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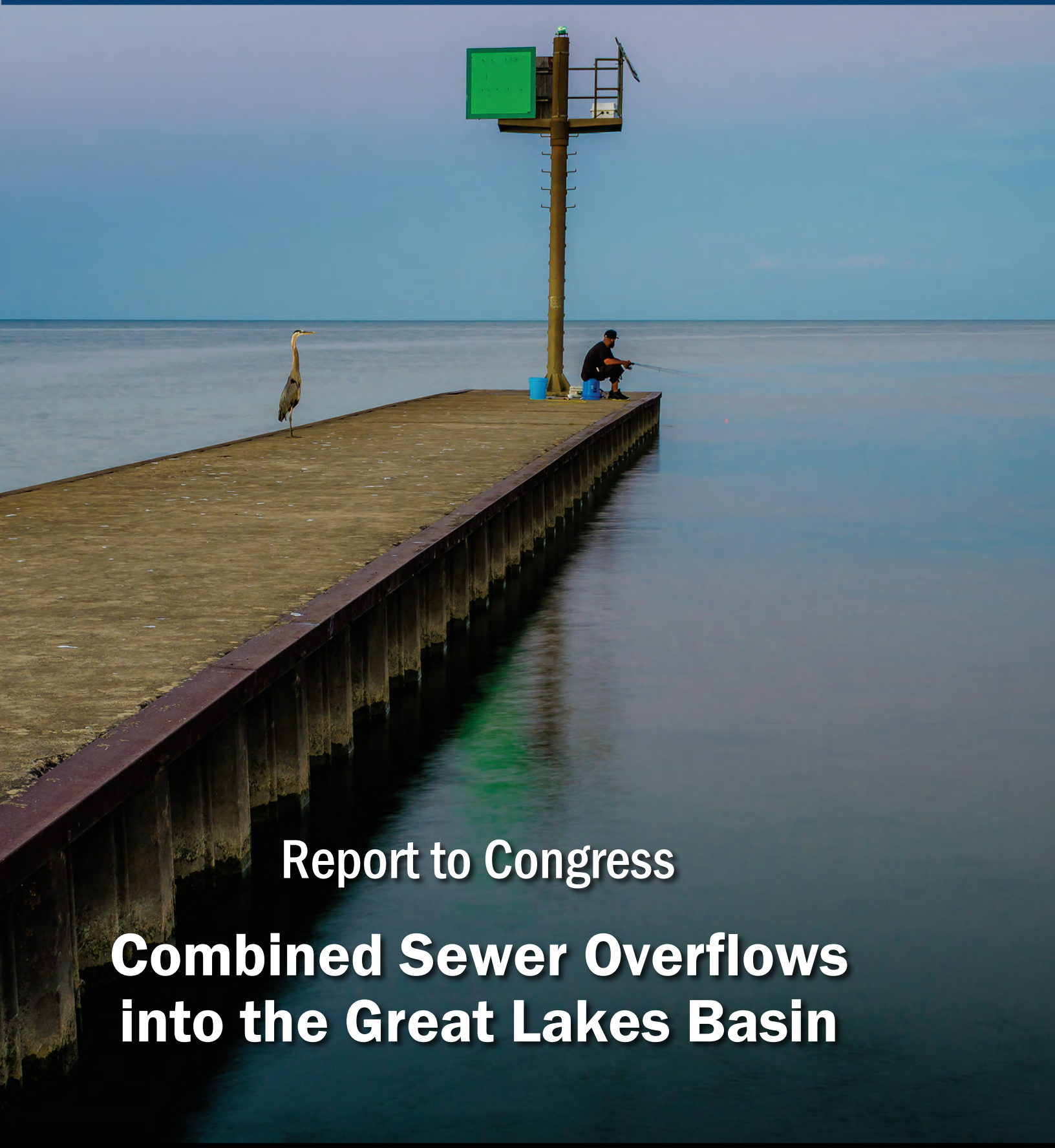

Report to Congress

Combined Sewer Overflows into the Great Lakes Basin

U.S. Environmental Protection Agency, Office of Wastewater Management

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Cover: Fisherman and Great Blue Heron on a pier in Lake Erie. Cover Photo: Posnov/Getty Images

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List of Acronyms

AOC – area of concern

BAT – best available technology economically achievable

BCT – best conventional pollutant control technology

BOD – biochemical oxygen demand

CAFO – concentrated animal feeding operation

CSO – combined sewer overflow

CSS – combined sewer system

CWA – Clean Water Act

EPA – U.S. Environmental Protection Agency

GLNPO – Great Lakes National Program Office

GLRI – Great Lakes Restoration Initiative

LTCP – long-term control plan

MAG – management advisory group

MG – million gallons

MGD – million gallons per day

MS4 – municipal separate storm sewer system

NA – not applicable

NMC – nine minimum controls

NPDES – National Pollutant Discharge Elimination System

POTW – publicly owned treatment works

SSO – sanitary sewer overflow

SSS – separate sanitary sewer

TARP – Tunnel and Reservoir Plan

TSS – total suspended solids

WWTP – wastewater treatment plant

WQS – water quality standards

Executive Summary

There are 184 combined sewer systems (CSS) in the Great Lakes Basin designed to collect and transmit both wastewater and stormwater to a publicly owned treatment works (POTW) through a single network of pipes. Wet weather events can cause combined sewer overflows (CSO) when the stormwater entering the CSS exceeds the capacity of the collection system. CSO events can be detrimental to human health and the environment because they introduce pathogens, bacteria and other pollutants to receiving waters, causing beach closures, contaminating drinking water supplies, and impairing water quality. Fish and other aquatic populations also can be impacted by the depleted oxygen levels that can be caused by CSOs.

This Report to Congress presents the U.S. Environmental Protection Agency's (EPA) most recent assessment of the implementation status of CSO long-term control plans (LTCPs) in the Great Lakes Basin, as well as a summary of existing data on the CSO discharge volume in the basin during calendar year 2014.

Data Collection Methodology

EPA's methodology for data collection focused on obtaining existing data from federal and state sources. Data were collected through a combination of direct data requests to the states and research of previously published or available federal, state, and local government and nongovernmental agency sources. EPA compiled an initial CSO inventory based on its in-house data and used the inventory to develop a data collection template spreadsheet for each of the seven states that have CSO discharges in the Great Lakes Basin. EPA sent the template spreadsheet to the seven states and then held a series of conference calls with those states and their EPA regions to discuss how to update and complete the spreadsheet. Lastly, EPA evaluated the returned state spreadsheets for consistency with the data collection instructions.

Statutory and Regulatory Requirements For CSOs

EPA issued a CSO Control Policy on April 19, 1994 (59 FR 18688, April 19, 1994). The CSO Control Policy "represents a comprehensive national strategy to ensure that municipalities, permitting authorities, water quality standards authorities, and the public engage in a comprehensive and coordinated effort to achieve cost-effective CSO controls that ultimately meet appropriate health and environmental objectives."

In the Consolidated Appropriations Act for Fiscal Year 2001, P.L. 106-554, Congress amended the Clean Water Act (CWA) to add Section 402(q), which provided that "...each permit, order, or decree issued pursuant to this Act after the date of enactment of this subsection for a discharge from a municipal combined storm and sanitary sewer shall conform to the CSO Control Policy signed by the Administrator on April 11, 1994."

Status of LTCPs in the Great Lakes Basin

LTCPs or other alternative CSO control plans are required for 183 of 184 (99 percent) of the CSO communities located in seven states throughout the Great Lakes Basin (Table ES-1). These communities have submitted 181 LTCPs or other alternative CSO control plans and 178 have been approved. New York, Pennsylvania, Michigan, Illinois, and Wisconsin have all CSO communities in the Great Lakes Basin in their state operating under approved LTCPs or other alternative CSO control plans. Ohio has received 52 LTCPs and has not received an LTCP from 2 CSO communities. Ohio has approved 50 of the 52 LTCPs it has received. Indiana has received 26 LTCPs and has not received an LTCP from one CSO community. Indiana has approved 25 of the 26 LTCPs it has received.

