton
Vernon Ave & E. 134th St (N)	CDS-16	Chicago
Park Ave (Forest Av Ext.) (S)	CDS-17	Dolton
Indiana Ave (E)	CDS-15-5	Chicago
130th St (E)	CDS-14	Chicago
Edbrooke Ave (125th Street P.S.) (N)	CDS-13	MWRD
Penn Central RR & Dearborn St ext. (Near 134th St) (ACME Steel) (S)	CDS-15-1	Riverdale
Indiana Ave (East of Wabash) (ACME Steel) (W)	CDS-15-4	Chicago
Extended State St (ACME Steel) (ICC & Wabash extended State St.) (S)	CDS-15-3	Riverdale
Wabash St (ACME Steel) (S)	CDS-15-2	Riverdale
Stewart Ave (also known as Normal Ave or Harvard) (N)	CDS-12	Chicago
Ashland Ave (S)	CDS-39	Dixmoor
144th St (W)	CDS-41	Harvey
Center Ave (E)	CDS-41	Harvey
Union Ave P.S. (N)	CDS-42	Riverdale
Union St (W)	CDS-42	Harvey
Clinton St (W)	CDS-43	Harvey
Illinois Central Railroad (E)	CDS-43	Harvey
147th St (N)	CDS-45	Harvey
152nd St ext. West Structure No.1 (149th St) (W)	CDS-45	South Holland
152nd St (ext) West Structure No.2 (149th St) (W)	CDS-45	South Holland
149th St (E)	CDS-45	Harvey
9th Ave ext. & 151st St (S)	CDS-45	Phoenix
State St. (Chicago & Eastern R.R. Yard) (155th & Woodlawn ext) (E)	CDS-48	South Holland
South Park Ave (N)	CDS-C-1	South Holland
South Park Ave (S)	CDS-C-1	South Holland
Ellis Ave (N)	CDS-51	Dolton
River Dr (N)	CDS-53	Calumet City
Woodview Ave (N)	CDS-53	Calumet City
Burnham Ave (170th St) (S)	CDS-55	Lansing / Calumet City
Green Bay Ave (N)	CDS-55	Calumet City
Burnham Ave (N)	CDS-55	Calumet City
Stanley Blvd (Freeland Ave) (N)	CDS-55	Calumet City
Lincoln Ave (N)	CDS-55	Calumet City
Throop St (N)	CDS-11	MWRD
Laflin Ave (N)	CDS-10	Chicago / Calumet Park
Division Ave (S)	CDS-8	Blue Island
Irving Ave (West of Fulton & Chatham St) (N)	CDS-7	Blue Island
California Ave & Edward St (S)	CDS-6	Blue Island / Posen
Francisco Ave (N)	CDS-5	MWRD / Blue Island
Sacramento Ave ext. (S)	CDS-4	MWRD
Central Park Ave ext. (N)	CDS-2	MWRD
Pulaski Rd P.S. (Crawford Ave) (N)	18E PS	MWRD
Escanaba Ave near 138th (Burnham P.S.) (S)	CDS-21	Burnham
138th Pl. extended (N)	CDS-22	Burnham
East of 142nd St. extended and Mackinaw St. (E)	CDS-23	Burnham
161st St. and Damen Ave (Markham P.S.) (N)	CDS-57	Markham

**APPENDIX D:**

**Maintenance Procedures for TARP Sluice Gate and  
Tide Gate Monitoring Systems**

MWRD shall utilize its existing computerized maintenance management system (CMMS) to manage preventative maintenance and corrective actions on all systems that monitor sluice gate and tide gate operation within TARP.

MWRD shall perform annual preventative maintenance inspections. If annual inspections or other information available to MWRD reveal the failure of a system that monitors sluice gate or tide gate operation within TARP, MWRD shall correct any such failure expeditiously. To that end, MWRD shall generate a work order and maintain work history in CMMS for each failure identified through annual inspections or other information available to MWRD. The work order generated shall be executed expeditiously. In case of multiple failures, MWRD shall prioritize its responses to multiple failures and execute the work orders expeditiously in accordance with the priority established.

MWRD shall retain data regarding the preventative maintenance and corrective actions for sluice gate and tide gate monitoring systems in CMMS, and, upon request, shall provide the data to EPA and Illinois EPA.

## **APPENDIX E**

### **MWRD Green Infrastructure Program**

#### **I. Introduction/Purpose of Green Infrastructure Program**

MWRD shall implement a Green Infrastructure Program for the duration of the Consent Decree according to the requirements set forth in this Appendix E to the Consent Decree. The purpose of the Green Infrastructure Program is to increase acceptance of and investment in Green Infrastructure measures within MWRD's service area and to reduce CSO discharges, localized flooding and stormwater impacts. MWRD shall implement the Green Infrastructure Program in collaboration with other interested local agencies, non-governmental organizations, citizens and private entities.

