

# **EXHIBIT 9**

## **PART II OF III**

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086

**BASIC APPLICATION INFORMATION**

**PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:**

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

**A.1. Facility Information.**

Facility name MWRDGC Lemont Water Reclamation Plant

Mailing Address 13 Stephen Street  
Lemont, Illinois 60439

Contact person Pat Connolly

Title Assistant Engineer of Treatment Plant Operations I

Telephone number (773) 256-3546

Facility Address 13 Stephen Street  
(not P.O. Box) Lemont, Illinois 60439

**A.2. Applicant Information.** If the applicant is different from the above, provide the following:

Applicant name Metropolitan Water Reclamation District of Greater Chicago

Mailing Address 100 East Erie Street  
Chicago, Illinois 60611

Contact person Manju P. Sharma

Title Director of Maintenance and Operations

Telephone number (312) 751-5101

**Is the applicant the owner or operator (or both) of the treatment works?**

owner       operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

facility       applicant

**A.3. Existing Environmental Permits.** Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES IL0028070 PSD \_\_\_\_\_

UIC \_\_\_\_\_ Other ILR00 (ILR003181) General Storm Water

RCRA \_\_\_\_\_ Other \_\_\_\_\_

**A.4. Collection System Information.** Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served (Years 2000/2020)	Type of Collection System	Ownership
<u>Village of Lemont (V. Lmt)</u>	<u>3,654/4,247</u>	<u>Separate &amp; Combined</u>	<u>Municipal</u>
<u>V. Lmt/Lemont Township</u>	<u>8,832/21,017</u>	<u>Separate</u>	<u>Municipal &amp; Private</u>
<b>Total population served</b> <u>12,486/25,264</u>			

**FACILITY NAME AND PERMIT NUMBER:**

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**A.5. Indian Country.**

a. Is the treatment works located in Indian Country?

Yes  No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

Yes  No

**A.6. Flow.** Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 2.30 mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>2.61</u>	<u>2.50</u>	<u>2.50</u> mgd
c. Maximum daily flow rate	<u>4.62</u>	<u>4.63</u>	<u>4.51</u> mgd

**A.7. Collection System.** Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

Separate sanitary sewer 81.00 %

Combined storm and sanitary sewer 19.00 %

**A.8. Discharges and Other Disposal Methods.**

a. Does the treatment works discharge effluent to waters of the U.S.?  Yes  No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	<u>1</u>
ii. Discharges of untreated or partially treated effluent	<u>0</u>
iii. Combined sewer overflow points	<u>1</u>
iv. Constructed emergency overflows (prior to the headworks)	<u>0</u>
v. Other _____	<u>0</u>

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?  Yes  No

If yes, provide the following for each surface impoundment:

Location: \_\_\_\_\_

Annual average daily volume discharged to surface impoundment(s) \_\_\_\_\_ mgd

Is discharge  continuous or  intermittent?

c. Does the treatment works land-apply treated wastewater?  Yes  No

If yes, provide the following for each land application site:

Location: \_\_\_\_\_

Number of acres: \_\_\_\_\_

Annual average daily volume applied to site: \_\_\_\_\_ Mgd

Is land application  continuous or  intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?  Yes  No

**FACILITY NAME AND PERMIT NUMBER:**

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter name:

Mailing Address:

Contact person:

Title:

Telephone number:

For each treatment works that receives this discharge, provide the following:

Name:

Mailing Address:

Contact person:

Title:

Telephone number:

If known, provide the NPDES permit number of the treatment works that receives this discharge.

Provide the average daily flow rate from the treatment works into the receiving facility.

mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

Yes

No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method:

Is disposal through this method

continuous or

intermittent?

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086**WASTEWATER DISCHARGES:**

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

**A.9. Description of Outfall.**

- a. Outfall number 001
- b. Location Lemont 60439  
(City or town, if applicable) (Zip Code)  
Cook Illinois  
(County) (State)  
41 deg 40 min 46 sec 87 deg 59 sec 55 min  
(Latitude) (Longitude)
- c. Distance from shore (if applicable) \_\_\_\_\_ ft.
- d. Depth below surface (if applicable) \_\_\_\_\_ ft.
- e. Average daily flow rate 2.50 mgd
- f. Does this outfall have either an intermittent or a periodic discharge?  
 \_\_\_\_\_ Yes  No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: \_\_\_\_\_
- Average duration of each discharge: \_\_\_\_\_
- Average flow per discharge: \_\_\_\_\_ mgd
- Months in which discharge occurs: \_\_\_\_\_
- g. Is outfall equipped with a diffuser?  
 \_\_\_\_\_ Yes  No

**A.10. Description of Receiving Waters.**

- a. Name of receiving water Chicago Sanitary & Ship Canal
- b. Name of watershed (if known) Des Plaines River Watershed
- United States Soil Conservation Service 14-digit watershed code (if known): \_\_\_\_\_
- c. Name of State Management/River Basin (if known): \_\_\_\_\_
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): \_\_\_\_\_
- d. Critical low flow of receiving stream (if applicable): N/A  
 acute \_\_\_\_\_ cfs chronic \_\_\_\_\_ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO<sub>3</sub>

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
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**A.11. Description of Treatment.**

a. What levels of treatment are provided? Check all that apply.

Primary                       Secondary  
 Advanced                       Other. Describe: \_\_\_\_\_

b. Indicate the following removal rates (as applicable):

Design BOD<sub>5</sub> removal or Design CBOD<sub>5</sub> removal                      90.00 %  
 Design SS removal                      90.00 %  
 Design P removal                      N/A %  
 Design N removal                      N/A %  
 Other \_\_\_\_\_ N/A %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

N/A

If disinfection is by chlorination, is dechlorination used for this outfall?                       Yes                       No

d. Does the treatment plant have post aeration?                       Yes                       No

**A.12. Effluent Testing Information.** All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.30	s.u.			
pH (Maximum)	7.80	s.u.			
Flow Rate	4.63	MGD	2.55	MGD	1,461.00
Temperature (Winter)	19.00	°C	11.00	°C	635.00
Temperature (Summer)	22.00	°C	16.00	°C	826.00

\* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	Reporting Limit (RL)
	Conc.	Units	Conc.	Units	Number of Samples		

**CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.**

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	35.00	mg/L	<7	mg/L	1037	SM5120B	2 mg/L
	CBOD-5	18.00	mg/L	<7	mg/L	1039	SM5120B	2 mg/L
FECAL COLIFORM		340,000.00*	cfu/100ml	21,131.00*	cfu/100ml	209	SM9222D	10cfu/100ml
TOTAL SUSPENDED SOLIDS (TSS)		68.00	mg/L	<8	mg/L	1461	SM2540D	8 mg/L

\*Geometric Mean 9736 cfu/100ml

**END OF PART A.**

**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086

**WASTEWATER DISCHARGES:**

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

**A.9. Description of Outfall.**

- a. Outfall number 002
- b. Location Lemont 60439  
(City or town, if applicable) (Zip Code)  
Cook Illinois  
(County) (State)  
41 deg 40 min 48 sec 87 deg 59 sec 57 min  
(Latitude) (Longitude)
- c. Distance from shore (if applicable) \_\_\_\_\_ ft.
- d. Depth below surface (if applicable) \_\_\_\_\_ ft.
- e. Average daily flow rate \_\_\_\_\_ 0.01 mgd
- f. Does this outfall have either an intermittent or a periodic discharge?  Yes \_\_\_\_\_ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: \_\_\_\_\_ 6
- Average duration of each discharge: \_\_\_\_\_ 9.95 hours
- Average flow per discharge: \_\_\_\_\_ 0.82 mgd
- Months in which discharge occurs: \_\_\_\_\_ 1-12
- g. Is outfall equipped with a diffuser? \_\_\_\_\_ Yes  No

**A.10. Description of Receiving Waters.**

- a. Name of receiving water Chicago Sanitary & Ship Canal
- b. Name of watershed (if known) Des Plaines River Watershed
- United States Soil Conservation Service 14-digit watershed code (if known): \_\_\_\_\_
- c. Name of State Management/River Basin (if known): \_\_\_\_\_
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): \_\_\_\_\_
- d. Critical low flow of receiving stream (if applicable): N/A  
 acute \_\_\_\_\_ cfs chronic \_\_\_\_\_ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO<sub>3</sub>

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
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**A.11. Description of Treatment.**

a. What levels of treatment are provided? Check all that apply.

Primary  Secondary  
 Advanced  Other. Describe: \_\_\_\_\_

b. Indicate the following removal rates (as applicable):

Design BOD <sub>5</sub> removal <u>or</u> Design CBOD <sub>5</sub> removal	_____	%
Design SS removal	_____	%
Design P removal	_____	%
Design N removal	_____	%
Other _____	_____	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

\_\_\_\_\_ N/A \_\_\_\_\_

If disinfection is by chlorination, is dechlorination used for this outfall?  Yes  No

d. Does the treatment plant have post aeration?  Yes  No

**A.12. Effluent Testing Information.** All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 002 CSO (N/A)

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

\* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	Reporting Limit (RL)
	Conc.	Units	Conc.	Units	Number of Samples		

**CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.**

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5						
	CBOD-5						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

**END OF PART A.  
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086

**BASIC APPLICATION INFORMATION**

**PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).**

All applicants with a design flow rate  $\geq 0.1$  mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

**B.1. Inflow and Infiltration.** Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.  
570,000.00 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

See separate narrative entitled "Steps to Minimize Groundwater Infiltration and Stormwater Inflow" (attached).

**B.2. Topographic Map.** Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.) **Note: See Exhibits for XI and Form 2S Item A.5 for Part G.1**

- a. The area surrounding the treatment plant, including all unit processes.
- b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- c. Each well where wastewater from the treatment plant is injected underground.
- d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

**B.3. Process Flow Diagram or Schematic.** Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram. **See Attachment**

**B.4. Operation/Maintenance Performed by Contractor(s).**

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?  Yes  No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Responsibilities of Contractor: \_\_\_\_\_

**B.5. Scheduled Improvements and Schedules of Implementation.** Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.  
001 and 002 (See attached Approved Long Term Control Plan dated 9/15/10) See Table 1

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.  
 Yes  No

**Table 1 "Estimated Completion Dates of Phases for Each Project" from MWRDGC's LTCP dated September 15, 2010 – Updated Based on IEPA's Approval of the LTCP on March 16, 2011 and Revised to Show Reservoir and Wet Weather Treatment Facility as a Single Construction Project**

	<b>Wet Weather Reservoir and Wet Weather Treatment Facility</b>	<b>Lemont Pumping Station and Force Mains</b>
IEPA's approval of the District's LTCP	March 16, 2011	March 16, 2011
Design, permitting, and ROW acquisition	March 22, 2013	November 7, 2014
Bidding and Award	July 24, 2013	March 11, 2015
Construction	July 24, 2015	March 11, 2018

## Steps to Minimize Groundwater Infiltration and Stormwater Inflow

A comprehensive program for the correction of existing deficiencies in separate sewer areas of the MWRD was initiated on January 1, 1973 with the adoption of Article 6-5 of the Manual of Procedures for the Administration of the Sewer Permit Ordinance. Under Article 6-5, all entities having jurisdiction over separate sanitary sewer systems tributary to the MWRD system were required to undertake programs for the elimination of extraneous storm and ground water flows into the sanitary sewers. In 1985 a series of meetings between MWRD officials and the IEPA and USEPA resulted in a Sewer Summit Agreement (Agreement) which established guidelines for achieving compliance with the sewer rehabilitation requirements that were acceptable to all of the involved parties, including tributary entities.

Under the Agreement, the following two options were made available to the tributary agencies:

150 gpcpd Option Average daily wet weather flow shall not exceed 150 gpcpd or optionally, documented water usage plus allowable infiltration of 500 gallons per inch diameter-mile of sewer per day;

Infiltration and Inflow Corrective Action Program (ICAP) The agencies selecting this option were obligated to correct only those I/I sources that were found cost-effective to correct, based on a comparison of costs of correction vs. that of transport and treatment of excess flows.

Village of Lemont and unincorporated Lemont Township area are currently tributary to Lemont WRP. Village of Lemont chose the ICAP compliance option. It achieved compliance with a post-rehabilitation ICAP flow rate of 838 gallons per capita per day. The unincorporated Lemont Township area was not covered under the 1985 Agreement. The vast majority of the unincorporated area has developed after 1985 and a large part of the unincorporated area has since been annexed into the Village. Therefore, population equivalents served in unincorporated area is considered to be insignificant. In accordance with this Agreement the MWRD does not have authority to enforce further reduction in wet-weather flow unless, possibly, when other violations/problems occur in the system such as SSOs.

