INFILTRATION / INFLOW CONTROL PROGRAM

ANNUAL STATUS REPORT

VOLUME 10
NOVEMBER 2025

METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO
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METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO

ENGINEERING DEPARTMENT
INFRASTRUCTURE MANAGEMENT DIVISION
LOCAL SEWER SYSTEMS SECTION

PREFACE

This is Volume No. 10 of the Infiltration/Inflow Control Program (IICP) Annual Status Report (Report) published by the Metropolitan Water Reclamation District of Greater Chicago (District). This Report pertains to the IICP for the local sewer systems as required by Article 8 of the Watershed Management Ordinance (WMO).

This Report covers the last 12-month period from October 1, 2024 through September 30, 2025, and is based on the information contained in the annual summary reports submitted by the local sewer system owners.

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INFILTRATION / INFLOW CONTROL PROGRAM STATUS

On July 10, 2014, the Metropolitan Water Reclamation District of Greater Chicago's (District) Board of Commissioners (Board) adopted the Infiltration/Inflow Control Program (IICP) set forth in Article 8 of the Watershed Management Ordinance (WMO). The District implements the IICP due to special conditions imposed within the National Pollutant Discharge Elimination System (NPDES) permits issued by the IEPA for the District's Water Reclamation Plants. In addition to adopting a Capacity, Management, Operation and Maintenance (CMOM) program for the conveyance and treatment facilities, the District is required to take action to reduce excessive infiltration and inflow (I/I) within the local sanitary sewer systems.

Currently, there are a total of 114 satellite entities (local sanitary sewer system owners) that require compliance with the IICP. All satellite entities are listed in Table 4.

The IICP consists of two parts: the Short Term Requirements (STR) and the Long Term Operation and Maintenance Program (LTOMP). Under the STR, satellite entities conducted a prioritized condition assessment of high risk public sewers, conducted rehabilitation work to address high priority deficiencies (I/I sources), and developed and submitted their individual Private Sector Program (PSP) and LTOMP to the District for approval. The STR was required to be completed by July 10, 2019, and the final STR Annual Summary Report (ASR) was required to be submitted by March 1, 2020, detailing completion of the STR.

Condition assessment includes televising and smoke testing the system and manhole inspections per NASSCO standards, applicable dye water testing, and external property inspections. Sanitary sewer rehabilitation consists of I/I corrective work on public and private sewers. The PSP and LTOMP refer to programs developed by individual satellite entities. These programs identify and address I/I sources within the public and private sewer systems by performing on-going inspections and conducting maintenance and rehabilitation work on the sewer system.

The status of STR completion is provided in Table 1 and those satellite entities are listed in Table 2. As of September 30, 2025, there are 84 satellite entities in full compliance of the STR. The District considers the STR complete when the satellite entity completes the condition assessment, addresses high priority deficiencies, has an approved PSP and LTOMP, and submits a current sewer system atlas. Due to the multiple requirements and extensive work required under the STR, all of the satellite entities have used the full five-year timeframe to work on the STR. The number of 2024 STR ASRs that have been received by September 30, 2025, and progress of completing the STR is provided in Table 1.

ASRs for 2024 were due on March 1, 2025. Unless a satellite entity has been granted an extension, the STR were to be completed by July 10, 2019, and documented in the 2019 ASR. Satellite entities that have submitted 2019, 2020, 2021, 2022, 2023, and 2024 STR ASRs but have not completed the STR and have not been granted an extension are not in compliance. As previously stated, a total of 84 satellite entities have completed their STR. The District is continuing to work with satellite entities to address District comments for submitted ASRs and LTOMP and PSP documents so that they can transition to the LTOMP.

Once the District determines that a satellite entity completed their STR, they transition to the LTOMP. Under the LTOMP, the satellite entities implement their programs for on-going inspection, maintenance and rehabilitation of the public sewer system, and their PSP for identification and correction of I/I sources in the private sewer systems. Progress of each satellite entity's LTOMP is tracked in an ASR that is required to be submitted by March 1st each year. The number of 2024 LTOMP ASRs that have been received by September 30, 2025, is provided in Table 1.

INFILTRATION / INFLOW BACKGROUND

In the District's service area, local sewer systems (satellite systems) are owned, operated and maintained by local cities, villages, townships, local sanitary districts, and utility companies. These local systems convey flow that is tributary to the District's intercepting sewers and water reclamation plants (WRPs) for treatment.

The local systems are comprised of both combined sewer areas and separate sewer areas. The combined sewer area, common to older communities, contains a single sewer where stormwater runoff and wastewater flows are combined within the same sewer and conveyed to the District's WRPs for treatment. The separate sewer area includes separate storm and sanitary sewers. Stormwater runoff is collected and conveyed by a storm sewer or other conveyance system that discharges into a receiving waterway, and wastewater flows are collected and conveyed by a sanitary sewer to the District's WRPs. Unlike existing combined sewers, which were designed and intended to collect and convey stormwater runoff and wastewater flows, the existing sanitary sewer systems are designed and intended to collect and convey only wastewater flow.