Similarly to Table ES-1, Table ES-2 presents the information about CSOs but summarized by the Great Lake to which they drain rather than by state.

CSOs in the Great Lakes Basin During 2014

The seven states reported 1,482 events where untreated wastewater was discharged from CSOs in the Great Lakes Basin in 2014 (Table ES-1). Ohio reported 824 untreated CSO events; however, the state had only partial data available on CSO events for five communities. Michigan reported 273 untreated CSO events and New York reported 376 untreated CSO events. New York had no readily available data for three communities. Pennsylvania reported seven untreated CSO events, while Illinois and Wisconsin each reported one untreated CSO event. Indiana did not have data readily available on the number of CSO events for 20 of the 27 communities discharging CSOs into the Great Lakes Basin. Indiana reported no overflow events for the 7 communities for which it reported.

The states reported an estimated volume of 22 billion gallons (BG) of untreated wastewater discharged from CSOs into the Great Lakes Basin in 2014 (Table ES-1). However, Ohio had only partial data available on CSO volume for eight communities and New York had no data available for five communities. Michigan reported that CSOs in the state discharged a volume of 8.8 BG of untreated wastewater, Indiana reported that CSOs in the state discharged a volume of 8.1 BG of untreated wastewater, Ohio reported that CSOs in the state discharged a volume of 3.2 BG of untreated wastewater (Ohio had no available data on untreated CSOs from eight communities), New York reported that CSOs in the state discharged a volume of 1.8 BG of untreated wastewater (New York had no available data for 5 CSO communities), Illinois reported that CSOs in the state discharged a volume of 500 MG of untreated wastewater, Wisconsin reported that CSOs in the state discharged a volume of 30,000 gallons of untreated wastewater and Pennsylvania reported that CSOs in the state discharged a volume of 10,000 gallons of untreated wastewater.

The seven states reported 187 events where CSOs discharged treated wastewater in the Great Lakes Basin in 2014 (Table ES-1). Ohio reported 27 treated CSO events; however, the state had only partial data available on CSO events for five communities. Michigan reported 160 treated CSO events. New York, Pennsylvania, Illinois, Indiana, and Wisconsin reported no treated CSO events in 2014. However, New York did not have data readily available for three communities and Indiana did not have data readily available for 20 of the 27 communities discharging CSOs into the Great Lakes Basin.

The states reported an estimated volume of 26 BG of wastewater that was treated with a minimum of primary treatment (or its equivalent) and disinfected was discharged from CSOs into the Great Lakes Basin in 2014 (Table ES-1). However, Ohio had no available data for five communities. Michigan reported that CSOs in the state discharged a volume of 25 BG of treated wastewater, Ohio reported that CSOs in the state discharged a volume of 400 MG of treated wastewater (Ohio had no available data on treated CSOs from eight communities), and Indiana reported that CSOs in the state discharged a volume of 20 MG of treated wastewater.

Table ES-2 presents the results discussed above by Great Lake. Figure ES-1 depicts the volumes of treated and untreated CSO volumes by state. Figure ES-2 depicts the same information by lake.

Table ES- 1. Summary of LTCP Status and 2014 CSO Events and Volume by State for States in Great Lakes Basin

State	CSO Communities	LTCPs Required/ Approved	2014 Treated CSO Events	2014 Treated Discharge Volume (MG)	2014 Untreated CSO Events	2014 Untreated Discharge Volume (MG)
New York	13	13/13	0[a]	0[b]	376[a]	1,800[b]
Pennsylvania	1	1/1	0	0	7	0.1
Ohio	54	53/50	27	400	824[c]	3,200[d]
Michigan	46	46/46	160	25,200	273	8,800
Indiana	27	27/25	0[e]	20	0[e]	8,100
Illinois	41[f]	41/41	0	0	1[g]	500
Wisconsin	2	2/2	0	0	1	0.3
Totals	184	183/178	187	26,000	1,482	22,000

[a]Three communities in New York had no readily available data on the number of CSO events in 2014.

[b]Five New York communities (Clayton Village, Ogdensburg, the Frank E. VanLare STP in Rochester, Lockport, and Niagara Falls) had no readily available data on CSO volumes.

[c]Five Ohio communities [Elyria, Oak Harbor, Tiffin, Bucyrus, and Northeast Ohio Regional Sanitation District (Cleveland)] had no available data on the number of untreated CSO events in 2014.

[d]Eight Ohio communities [Avon Lake, Crestline, Elyria, Oak Harbor, Tiffin, Bucyrus, Lima, and Northeast Ohio Regional Sanitation District (Cleveland)] had no available data on untreated CSO volume.

[e]20 Indiana communities had no readily available data on the number of CSO events in 2014.

[f]Includes the City of Chicago and 40 satellite communities within the Tunnel and Reservoir Plan (TARP) adopted by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC).

[g]Illinois reported 41 CSO events from TARP in 2014. However, most of the events go to Chicago-area rivers and only one event was to Lake Michigan.

Table ES- 2. Summary of LTCP Status and 2014 CSO Events and Volume by Lake for States in Great Lakes Basin

Great Lake		CSO Communities	LTCPs Required/ Approved	2014 Treated CSO Events	2014 Treated Discharge Volume (MG)	2014 Untreated CSO Events	2014 Untreated Discharge Volume (MG)
Ontario/ St. Lawrence Seaway		10	10/10	0[a]	0[b]	74[a]	150[b]
Erie		93	92/89	162[c]	24,700[d]	1,334[c,e]	16,400[d,f]
Huron		6	6/6	11	800	1	0.4
Michigan		72	72/70	8[g]	10	73[g,h]	5,900
Superior		3	3/3	6	200	0	0
Totals		184	183/178	187	26,000	1,482	22,000

[a]Two communities in New York discharging into Lake Ontario/St. Lawrence Seaway had no available data on the number of treated or untreated CSO events.

[b]Four communities in New York discharging into Lake Ontario/St. Lawrence Seaway had no available data on the volume of treated or untreated CSO events.

[c]One New York community and six Indiana communities discharging into Lake Erie had no available data on the number of treated or untreated CSO events.

[d]One community in New York discharging into Lake Erie had no available data on the volume of treated or untreated CSO events.

[e]Five Ohio communities discharging into Lake Erie had no available data on the number of untreated CSO events.

[f]Eight Ohio communities discharging into Lake Erie had no available data on the volume of untreated CSO events.

[g]14 Indiana communities discharging into Lake Michigan had no available data on the number of treated or untreated CSO events.

[h]Illinois reported 41 CSO events from TARP in 2014. However, most of these events go to Chicago-area rivers and only one discharged to Lake Michigan.