Once the Village achieved ICAP compliance, it implemented a Long-Term Operation and Maintenance Program (LTOMP) with a view to maintain wet-weather flow in its sanitary sewer system(s) at or below the target ICAP flow rate. The LTOMP includes private/public sector sewer and manhole inspections, maintenance/repairs, and private sector illegal connection detection and correction. The Village submits annual summary reports to the MWRD reporting work performed under its LTOMP.

The MWRD has recently convened an Advisory Technical Panel (ATP) consisting of representatives of the USEPA, IEPA, tributary communities and MWRD staff. ATP members met on November 18, 2011, January 18, March 21 and May 16, 2012. Discussions at the ATP meeting are geared toward development of a new I/I control program with emphasis on addressing private sector I/I sources.

By virtue of its sewer permitting program, the MWRD regulates the quality of new sanitary sewer and storm sewer construction in separate and combined sewer areas, by requiring use of sewer materials and joints that are virtually watertight, and limiting the amount of infiltration to "100 gallons per twenty-four (24) hours per mile per inch-diameter of the sewer pipe for any section of the system and any time during its service life" (ref. Article 10-4 of the Manual of

## **Steps to Minimize Groundwater Infiltration and Stormwater Inflow**

Procedures for the Administration of the Sewer Permit Ordinance). The MWRD inspects new local sewer construction before giving approval to connect.

By virtue of its Notification and Request for Inspection (NRI) permit program, the MWRD regulates the quality of existing sanitary sewer rehabilitation and/or replacement work including I/I control work that is part of the local sewer ICAP/150 gpcpd program as well as minor sanitary sewer construction work.

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086**FORM  
2A  
NPDES****NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

**BASIC APPLICATION INFORMATION:**

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow  $\geq$  0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

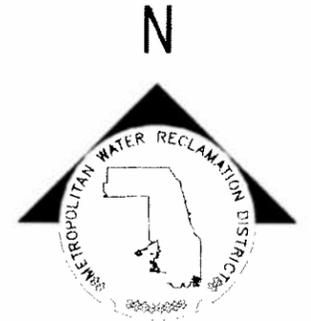
**SUPPLEMENTAL APPLICATION INFORMATION:**

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
1. Has a design flow rate greater than or equal to 1 mgd,
  2. Is required to have a pretreatment program (or has one in place), or
  3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
1. Has a design flow rate greater than or equal to 1 mgd,
  2. Is required to have a pretreatment program (or has one in place), or
  3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
  2. Any other industrial user that:
    - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
    - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
    - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

**ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)**



Sludge Storage and  
Truck Loading Area



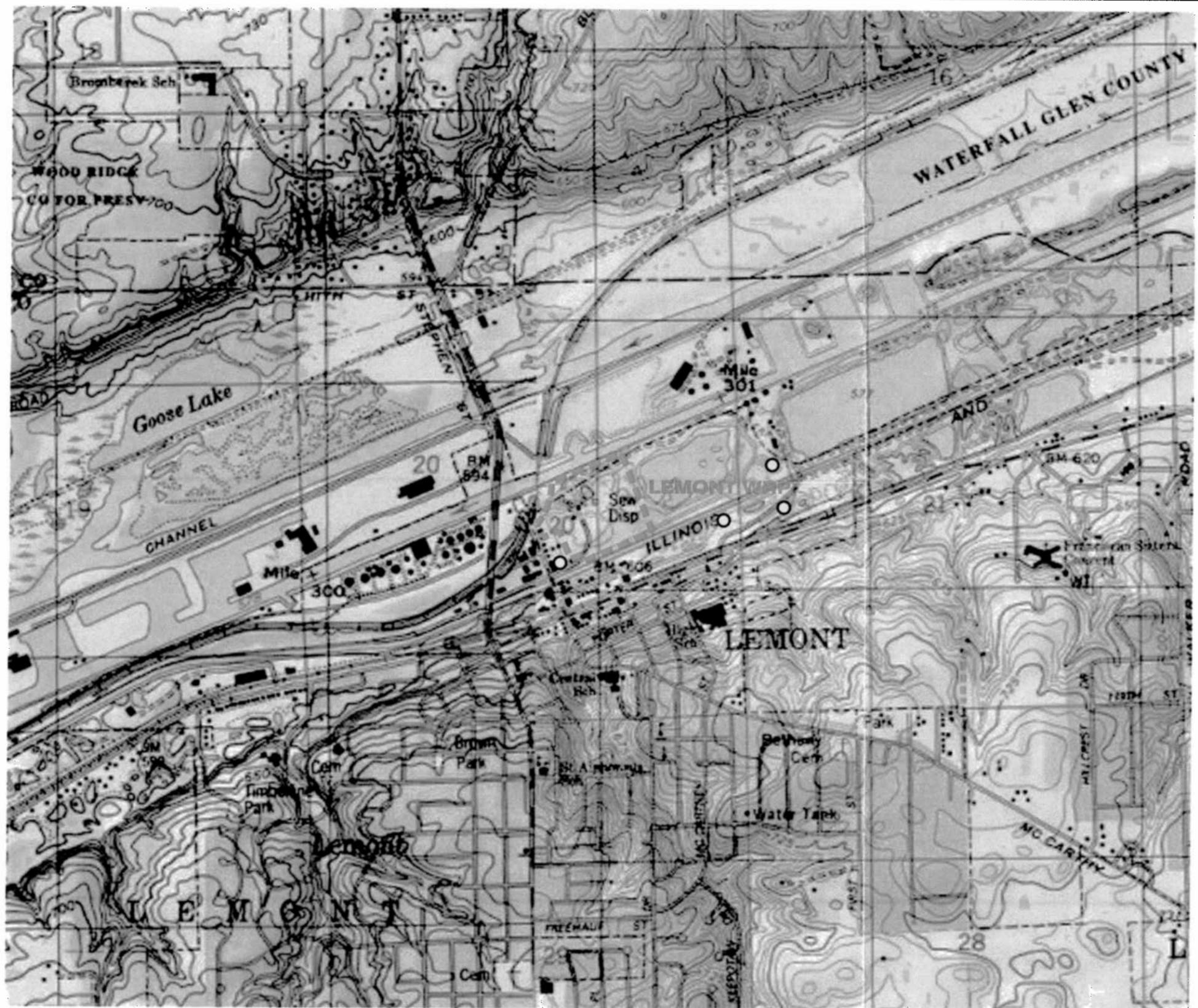
# Item A.5: LEMONT WATER RECLAMATION PLANT

METROPOLITAN WATER RECLAMATION  
DISTRICT OF GREATER CHICAGO  
ENGINEERING DEPARTMENT

7/12

PROFAC + PROJECT SUPPORT

MS:JJK



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

SAG BRIDGE QUADRANGLE  
ILLINOIS  
7.5-MINUTE SERIES (TOPOGRAPHIC)

ROMEVILLE QUADRANGLE  
ILLINOIS  
7.5-MINUTE SERIES (TOPOGRAPHIC)



SAG BRIDGE, IL  
1997

NIMA 3467 SE NW-SERIES V863

ROMEVILLE, IL  
1998

NIMA 3367 E NE-SERIES V863

Lemont WRP  
Latitude, Longitude  
41N 40' 48", 87W 59' 47"

----- Lemont WRP Facility Boundary

○ Water Wells

Source: Illinois State Geological Survey's  
Illinois Water Well Internet Map Service  
on July 3, 2012  
(<http://runoff.lsgs.uiuc.edu/website/ilwater/vviewer.htm>)

# Item XI (Exhibit A): LEMONT WATER RECLAMATION PLANT

METROPOLITAN WATER RECLAMATION  
DISTRICT OF GREATER CHICAGO  
ENGINEERING DEPARTMENT



# Item XI (Exhibit B): LEMONT WATER RECLAMATION PLANT

METROPOLITAN WATER RECLAMATION  
 DISTRICT OF GREATER CHICAGO  
 ENGINEERING DEPARTMENT

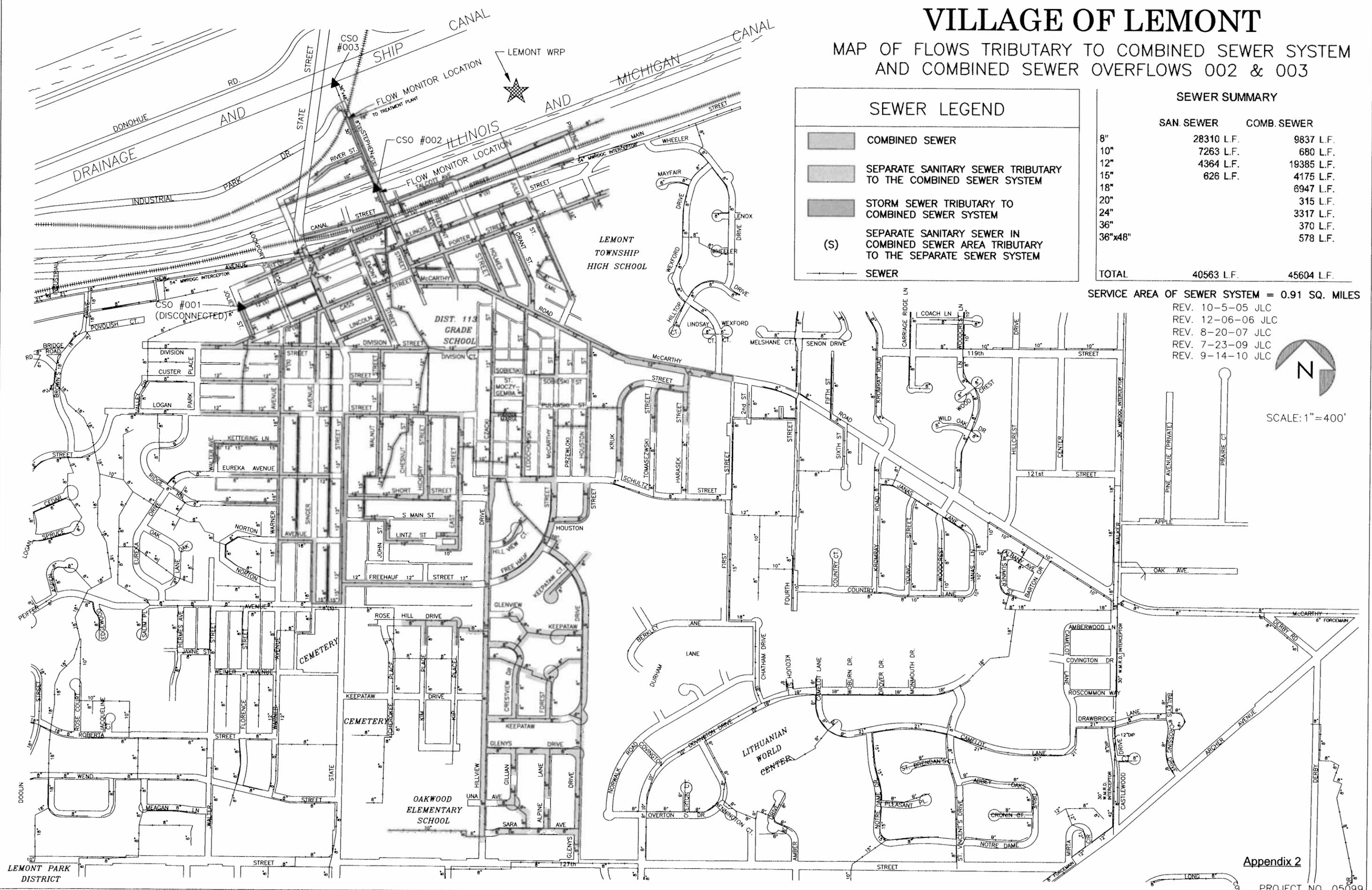
7/12

PROFAC + PROJECT SUPPORT

MS:JKK

# VILLAGE OF LEMONT

## MAP OF FLOWS TRIBUTARY TO COMBINED SEWER SYSTEM AND COMBINED SEWER OVERFLOWS 002 & 003



### SEWER LEGEND

- COMBINED SEWER
- SEPARATE SANITARY SEWER TRIBUTARY TO THE COMBINED SEWER SYSTEM
- STORM SEWER TRIBUTARY TO COMBINED SEWER SYSTEM
- (S) SEPARATE SANITARY SEWER IN COMBINED SEWER AREA TRIBUTARY TO THE SEPARATE SEWER SYSTEM
- SEWER