The major components of the local sanitary sewer system are the public sector sewer mains (mains) and the privately-owned sewer laterals (PSLs). These components were not designed to collect and convey clear water. The major sources of clear water entering the sanitary sewer system are groundwater infiltration and stormwater inflow (I/I).

Infiltration is groundwater entering defective sanitary sewer systems. Sewer system defects that allow infiltration include pipe cracks, open or off-set joints, pipe-structure connections, and leaking manhole walls. Removal/reduction of infiltration sources is accomplished by sewer system rehabilitation (repair/replacement). Additional advantages of rehabilitation include restored structural integrity of the sewer, restored hydraulic flow capacity and the removal/prevention of root intrusion.

Inflow is stormwater entering the sanitary sewer system through stormwater and groundwater conveyance systems that are connected to the sanitary sewer system. Conveyance systems that contribute clear water inflow include downspouts, yard and area drains, footing/foundation drains, sump pumps, driveway and window well drains, and storm sewer direct/indirect cross-connections. Removal/reduction of inflow sources is accomplished by disconnecting the source from the sanitary sewer and re-directing the flow to discharge at grade or re-routing the discharge into a stormwater conveyance system tributary to a waterway.

When intense rain events occur excessive I/I can overload sewers causing loss of conveyance capacity for wastewater flow resulting in sanitary sewer overflows (SSOs), damage to private property through basement backups, and increased wastewater conveyance and treatment costs. To prevent this from occurring, the District is implementing the IICP with which all satellite entities (local sanitary sewer system owners) must comply.

HISTORY OF ADDRESSING INFILTRATION / INFLOW

As early as 1920, the District issued permits to local sewer system owners allowing them to connect to District interceptors. These permits contain language prohibiting surface water from entering the sewer system. Although this prohibition continued for permits issued in the separate sewer area, excessive I/I in the District's system became a growing problem.

On October 18, 1972, the Federal Water Pollution Control Act was amended by Public Law 92-500 which required all applicants for treatment works, after July 1, 1973, to demonstrate that each sewer system discharging into such treatment works is not subject to excessive I/I in order to receive USEPA grant funding. Due to this requirement, the District amended the Manual of Procedures for the Administration of the Sewer Permit Ordinance (MOP) to include Article 6.5 - Correction of Existing Deficiencies in the Separate Sewered Areas, which became effective January 1, 1973. This I/I control program required all satellite entities to inspect their systems for all directly/indirectly connected downspouts and inflow sources and disconnect those identified within one year.

Initially, the District required satellite entities to demonstrate that average daily wet weather flow in the sanitary sewer system did not exceed 100 gallons per capita per day (gpcpd). In the 1970s, at the request of the satellite entities, the District raised the maximum allowable wet weather flow rate to 150 gpcpd. Areas served by combined sewer systems were exempt from the program because excessive wet weather flows would be captured by the Tunnel and Reservoir Plan (TARP).

In 1985, a series of meetings were held between locally-elected officials and representatives from the District, USEPA and IEPA on excessive I/I and sanitary sewer rehabilitation. These meetings lead to the Sewer Summit Agreement (SSA) which established the guidelines and a schedule for achieving final compliance with the sanitary sewer rehabilitation requirements.

The Board adopted the SSA on November 21, 1985, and Article 6.5 of the MOP was amended to include the new Infiltration/Inflow Corrective Action Program (ICAP) option, in addition to the existing compliance criteria, referred to as the 150 gpcpd option. Under the ICAP option, satellite entities had to perform an SSES which included a cost-effective analysis for the removal of specific I/I sources. Satellite entities were required to remove cost-effective I/I sources, develop and implement a Long Term Operation & Maintenance Program for their sewer systems, and submit ASRs of completed rehabilitation work.

Despite considerable effort and resources spent towards removing excessive I/I under ICAP and the 150 gpcpd option, the District still experiences high wet weather flows from separate sewer areas. Additionally, the District is at risk of enforcement measures by the IEPA should SSOs occur within its system. Furthermore, satellite entities have voiced concerns regarding excessive wet weather flows due to SSOs and basement backups occurring within their local systems.

In 2009, the IEPA issued draft versions of NPDES permits for the District's Calumet WRP, O'Brien WRP and Stickney WRP for public comment, which contained new special conditions addressing the District's I/I control program. The special conditions require the District to impose measures over and beyond the 1985 SSA on separate sewer systems that cause or contribute to SSOs and/or basement backups, and adopt a CMOM program for the District's Facilities.

Meetings were held on December 6, 2010 and February 28, 2011, which were attended by representatives from the IEPA, District and the satellite entities, to discuss impacts of the special conditions. The satellite entities expressed their concerns of the financial burden and challenges in achieving the targeted wet weather flow reductions. They also requested development of a more achievable, less financially burdensome, gradual approach for I/I control with participation of all stakeholders.

In anticipation of the special conditions, the District formed an Advisory Technical Panel (ATP) in 2011 to discuss elements of a new I/I control program. The ATP is comprised of representatives from the District, USEPA, IEPA, satellite entities, a sewer construction contractor and engineering consultants. The ATP met regularly from 2011 to 2013, and provided insight and valuable perspective on elements of a new I/I control program proposed by the District. The ATP also worked to develop Article 8 of the Technical Guidance Manual (TGM) as a guide for program compliance.