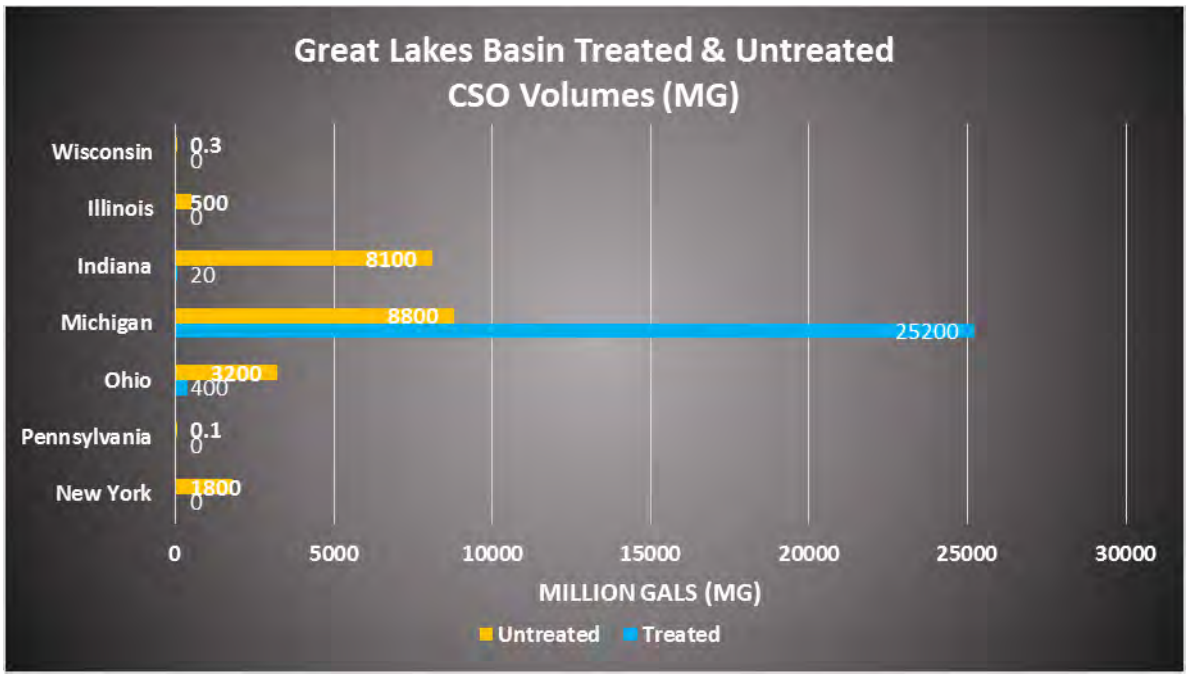

Figure ES-1 2014 CSO Volume by State

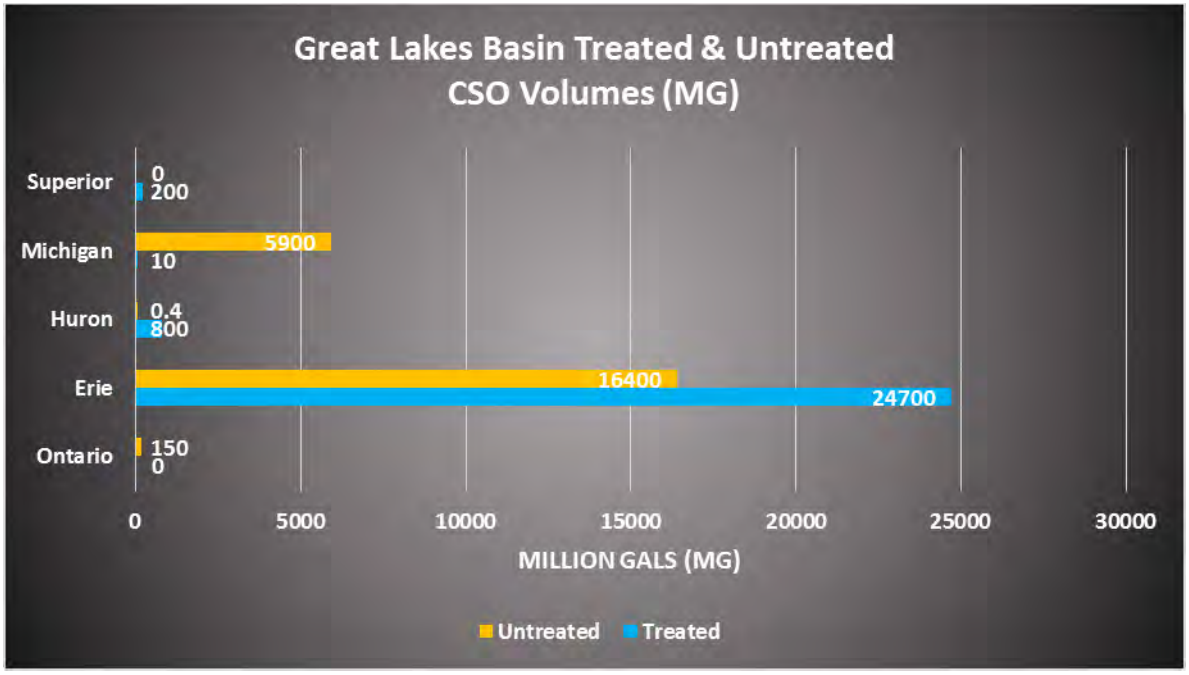

Figure ES-2 2014 CSO Volume by Great Lake

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1 Introduction and Background

1.1 Why Is EPA Preparing this Report to Congress?

In the Consolidated and Further Continuing Appropriations Act, 2015, Congress directed the U. S. Environmental Protection Agency (EPA) to provide available information on the status of the Combined Sewer Overflow (CSO) Long Term Control Plans (LTCPs) for each CSO community in the Great Lakes Basin. In addition, Congress requested a summary of the annual CSO discharge volumes in the Basin during 2014. The Act provides:

> *CSOs are a major contributor to water quality issues in the Lake Michigan Basin and it is noted that many communities have made strides to update wastewater infrastructure to mitigate the impact of CSOs. As such, the Agency is directed to provide a report based on available data indicating, for each CSO community in the Great Lakes Basin, the implementation status of each CSO long term control plan. Additionally, the report should include a summary of annual discharge volumes.*

EPA published three previous Reports to Congress that addressed CSO issues:

- *Report to Congress—Implementation and Enforcement of the Combined Sewer Overflow Control Policy* (EPA 2001b), about progress made by EPA, states, and municipalities in implementing and enforcing the CSO Control Policy.
- *Report to Congress—Impacts and Control of CSOs and SSOs* (EPA 2004), about the characteristics and impacts that CSOs have on receiving waters and human health and technologies used to control CSOs.
- *Report to Congress—Combined Sewer Overflows to the Lake Michigan Basin* (EPA 2007), about EPA's assessment of CSO events in the Lake Michigan Basin, the enforcement of existing regulations concerning such discharges, and the future steps EPA planned to take to minimize such overflows.

1.2 The Challenges of Combined Sewer Systems and Combined Sewer Overflows

There are two types of public wastewater collection systems in the United States: combined sewer systems (CSS) and separate sanitary sewers (SSS). CSSs were among the earliest sewer systems constructed in the United States until the first part of the twentieth century. In contrast to SSSs, CSSs were specifically designed to collect wastewater and stormwater in a single-pipe system to transmit the combined waters to a publically owned treatment works (POTW) (see Figure 1-1).

Wet weather events (i.e., rain and snow events) can exceed the capacity of the CSS to convey wastewater through the system and cause CSOs. During wet weather, most CSSs are designed to discharge CSO flows directly to surface waters, including rivers, streams, estuaries, and coastal waters. A CSO discharge is defined as "the discharge from a CSS at a point prior to the POTW treatment plant."