For the purposes of this Consent Decree, "Green Infrastructure" shall mean the range of stormwater control measures that use plant/soil systems, permeable pavement, stormwater harvest and reuse, or native landscaping to store, infiltrate, and/or evapotranspire stormwater and reduce flows to the sewer systems or to surface waters. Green Infrastructure may include, but is not limited to bioretention, extended detention wetland areas, green roofs and permeable pavement. Green Infrastructure practices also include control measures to harvest and reuse stormwater, such as rain barrels and cisterns.

#### **II. Green Infrastructure Program**

##### **A. Rain Barrel Program**

Within 120 days of the Effective Date of the Consent Decree, MWRD shall develop an enhanced rain barrel distribution program ("Rain Barrel Program"). Under the Rain Barrel Program, MWRD shall provide rain barrels designed to capture and use rain water to residences throughout its service area. MWRD shall affix a label to each rain barrel that summarizes the environmental benefits of using rain barrels and the Green Infrastructure Program. Within this program, MWRD shall distribute 10,000 low or no-cost rain barrels within three years of the Effective Date of the Consent Decree, with a cumulative distribution of 15,000 low or no-cost rain barrels within five years of the Effective Date, to the communities within MWRD's service area through a variety of partnerships with municipalities, recreational facilities, arts programs, and community partners. That number of 55 gallon rain barrels (15,000) has a maximum capacity of 825,000 gallons of water. The gallons of retention capacity from the Rain Barrel Program pursuant to this Section II.A do not count toward the gallons of Design Retention Capacity required in Section III or IV, below.

## **B. Early Monitoring, Evaluation and Knowledge Building**

Within one year of the Effective Date of the Consent Decree, or prior to approval of the Green Infrastructure Plan pursuant to Section II.C below, whichever is later, MWRD shall implement one or more Green Infrastructure projects and will dedicate a minimum of \$325,000 to such projects. Programmatic and administrative costs incurred by MWRD will not be counted against the \$325,000 devoted to this project. MWRD shall evaluate design specifications, installation processes and procedures, and document its findings. MWRD shall share its findings and lessons learned with stakeholders in the service area as part of the community assistance and collaborative efforts described in Sections II.C.iii and iv. Green Infrastructure projects completed pursuant to this Section II.B count toward the gallons of Design Retention Capacity required in Section III or IV, below.

## **C. Green Infrastructure Plan**

Within one year after the Effective Date of the Consent Decree, MWRD shall submit to EPA and Illinois EPA for approval pursuant to Section X (Approval of Deliverables) of the Consent Decree a Green Infrastructure Program Plan (the "Plan"). EPA, after consultation with Illinois EPA, shall approve or disapprove the Plan pursuant to Section X (Approval of Deliverables), based on whether the Plan contains all of the information required in this Section II.C.i through iv, below.

The Plan shall include the following elements:

- i. **MWRD Comprehensive Land Use Policy.** MWRD shall include as part of the Plan the development of a Comprehensive Land Use Policy for land owned by MWRD. The MWRD Comprehensive Land Use Policy shall:
  - a. Incorporate Green Infrastructure guidelines/requirements for the leased development of MWRD-owned lands in public use, which guidelines/requirements shall obligate MWRD lessees under new or renewed leases to incorporate Green Infrastructure on such leaseholds. MWRD shall submit the guidelines/requirements as a part of the Plan.
  - b. MWRD shall also develop an incentive program to encourage the development of Green Infrastructure projects on MWRD-owned land leased for private use under new and renewed leases. MWRD shall submit the incentive program guidelines as a part of the Plan.
- ii. **Green Infrastructure Controls.** MWRD shall identify specific Green Infrastructure control measures which store, infiltrate, or evapotranspire precipitation and reduce wet weather flows into the sewer system. The Plan shall include information about design of Green Infrastructure practices, performance

expectations and typical maintenance requirements. For Green Infrastructure plant/soil systems, MWRD shall also develop best management practices for the establishment and maintenance of native perennial species and the eradication of invasive non-native weed species.