On January 1, 2014, the IEPA issued NPDES permits for the District's WRPs that impose the new special conditions. On July 10, 2014, the District's Board adopted the new IICP set forth in Article 8 of the Watershed Management Ordinance. The District also created the mwrd.org/ii webpage dedicated to IICP and related I/I issues. The IICP (WMO Article 8), TGM documents, proceedings of the ATP meetings, and several I/I resources are posted there for public benefit.

INFILITRATION / INFLOW CONTROL PROGRAM

SCOPE AND GOALS

The purpose of this program is to provide a framework for asset management of separate sewer systems to meet the following goals:

1. Maintain infrastructure to prevent SSOs and basement backups due to sewer surcharging and other adverse sewer system conditions.

2. Comply with the District's NPDES Permits and all other applicable federal, state, and local laws and regulations.

3. Minimize extraneous flows transported to the District's facilities due to defective system components or illegal connections.

APPLICABILITY

IICP is applicable to all satellite entities (local sewer system owners) located in the separate sewer area that are directly and/or indirectly tributary to the District's facilities. For sewer systems that consist of both combined and separate sewers, IICP applies to local sewer systems located within the designated separate sewer area. Separate sewer systems within the City of Chicago are exempt from the IICP.

GENERAL REQUIREMENTS

IICP will be implemented by all satellite entities to reduce SSOs and basement backups, and to reduce excessive wet weather flow in the sanitary sewer system. This will be accomplished through completing the STR, implementing a PSP and a LTOMP, and annual reporting of planned and completed work to meet these requirements.

SHORT TERM REQUIREMENTS

Each satellite entity must conduct a prioritized condition assessment of their sewer system, begin addressing high priority deficiencies, and develop and submit their individual PSP and LTOMP submittal to the District for approval. The STR include the following:

Condition Assessment Prioritization

In order to proceed with condition assessment, each satellite entity must determine the extent of the high risk sewers within their systems. The high risk sewers are those considered to contribute the most I/I into the system. The determination should be completed by the time the first STR ASR is submitted to the District since it defines areas of the system for condition assessment. Public sewers in the following areas may be considered high risk: areas with SSOs and/or basement backups, areas upstream of SSOs and/or basement backups, subbasins known to surcharge, areas with excessive wet weather flows and/or excessive lift station pumpage, and areas with system deficiencies that can result in system failure.

Condition Assessment

Once the high risk sewers are defined, each satellite entity must conduct and complete a condition assessment of all high risk sewers. Condition assessment includes televising, smoke testing, manhole inspections, lift station inspections, applicable dye water testing, and external property inspections. Condition assessment will identify system defects and produce a permanent record of the condition of the system. All condition assessment must be conducted in accordance with National Association of Sewer Service Companies (NASSCO) standards for Pipeline Assessment and Certification Program (PACP), Manhole Assessment and Certification Program (MACP), and Lateral Assessment and Certificate Program (LACP). Smoke testing also must be done in accordance with NASSCO standards.

Utilizing NASSCO standards for condition assessment provides consistency among all satellite entities for defect coding, rehabilitation cost estimation, and rehabilitation work eligible for IEPA SRF funding.

High Priority Deficiencies

Once the condition assessment of the high risk sewers is completed, the High Priority Deficiencies (HPD) can be identified. The HPD are system defects that have a low cost of removal to I/I flow rate ratio, or that will likely cause system blockage or collapse if not rehabilitated.

The HPD include NASSCO Grade 4 or 5 coded defects, direct and indirect cross-connections, connected and poorly disconnected downspouts, and missing and damaged cleanout caps/covers.

Sewer System Rehabilitation

Once the HPD are identified, rehabilitation of the sanitary sewers and manholes are required. The District requires cross-connections, downspouts, and cleanout caps/covers be disconnected and/or repaired within one year of identification. For other HPD that cannot be immediately addressed, the District requires corrective work to begin within three years of identification.

Private Sector Program

Each satellite entity is required to develop, and submit to the District for approval, a PSP that details the means and methods for on-going internal and external I/I source identification and source removal. Satellite entities that did not already have an inspection ordinance in place were required to enact ordinances granting them authority to conduct inspections and take enforcement actions for PSP compliance. The PSP details how identified private sector I/I sources will be removed. The PSP document is a component of the LTOMP document and was required to be submitted by July 10, 2019. Attachment 1 includes an outline for the PSP that was developed by the District to indicate minimum requirements and aid satellite entities in the creation of their program.

Long Term Operation & Maintenance Program

Each satellite entity is required to develop and submit to the District for approval, a LTOMP that details means and methods to continually maintain system capacity and performance. Local sewer systems that are not properly designed, managed, operated or maintained can result in SSOs and basement backups due to excessive I/I and system failure. The LTOMP details on-going system inspections, maintenance and rehabilitation. The LTOMP document was required to be submitted by July 10, 2019. Attachment 1 is an outline for the LTOMP that was developed by the District to indicate minimum requirements and aid satellite entities in the creation of their program.