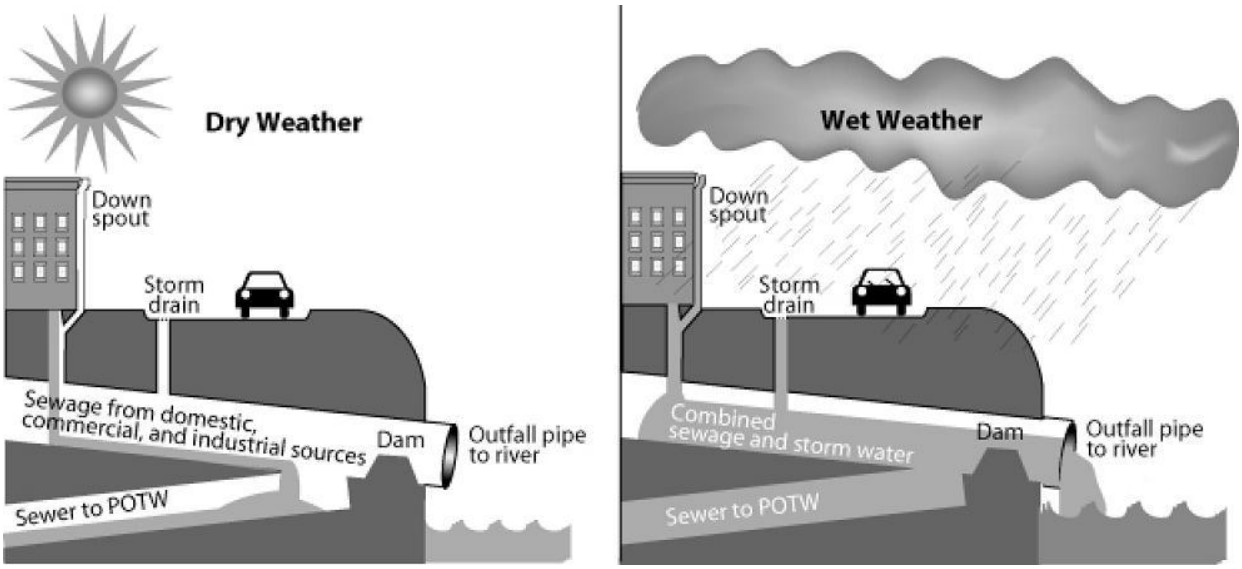

Figure 1-1. Typical Combined Sewer System.

Some CSO outfalls discharge infrequently, while others discharge every time it rains. Overflow frequency and duration vary from system to system and from outfall to outfall within a single system. When constructed, CSSs were commonly designed to handle between two and four times more than the average dry weather flow (Moffa 1997). Thus, there is usually considerable conveyance capacity within a CSS during dry weather. Consequently a CSS should not discharge during dry weather, but should convey flows to a treatment plant. One of the nine minimum controls (NMCs) of the CSO policy prohibits discharges from a CSS during dry weather.

CSO discharges that occur as the result of wet weather can include wastewater from domestic, commercial, and industrial sources as well as stormwater runoff. As a result, CSO discharges can contain the waste from these sources as well as pollutants washed from streets, parking lots, and other surfaces. CSO discharges vary greatly, both in terms of the specific pollutants in an individual CSO discharge and in the concentrations of those pollutants in the discharge (EPA 2004). Pollutant concentrations in CSO discharges depend on a number of factors, including the service population, the characteristics of the CSS, weather conditions, and any treatment provided to the CSO prior to discharge.

CSO discharges can cause or contribute to water quality impairments and potentially expose people to untreated sewage. Sewer overflows can also back up into residential homes, public buildings and commercial facilities.

CSO discharges that occur as the result of a wet weather event are point source discharges subject to National Pollutant Discharge Elimination System (NPDES) permit requirements including both technology-based and water quality-based requirements of the CWA. As of September 2015, 859 active NPDES permits for CSO discharges had been issued in 30 states plus the District of Columbia and Puerto Rico. Of these 859 CSOs, 184 are located in the Great Lakes Basin. NPDES permits for CSO discharges are issued to either:

- The operator of the wastewater treatment plant if the CSO outfall is owned and operated by the same entity as the treatment plant.
- The operator of a CSO outfall that operates a portion of a CSS that conveys flows to a wastewater treatment plant that is owned and operated by a separate entity.

Most of the communities served by CSSs are located in the Northeast and Great Lakes regions, as shown in Figure 1-2. Additional information on CSOs is provided in *Report to Congress—Impacts and Control of CSOs and SSOs* (EPA 2004).

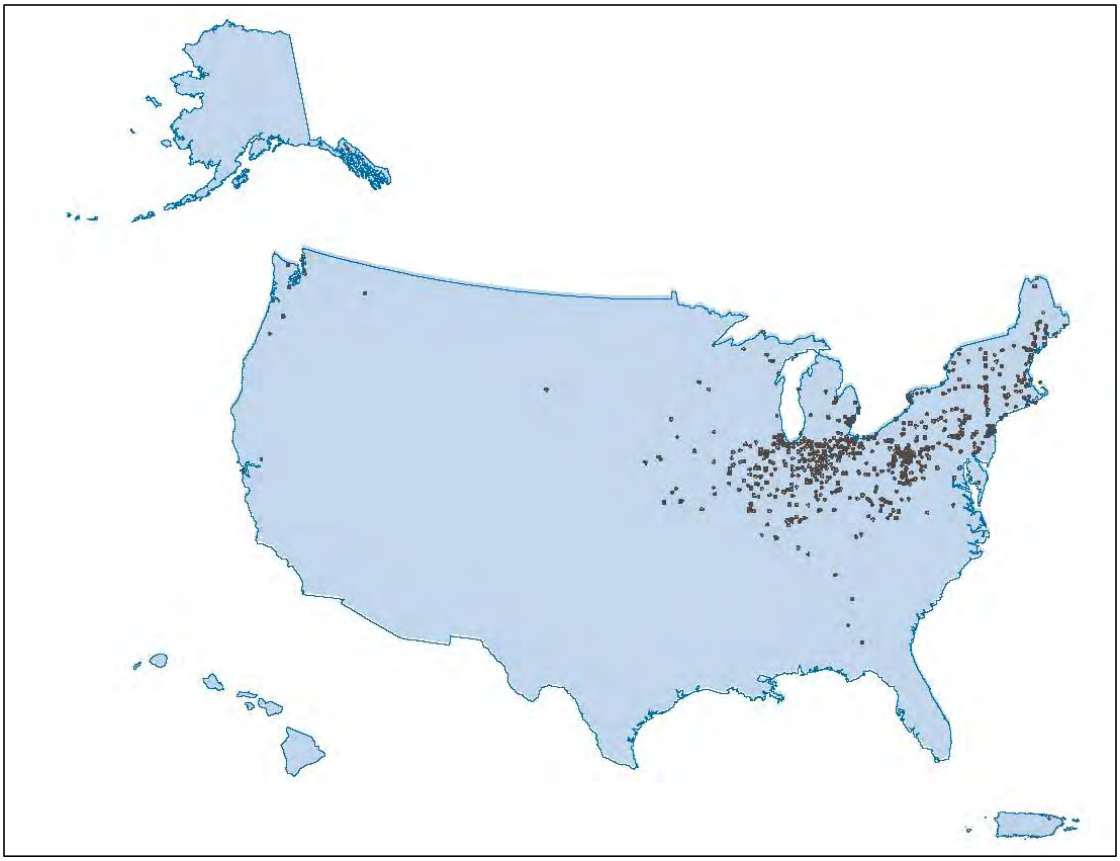

Figure 1-2. National Distribution of CSSs.

1.3 What is the "Great Lakes Basin"?

The Great Lakes Basin is the connected watershed of lakes Erie, Huron, Michigan, Ontario (including the St. Lawrence Seaway), and Superior. Together, the Great Lakes span both the United States and Canada and drain an area of over 200,000 square miles (Table 1-1). The portion of the basin that lies in the United States is approximately 111,548 square miles, exclusive of the St. Lawrence Seaway area (Figure 1-3). As shown in the figure, the basin reaches into eight states (i.e., New York, Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, and Minnesota[1]) and includes many major cities. The Great Lakes Basin has relatively undeveloped portions in its northern reach, but is also home to major metropolitan areas including Chicago, Illinois; Milwaukee, Wisconsin; Detroit, Michigan; Cleveland, Ohio; and Buffalo, New York. In total, more than 30 million people live within and impact the environment of the Great Lakes Basin.