### SEWER SUMMARY

	SAN. SEWER	COMB. SEWER
8"	28310 L.F.	9837 L.F.
10"	7263 L.F.	680 L.F.
12"	4364 L.F.	19385 L.F.
15"	626 L.F.	4175 L.F.
18"		6947 L.F.
20"		315 L.F.
24"		3317 L.F.
36"		370 L.F.
36"x48"		578 L.F.
<b>TOTAL</b>	<b>40563 L.F.</b>	<b>45604 L.F.</b>

SERVICE AREA OF SEWER SYSTEM = 0.91 SQ. MILES  
 REV. 10-5-05 JLC  
 REV. 12-06-06 JLC  
 REV. 8-20-07 JLC  
 REV. 7-23-09 JLC  
 REV. 9-14-10 JLC

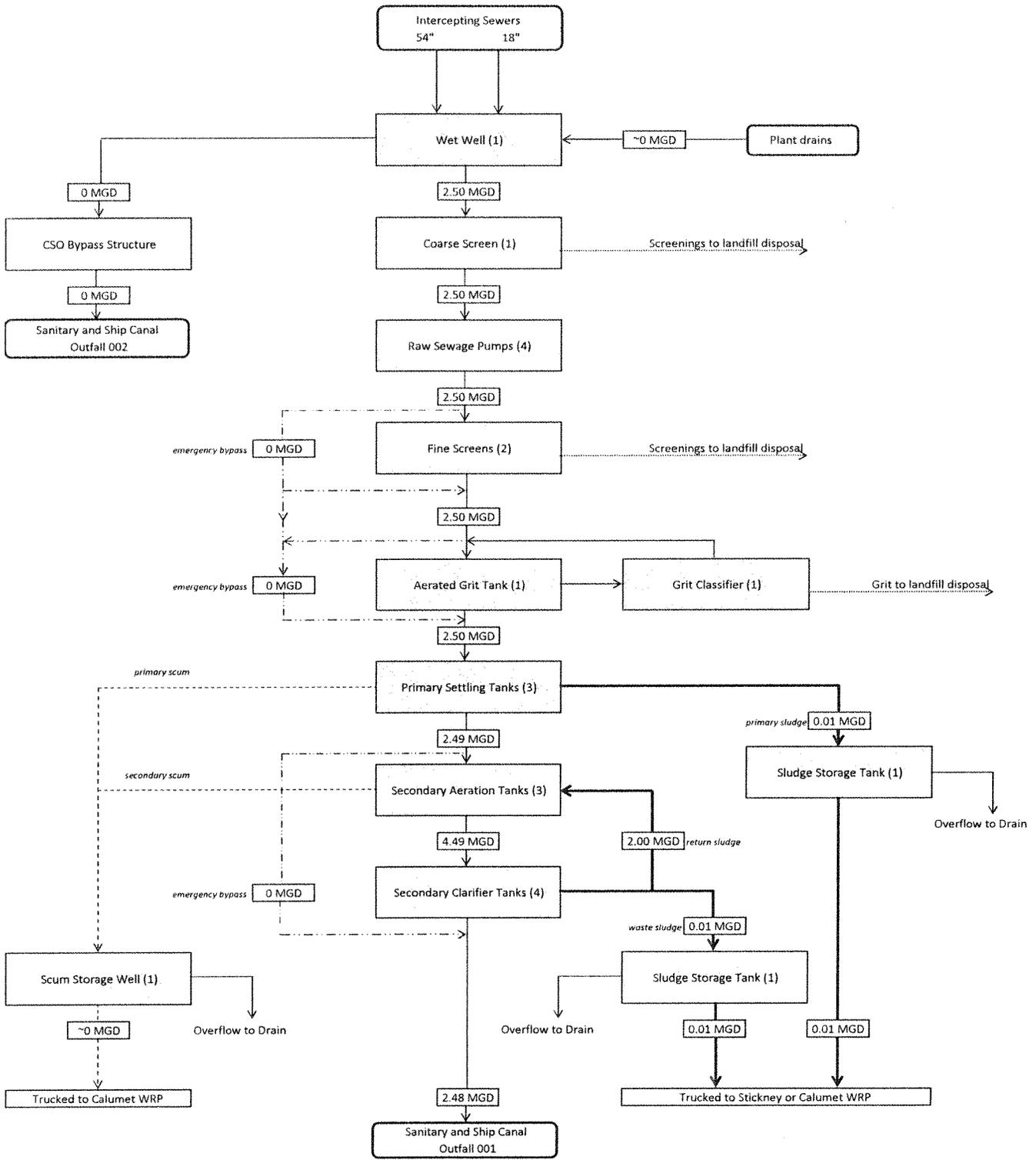


SCALE: 1" = 400'

Appendix 2

PROJECT NO. 05099

Lemont Water Reclamation Plant  
 Flow Schematic  
 Average Daily Flows



## Lemont Water Reclamation Plant - Process diagram narrative

Sewage enters the Lemont WRP via two intercepting sewers. Sewage passes through a mechanically cleaned coarse bar screen before being pumped out of the wet well to flow through the rest of the treatment process. After being pumped, the sewage will pass either one of two mechanically cleaned fine bar screens and then through an aerated grit chamber. The underflow grit slurry is dewatered. The grit solids are sent for landfill disposal and the liquid portion is returned to the process at the fine screens.

Effluent from the aerated grit chamber is distributed to three circular primary settling tanks. Primary sludge is periodically removed based upon the sludge blanket depth, and sent to a sludge holding tank. Floating material is continuously skimmed from the primary tank surface, and sent to a scum storage well. The scum is periodically removed and trucked to the Calumet WRP for treatment and disposal.

Primary effluent is combined with return activated sludge immediately prior to being fed into one of three aeration tanks. After aeration, the mixed liquor is distributed to four final settling clarifiers. Effluent from the secondary clarifiers discharges to the Sanitary and Ship Canal at Outfall 001. The secondary clarifier's surface is continuously skimmed and removed material is combined with the primary tank scum. Secondary sludge is continuously removed from the secondary clarifiers.

The secondary sludge is recycled to the beginning of the aeration tank and a portion is diverted to a sludge storage tank for further processing and disposal. In the event, either sludge holding tank receives excessive flow, the overflow is diverted to the plant's drainage system, which reenters the plant at the wet well.

Primary and secondary sludge is routinely loaded into contracted tanker trailers and hauled to the Stickney WRP or, on occasion, the Calumet WRP for further treatment and beneficial reuse/disposal.

In the event inflow flow exceeds the plant's capacity and the level of sewage at the influent wet well exceed +2.8' CCD, excess sewage is diverted to the Sanitary and Ship Canal through Outfall 002 in order to prevent flooding.

Long Term Control Plan  
Lemont Water Reclamation Plant  
September 15, 2010

## I. INTRODUCTION

The Metropolitan Water Reclamation District of Greater Chicago (District) currently owns and operates the Lemont Water Reclamation Plant (WRP) in Lemont, Illinois. The District received a violation notice dated September 17, 2009 from the Illinois Environmental Protection Agency (IEPA). The violation notice alleged “[f]ailure to provide adequate treatment to excess flows during wet weather periods”. This document is the District’s Long Term Control Plan (LTCP), which is being submitted as required by the Illinois Environmental Protection Agency (IEPA). Also, it should be noted that the IEPA has previously stated their interest in a basin-wide solution to combined sewer overflows (CSOs) in the Lemont area. As part of this basin-wide solution, the Village of Lemont (Village) is preparing a separate LTCP to address CSOs at its outfalls “002” and “003”.

To address concerns associated with the frequency of overflows from the Lemont WRP, as well as a growing population in the Lemont area, the District is proposing new facilities that include the following main components:

- a pump station and force mains to convey all flows from the sanitary sewer system, as well as all dry weather flows and the first flush of storm flows from the combined sewer system, from the Lemont Basin to an interceptor sewer tributary to the District’s Stickney WRP, where the flow will receive full treatment
- a wet-weather treatment facility (located near the new pump station) that will provide primary treatment and disinfection to “10x” the dry weather flow rate from the combined sewer area within the Lemont Basin
- a wet-weather equalization facility (located near the new pump station)

The following sections and attachments of this LTCP contain discussions regarding:

- the existing and proposed facilities
- the schedule and funding for the proposed facilities
- the impacts of flows from the Lemont Basin on the receiving interceptor sewer in the Stickney Service Area, the Tunnel and Reservoir Plan (TARP), and the Stickney WRP

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## **II. Facilities**

### ***EXISTING FACILITIES***

The Lemont WRP currently receives flow from two sewer systems: a combined sewer system and a separate sewer system. Combined sewer flows enter the WRP through an 18-inch sewer downstream of a control structure (located in Stephen Street) that regulates a CSO permitted to the Village. Flows from the separate sewer system enter the plant through a 54-inch pipe. Treated effluent from the Lemont WRP is discharged through a 24-inch treated effluent discharge line. Wet-weather overflows from the influent pump station wet well discharge to the Chicago Sanitary and Ship Canal (CSSC) through a CSO permitted to the District. Also, note that the Village has an NPDES permit for two CSOs located along Stephen Street. The Village's CSO 002 discharges to the Illinois & Michigan Canal, and CSO 003 discharges to the CSSC. Refer to Attachment 1, which depicts a schematic of the sewer system surrounding the Lemont WRP.

### ***PROPOSED FACILITIES***

#### **Dry Weather Operations**

All dry weather flows from both sewer systems (i.e. the combined and separate sewer systems) will enter the wet well of the new pump station and will be conveyed to an interceptor sewer tributary to the District's Stickney WRP, where the flow will receive full treatment.

#### **Wet Weather Operations**

The new pump station will continuously convey flows to the Stickney interceptor sewer during wet weather.

With regard to the combined sewer, typical dry weather flow rates, plus the first flush of storm flows, will enter the wet well of the pump station for pumping to the Stickney interceptor. Additional flows in the combined sewer will be diverted to a new wet weather treatment facility, which will be designed to meet the requirements in Section 306.305 of the Illinois Administrative Code. Wet weather treatment will consist of primary treatment and disinfection. The wet weather facility will be designed to treat ten times the average dry weather flow. Modifications to the combined sewer system will be made in order to convey flow rates up to "10x" the average daily dry weather flow to the facility. In order to convey the required flow rate, it is anticipated that the diameter of the 18-inch combined sewer will need to be increased and/or the Stephen Street control structure will need to be modified. The exact modifications will be determined during detailed design. It is expected that the above improvements will have the effect of reducing the Village's CSOs.

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The pump station will be designed to operate in conjunction with a flow equalization facility. The District will maintain its existing overflow to the CSSC, which is currently permitted as a CSO under the NPDES operating permit for the Lemont WRP. This overflow will serve to protect the new facilities during true emergencies. As a result, the overflow would change designations from a “CSO” to an “emergency high level overflow”.

Refer to Attachment 2, which depicts a schematic of the sewer system and treatment facilities for the proposed condition.

### **III. Schedule and Funding**

#### ***Schedule***

It is planned that the aforementioned improvements will be bid and awarded under three separate contracts: (1) Wet Weather Reservoir, (2) Wet Weather Treatment Facility, and (3) Lemont Pumping Station and Force Mains. The implementation schedules for each project have been divided into four phases, as listed below.

1. IEPA’s approval of the District’s LTCP
2. design, permitting, and right-of-way (ROW) acquisition
3. bidding and award
4. construction

The three contracts, and the estimated target dates for completion of the various phases, are presented in Table 1, below. Also, refer to the bar charts in Attachment 3, which include the start times, end times, and durations for each of the four phases under each project.

**Table 1 – Estimated Completion Dates of Phases for Each Project**

	<b>Wet Weather Reservoir</b>	<b>Wet Weather Treatment Facility</b>	<b>Lemont Pumping Station and Force Mains</b>
IEPA’s approval of the District’s LTCP*	November 15, 2010	November 15, 2010	November 15, 2010
Design, permitting, and ROW acquisition	August 22, 2012	November 21, 2012	July 9, 2014
Bidding and Award	December 27, 2012	March 25, 2013	November 10, 2014
Construction	December 27, 2014	March 25, 2015	November 10, 2017

\* The IEPA’s approval of the LTCP is anticipated by November 15, 2010. Any delay in the approval of the LTCP will cause a corresponding postponement to the design and construction schedules equal to the time of the delay.