LONG TERM OPERATION & MAINTENANCE PROGRAM

Once the District determines that a satellite entity completed their STR, they will transition to the LTOMP. Under the LTOMP, the satellite entities will implement their programs for on-going inspection, maintenance and rehabilitation of the public sewer system, and implement their PSP for identification and correction of I/I sources in the private sewer systems. The LTOMP will detail the following items:

Sewer System Management

Sewer system management includes staffing, training of staff, standard operating procedures, tracking of system activities and complaints, and responding to SSOs and basement backups. Clearly defined procedures, management and training are required for effective operation and management activities to reduce potential risks to the environment and public health.

Mapping

Satellite entities are required to have an accurate, current map of their sanitary sewer system. An accurate map of the location, size, depth, material, and age of the sanitary sewer system including appurtenances is vital for effective operation and maintenance activities. Additionally, a procedure for updating the system map must be detailed.

Equipment and Collection System Maintenance

Every satellite entity will have a well-planned, systematic and comprehensive maintenance program. The goals of which are preventing and eliminating SSOs and basement backups, maximizing service and system reliability at minimal cost, and establishing infrastructure sustainability. Procedures and instructions should be in place to describe the maintenance and repair approach of various systems and facilities. The goal is to reduce corrective and emergency maintenance through planned and predictive maintenance.

Material and Equipment

Every satellite entity will maintain an inventory of spare parts, equipment and supplies, and it should be based on the manufacturers' recommendations and/or historical records. At a minimum, a typical spare parts inventory includes parts recommended by manufacturers of mechanical equipment in lift stations. This inventory will reduce the down time of the sanitary sewer system in the event of a failure.

Sewer System Capacity Evaluation

A procedure and methodology to perform an evaluation of the capacity of the sanitary sewer system will be detailed. An evaluation can be used to determine dry weather flow for an area being developed or re-developed, or if system capacity is causing dry weather SSOs and basement backups.

Sewer System Inspection and Condition Assessment

The description, procedure, and frequency of continuous system inspection and assessment will be detailed. This will identify and locate I/I sources, reveal blockages in the system, and identify structural defects which cause SSOs, basement backups, sewer surcharging, exfiltration of wastewater into the ground, collapse of roadways, and an increase of deposits in the sewers and lift stations. The goal is to inspect the entire public sanitary sewer system on a 10-year cycle. At a minimum, two percent (2%) of the sanitary sewer system must be inspected each year. Inspections must be conducted according to NASSCO standards.

Sewer System Rehabilitation

The rehabilitation program will be established to maintain the conveyance capacity of the sewer system. The program should prioritize rehabilitation work according to severity of defects, sewer age, impacts of sewer failure, anticipated public works projects, and available funding/resources. The LTOMP must include an explanation of the process used by the satellite entity to prioritize sewer rehabilitation projects. The type of rehabilitation method depends on several pipe characteristics such as age, material, size, location, sewer flow, surface condition, severity of I/I, etc. Rehabilitation methods include replacement, lining, grouting, joint sealing, etc. The rehabilitation program should identify methods that have previously been used successfully to guide methods to be utilized for subsequent sewer rehabilitation.

Funding Plan

A funding source must be secured to continually implement the LTOMP. The system owner should track all costs in order to have accurate records each time the annual operating budget is developed. An annual baseline provides documentation for future budget considerations and provides justifications for any future rate increases if they are needed. The plan must indicate how annual operating costs, emergency repairs and capital improvements will be funded.

Private Sector Program

The PSP, described under the STRs, will be implemented in conjunction with the LTOMP.

Sewer Use Ordinance

Satellite entities will have strict control over the nature and quantity of existing or new flows entering their sewer systems by enacting a sewer use ordinance. They must also establish design standards for sewer construction in both private and public sewer systems. Satellite entities must submit copies of their sewer use ordinance with the LTOMP. Additionally, the LTOMP must describe the process for updating the sewer use ordinance.

ANNUAL REPORTING

Each satellite entity must submit an ASR to the District to report their progress and plans relative to their STR and LTOMP. The ASR must be submitted regardless of the degree of progress made during the reporting period. Standardized ASR forms, and supplemental forms and documents, are provided to each satellite entity to complete for the reporting year. Among other uses, the District will compile information provided in the ASR to prepare and distribute this Report regarding the progress made by the satellite entities on their I/I identification and removal efforts.

Reporting of Sanitary Sewer Overflows and Basement Backups

Satellite entities are required to keep detailed records on SSOs and basement backups occurrences within their systems. In addition to reporting progress made toward completing the STR and reporting LTOMP activities, each satellite entity must report SSO and basement backup occurrences. The District will use this information to view SSO and basement backup trends over time. Implementation of an effective IICP should result in fewer SSOs and basement backups.

Auditing

The District reserves the right to audit any satellite entity to review condition assessment and inspection documentation, verify completed work, verify NASSCO standards are used, verify system repairs have been completed, review PSP and LTOMP records, and verify records on SSOs and basement backups.