[1] There are no CSO communities discharging to the Great Lakes Basin in Minnesota. The only remaining CSO community in Minnesota is designed to discharge to the Mississippi River. Therefore, no results are provided for Minnesota in this report.

The Great Lakes provide immeasurable value. They contain approximately 84 percent of the fresh surface water in the United States. They provide sustenance and drinking water for millions of people, support recreation and tourism, and provide transportation of materials and goods for industry. As many as 1.5 million jobs are supported by the Great Lakes, contributing to an estimated $62 billion in annual wages (EPA 2015a).

Table 1-1. Drainage Areas and Other Data for the Great Lakes

Feature	Unit	Lake Superior	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario[a]	Total
Drainage Area (U.S. Only)	square miles	16,628	44,878	15,878	21,598	12,566	111,548
Drainage Area (Total: U.S. and Canada)	square miles	49,300	45,600	51,700	30,140	24,720	201,460
Surface Area	square miles	31,700	22,300	23,000	9,910	7,340	94,250
Volume	cubic miles	2,900	1,180	850	116	393	5439
Average Depth	feet	483	279	195	62	283	-

***Note*:**

[a] While the St. Lawrence Seaway is included with Lake Ontario for the purposes of assigning CSOs to the Great Lakes, the data in this table are for Lake Ontario only.

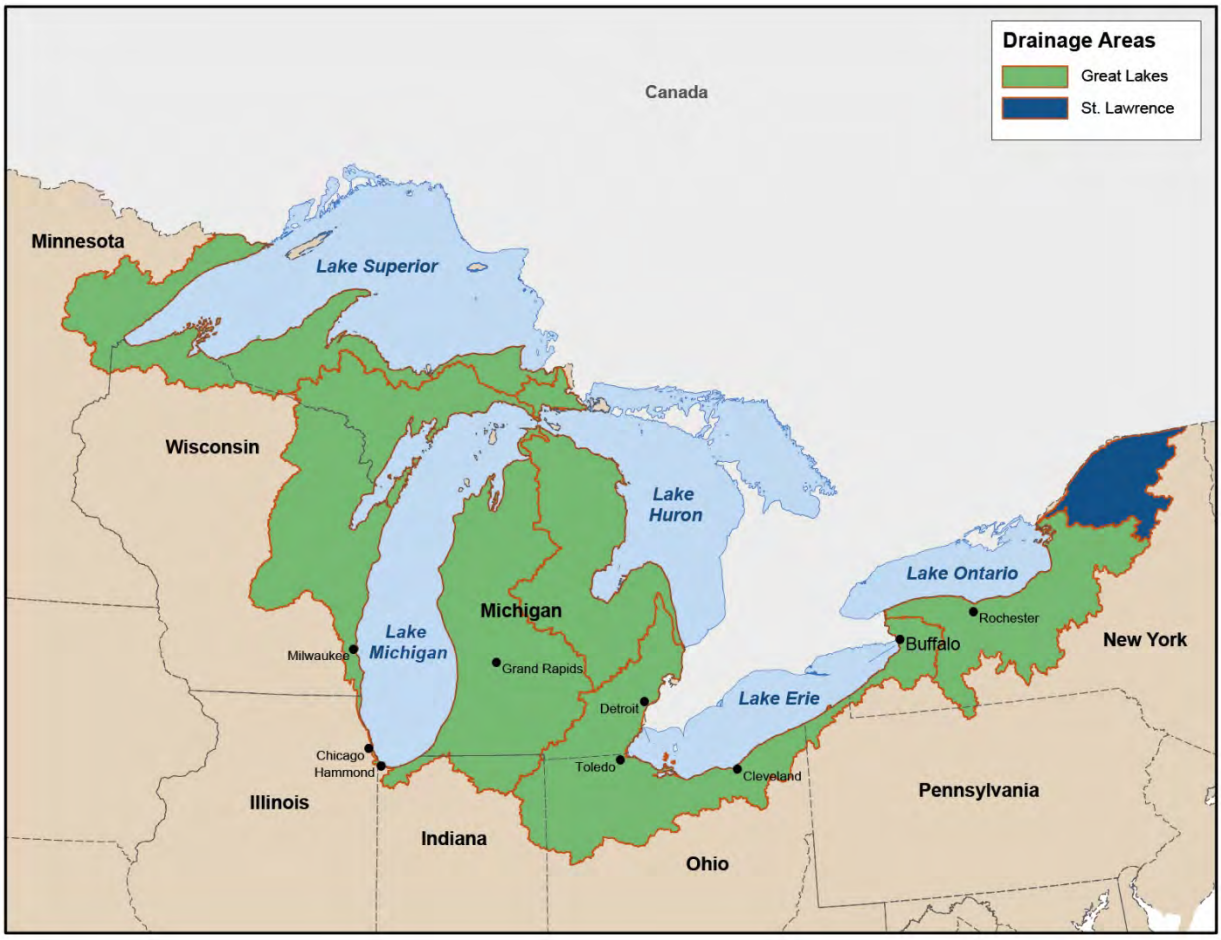

Figure 1-3. Drainage Area of the Great Lakes Basin in the United States.

1.4 How Do CSOs Impact the Great Lakes?

EPA has documented in earlier Reports to Congress that CSOs can cause human health and environmental impacts (EPA 2001b, 2004). CSOs are one of many pollutant sources that impact the Great Lakes. Other point sources include wastewater treatment facilities, stormwater discharges [e.g., from municipal separate storm sewer systems (MS4s)], and concentrated animal feeding operations (CAFOs). Nonpoint sources of pollution include agricultural runoff, atmospheric pollution, legacy pollutants, and natural background sources. As shown in Figure 1-4, CSO communities are scattered across the Great Lakes Basin, with the greatest concentration in Ohio, southeastern Michigan, and northeastern Indiana discharging to Lake Erie, and in northern Indiana and southwestern Michigan discharging to Lake Michigan.