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The following are descriptions of the activities that will take place during the implementation of the contracts.

## **Design of Proposed Facilities**

It is estimated that the IEPA's approval of the District's LTCP will occur two months after the initial submittal of the District's LTCP on September 15, 2010, and that preliminary design will start immediately thereafter. Any delay in the approval of the LTCP will cause a corresponding postponement to the design and construction schedules equal to the time of the delay.

To ensure a successful project, close coordination and collaboration is required between the District's Engineering Department, Maintenance & Operations (M&O) Department, and the engineering consulting firm that has been hired by the District (CH2M Hill, Inc.). All three groups will participate in workshops throughout the design phase. Workshops allow opportunities for CH2M Hill, Inc. to present its thoughts and work on the project, for District staff to provide comments and direction on the design, and for decisions to be made on the design and path forward. Involvement of the M&O Department is critical throughout the design phase, to ensure that operations and maintenance issues are considered, and that the new facilities can be operated and maintained effectively.

In addition, the consultant will submit draft construction drawings and specifications at various stages of completion (i.e. 30%, 60%, and 98%), for review by District technical staff. Periodic reviews of the plans and specifications over the course of the design are important. For instance, identifying issues and correcting problems during the early stages of design prevents major re-work/re-design in the later stages of the design schedule. Finally, compared to the 30% and 60% submittals, the 98% submittal is reviewed by a larger group, which includes the Law Department, the Department of Procurement and Materials Management, the Affirmative Action Section, and the Engineering Department's Construction Division.

## **Permits and Right-of-Way Acquisition**

Permitting and right-of-way (ROW) acquisition were factored into the schedule. Although an attempt was made to include realistic timelines for these items, it should be noted that a fair amount of uncertainty exists for these items. Permits will be required from a number of agencies. In particular, wetlands are located in the vicinity of the currently envisioned force main route, in both Cook and DuPage Counties, which will present a challenge with respect to permitting and design. It is anticipated that wetlands-related permits will be required from both DuPage County and the U.S. Army Corps of Engineers.

With respect to ROW acquisition, the pumping station and force main project is complex. The approximately 11-mile force main route will cross rights-of-way and easements of

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other entities, including but not limited to the Illinois Department of Transportation, Illinois State Toll Highway Authority, Commonwealth Edison, and the Northern Illinois Gas Company. In addition, the force mains will need to cross existing pipelines, which will require coordination with, and approval from, the various owners. In general, the amount of time required to obtain right-of-way can vary greatly between the various agencies and private grantors, and also depends on the technical details of the project. For instance, the time to obtain approval from a road agency can vary significantly depending on whether the agency has concerns about impacts to the integrity of its roads or bridges.

Lastly, with regard to force main routing, portions of the currently envisioned route are located on District-owned real estate that is currently leased to the Forest Preserve Districts of either Cook or DuPage Counties. Portions of these leasehold parcels are dense with existing trees, except for a new bicycle path that has been constructed as part of the Centennial and I&M Canal Trail System. It is currently envisioned that the force mains can be located under, or directly adjacent to, the new bicycle paths. As the design is performed, the impacts to trail operations, and potentially to existing trees, will be learned, and coordination will take place with the entity(ies) that operate and maintain the trail. However, possible resistance to this route from stakeholders, and the impact to the implementation schedule for the force mains, is unknown at this time.

## **Bidding and Award**

Each of the three construction contracts must be publicly bid in compliance with the District's Purchasing Act, as mandated by Illinois State Statute. Bidding and award is briefly described, below.

Before each contract is publicly advertised for bidding, the District's Board of Commissioners (Board) must grant authority to advertise the contract, and the construction documents must be printed for distribution to potential bidders. As previously indicated, it is difficult to predict the amount of time required to obtain the necessary permits and right-of-way, and delays in these facets of a project will postpone advertisement of the construction contract for bidding.

Subsequent to advertisement, potential bidders will be required to attend a pre-bid walk-through of the location of the work, followed by a pre-bid conference approximately one week later. The District will answer questions posed by the potential bidders, and contract addenda will be prepared and distributed to the same. After bids are received, they will be reviewed by the District staff. This includes a review by the Affirmative Action Section with respect to the utilization requirements for protected class enterprises, as required by the District's Affirmative Action Ordinance Appendix D. Protected class enterprises include minority-owned, women-owned, and small business enterprises. Lastly, in order to award the contract, District staff must obtain authorization from the District's Board. It should be noted that throughout this process, it is possible that unexpected issues could arise and thus delay the award of the contract.

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**Construction**

Following award of a contract, the general contractor assembles its team of subcontractors, submits shop drawings for the District's review, and learns the internet/web-based project management software that will be used to exchange information and correspondence with the District. Following shop drawing approval, the Contractor orders materials and plans the work. During construction, the discovery of unforeseen site conditions could delay the work, such as unexpected geotechnical conditions or underground utilities. For example, high bedrock elevations along the force main route could delay installation of the force mains. Finally, after all the facilities have been built, a 60-day test of the new facilities is performed, to ensure that the new facilities operate properly. Resolving problems that are encountered during the 60-day test could require significant additional time.

**Funding**

On August 12, 2010, the District's Board authorized that the three aforementioned construction projects be added to the Engineering Department's Capital Improvements Program and the Capital Improvements Bond Fund. Budgetary cost estimates for each of the projects are presented, below. The actual design has yet to begin, and unforeseen issues, such as difficult geology or right-of-way conflicts, may affect the final cost.

Pumping Station and Force Mains	\$52,000,000
Wet Weather Treatment Facility	\$10,000,000
Wet Weather Reservoir	\$15,000,000

The projects are not dependent on grants or loans. However, to clarify, the District may eventually choose to fund one or more of the projects with grants or loans if the opportunity is available.

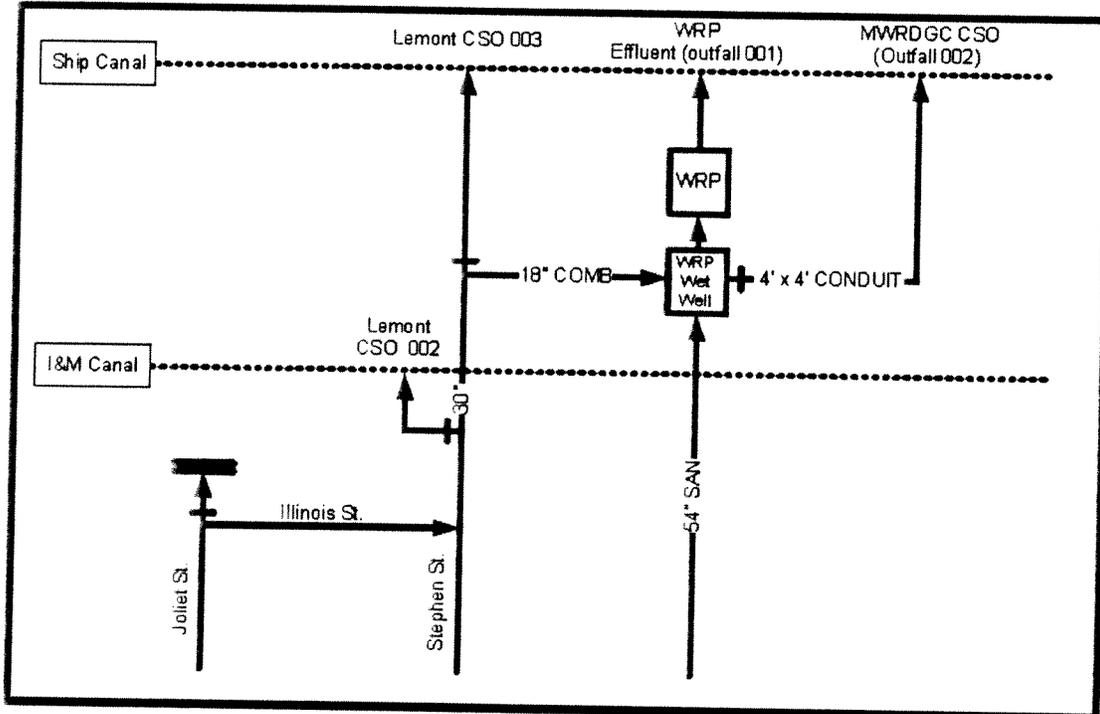
**IV. Impacts on the Receiving Interceptor Sewers, TARP, and the Stickney WRP in the Stickney Service Area**

Based on flow monitoring and modeling of the receiving interceptor sewer in the Stickney Service Area, the sewer has adequate capacity to convey projected future flows from the Lemont Basin to the Stickney WRP during dry-weather conditions. Furthermore, the magnitude of the pumped flows from the Lemont Basin is extremely small with respect to the treatment capacity of the Stickney WRP. Thus, the Lemont Basin flows will add an insignificant increase in total dry weather flow received by the Stickney WRP. With respect to wet-weather conditions, flows from the Lemont Basin will be insignificant with respect to the storage capacities of the Mainstream System Tunnels, Des Plaines System Tunnels, and future McCook Reservoir. Details are presented in the technical memorandum "Storage and Conveyance Capacity Investigation for Proposed Lemont Pump Station", by CH2M Hill, Inc. (see Attachment 4).

Long Term Control Plan  
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Attachment 1

Sewer System Schematic for Existing Conditions



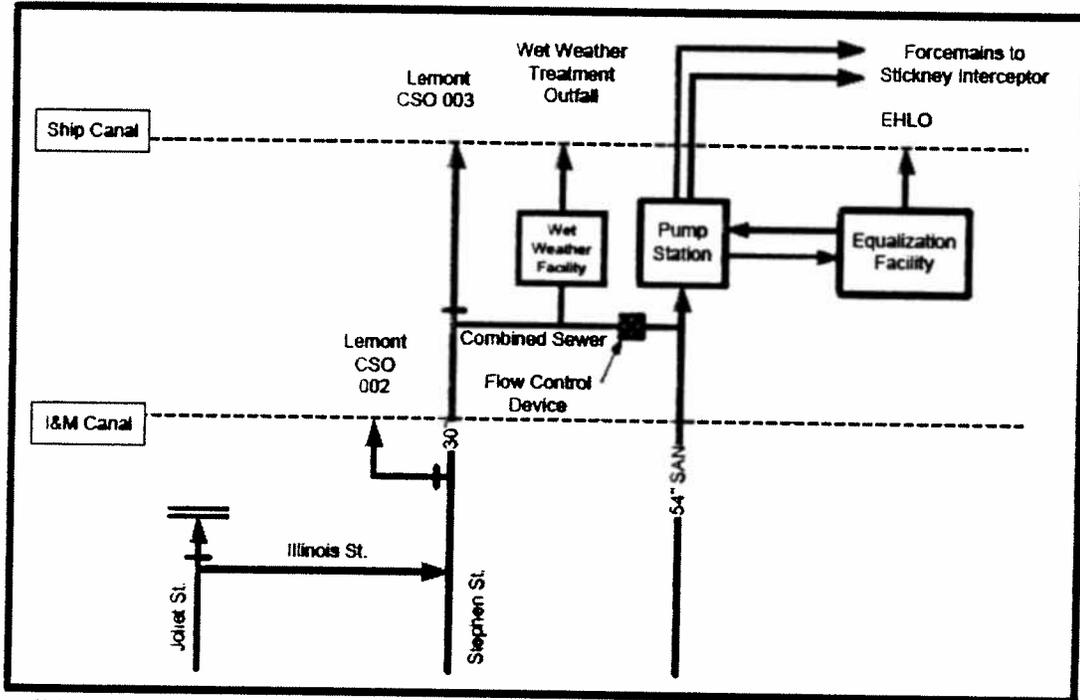
Notes

- (1) The CSO located at the I&M Canal and Joliet St. Was plugged in August 2002

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Attachment 2

Sewer System Schematic for Proposed Conditions



Notes:

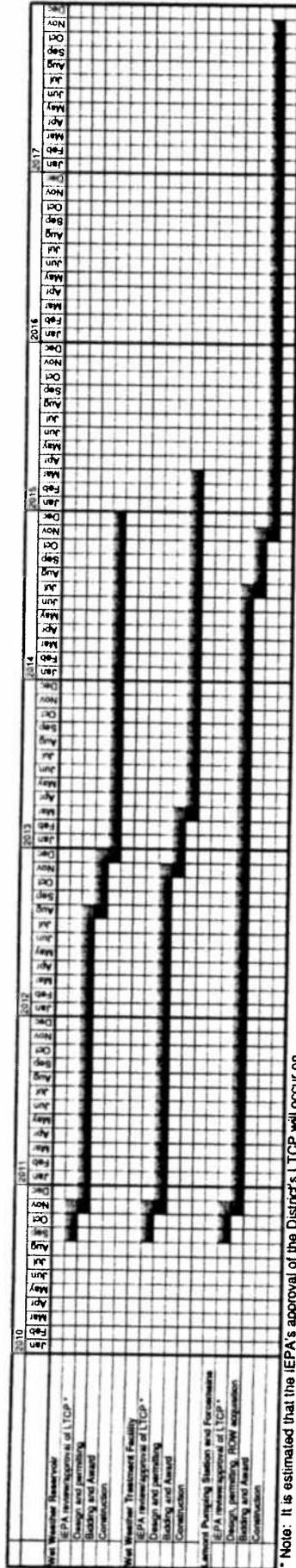
- 1) The CSO at the I&M Canal and Joliet St. was plugged in August 2002
- 2) "EHLO" stands for Emergency High Level Overflow
- 3) Wet weather facility consists of primary treatment and disinfection

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Attachment 3

Implementation Schedules for New Facilities

**Schedules for New Facilities**  
 Long Term Control Plan - Lemont Water Reclamation Plant  
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\* Note: It is estimated that the IEPA's approval of the District's LTCP will occur on November 15, 2010, which is two months after the initial submittal of the District's LTCP on September 15, 2010, and that preliminary design will start immediately thereafter. Any delay in the approval of the LTCP will cause a corresponding postponement to the design and construction schedules equal to the time of the delay.