NON-COMPLIANCE

Any satellite entity may be found to be in non-compliance with IICP for failure to adequately implement and complete their STR, failure to adequately implement their LTOMP, failure to adequately implement their PSP, and failure to submit or submittal of an ASR that does not meet the requirements of the program. In January 2022, the District sent Notices of Non-Compliance for satellite entities that have not shown progress in completing STR. Twelve (12) of the 24 satellite entities that received Notices of Non-Compliance in 2022 have achieved compliance with the STRs. In January 2025, the District sent Notices of Non-Compliance to an additional 24 satellite entities that have not shown progress in completing the STR. To date, a total of 6 (six) satellite entities that received Notices of Non-Compliance in 2025 have achieved compliance with the STR. The District continues to work with the remaining non-compliant satellite entities to achieve compliance.

TABLE 1. INFILTRATION / INFLOW CONTROL PROGRAM - STATUS SUMMARY

	Number of Satellite Entities	Percent of Total
Short Term Requirements Completed[1]	84	73.7%
Short Term Annual Summary Reports Received (2024)[2]	29	25.4%
Long Term Annual Summary Reports Received (2024)[3]	61	53.5%

[1] The deadline to complete the Short Term Requirements was July 10, 2019. Due to the March 1st Annual Summary Report deadline, satellite entities had until March 1st, 2020, to submit their final Short Term Requirements report demonstrating compliance.

[2] Satellite entities that have not complied with the Short Term Requirements are required to submit Annual Summary Reports for the Short Term Program by March 1st each year.

[3] Satellite entities that have transitioned to the Long Term Operation & Maintenance Program by completing the Short Term Requirements are required to submit Annual Summary Reports by March 1st each year.

TABLE 2. SATELLITE ENTITIES IN THE LONG TERM OPERATION & MAINTENANCE PROGRAM[4]

Alsip	Hillside	Park Ridge
Aqua Illinois	Hinsdale	Plum Grove Estates Sanitary District
Arlington Heights	Hoffman Estates	Plum Grove Woodlands Sanitary District
Bartlett	Homewood	Prospect Heights
Bedford Park	Indian Head Park	Richton Park
Berkeley	Inverness	River Grove
Bridgeview	Justice	Rolling Meadows
Broadview	Kimberly Heights SD	Roselle
Brookfield	La Grange	Rosemont
Buffalo Grove	La Grange Highlands Sanitary District	Sauk Village
Burr Ridge	La Grange Park	Schaumburg
Calumet City	Lansing	Schiller Park
Chicago Ridge	Leyden Township	South Barrington
Crestwood	McCook	South Holland
Deer Park	Merrionette Park	South Lyons Township Sanitary District
Des Plaines	Midlothian	South Palos Township Sanitary District
East Hazel Crest	Mission Brook Sanitary District	South Stickney Sanitary District
Elgin	Morton Grove	Streamwood
Elk Grove Village	Mount Prospect	Thornton
Evergreen Park	Niles	Tinley Park
Flagg Creek WRD	Norridge	Westchester
Flossmoor	Northbrook	Western Springs
Garden Homes Sanitary District	Northfield	Wheeling
Glenbrook Sanitary District	Northfield Woods Sanitary District	Willow Springs
Glencoe	Northlake	Wilmette
Glenview	Oak Meadow Sanitary District	Winnetka
Hanover Park	Orland Park	Woodley Road Sanitary District
Hickory Hills	Palos Heights	Worth

[4] Includes only satellite entities that are compliant with all Short Term Requirements by completing the condition assessment and having an approved Long Term Operation & Maintenance Program and Private Sector Program document. The District is continually providing assistance and collaborating with the satellite entities to produce compliant Annual Summary Reports.

TABLE 3. SATELLITE ENTITIES

Alsip	Hazel Crest	Oak Meadow SD
Aqua Illinois	Hickory Hills	Olympia Fields
Arlington Heights	Hillside	Orland Park
Bartlett	Hinsdale	Palatine
Bedford Park	Hodgkins	Palos Heights
Bellwood	Hoffman Estates	Palos Hills
Berkeley	Homewood	Palos Park
Bridgeview	Illinois American Water	Park Ridge
Broadview	Indian Head Park	Plum Grove Estates SD
Brookfield	Inverness	Plum Grove Woodlands SD
Buffalo Grove	Justice	Prospect Heights
Burr Ridge	Kenilworth	Richton Park
Calumet City	Kimberly Heights SD	River Grove
Chicago Ridge	La Grange	Riverdale
Country Club Hills	La Grange Highlands SD	Robbins
Countryside	La Grange Park	Rolling Meadows
Crestwood	Lansing	Roselle
Deer Park	Lemont	Rosemont
Des Plaines	Leyden Township	Sauk Village
Dolton	Lynwood	Schaumburg
East Hazel Crest	Markham	Schiller Park
Elk Grove Township	Matteson	South Barrington
Elgin	McCook	South Holland
Elk Grove Village	Melrose Park	South Lyons Township SD
Evergreen Park	Merrionette Park	South Palos Township SD
Flagg Creek WRD	Midlothian	South Stickney SD
Flossmoor	Mission Brook SD	Stone Park
Ford Heights	Morton Grove	Streamwood
Forest River SD	Mount Prospect	Thornton
Franklin Park	Niles	Tinley Park
Garden Homes SD	Norridge	Westchester
Glenbrook SD	Northbrook	Western Springs
Glencoe	Northfield	Wheeling
Glenview	Northfield Township	Willow Springs
Glenwood	Northfield Woods SD	Wilmette
Hanover Park	Northlake	Winnetka
Harvey	Oak Forest	Woodley Road SD
Harwood Heights	Oak Lawn	Worth