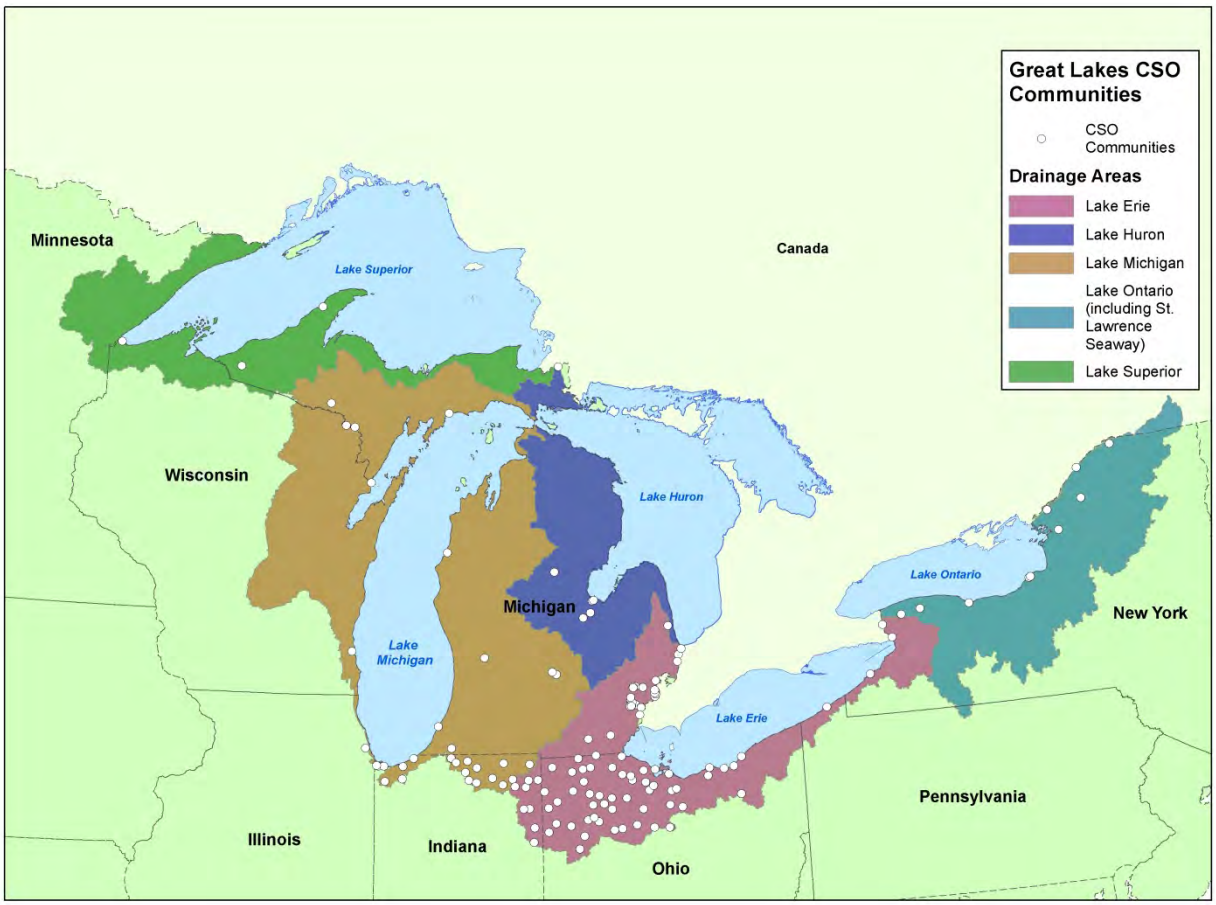

Figure 1-4. CSO Communities in the Great Lakes Basin.

CSOs often discharge simultaneously with other wet weather sources of water pollution, including stormwater discharges from municipal separate storm sewer system (MS4s) and other sources, wet weather sanitary sewer overflows (SSOs) from SSSs, and other nonpoint sources of pollution. The combined effect of the wet weather pollution can make it difficult to identify and assign specific cause-and-effect relationships between CSOs and observed water quality problems. The environmental impacts of CSOs are most apparent at the local level (EPA 2004).

1.5 The Federal Framework for CSO Control

The Clean Water Act (CWA) establishes national goals and requirements for maintaining and restoring the nation's waters. CSO discharges are subject to the technology-based and water quality-based requirements of the CWA. CSOs are not subject to limits based on secondary treatment requirements applicable to POTWs. Technology-based effluent limits for CSO discharges are based on the application of best available technology economically achievable (BAT) for toxic and nonconventional pollutants and best conventional pollutant control technology (BCT) for conventional pollutants. BAT and BCT effluent limits are determined based on "best professional judgment." Permits authorizing discharges from CSO outfalls must include more stringent water quality-based requirements, when necessary, to meet water quality standards (WQS).

For more information about the development of the federal framework to address CSOs and CSO control history see, *Report to Congress—Implementation and Enforcement of the Combined Sewer Overflow Control Policy* (EPA 2001b).

1.5.1 CSO Control Policy

EPA issued the CSO Control Policy on April 19, 1994 (59 FR 18688, April 19, 1994). The CSO Control Policy "represents a comprehensive national strategy to ensure that municipalities, permitting authorities, WQS authorities, and the public engage in a comprehensive and coordinative effort to achieve cost-effective CSO controls that ultimately meet appropriate health and environmental objectives." The policy assigns primary responsibility for implementation and enforcement to NPDES authorities and water quality standards authorities.

The policy also established objectives for CSO communities: 1) to implement the NMCs and submit documentation on NMC implementation; and 2) to develop and implement a long-term CSO control plan (LTCP).

The policy provides that permittees with CSOs are responsible for developing and implementing an LTCP that includes measures to ultimately result in compliance with the requirements of the CWA, including water quality-based requirements. The policy identified the following nine minimum elements that an LTCP should address:

- Characterization, monitoring, and modeling of the CSS;
- Public participation;
- Consideration of sensitive areas;
- Evaluation of alternatives;
- Cost/performance considerations;
- Operational plan;
- Maximization of treatment at the POTW treatment plant;
- Implementation schedule; and
- Post-construction compliance monitoring program.

The policy provides that at the discretion of the NPDES Authority, jurisdictions with populations under 75,000 may not need to complete each of the LTCP elements outlined above. In addition, the policy provides that the NPDES permitting authority may determine that some of the LTCP elements listed above should not apply to certain permittees that had addressed their CSOs before the policy was issued.

1.5.2 Wet Weather Water Quality Act

In December 2000, as part of the Consolidated Appropriations Act for Fiscal Year 2001 (P.L. 106–554), Congress amended the CWA by adding Section 402(q). This amendment is commonly referred to as the "Wet Weather Water Quality Act of 2000." It requires that each permit, order, or decree issued pursuant to the CWA after the date of enactment for a discharge from a municipal CSS shall conform to the CSO Control Policy.

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2 Methodology

2.1 Data Collection Method

The data collection supporting this report emphasized collecting readily available data from federal, state, and local sources. Subsequent to the directive from Congress to develop this report, EPA conducted initial discussions with the states by telephone and e-mail to get preliminary feedback on the types of data relating to CSO communities that were available. EPA compiled an initial CSO inventory based on its in-house data and used this inventory to develop and populate a data collection template for state information. The collection template included three spreadsheets:

- The Data Collection Template spreadsheet, which included fields for all elements to be completed/updated by the states. In cases in which EPA had draft data from the states, draft data were included in the appropriate field, and states were asked to review and update them as necessary. In cases where no draft data were available, the fields were left blank and states were instructed to provide the information.
    - In many cases, updates were made from prepopulated data choices accessible from drop-down menus [e.g., Yes, No, or Not Applicable (NA) options]. That approach helped ensure consistency of data between states. In other cases, the state was able to enter information without restriction.
- The Instructions spreadsheet contained specific instructions for each element to be completed on the Data Collection Template spreadsheet.
- The Definitions spreadsheet included definitions of key terms to help states complete the Data Collection Template spreadsheet. The definitions were intended to ensure that all states interpreted terms in a consistent manner and completed the data updates in a way that would be comparable across all states.

Data returned by the states were evaluated for consistency with the Data Collection Template spreadsheet instructions. Because there is no specific guidance in the CSO Control Policy for CSO data collection, reporting, or CSO volume quantification, information collected by the responsible agencies varies greatly among states. Therefore, while the emphasis remained on collecting only readily available details (i.e., states were not requested to do additional collection or research to find requested data if they were not immediately available), EPA reviewed the data the states returned to ensure they complied with the data request—particularly with respect to the instructions and definitions included in the Data Collection Template spreadsheet. EPA made requests for clarification to the states as necessary.

2.2 What Data Were Collected?

Data collected included information on CSO permittees, their discharge locations, the status of LTCPs and post-construction compliance monitoring programs, historical and anticipated future CSOs, and 2014 CSOs. The various data collected are summarized in Tables 2-1 through 2-4.