- iii. **MWRD Green Infrastructure Community Assistance.** MWRD shall provide administrative and technical assistance to communities within its service area to facilitate implementation of Green Infrastructure practices, such as identification of vacant parcels for potential Green Infrastructure projects and assistance with design and construction of storm water infiltration, capture and/or reuse sites. MWRD shall identify the different forms of assistance that MWRD may make available to the collaborating communities, including MWRD staff with expertise in Green Infrastructure planning, site design, implementation, maintenance, and monitoring. MWRD shall work with communities on updates to local codes and ordinances to remove barriers to Green Infrastructure implementation. In carrying out the community assistance efforts, MWRD shall dedicate at least one MWRD employee full time equivalent position to provide Green Infrastructure technical assistance to communities within the service area.
- iv. **Green Infrastructure Projects and/or Collaborations.** By itself or in collaboration with other stakeholders, MWRD shall work to identify opportunities for the development of Green Infrastructure projects and/or collaborations through the following actions described in the Plan:
  - a. **Establishing Partnerships and Collaboration with Other Stakeholders.** MWRD shall identify and engage other stakeholders in its service area to plan and implement Green Infrastructure projects. These stakeholders may include municipal and governmental entities; business and commercial entities; non-governmental organizations; members of the public; and other interested parties. MWRD shall outline procedures to work in collaboration with these partners to identify, plan and implement Green Infrastructure projects.
  - b. **Public Participation.** MWRD shall establish and describe in the Plan, a public participation process that provides information about the Plan and development of Green Infrastructure projects. The public participation process shall also provide opportunity for public comment regarding the selection, conceptual design, and location of Green Infrastructure projects. The public participation process shall be open to all who live in the MWRD service area, and will include measures to engage people living in neighborhoods with greater pre-existing needs and vulnerabilities. MWRD may employ socio-economic data reflecting the proportions of

households with low household incomes or minority residents as indicators of such neighborhoods.

- c. **Geographic Coverage/Decision Criteria.** MWRD shall include prioritization criteria and processes for selecting locations and specifications for Green Infrastructure projects to be implemented as part of the program. The prioritization scheme for selected locations shall include areas where: (1) Green Infrastructure control measures will help reduce flooding and basement backups; (2) land ownership will readily accommodate permanent Green Infrastructure control measures and maintenance thereof, such as areas where vacant parcels can be retrofitted into “stormwater parks,” which would store and infiltrate or reuse rainfall and runoff and also be an amenity for local residents; and (3) Green Infrastructure control measures can improve socio-economic conditions in the MWRD service area, with the highest priority given to neighborhoods where the need for improvement is greatest.
- d. **Preservation of Constructed Green Infrastructure Projects.** MWRD shall work with partners and stakeholders to plan legal and institutional mechanisms (1) to preserve and maintain constructed Green Infrastructure projects that are put in place under Section III and (2) to ensure that future site or land use changes do not result in the loss of the runoff reduction benefits of constructed Green Infrastructure projects. MWRD shall share with partners and stakeholders the best management practices developed pursuant to Section II.C.ii.

### **III. Implementation of the Green Infrastructure Plan**

Upon approval of the Plan by EPA, after consultation with Illinois EPA, MWRD shall implement the Plan. Not later than 15 years after the Effective Date of the Consent Decree, and in accordance with the schedule and milestones set forth herein, MWRD, by itself or in collaboration with other stakeholders, shall complete Green Infrastructure projects within its service area that are identified in accordance with the Plan. For purposes of this Appendix, “collaboration with other stakeholders” shall mean provision by MWRD of necessary technical and/or financial resources toward the successful completion of a Green Infrastructure project. “Collaboration with other stakeholders” to complete Green Infrastructure projects does not include (1) projects required to be performed by such other stakeholders by any judicial order or settlement other than this Consent Decree, or (2) projects implemented by leaseholders pursuant to Sections II.C.i.a and b where the lease for such property establishes rent at the market rate and where no incentive provided by MWRD to develop Green Infrastructure on such property is exercised by the leaseholder. The Green Infrastructure projects implemented pursuant to the Plan by MWRD shall, in the aggregate, provide a minimum of 10,000,000 gallons of Design

Retention Capacity in an individual storm. MWRD shall also adhere to the following interim deadlines for implementing Green Infrastructure projects:

Date	Implementation Milestone/Requirement
Five years after the Effective Date of the Consent Decree	2,000,000 gallons of Design Retention Capacity
Ten years after the Effective Date of the Consent Decree	5,000,000 gallons of Design Retention Capacity (cumulative total)
Fifteen years after the Effective Date of the Consent Decree	10,000,000 gallons of Design Retention Capacity (cumulative total)

Within three years after the Effective Date of the Consent Decree, MWRD shall develop and maintain an inventory of completed Green Infrastructure projects, including project locations, collaborating partners, type and size/scope of Green Infrastructure projects, the entity responsible for project maintenance, and Design Retention Capacity. For purposes of this Appendix E, “Design Retention Capacity” shall mean the maximum available retention capacity of a project in any individual storm event as stated in project plans stamped by a licensed Professional Engineer or, in the absence of such statement, a project-specific capacity calculated using the following table.