TABLE 4. SATELLITE ENTITIES BY WATER RECLAMATION PLANT SERVICE BASIN

WRP: Stickney Basin: Central (36)	Bedford Park	La Grange
	Bellwood	La Grange Highlands SD
	Berkeley	La Grange Park
	Bridgeview*	Leyden Township
	Broadview	McCook
	Brookfield	Melrose Park
	Burr Ridge	Niles*
	Countryside	Norridge*
	Des Plaines*	Northlake
	Franklin Park	Park Ridge*
	Flagg Creek WRD	River Grove
	Harwood Heights*	Rosemont
	Hillside	Schiller Park
	Hinsdale	South Lyons Township SD
	Hodgkins	Stone Park
	Illinois American Water*	Westchester
	Indian Head Park	Western Springs
	Justice*	Willow Springs
WRP: Lemont Basin: Lemont (1)	Lemont	
WRP: O'Brien Basin: North Side (20)	Aqua Illinois	Niles*
	Des Plaines*	Norridge*
	Glenbrook SD	Northbrook
	Glencoe	Northfield
	Glenview	Northfield Township
	Harwood Heights*	Oak Meadow SD
	Illinois American Water*	Park Ridge*
	Kenilworth	Wilmette
	Mission Brook SD	Winnetka
	Morton Grove	Woodley Road SD
WRP: Kirie Basin: O'Hare (12)	Arlington Heights	Illinois American Water*
	Buffalo Grove	Mount Prospect
	Des Plaines*	Northfield Woods SD
	Elk Grove Township	Prospect Heights
	Elk Grove Village*	Rolling Meadows*
	Forest River SD	Wheeling

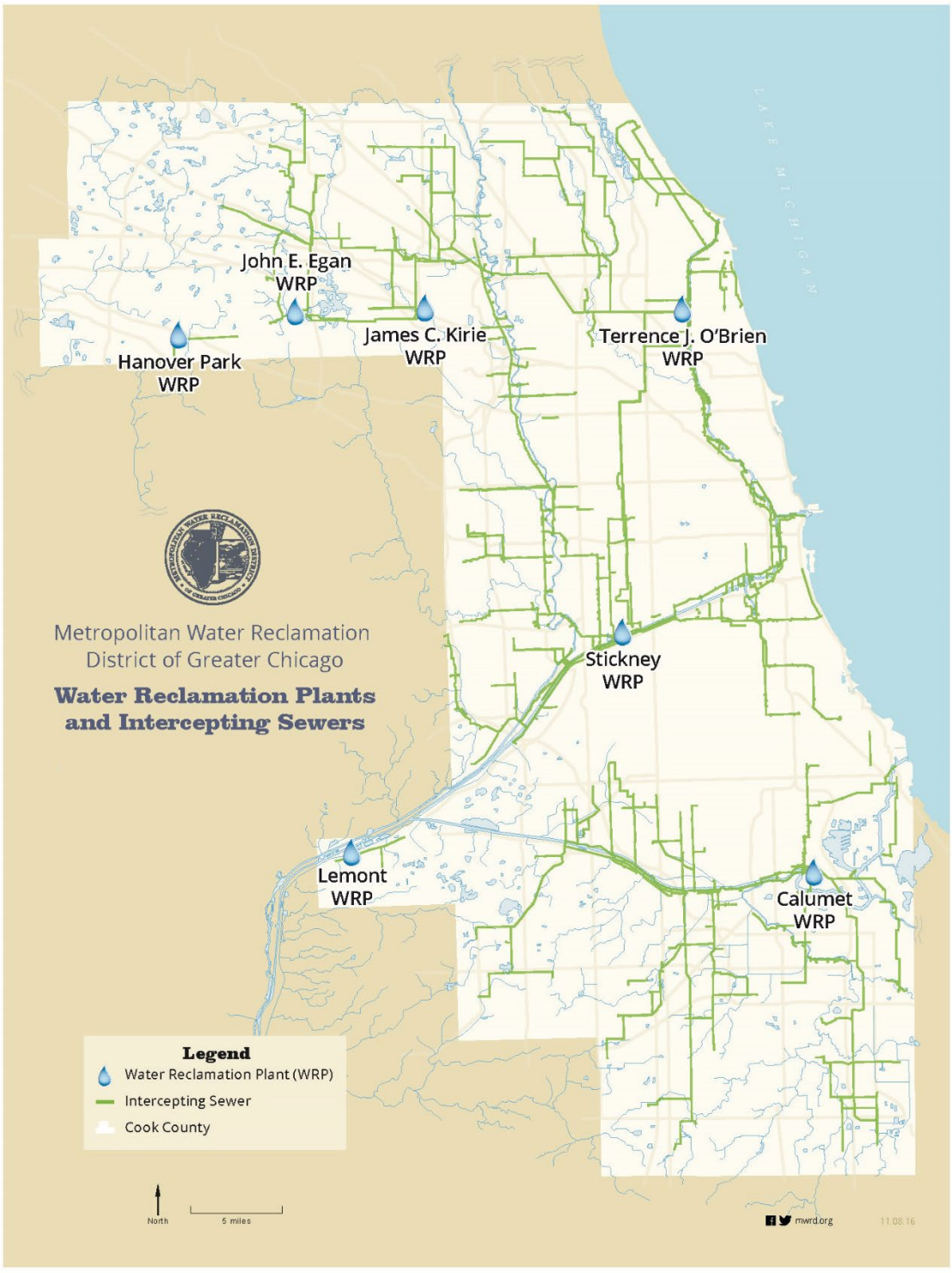
*System discharges into more than one basin