Table 2-1. Data on CSO Permittees
Data Element
EPA Region
State
Name of municipal operator of CSS
NPDES permit number
Name of Great Lake to which Permittee discharges
Does the CSO discharge directly into a Great Lake?
If not a direct discharge to a Great Lake, then provide the name of water body to which direct discharges occur
Population served by CSS
Population served by wastewater treatment plant (WWTP)
Design capacity of WWTP [million gallons per day (MGD)]

Table 2-2. Data on LTCPs
Data Element
LTCP required (Y/N/NA)
Alternative CSO Control Plan instead of LTCP (Y/N)
Description of alternative CSO Control Plan
CSO Control Plan (LTCP or alternative CSO control plan) submitted (Y/N)
CSO Control Plan (LTCP or alternative CSO control plan) approved (Y/N)
CSO Control Plan (LTCP or alternative CSO control plan) approval date
Projected date for full implementation of LTCP or alternative CSO Control Plan
CSO Control Plan (LTCP or alternative CSO Control Plan) milestones

Table 2-3. Data on Post-Construction Compliance Monitoring Programs
Data Element
Post Construction Compliance Monitoring Plan required (Y/N)
Post Construction Compliance Monitoring Plan submitted (Y/N))
Post Construction Compliance Monitoring Plan approved (Y/N)
Post Construction Compliance Monitoring Plan approval date

Table 2-4. Data on CSOs
Data Element
Average annual number of CSO events before implementation of CSO Control Plan (LTCP or alternative CSO control plan) (Treated)
Average annual number of CSO events before implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (Untreated)
Average annual historic volume of CSOs before implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (MG/yr) (Treated)
Average annual historic volume of CSOs before implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (MG/yr) (Untreated)
Average annual number of CSO events after implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (Treated)
Average annual number of CSO events after implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (Untreated)
Average annual volume of CSOs anticipated after implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (MG/yr) (Treated)
Average annual volume of CSOs anticipated after implementation of CSO Control Plan (LTCP or alternative CSO Control Plan) (MG/yr) (Untreated)
Total number of CSO events in 2014 (Treated)
Total number of CSO events in 2014 (Untreated)
Total CSO volume in 2014 (MG) (Treated)
Total CSO volume in 2014 (MG) (Untreated)

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3 Results

3.1 Distribution of CSO Communities

The Great Lakes Basin in the United States includes 184 CSO communities in seven states (New York, Pennsylvania, Ohio, Michigan, Indiana, Illinois and Wisconsin).[2] As shown in both Figure 3-1 and Table 3-1, Ohio has the most CSO communities in the Great Lakes basin (54), while Pennsylvania has the least (1). Only 4 percent (8 out of 184) of CSO communities in the Great Lakes Basin discharge directly into the Great Lakes; most discharge to a stream or river that eventually discharges to a Great Lake.

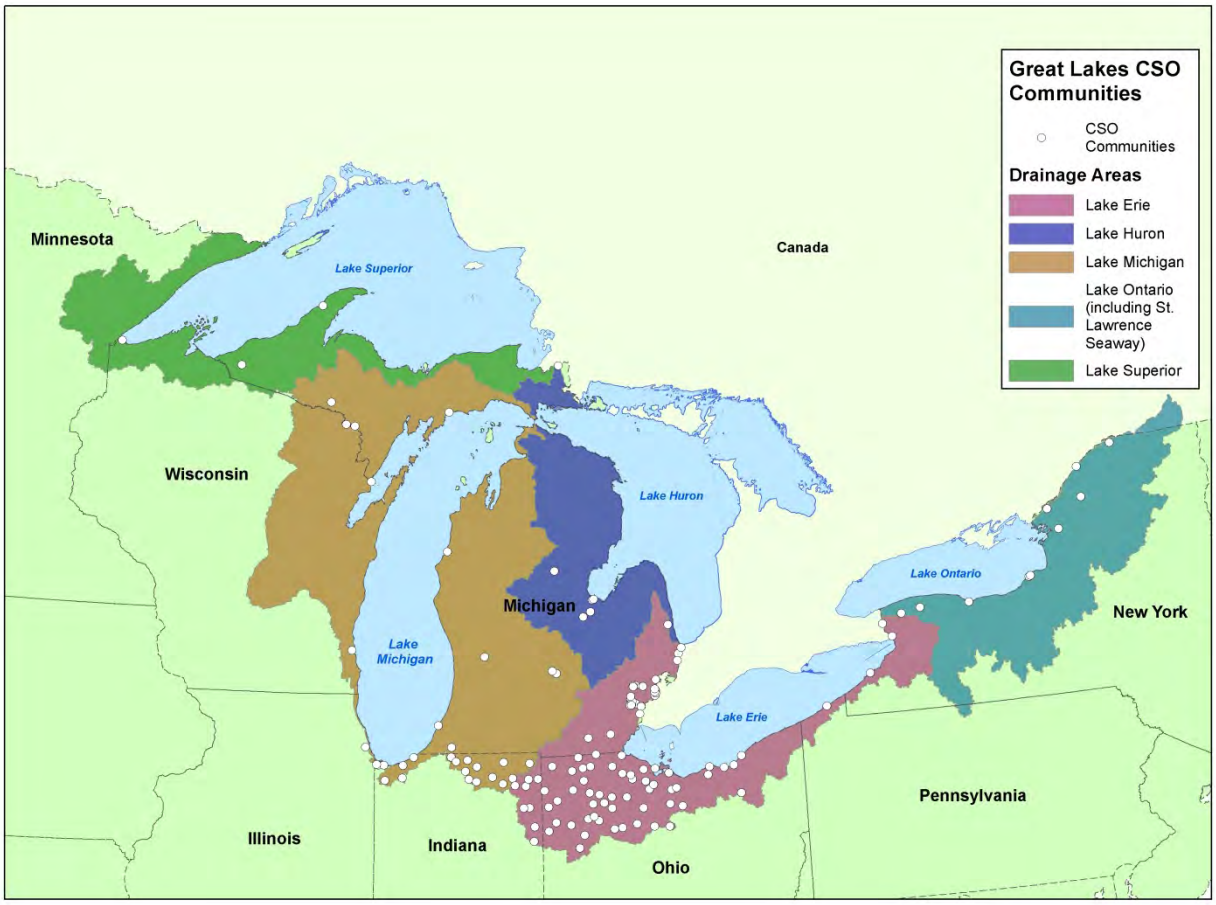

Figure 3-1. CSO Communities in the Great Lakes Basin in the U.S.

[2] Note that parts of the state of Minnesota are also included in the Great Lakes basin area, but no communities in Minnesota have CSO discharges to the Great Lakes.

Table 3-1. CSO Communities by State in the Great Lakes Basin in the U.S.			
State	CSO Communities	CSO Communities Discharging Directly into a Great Lake	CSO Communities Discharging into a River or Lake Leading to a Great Lake
New York	13	1	12
Pennsylvania	1	1	0
Ohio	54	4	50
Michigan	46	0	46
Indiana	27	0	27
Illinois[a]	41	0	41
Wisconsin	2	2	0
Total	184	8	176

***Note*:**

[a] Includes the City of Chicago and 40 satellite communities within the Tunnel and Reservoir Plan (TARP) adopted by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC).

All five of the Great Lakes receive CSO discharges from communities in the United States (see Table 3-2). Lake Erie receives CSO discharges from the most communities in the Great Lakes Basin in the United States (92), including direct discharge from six CSO communities. Lake Michigan receives CSO discharges from the second most communities in the Great Lakes Basin in the United States (72). Lake Ontario/St. Lawrence Seaway has 11 communities discharging CSOs, Lake Huron has six, and Lake Superior has three.

Table 3-2. CSO Communities by Lake in the Great Lakes Basin			
Great Lake	CSO Communities	CSO Communities Discharging Directly into a Great Lake	CSO Communities Discharging into a River or Lake Leading to a Great Lake
Ontario/St. Lawrence Seaway	11	0	11
Erie	92	6	86
Huron	6	0	6
Michigan	72[a]	1	71
Superior	3	1	2
Total	184	8	176

***Note*:**

[a] Lake Michigan includes the Chicago-area TARP communities. Most TARP discharges are outside the Great Lakes Basin. However, the TARP system is designed to discharge to Lake Michigan under extreme weather conditions.