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Attachment 4

Technical Memorandum:  
“Storage and Conveyance Capacity Investigation for Proposed  
Lemont Pump Station” by CH2M Hill, Inc.,  
dated September 15, 2010

# Storage and Conveyance Capacity Investigation for Proposed Lemont Pump Station

PREPARED FOR: Metropolitan Water Reclamation District of Greater Chicago  
(MWRDGC or District)

PREPARED BY: CH2M HILL

COPIES: File

DATE: September 15, 2010

## Introduction

To address concerns associated with Lemont's growing population and the frequency of combined sewer overflows (CSOs) from the Lemont Water Reclamation Plant (WRP) the MWRDGC has proposed the Lemont Pumping Station, Force Mains, Reservoir, and Wet Weather Treatment Facility Projects. Proposed facilities include:

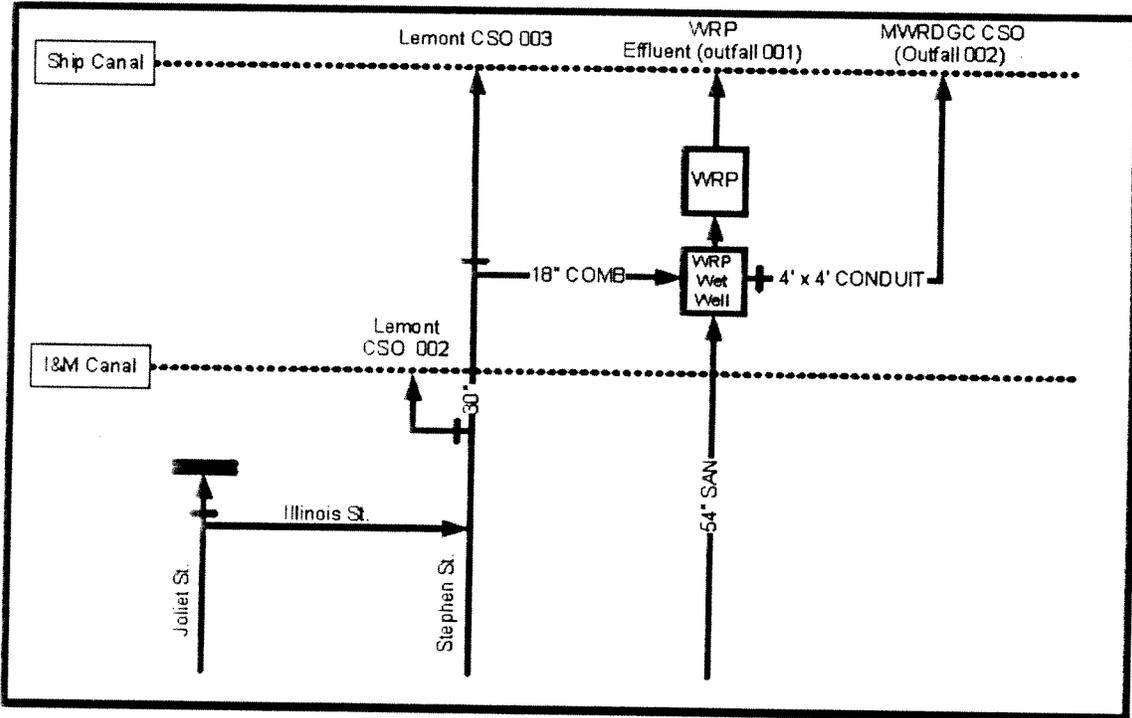
- A new pump station and force mains to convey all flows from the sanitary sewer system, as well as all dry weather flows and the first flush of storm flows from the combined sewer system, from the Lemont Basin to an interceptor sewer tributary to the District's Stickney WRP, where the flow will receive full treatment
- A new wet-weather treatment facility that will provide primary treatment and disinfection for 10x dry-weather flow (DWF) for the combined sewer area
- A new wet-weather equalization facility

The details of facilities and the level of service provided are described in more detail below.

## Existing Facilities

The Lemont WRP serves both separate and combined sewer areas. Combined sewer flows enter the WRP through an 18-inch sewer upstream of a control structure that regulates CSOs permitted to the Village of Lemont. Separate sewer flows enter the plant through a 54-inch sewer. Flows from the Lemont WRP are discharged through the 24-inch treated effluent discharge line. Overflows from the influent pump station wet well discharge to the Chicago Sanitary and Ship Canal through the permitted MWRDGC CSO. Also, the Village of Lemont has an NPDES permit for two CSOs located along Stephen Street (i.e. CSOs "002" and "003"). Figure 1 depicts a schematic of the sewer system surrounding the Lemont WRP.

**FIGURE 1**  
Sewer System Schematic

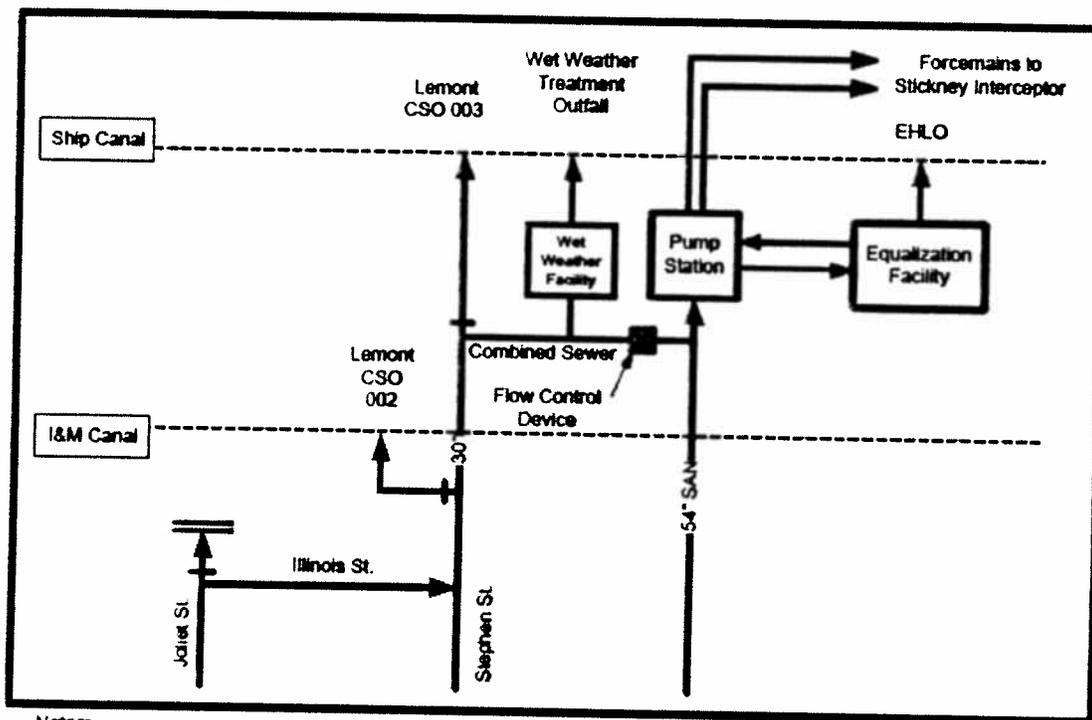


Notes  
(1) The CSO located at the I&M Canal and Joliet St. Was plugged in August 2002

## Proposed Facilities

The MWRDGC has proposed the Lemont Pumping Station, Force Mains, Reservoir, and Wet Weather Treatment Facility Projects to address concerns associated with the area's growing population as well as CSOs from the District's permitted outfall "002". The MWRDGC is proposing a wet-weather equalization facility (up to 5 MG storage capacity) and a pump station with dual pipelines that tie-in to the Southwest Interceptor Sewer system. The pump station and pipelines will convey all flows from the sanitary sewer system, as well as all dry weather flows and the first flush of storm flows from the combined sewer system, from the Lemont Basin to the SW Interceptor Sewer that feeds the Stickney WRP. The pump station will be designed to operate continuously during wet weather events in conjunction with the proposed equalization facility. The equalization facility will be used to capture wet-weather flows exceeding pumped flows. Furthermore, a new wet weather treatment facility will provide primary treatment and disinfection to "10x" the dry weather flow rate from the combined sewer area in the Lemont Basin. Figure 2 shows a schematic of the proposed facilities and flow paths.

FIGURE 2  
Proposed Facilities Schematic



- Notes:
- 1) The CSO at the I&M Canal and Joliet St. was plugged in August 2002
  - 2) "EHLO" stands for Emergency High Level Overflow
  - 3) Wet weather facility consists of primary treatment and disinfection

## Evaluation of Impacts to Existing Infrastructure

### Dry Weather Flow Conveyance

Proposed facilities will be sized to convey dry weather flows from the Lemont WRP site to the SW Interceptor Sewers. Flow in the interceptor sewers will subsequently be conveyed to the Stickney WRP for full treatment per Illinois Administrative Code Title 35, Section 306.305.

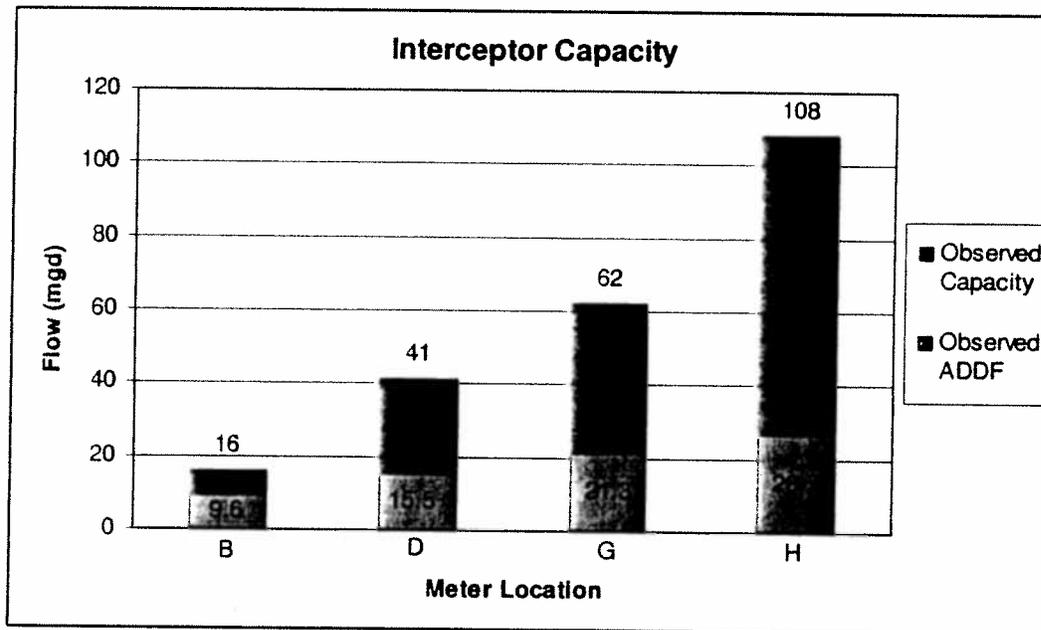
CH2M HILL completed a study to evaluate available capacity within the Southwest Interceptor Sewers during dry weather flow. Flow meters were installed at four locations to evaluate potential tie-in locations. The flow meters were left in place for over one year and recorded depths, velocities and flows at 15- minute intervals. The flow data was analyzed to determine maximum sewer capacity, average daily dry weather flow, and available capacity at each meter location to determine a tie-in location that would ensure adequate capacity for all dry weather flows to be conveyed to the Stickney WRP. Flow meter results are discussed in more detail in a separate Technical Memorandum, *Southwest Interceptor Sewer Capacity Analysis*, completed by CH2M HILL. It was observed that sufficient capacity exists in the interceptor sewers to accept the additional dry weather flows from the Lemont WRP. Table 2 shows the Average Daily Dry Weather Flow (ADDF) in the Interceptor at 4 locations. Figure 3 shows this same information graphically. The proposed tie-in is downstream of Meter D, where there is greater than 25 MGD additional DWF capacity available. Figure 4 illustrates the approximate locations of the flow meters on an aerial photograph.