TABLE 4 (CONTINUED). SATELLITE ENTITIES BY WATER RECLAMATION PLANT SERVICE BASIN

WRP: Fox River Basin: Poplar Creek (5)	Bartlett*	South Barrington*
	Elgin	Streamwood
	Hoffman Estates*	
WRP: Calumet Basin: South (43)	Alsip	Markham
	Bridgeview*	Matteson
	Calumet City	Merrionette Park
	Chicago Ridge	Midlothian
	Country Club Hills	Oak Forest
	Crestwood	Oak Lawn
	Dolton	Olympia Fields
	East Hazel Crest	Orland Park
	Evergreen Park	Palos Heights
	Flossmoor	Palos Hills
	Ford Heights	Palos Park
	Garden Homes SD	Richton Park
	Glenwood	Riverdale
	Harvey	Robbins
	Hazel Crest	Sauk Village
	Hickory Hills	South Holland
	Homewood	South Palos Township SD
	Illinois American Water*	South Stickney SD
	Justice*	Thornton
	Kimberly Heights SD	Tinley Park
	Lansing	Worth
	Lynwood	
WRP: Hanover Park Basin: Upper DuPage River (3)	Bartlett*	Schaumburg*
	Hanover Park	
WRP: Egan Basin: Upper Salt Creek (12)	Deer Park	Plum Grove Estates SD
	Elk Grove Village*	Plum Grove Woodlands SD
	Hoffman Estates*	Rolling Meadows*
	Illinois American Water*	Roselle
	Inverness	Schaumburg*
	Palatine	South Barrington*

*System discharges into more than one basin

FIGURE 1. DISTRICT WATER RECLAMATION PLANTS



ATTACHMENT 1. LONG TERM OPERATION AND MAINTENANCE PROGRAM & PRIVATE SECTOR PROGRAM OUTLINE

OUTLINE

LONG TERM OPERATION AND MAINTENANCE PROGRAM

FOR THE

INFILTRATION / INFLOW CONTROL PROGRAM

PURPOSE: The Long Term Operation and Maintenance Program (LTOMP) is implemented for the continuous inspection, maintenance and rehabilitation of the sanitary sewer system, as well as the identification and correction of infiltration/inflow (I/I) sources in the public and private sewer systems. The goal of the LTOMP is to reduce sanitary sewer overflows and basement backups, address system deficiencies, maintain system capacity, and prevent system failures.

PROGRAM COMPONENTS:

1. Sewer System Management: Adequately trained/qualified staff, consultants, and/or contractors are provided to implement all aspects of the LTOMP.

    a. *Training*: Staff is periodically trained on sewer inspection, maintenance, and construction to ensure the sewer system is properly operated and maintained in a manner that optimizes resources.

    b. *Safety*: Staff is provided with necessary safety equipment and training to perform work under the LTOMP.

    c. *Customer Service*: Procedures are established to receive and respond to customer reporting of sanitary sewer overflows and basement backups, in addition to other customer inquiries, requests, and complaints. Customers are also provided information via brochures, newsletters, mailings, etc.

    d. *Management Information System*: Records of all activities and work completed under the LTOMP, and information used to manage the sewer system is maintained in perpetuity by {a computerized maintenance management system} {hardcopy records}. These records are available for review upon request.

    e. *Sanitary Sewer Overflow (SSO) / Basement Backups*: The following procedures are established to respond to SSOs and basement backups:

        i. SSOs are investigated, contained, the cause is determined, and notification is provided, as necessary, to all appropriate parties (e.g., state/local, drinking water, and public health officials, and the general public). A record of the occurrence, cause, and corrective work is maintained.

ii. Basement backups are investigated and the cause is determined. The customer is provided information on basement backup causes and methods that can reduce future basement backup occurrences. A record of the occurrence, cause, and corrective work is maintained.

f. *Emergency Preparedness and Response*: Procedures are established to respond to routine and catastrophic emergencies related to sewer breaks/collapse, {power outage or failure of pump stations and force mains}, SSOs, and basement backups 24-hours a day. Staff respond to the emergency and contractors may be used to assist in the response.

g. *Sewer Use Ordinance*: The {sewer use ordinance} {other} establishes the design and construction standards for all new sewer construction and rehabilitation work, controls the quantity and quality of wastewater, I/I source correction, and provides authority to inspect the sewer system.

h. *FOG Program*: The FOG program establishes requirements for buildings that produce fats, oils, and grease (FOG). Grease interceptors or grease basins are required for buildings that produce FOG, and they are required to be serviced to ensure FOG does not enter the receiving sanitary sewer.