Technology	Quantity	Unit	Design Retention Capacity (Gallons)
Rain Gardens	100	sq. ft.	200
Native Plants/Landscaping	100	sq. ft.	150
Stormwater Trees	100	Trees	1000
Porous Pavement	100	sq. ft.	1000
Bio-Swales	100	sq. ft.	500
Green Roofs	100	sq. ft.	300
Greenways	100	sq. ft.	63

MWRD, EPA or Illinois EPA may propose prospective changes to the table above based upon updated technical information for calculating the Design Retention Capacity of Green Infrastructure projects. Upon written agreement of MWRD, EPA and Illinois EPA, such changes to the table shall be incorporated; however, if such changes are material within the meaning of Section XXII (Modification) of the Consent Decree, such changes shall require Court approval. MWRD communications and submittals regarding such changes shall not be subject to the terms of Section X (Approval of Deliverables) of this Consent Decree. Values reflected in table are summarized from the H2OCapture online calculator as retrieved on September 30, 2011, posted at <http://www.h2ocapture.com/en/calculate.aspx>.

**IV. Additional Commitment to Green Infrastructure Projects Due to Contingency Event-Related Schedule Delay**

In the event of a notification from EPA pursuant to Paragraph 24 of the Consent Decree that EPA agrees or a determination by the Court pursuant to Paragraph 26 of the Consent Decree that a Contingency Event has occurred, MWRD, by itself or in collaboration with other stakeholders, shall implement additional Green Infrastructure projects within the MWRD service area as follows:

<b>For Contingency Events Resulting in Delay of:</b>	<b>Additional Green Infrastructure Requirement</b>	<b>Deadline for Completion of Additional Green Infrastructure Capacity</b>
Thornton Composite Reservoir	250,000 gallons of Design Retention Capacity	Five years after Effective Date of Consent Decree
McCook Reservoir, Stage 1	250,000 gallons of Design Retention Capacity	Ten years after Effective Date of Consent Decree
McCook Reservoir, Stage 2	250,000 gallons of Design Retention Capacity  For each grant, pursuant to Paragraph 24 or 26 of this Consent Decree, of an extension of one or more deadlines applicable to the McCook Reservoir, Stage 2	Five years after the grant of each such extension

Each of the requirements to implement Green Infrastructure projects described in this Section IV shall be in addition to the Green Infrastructure projects implemented pursuant to Section III, above. MWRD may receive full credit against additional gallons of Design Retention Capacity

required in this Section for capacity provided by Green Infrastructure projects previously performed to the extent that such capacity is not also used to satisfy requirements for Design Retention Capacity under Section III.

**V. Reporting**

**A. Rain Barrel Program**

The Annual Reports required under Paragraph 44 of the Consent Decree shall include a description of the status of the Rain Barrel Program, including marketing activities, the number of rain barrels distributed, description of technical assistance provided and an estimate of the potential volume of rainwater retained by the barrels distributed based on the number of rain barrels distributed times 55 gallons times the average annual days of rain in the service area.

**B. Early Monitoring, Evaluation and Knowledge Building**

The Annual Reports required under Paragraph 44 of the Consent Decree shall include a discussion of MWRD's progress in satisfying its obligations in connection with Section II.B above, including, at a minimum, a narrative description of activities undertaken, status of any construction, and a summary of costs incurred since the previous report.

**C. Green Infrastructure Program**

- i. Comprehensive Land Use Policy.** The Annual Reports required under Paragraph 44 of the Consent Decree shall include a description of the Comprehensive Land Use Policy required under Section II.C.i of this Appendix, including descriptions of the Green Infrastructure guidelines/requirements for the leased development of MWRD-owned lands in public use required under Section II.C.i.a and the incentive program to encourage the development of Green Infrastructure projects on MWRD-owned land leased for private use required under Section II.C.i.b, including the number of leases for private use under which a lessee has implemented a Green Infrastructure project eligible for an incentive under the Plan.
- ii. Watershed Management Ordinance.** The Annual Reports required under Paragraph 44 of the Consent Decree shall include a description of the status of the Draft Watershed Management Ordinance for Cook County (Public Review Draft - September 24, 2009), actions taken by MWRD to secure prompt adoption of a final Watershed Management Ordinance, and significant next steps in that process. Upon adoption of a Watershed Management Ordinance for Cook County, MWRD shall include in its Annual Reports a description of steps it has taken to implement such Ordinance and any steps taken to enforce such Ordinance.

**iii. Plan Implementation Status.** MWRD shall report on the status of its Plan implementation in each Annual Report required in Paragraph 44 of the Consent Decree. The reports shall include: MWRD's provision of Green Infrastructure technical assistance services, and MWRD's implementation to date, by itself or in collaboration with other stakeholders, of all Green Infrastructure projects pursuant to this Appendix, including a cumulative estimate in gallons of the Design Retention Capacity provided by such projects. Such annual reports shall also reflect the results of MWRD's continuing evaluation of potential future Green Infrastructure projects.