**TABLE 2**  
Southwest Interceptor Sewer Flow Summary

Pipe Size	Meter Location	Calculated ADDF (MGD)	Observed Maximum Capacity (MGD) from scatter graphs (May 2008 - Sept 2008)	Available Capacity (ADDF)	Proposed additional flow from Lemont, 2020 ADDF (MGD)
54" Round	B	9.6	16	6.4	4.2
4'-6" x 5' Arch	D	15.5	41	25.5	4.2
5'-8 3/8" x 6'-4" Arch	G	21.3	62	40.7	4.2
7'-6" x 8'-4" Arch	H	26.7	108*	81.3	4.2

\* Flow meter at this location provided faulty data. Value based on InfoWorks model.

**FIGURE 3**  
Southwest Interceptor Sewer Flow Summary



**FIGURE 4**  
Approximate Flow Measurement Locations



**Legend**  
— Southwest Interceptor Sewers  
○ Measurement Type  
X Meter installed  
X Basic Depth Measurement

## **Wet Weather Flow Conveyance**

The proposed pump station and equalization basin projects will allow MWRDGC to capture and treat more wet-weather flow than the existing WRP, resulting in decreased discharges of untreated flows to the Sanitary and Ship Canal. The existing WRP can handle a peak flow of approximately 4.5 MGD. Flows in excess of the WRP capacity are discharged untreated.

The proposed pump station and equalization facility are sized to handle, through a combination of pumping and storage, flows for greater than a 25 year, 12 hour duration design storm based on projected year 2020 flows. The 2020 flows are calculated by using the 2020 population estimate and current inflow and infiltration (I/I) characteristics, although MWRDGC is investigating the possibility of revising its current District-wide local sanitary sewer system I/I reduction program due to potential future EPA regulations and growing adverse impacts of I/I on District operations. The proposed wet-weather equalization facility will allow the capture of up to 5 MG of sanitary flows during wet-weather events. All other sanitary flows will be conveyed to the Southwest Interceptor Sewer for subsequent treatment at Stickney WRP.

The proposed pipelines will be sized to handle up to 17.5 MGD, based on ultimate flow projections; however the pumps will be designed to handle Year 2020 design flows and therefore a maximum pumping rate of approximately 8.5 MGD. During wet-weather events, flows from the Lemont pump station will contribute to flows in the Southwest Interceptor Sewer. If the rain event is sufficient to cause the Southwest Interceptor Sewer to reach capacity, flows will enter TARP through one or more drop shafts in the vicinity of the tie-in. These flows will subsequently be pumped to the Stickney WRP for full treatment.

Flows entering the TARP system in this location will ultimately be conveyed to the McCook Reservoir. Completion of Phase I of the McCook Reservoir is expected in 2017. This will add approximately 3.5 billion gallons of storage to the TARP system (discussed in more detail below). The current projected construction completion date for the Lemont Pump Station and Sewage Pipelines is late 2015, only a few years prior to completion of Phase I of the McCook Reservoir.

The proposed pipeline consists of approximately 11 miles of parallel 18-inch and 24-inch pipes. The 24-inch pipeline, primarily intended for wet-weather pumping, can provide approximately 1.3 million gallons of additional wet-weather storage should MWRDGC decide to use this pipeline for storage during rain events. The overall storage volume available between the 24-inch pipe and the equalization facility is approximately 6.3 million gallons, while the projected average day dry-weather flow for the facilities for Year 2020 is 4.2 MGD. This storage capacity can be utilized to limit flows to the Southwest Interceptor Sewer for the interim period in which McCook Reservoir is not complete.

## **Wet Weather Storage Capacity**

As described previously, wet-weather flows from the Lemont pump station will contribute to flows in the SW interceptor sewer, and, in turn, may enter the TARP system. Flows entering the TARP system in this location will ultimately be conveyed to the McCook Reservoir.

The McCook Reservoir will have a total storage capacity of 10 billion gallons upon completion. Of the 10 billion gallons, 3.5 billion gallons of storage is anticipated to be online by 2017 and therefore is expected to be available near the expected time of completion of the proposed

Lemont pump station and force mains. In addition to the McCook Reservoir, the Mainstream System and Des Plaines System Tunnels that tie into the McCook Reservoir have a combined storage capacity of 1.61 billion gallons.

The Lemont pump station is anticipated to pump up to a total of approximately 17 million gallons over a 48-hour period. Table 3 summarizes storage capacities of the TARP Mainstream and Des Plaines systems and the approximate impact on this storage volume from the Lemont flows.

**TABLE 3**  
TARP Mainstream and Des Plaines Systems Details

Component	Length of Tunnels	Storage Capacity (Billion Gallons)	Completion Date	Cumulative Storage (Billion Gallons)	Volume from Lemont (17 Million Gallons) as a Percentage of Available Storage Volume
Mainstream System Tunnels	40.5 miles	1.2	1998	1.2	1.4%
Des Plaines System Tunnels	25.6 miles	0.41	1998	1.61	1.1%
McCook Reservoir Phase 1 Storage		3.5	2017 (Estimated)	5.11	0.3%
McCook Reservoir Phase 2 Storage		6.5	2029 (Estimated)	11.61	0.2%

As can be seen in Table 3, flows from the proposed Lemont pump station and force mains are expected to have an insignificant impact on available storage in the TARP system.

### Available Treatment Capacity at Stickney WRP

Stickney WRP routinely treats between 700 to 800 million gallons per day of wastewater on an average day. It has a permitted (NPDES No. IL0028053) design average flow of 1,200 MGD and a design maximum flow of 1,440 MGD. Lemont WRP currently treats an average day dry flow of 1.9 MGD and is projected to double its average day dry weather flow by year 2020, receiving an average of 4.2 MGD with a maximum day dry weather flow of 8.5 MGD. Table 4 illustrates that the Lemont flows will constitute an insignificant (< 1 percent) increase in the total dry weather flow received by Stickney WRP. All dry weather flows from Lemont would be conveyed to the Southwest Interceptor Sewers and treated at Stickney WRP under the current operating permit for Stickney WRP.

**TABLE 4**  
Lemont WRP Dry Weather Flows in MGD

Condition	Lemont Average Day Dry Weather Flow	% of Stickney WRP Design Average Flow	Lemont Maximum Day Dry Weather Flow	% of Stickney WRP Design Maximum Flow
Existing Observed	1.9	0.16%	2.9	0.20%
Existing Permitted	2.3	0.19%	4.0	0.28%
Year 2020 Design Flows	4.2	0.35%	8.5	0.59%

## Summary

The proposed Lemont Pumping Station, Force Mains, Reservoir, and Wet Weather Treatment Facility Projects will allow MWRDGC to convey all flows from the sanitary sewer system, as well as all dry weather flows and the first flush of storm flows from the combined sewer system, from the Lemont Basin to an interceptor sewer tributary to the District's Stickney WRP, where the flow will receive full treatment. Furthermore, it will allow the capture of wet weather flows through use of both an on-site equalization facility and TARP. Use of the Lemont WRP permitted outfall "002" will be reduced from an average of 3 to 4 times per year to emergency overflows only.

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

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c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

See attached Approved Long Term Control Plan dated 9/15/10 and Letter dated 12/16/11

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM / DD / YYYY	MM / DD / YYYY
- Begin construction	__ / __ / __	__ / __ / __
- End construction	__ / __ / __	__ / __ / __
- Begin discharge	__ / __ / __	__ / __ / __
- Attain operational level	__ / __ / __	__ / __ / __

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained?  Yes  No

Describe briefly: In the process.

**B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).**

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL Reporting Limit
	Conc.	Units	Conc.	Units	Number of Samples		
<b>CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.</b>							
AMMONIA (as N)	16.53	mg/L	<0.48	mg/L	1460	EPA350.1R2	0.25 MG/L
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN	10.70	mg/L	7.70	mg/L	1461	SM4500G&C	N/A
TOTAL KJELDAHL NITROGEN (TKN)	18.61	mg/L	<2.14	mg/L	1455	EPA351.2R2.0	0.45 mg/L
NITRATE PLUS NITRITE NITROGEN	26.05	mg/L	<16.54	mg/L	1460	EPA353.2R2.0	0.45 mg/L
OIL and GREASE	11.00	mg/L	<2	mg/L	208	EPA1664A	2 mg/L
PHOSPHORUS (Total)	6.59	mg/L	2.38	mg/L	1460	EPA365.4	0.15 mg/L
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

**END OF PART B.  
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

**Indicate which parts of Form 2A you have completed and are submitting:** Basic Application Information packet

Supplemental Application Information packet:

 Part D (Expanded Effluent Testing Data) Part E (Toxicity Testing: Biomonitoring Data) Part F (Industrial User Discharges and RCRA/CERCLA Wastes) Part G (Combined Sewer Systems)**ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.**

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

Name and official title Manju P. Sharma, Director of Maintenance and OperationsSignature *MP Sharma* *MS*Telephone number (312) 751-5101

Date signed \_\_\_\_\_

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

**SEND COMPLETED FORMS TO:**

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086

**SUPPLEMENTAL APPLICATION INFORMATION**

**PART D. EXPANDED EFFLUENT TESTING DATA**

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

**Effluent Testing: 1.0 mgd and Pretreatment Treatment Works.** If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	Reporting Limit <del>ML/MDL</del>
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
<b>METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.</b>											
ANTIMONY	<0.05	mg/L			<0.05	mg/L			1461	SM3120B	0.05 mg/L
ARSENIC	0.05	mg/L			<0.05	mg/L			1461	SM3120B	0.05 mg/L
BERYLLIUM	<0.002	mg/L			<0.002	mg/L			1461	SM3120B	0.002 mg/L
CADMIUM	0.006	mg/L			<0.001	mg/L			1461	SM3120B	0.001 mg/L
CHROMIUM	<0.01	mg/L			<0.01	mg/L			1461	SM3120B	0.01 mg/L
COPPER	0.41	mg/L			<0.02	mg/L			1461	SM3120B	0.02 mg/L
LEAD	<0.03	mg/L			<0.03	mg/L			1461	SM3120B	0.03 mg/L
MERCURY	465	ng/L			<5.4	ng/L			209	EPA1631E	0.5 ng/L
NICKEL	0.054	mg/L			<0.008	mg/L			1461	SM3120B	0.008 mg/L
SELENIUM	0.009	mg/L			<0.005	mg/L			1461	SM3120B	0.005 mg/L
SILVER	0.011	mg/L			<0.004	mg/L			1461	SM3120B	0.004 mg/L
THALLIUM	<0.1	mg/L			<0.1	mg/L			1461	SM3120B	0.1 mg/L
ZINC	0.99	mg/L			<0.06	mg/L			1461	SM3120B	0.06 mg/L
CYANIDE	0.011	mg/L			<0.05	mg/L			208	SM4500CN & EPAKelana01	0.005 mg/L
TOTAL PHENOLIC COMPOUNDS	17	ug/L			<6	ug/L			208	EPA420.4R.10	6 ug/L
HARDNESS (AS CaCO <sub>3</sub> )	738	mg/L			390	mg/L			1461	SM2340B	N/A
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