2. Sewer System Map: A map of the sewer system is {maintained by a Geographical Information System (GIS)} {provided by a paper hardcopy} and is updated on an annual basis. The map contains all sewers, manholes, {pump stations, force mains,} connections to the MWRD, and other structures. Rim, invert, diameters, material, age, and other appropriate elevations, dimensions, or attributes are provided when possible.

3. Sewer System Inspection: New sewer is inspected during construction and must meet the design requirements prior to being placed in service. The existing sewer system is continuously inspected to assess the condition of the system, locate blockages, and to identify I/I sources. Historical information is used to prioritize the portions of the system for inspection. Inspection results are utilized to prioritize sewer system maintenance and repair work.

   a. *Frequency*: A minimum of two percent (2%) of the existing system is inspected annually.

   b. *Methods*: Televising, smoke testing, dye water flooding, visual, and other methods.

   c. *Standards*: Inspections are conducted and deficiencies are coded in accordance with NASSCO standards. When NASSCO does not provide standards for an inspection method, the inspection will conducted in accordance with industry standards.

4. Sewer System Maintenance: The sewer system is continuously maintained to prevent and eliminate SSOs and basement backups, maximize service and reliability, and establish sustainability. Appropriate equipment is available to clean the sewer system, remove blockages, and conduct system maintenance.

   a. *Regular Maintenance*: Continuous maintenance is undertaken and prioritized to reduce corrective and emergency maintenance.

b. *Emergency Maintenance*: Staff and/or contractors are available to conduct emergency maintenance activities 24-hours a day.

c. *Sewer Cleaning*: Routine sewer cleaning is performed and frequency is based on historical information. Sewer cleaning is also performed, as necessary, prior to conducting inspections and rehabilitation.

5. Sewer System Rehabilitation: Rehabilitation work is continuously performed to correct sewer system deficiencies discovered as a result of inspections. Priority is given to deficiencies that may result in system failure, reduce system capacity, or contribute excessive I/I. Deficiencies that cannot be immediately corrected are documented and are included as part of the Capital Improvement Plan (CIP) for future correction.

6. Sewer System Capacity Evaluation: The sewer system is designed to accommodate the dry weather flow of the service area. The capacity of the existing system will be evaluated to determine whether an increase in conveyance capacity is justified if either of the following circumstances occur:

   a. Dry weather SSOs and/or basement backups occur that cannot be attributed to maintenance issues or identified deficiencies; or

   b. The service area is being redeveloped in a manner that the projected dry weather flow exceeds the existing sewer system capacity.

7. Material and Equipment: Adequate and proper material and equipment is provided to complete all work performed under the LTOMP. An inventory of all material and equipment is maintained. All equipment is properly maintained to ensure all work can be completed.

8. Capital Improvement Plan (CIP): All sewer system deficiencies identified during inspections that are not immediately corrected are included as part of the CIP. The CIP details the plan, schedule, and funding for the long-term correction of sewer system deficiencies. The CIP is updated annually and priority is given to projects that address deficiencies that may result in system failure, reduce system capacity, I/I sources, or have been known for the longest period of time.

9. Private Sector Program (PSP): A large portion of excessive wet weather flow originates from the privately-owned sector of the sewer system. The goal of the PSP is to reduce SSOs and basement backups by the identification and removal of internal and external private sector I/I sources.

   a. *Authority*: Inspection of private property and enforcement of I/I source correction are established by Ordinance {Resolution / bylaws / access agreement} {indicate reference}.

b. *Inspection*: Private sector areas that are suspected to significantly contribute I/I to the system will be inspected to identify and document internal and external I/I sources and the location of all sewer connections. {If a portion of the sewer system experiences SSOs and/or basement backups during multiple wet weather events within a 12-month period and it is determined that the public system did not contribute to the SSO or basement backup (i.e., no unrehabilitated deficiencies, no blockage, etc.),} {other} then private property inspections will be conducted in the impacted area and any other area that is believed to be contributing to the occurrence. Results of the inspections will be used to provide the customer with a notice of non-compliance for I/I source correction.

c. *Non-Compliance Correction*: A notification and correction procedure is established to notify, assist, and educate customers of non-compliance. The notification describes the non-compliance condition (i.e., I/I source), the date by which the I/I source must be corrected, follow-up inspection, and description of enforcement actions.

d. *Long Term I/I Source Correction*: High-flow, high-cost I/I sources include footing drains, driveway drains, area drains, leaking laterals. When these sources cannot be immediately corrected, they are documented and tracked for long-term correction within an appropriate time frame depending on the correction method. Corrective action will occur prior to or during {property transfer} {tear down} {significant building improvement} {participation in a cost-share program} {other}.

e. *Enforcement*: A hierarchy of enforcement actions are established when a customer fails to comply with a notice of non-compliance. Enforcement actions include {fines / denial of service / denial of building permits / litigation}.

f. *Public Information*: Customers are provided information regarding basic I/I education, I/I contribution to SSOs and basement backups, I/I source correction, and any funding available to correct I/I sources.

10. Funding: The LTOMP is funded by {sewer and water usage} {water usage} {other} fees. Should grant or loan funding become available from state, regional, or federal agencies, those potential sources will be investigated to supplement the LTOMP.