**FACILITY NAME AND PERMIT NUMBER:**

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 Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	Reporting Limit MGM/MBE
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
<b>VOLATILE ORGANIC COMPOUNDS.</b>											
ACROLEIN	<150	ug/L			<150	ug/L			8	EPA624	50 ug/L
ACRYLONITRILE	<10	ug/L			<10	ug/L			8	EPA624	10 ug/L
BENZENE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
BROMOFORM	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
CARBON TETRACHLORIDE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
CLOROBENZENE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
CHLORODIBROMO-METHANE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
CHLOROETHANE	<4	ug/L			<4	ug/L			8	EPA624	4 ug/L
2-CHLORO-ETHYL VINYL ETHER	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
CHLOROFORM	66	ug/L			12	ug/L			8	EPA624	2 ug/L
DICHLOROBROMO-METHANE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
1,1-DICHLOROETHANE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
1,2-DICHLOROETHANE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
TRANS-1,2-DICHLORO-ETHYLENE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
1,1-DICHLOROETHYLENE	<3	ug/L			<3	ug/L			7	EPA624	3 ug/L
1,2-DICHLOROPROPANE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
1,3-DICHLORO-PROPYLENE	<0.3	ug/L			<0.3	ug/L			8	EPA624	0.3 ug/L
ETHYLBENZENE	<2	ug/L			<2	ug/L			8	EPA624	2 ug/L
METHYL BROMIDE	<5	ug/L			<5	ug/L			8	EPA624	5 ug/L
METHYL CHLORIDE	<3	ug/L			<3	ug/L			8	EPA624	3 ug/L
METHYLENE CHLORIDE	2.3	ug/L			<2	ug/L			8	EPA624	2 ug/L
1,1,2,2-TETRACHLORO-ETHANE	<3	ug/L			<3	ug/L			8	EPA624	3 ug/L
TETRACHLORO-ETHYLENE	6.3	ug/L			<2	ug/L			8	EPA624	2 ug/L
TOLUENE	4.7	ug/L			<2	ug/L			8	EPA624	2 ug/L

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 Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	Reporting Limit <del>ML/MBE</del>	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
1,1,1-TRICHLOROETHANE	<2	ug/L			<2	ug/L				8	EPA624	2 ug/L
1,1,2-TRICHLOROETHANE	<2	ug/L			<2	ug/L				8	EPA624	2 ug/L
TRICHLOROETHYLENE	<2	ug/L			<2	ug/L				8	EPA624	2 ug/L
VINYL CHLORIDE	<0.3	ug/L			<0.3	ug/L				8	EPA624	0.3 ug/L

Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.

**ACID-EXTRACTABLE COMPOUNDS**

P-CHLORO-M-CRESOL	<4	ug/L			<4	ug/L				8	EPA625	4 ug/L
2-CHLOROPHENOL	<7	ug/L			<7	ug/L				8	EPA625	7ug/L
2,4-DICHLOROPHENOL	<4	ug/L			<4	ug/L				8	EPA625	4 ug/L
2,4-DIMETHYLPHENOL	<4	ug/L			<4	ug/L				8	EPA625	4 ug/L
4,6-DINITRO-O-CRESOL	<29	ug/L			<29	ug/L				8	EPA625	29 ug/L
2,4-DINITROPHENOL	<30	ug/L			<30	ug/L				8	EPA625	30 ug/L
2-NITROPHENOL	<4	ug/L			<4	ug/L				8	EPA625	4 ug/L
4-NITROPHENOL	<20	ug/L			<20	ug/L				8	EPA625	20 ug/L
PENTACHLOROPHENOL	<30	ug/L			<30	ug/L				8	EPA625	30 ug/L
PHENOL	<4	ug/L			<4	ug/L				8	EPA625	4 ug/L
2,4,6-TRICHLOROPHENOL	<6	ug/L			<6	ug/L				8	EPA625	6 ug/L

Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.

**BASE-NEUTRAL COMPOUNDS.**

ACENAPHTHENE	<4	ug/L			<4	ug/L				8	EPA625	4 ug/L
ACENAPHTHYLENE	<5	ug/L			<5	ug/L				8	EPA625	5 ug/L
ANTHRACENE	<3	ug/L			<3	ug/L				8	EPA625	3 ug/L
BENZIDINE	<26	ug/L			<26	ug/L				8	EPA625	26 ug/L
BENZO(A)ANTHRACENE	<3	ug/L			<3	ug/L				8	EPA625	3 ug/L
BENZO(A)PYRENE	<2	ug/L			<2	ug/L				8	EPA625	2 ug/L

**FACILITY NAME AND PERMIT NUMBER:**

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 Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	Reporting Limit ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<3	ug/L			<3	ug/L			8	EPA625	3 ug/L
BENZO(GHI)PERYLENE	<3	ug/L			<3	ug/L			8	EPA625	3 ug/L
BENZO(K)FLUORANTHENE	<3	ug/L			<3	ug/L			8	EPA625	3 ug/L
BIS (2-CHLOROETHOXY) METHANE	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
BIS (2-CHLOROETHYL)-ETHER	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
BIS (2-CHLOROISO-PROPYL) ETHER	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
BIS (2-ETHYLHEXYL) PHTHALATE	<25	ug/L			<25	ug/L			8	EPA625	25 ug/L
4-BROMOPHENYL PHENYL ETHER	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
BUTYL BENZYL PHTHALATE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
2-CHLORONAPHTHALENE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
4-CHLORPHENYL PHENYL ETHER	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
CHRYSENE	<2	ug/L			<2	ug/L			8	EPA625	2 ug/L
DI-N-BUTYL PHTHALATE	<5	ug/L			<5	ug/L			8	EPA625	5 ug/L
DI-N-OCTYL PHTHALATE	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
DIBENZO(A,H) ANTHRACENE	<3	ug/L			<3	ug/L			8	EPA625	3 ug/L
1,2-DICHLOROBENZENE	<3	ug/L			<3	ug/L			8	EPA624	3 ug/L
1,3-DICHLOROBENZENE	<3	ug/L			<3	ug/L			8	EPA624	3 ug/L
1,4-DICHLOROBENZENE	<3	ug/L			<3	ug/L			8	EPA624	3 ug/L
3,3-DICHLOROBENZIDINE	<11	ug/L			<11	ug/L			8	EPA625	11 ug/L
DIETHYL PHTHALATE	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
DIMETHYL PHTHALATE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
2,4-DINITROTOLUENE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
2,6-DINITROTOLUENE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
1,2-DIPHENYLHYDRAZINE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L

**FACILITY NAME AND PERMIT NUMBER:**

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	Reporting Limit <u>ML/MDL</u>
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<2	ug/L			<2	ug/L			8	EPA625	2 ug/L
FLUORENE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
HEXACHLOROBENZENE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
HEXACHLOROBUTADIENE	<5	ug/L			<5	ug/L			8	EPA625	5 ug/L
HEXACHLOROCYCLO-PENTADIENE	<50	ug/L			<50	ug/L			8	EPA625	50 ug/L
HEXACHLOROETHANE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
INDENO(1,2,3-CD)PYRENE	<3	ug/L			<3	ug/L			8	EPA625	3 ug/L
ISOPHORONE	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
NAPHTHALENE	<5	ug/L			<5	ug/L			8	EPA625	5 ug/L
NITROBENZENE	<8	ug/L			<8	ug/L			8	EPA625	8 ug/L
N-NITROSODI-N-PROPYLAMINE	<6	ug/L			<6	ug/L			8	EPA625	6 ug/L
N-NITROSODI- METHYLAMINE	<5	ug/L			<5	ug/L			8	EPA625	5 ug/L
N-NITROSODI-PHENYLAMINE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L
PHENANTHRENE	<2	ug/L			<2	ug/L			8	EPA625	2 ug/L
PYRENE	<2	ug/L			<2	ug/L			8	EPA625	2 ug/L
1,2,4-TRICHLOROBENZENE	<4	ug/L			<4	ug/L			8	EPA625	4 ug/L

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

**END OF PART D.  
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:  
 Lemont Water Reclamation Plant  
 NPDES Permit No. IL0028070

**SUPPLEMENTAL APPLICATION INFORMATION**

**PART E. TOXICITY TESTING DATA**

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

**E.1. Required Tests.**

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

\_\_\_\_ chronic      4 acute

**E.2. Individual Test Data.** Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 1      Test number: 2      Test number: \_\_\_\_\_

a. Test information.

Test species & test method number	P. promelas 2000.0	C. dubia 2002.0	
Age at initiation of test	7-14 days	<24 h	
Outfall number	001	001	
Dates sample collected	7/11-12/2011	7/11-12/2011	
Date test started	7/12/2011	7/12/2011	
Duration	96 hrs	48 hrs	

b. Give toxicity test methods followed.

Manual title	See below <sup>1</sup>	See below <sup>1</sup>	
Edition number and year of publication	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	
Page number(s)	55-56	51-52	

c. Give the sample collection method (s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	X	X	
Grab	5 Grab Samples	5 Grab Samples	

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

<sup>1</sup>Manual Title: Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater And Marine Organisms, EPA-821-R-02-012, Fifth Edition, October 2002.

FACILITY NAME AND PERMIT NUMBER:  
 Lemont Water Reclamation Plant  
 NPDES Permit No. IL0028070

Test number: 1      Test number: 2      Test number: \_\_\_\_\_

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:	Final Effluent	Final Effluent	
-----------------------	----------------	----------------	--

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.

Chronic toxicity			
Acute toxicity	X	X	

g. Provide the type of test performed.

Static		X	
Static -renewal	X		
Flow-through			

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water	Hard Synthetic Water with Se	Hard Synthetic Water with Se	
Receiving water			

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water	X	X	
Salt water			

j. Give the percentage effluent used for all concentrations in the test series.

	100, 50, 25, 12.5, 6.25	100, 50, 25, 12.5, 6.25	

k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH	Yes	Yes	
Salinity	NA	NA	
Temperature	Yes	Yes	
Ammonia	Yes	Yes	
Dissolved oxygen	Yes	Yes	

l. Test Results.

Acute:			
Percent survival in 100% effluent	100%	100%	%
LC <sub>50</sub>	>100%	>100%	
95% C.I.	NA	NA	%
Control percent survival	100%	95%	%
Other (describe)			

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Chronic:

NOEC	%	%	
IC <sub>25</sub>	%	%	
Control percent survival	%	%	
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	7/12/2011	7/12/2011	
Other (describe)			

**E.3. Toxicity Reduction Evaluation.** Is the treatment works involved in a Toxicity Reduction Evaluation?

Yes  No      If yes, describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**E.4. Summary of Submitted Biomonitoring Test Information.** If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: 08/29/2011

Summary of results: (see instructions)

The results indicated that the tests were valid and that the effluent sample collected had no acute toxic effect on *P. promelas* survival and *C. dubia* survival.

**END OF PART E.  
 REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM  
 2A YOU MUST COMPLETE.**

FACILITY NAME AND PERMIT NUMBER:  
 Lemont Water Reclamation Plant  
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**SUPPLEMENTAL APPLICATION INFORMATION**

**PART E. TOXICITY TESTING DATA**

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

**E.1. Required Tests.**

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.  
 \_\_\_\_\_ chronic        4   acute

**E.2. Individual Test Data.** Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number:   3                        Test number:   4                        Test number: \_\_\_\_\_

d. Test information.

Test species & test method number	P. promelas 2000.0	C. dubia 2002.0	
Age at initiation of test	7-14 days	<24 h	
Outfall number	001	001	
Dates sample collected	10/03-04/2011	10/03-04/2011	
Date test started	10/04/2011	10/04/2011	
Duration	96 hrs	48 hrs	

e. Give toxicity test methods followed.

Manual title	See below <sup>1</sup>	See below <sup>1</sup>	
Edition number and year of publication	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	
Page number(s)	55-56	51-52	

f. Give the sample collection method (s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	X	X	
Grab	5 Grab Samples	5 Grab Samples	

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

<sup>1</sup>Manual Title: Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater And Marine Organisms, EPA-821-R-02-012, Fifth Edition, October 2002.

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Test number: <u>  3  </u>		Test number: <u>  4  </u>		Test number: <u>      </u>	
e. Describe the point in the treatment process at which the sample was collected.					
Sample was collected:	Final Effluent	Final Effluent			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.					
Chronic toxicity					
Acute toxicity	X	X			
g. Provide the type of test performed.					
Static		X			
Static -renewal	X				
Flow-through					
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.					
Laboratory water	Hard Synthetic Water with Se	Hard Synthetic Water with Se			
Receiving water					
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.					
Fresh water	X	X			
Salt water					
j. Give the percentage effluent used for all concentrations in the test series.					
	100, 50, 25, 12.5, 6.25	100, 50, 25, 12.5, 6.25			
k. Parameters measured during the test. (State whether parameter meets test method specifications)					
pH	Yes	Yes			
Salinity	NA	NA			
Temperature	Yes	Yes			
Ammonia	Yes	Yes			
Dissolved oxygen	Yes	Yes			
l. Test Results.					
Acute:					
Percent survival in 100% effluent	100%	100%			%
LC <sub>50</sub>	>100%	>100%			
95% C.I.	NA	NA			%
Control percent survival	100%	100%			%
Other (describe)					

FACILITY NAME AND PERMIT NUMBER:  
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Chronic:			
NOEC	%	%	
IC <sub>25</sub>	%	%	
Control percent survival	%	%	
Other (describe)			

m. Quality Control/Quality Assurance.			
Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	10/04/2011	10/04/2011	
Other (describe)			

**E.3. Toxicity Reduction Evaluation.** Is the treatment works involved in a Toxicity Reduction Evaluation?  
 \_\_\_ Yes X No      If yes, describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**E.4. Summary of Submitted Biomonitoring Test Information.** If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.  
 Date submitted: 11/17/2011  
 Summary of results: (see instructions)  
The results indicated that the tests were valid and that the effluent sample collected had no acute toxic effect on *P. promelas* survival and *C. dubia* survival.

**END OF PART E.  
 REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM  
 2A YOU MUST COMPLETE.**

**SUPPLEMENTAL APPLICATION INFORMATION**

**PART E. TOXICITY TESTING DATA**

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

**E.1. Required Tests.**

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

\_\_\_\_\_chronic      \_\_\_\_4\_\_\_\_acute

**E.2. Individual Test Data.** Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number:   5                        Test number:   6                        Test number: \_\_\_\_\_

g. Test information.

Test species & test method number	P. promelas 2000.0	C. dubia 2002.0	
Age at initiation of test	7-14 days	<24 h	
Outfall number	001	001	
Dates sample collected	1/09-10/2012	1/09-10/2012	
Date test started	1/10/2012	1/10/2012	
Duration	96 hrs	48 hrs	

h. Give toxicity test methods followed.

Manual title	See below <sup>1</sup>	See below <sup>1</sup>	
Edition number and year of publication	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	
Page number(s)	55-56	51-52	

i. Give the sample collection method (s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	X	X	
Grab	5 Grab Samples	5 Grab Samples	

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

<sup>1</sup>Manual Title: Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater And Marine Organisms, EPA-821-R-02-012, Fifth Edition, October 2002.

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Test number: <u>  5  </u> Test number: <u>  6  </u> Test number: <u>        </u>			
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final Effluent	Final Effluent	
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity			
Acute toxicity	X	X	
g. Provide the type of test performed.			
Static		X	
Static -renewal	X		
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	Hard Synthetic Water with Se	Hard Synthetic Water with Se	
Receiving water			
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	X	X	
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
	100, 50, 25, 12.5, 6.25	100, 50, 25, 12.5, 6.25	
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	Yes	Yes	
Salinity	NA	NA	
Temperature	Yes	Yes	
Ammonia	Yes	Yes	
Dissolved oxygen	Yes	Yes	
l. Test Results.			
Acute:			
Percent survival in 100% effluent	100%	100%	%
LC <sub>50</sub>	>100%	>100%	
95% C.I.	NA	NA	%
Control percent survival	100%	100%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER:  
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 NPDES Permit No. IL0028070

Chronic:

NOEC	%	%	
IC <sub>25</sub>	%	%	
Control percent survival	%	%	
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	1/10/2012	1/10/2012	
Other (describe)			

**E.3. Toxicity Reduction Evaluation.** Is the treatment works involved in a Toxicity Reduction Evaluation?

Yes  No      If yes, describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**E.4. Summary of Submitted Biomonitoring Test Information.** If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: 02/15/2012

Summary of results: (see instructions)

The results indicated that the tests were valid and that the effluent sample collected had no acute toxic effect on *P. promelas* survival and *C. dubia* survival.

**END OF PART E.  
 REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM  
 2A YOU MUST COMPLETE.**

**SUPPLEMENTAL APPLICATION INFORMATION**

**PART E. TOXICITY TESTING DATA**

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

**E.1. Required Tests.**

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

\_\_\_\_ chronic      \_\_\_\_4\_\_\_\_ acute

**E.2. Individual Test Data.** Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number:   7                        Test number:   8                        Test number:       

j. Test information.

Test species & test method number	P. promelas 2000.0	C. dubia 2002.0	
Age at initiation of test	7-14 days	<24 h	
Outfall number	001	001	
Dates sample collected	04/16-17/2012	04/16-17/2012	
Date test started	04/17/2012	04/17/2012	
Duration	96 hrs	48 hrs	

k. Give toxicity test methods followed.

Manual title	See below <sup>1</sup>	See below <sup>1</sup>	
Edition number and year of publication	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	5 <sup>th</sup> Ed. 2002 <sup>1</sup>	
Page number(s)	55-56	51-52	

l. Give the sample collection method (s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	X	X	
Grab	5 Grab Samples	5 Grab Samples	

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

<sup>1</sup>Manual Title: Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater And Marine Organisms, EPA-821-R-02-012, Fifth Edition, October 2002.

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Test number: <u>7</u>		Test number: <u>8</u>		Test number: _____	
e. Describe the point in the treatment process at which the sample was collected.					
Sample was collected:	Final Effluent	Final Effluent			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.					
Chronic toxicity					
Acute toxicity	X	X			
g. Provide the type of test performed.					
Static		X			
Static -renewal	X				
Flow-through					
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.					
Laboratory water	Hard Synthetic Water with Se	Hard Synthetic Water with Se			
Receiving water					
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.					
Fresh water	X	X			
Salt water					
j. Give the percentage effluent used for all concentrations in the test series.					
	100, 50, 25, 12.5, 6.25	100, 50, 25, 12.5, 6.25			
k. Parameters measured during the test. (State whether parameter meets test method specifications)					
pH	Yes	Yes			
Salinity	NA	NA			
Temperature	Yes	Yes			
Ammonia	Yes	Yes			
Dissolved oxygen	Yes	Yes			
l. Test Results.					
Acute:					
Percent survival in 100% effluent	100%	100%			%
LC <sub>50</sub>	>100%	>100%			
95% C.I.	NA	NA			%
Control percent survival	100%	100%			%
Other (describe)					

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Chronic:			
NOEC	%	%	
IC <sub>25</sub>	%	%	
Control percent survival	%	%	
Other (describe)			

m. Quality Control/Quality Assurance.			
Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	04/17/2012	04/17/2012	
Other (describe)			

**E.3. Toxicity Reduction Evaluation.** Is the treatment works involved in a Toxicity Reduction Evaluation?  
 \_\_\_ Yes X No      If yes, describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**E.4. Summary of Submitted Biomonitoring Test Information.** If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.  
 Date submitted: 05/25/2012  
 Summary of results: (see instructions)  
The results indicated that the tests were valid and that the effluent sample collected had no acute toxic effect on *P. promelas* survival and *C. dubia* survival.

**END OF PART E.  
 REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM  
 2A YOU MUST COMPLETE.**

**FACILITY NAME AND PERMIT NUMBER:**

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**SUPPLEMENTAL APPLICATION INFORMATION**

**PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES**

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

**GENERAL INFORMATION:**

**F.1. Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

Yes  No

**F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs).** Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 0.00

b. Number of CIUs. 0.00

**SIGNIFICANT INDUSTRIAL USER INFORMATION:**

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

**F.3. Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

**F.4. Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

\_\_\_\_\_

**F.5. Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): \_\_\_\_\_

Raw material(s): \_\_\_\_\_

**F.6. Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

\_\_\_\_\_ gpd (  continuous or  intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

\_\_\_\_\_ gpd (  continuous or  intermittent)

**F.7. Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits  Yes  No

b. Categorical pretreatment standards  Yes  No

If subject to categorical pretreatment standards, which category and subcategory?

\_\_\_\_\_

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**F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

Yes  No If yes, describe each episode.

\_\_\_\_\_  
\_\_\_\_\_

**RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:**

**F.9. RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe?  Yes  No (go to F.12.)

**F.10. Waste Transport.** Method by which RCRA waste is received (check all that apply):

Truck  Rail  Dedicated Pipe

**F.11. Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

<u>EPA Hazardous Waste Number</u>	<u>Amount</u>	<u>Units</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

**CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:**

**F.12. Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

Yes (complete F.13 through F.15.)  No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

**F.13. Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

N/A  
\_\_\_\_\_  
\_\_\_\_\_

**F.14. Pollutants.** List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

N/A  
\_\_\_\_\_  
\_\_\_\_\_

**F.15. Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

Yes  No

If yes, describe the treatment (provide information about the removal efficiency):

\_\_\_\_\_  
\_\_\_\_\_

b. Is the discharge (or will the discharge be) continuous or intermittent?

Continuous  Intermittent If intermittent, describe discharge schedule.

\_\_\_\_\_

**END OF PART F.  
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM  
2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**

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**SUPPLEMENTAL APPLICATION INFORMATION**

**PART G. COMBINED SEWER SYSTEMS**

If the treatment works has a combined sewer system, complete Part G.

**G.1. System Map.** Provide a map indicating the following: (may be included with Basic Application Information)

Note: Information for Part G.1 is provided in Exhibits for Item XI.

- a. All CSO discharge points.
- b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- c. Waters that support threatened and endangered species potentially affected by CSOs.

**G.2. System Diagram.** Provide a diagram, either in the map provided in G.1, or on a separate drawing, of the combined sewer collection system that includes the following information: Note: An Exhibit from Appendix 2 in the village of Lemont's LTCP dated 1-14-2011 is provided; and see Exhibits for Item XI.

- a. Locations of major sewer trunk lines, both combined and separate sanitary.
- b. Locations of points where separate sanitary sewers feed into the combined sewer system.
- c. Locations of in-line and off-line storage structures.
- d. Locations of flow-regulating devices.
- e. Locations of pump stations.

**CSO OUTFALLS:**

Complete questions G.3 through G.6 once for each CSO discharge point.

**G.3. Description of Outfall.**

- a. Outfall number 002
- b. Location Lemont 60439  
(City or town, if applicable) (Zip Code)  
Cook IL  
(County) (State)  
41 deg 40 min 48 sec 87 deg 59 min 57 sec  
(Latitude) (Longitude)
- c. Distance from shore (if applicable) \_\_\_\_\_ ft.
- d. Depth below surface (if applicable) \_\_\_\_\_ ft.
- e. Which of the following were monitored during the last year for this CSO?  
 Rainfall       CSO pollutant concentrations       CSO frequency  
 CSO flow volume       Receiving water quality
- f. How many storm events were monitored during the last year? \_\_\_\_\_

**G.4. CSO Events.**

- a. Give the number of CSO events in the last year.  
6.00 events ( actual or  approx.)
- b. Give the average duration per CSO event.  
10.00 hours ( actual or  approx.)

**FACILITY NAME AND PERMIT NUMBER:**

Lemont WRP IL0028070

Form Approved 1/14/99  
OMB Number 2040-0086

- c. Give the average volume per CSO event.  
0.82 million gallons (  actual or  approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year.  
0.57 inches of rainfall

**G.5. Description of Receiving Waters.**

- a. Name of receiving water: Chicago Sanitary and Ship Canal
- b. Name of watershed/river/stream system: Des Plaines River Watershed  
  
United States Soil Conservation Service 14-digit watershed code (if known): \_\_\_\_\_
- c. Name of State Management/River Basin: \_\_\_\_\_  
  
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): \_\_\_\_\_

**G.6. CSO Operations.**

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

There have been no known water quality impacts to the Chicago Sanitary and Ship Canal related to this discharge.

**END OF PART G.  
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM  
2A YOU MUST COMPLETE.**

Additional information, if provided, will appear on the following pages.