Most of the larger CSO communities in the Great Lakes Basin in the U.S. discharge to Lake Erie and Lake Michigan. For example, Detroit, Cleveland, Buffalo, Toledo, Akron, and Erie discharge to Lake Erie; and Chicago,[3] Milwaukee, South Bend, Grand Rapids, and Lansing discharge to Lake Michigan.

3.2 LTCP Status of CSO Communities

As shown in Table 3-3, the vast majority of CSO communities in each Great Lakes Basin state required to submit an LTCP or other alternative CSO control plan are operating under approved plans. New York, Pennsylvania, Michigan, Illinois, and Wisconsin have all CSO communities in the Great Lakes Basin in their state operating under approved LTCPs or other alternative CSO control plans.

Table 3-3. CSO Control Plan Status of Great Lakes Basin CSO Communities by State Based on Available Data

State	LTCP or Other Alternative CSO Control Plan Required		LTCP or Other Alternative CSO Control Plan Submitted		LTCP or Other Alternative CSO Control Plan Approved	
	Yes	No	Yes	No	Yes	No
New York	13	0	13	0	13	0
Pennsylvania	1	0	1	0	1	0
Ohio	53	1	52	2	50	4
Michigan	46	0	46	0	46	0
Indiana	27	0	26	1	25	2
Illinois	41	0	41	0	41	0
Wisconsin	2	0	2	0	2	0
Total	183	1	181	3	178	6

The status of LTCPs and other alternative CSO control plans by lake is shown in Table 3-4. Similar to the analysis of LTCP and other alternative CSO control plan status by state, the vast majority of CSO communities draining to each lake operate under approved LTCPs or other alternative CSO control plans. Lake Ontario/St. Lawrence Seaway, Lake Huron and Lake Superior have 100 percent of their CSO communities operating under approved LTCPs or other alternative CSO control plans.

[3] Chicago is part of the TARP system, where CSOs are designed to discharge to the Illinois River system. Discharges occur to Lake Michigan only under extreme weather conditions.

Table 3-4. CSO Control Plan Status of Great Lakes Basin CSO Communities by Lake Based on Available Data

Lake	LTCP or Other Alternative CSO Control Plan Required		LTCP or Other Alternative CSO Control Plan Submitted		LTCP or Other Alternative CSO Control Plan Approved	
	Yes	No	Yes	No	Yes	No
Ontario/St. Lawrence Seaway	10	0	10	0	10	0
Erie	92	1	91	2	89	4
Huron	6	0	6	0	6	0
Michigan	72	0	71	1	70	2
Superior	3	0	3	0	3	0
Total	183	1	181	3	178	6

3.3 Post-Construction Compliance Monitoring Program Status of CSO Communities

The states that had available data on post-construction compliance monitoring plans indicated they are requiring 153 out of 183 (84 percent) of U.S. CSO communities in the Great Lakes Basin to submit post-construction compliance monitoring plans (Table 3-5). The majority of the communities in the Great Lakes Basin that are not required to submit post-construction compliance monitoring plans are in Michigan (26). New York (3) and Ohio (1) also indicated they are not requiring some CSO communities to submit post-construction compliance monitoring plans. Pennsylvania had no available data on post-construction compliance monitoring plans.

The majority of required post-construction compliance monitoring plans have been submitted in Wisconsin, Indiana, Michigan, and New York. Michigan and Wisconsin have received 100 percent, Indiana 93 percent, and New York 80 percent of their required plans. Ohio reported receiving 91 percent post-construction compliance monitoring plans for which they have available data; however, Ohio had no available data on the submission of 42 required post-construction compliance monitoring plans. In addition, as described above, Ohio has one community that does not require a post-construction compliance monitoring plan. Illinois has received 32 percent of their required plans.

Sixty-three of the 78 post-construction compliance monitoring plans (81 percent) that have been received have been approved by the states. Ohio, Michigan, Indiana, and Wisconsin have approved 100 percent of the post-construction compliance monitoring plans they have received, and New York has approved 75 percent of the plans it has received. No post-construction compliance monitoring plans have been approved in Illinois.

Table 3-5. Post Construction Compliance Monitoring Program Status of Great Lakes Basin CSO Communities Based on Available Data

State	Post-Construction Compliance Monitoring Plan Required		Required Post-Construction Compliance Monitoring Plan Submitted		Received Post-Construction Compliance Monitoring Plan Approved	
	Yes	No	Yes	No	Yes	No
New York	10	3	8	2	6	2
Pennsylvania	No Available Data	No Available Data	No Available Data	No Available Data	No Available Data	No Available Data
Ohio	53	1	10	1[a]	10	0
Michigan	20	26	20	0	20	0
Indiana	27	0	25	2	25	0
Illinois	41	0	13	28	0	13
Wisconsin	2	0	2	0	2	0
Total	153	30	78	33	63	15

Note:

[a] **Ohio had no available data for 42 permittees, and one permittee did not require a post-construction compliance monitoring plan.**

The states require post-construction compliance monitoring plans for most of the CSO communities discharging into lakes Ontario, Erie, and Michigan. However, states have not required the majority of communities with CSOs discharging to lakes Huron and Superior to submit post-construction compliance monitoring plans (Table 3-6). With respect to submission and approval of post-construction compliance monitoring plans, of those communities for which the states had available data, Lake Huron and Lake Superior had 100 percent of their required post-construction compliance monitoring plans approved. Lake Ontario/St. Lawrence Seaway had five of eight required plans approved (63 percent), while Lake Erie had 34 of 78 required plans approved (44 percent) and Lake Michigan had 21 of 64 required plans approved (33 percent).

Table 3-6. Post Construction Compliance Monitoring Program Status of Great Lakes Basin CSO Communities by Lake Based on Available Data

Lake	Post-Construction Compliance Monitoring Plan Required		Required Post-Construction Compliance Monitoring Plan Submitted		Received Post-Construction Compliance Monitoring Plan Approved	
	Yes	No	Yes	No	Yes	No
Ontario/St. Lawrence Seaway	8	3	6	2	5	1
Erie[a]	78	13	35	1	34	1
Huron	2	4	2	0	2	0
Michigan	64	8	34	30	21	13
Superior	1	2	1	0	1	0
Total	153	30	78	33	63	15

***Note*:**

[a] **Pennsylvania had no available data on post-construction compliance monitoring data for the City of Erie, which discharges into Lake Erie. Ohio had no available data on the submission or approval of post-construction compliance monitoring plans for 42 communities that discharge into Lake Erie. One permittee in Ohio that discharges into Lake Erie did not require a post-construction compliance monitoring plan.**

3.4 Treated and Untreated CSOs

Treatment is provided for some CSOs prior to discharge. Other CSO outfalls discharge untreated wastewater and stormwater. This Report distinguishes between treated CSO discharges and untreated CSO discharges. For the purposes of this Report, "treated CSO discharges" refers to those discharges that receive a minimum level of treatment as described in the 1994 CSO Control Policy FR 18688, 18693:

- Primary clarification (Removal of floatables and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification.);
- Solids and floatables disposal; and
- Disinfection of effluent, if necessary, to meet WQS, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary.

"Untreated CSO discharges" refers to those that either receive no treatment or less treatment than described above.

3.5 Untreated CSO Events in 2014

The states reported 1,482 untreated CSO events in the Great Lakes Basin in 2014 (Table 3-7). The states reported the following numbers of CSO events:

- Ohio—824 untreated CSO events. Note that Ohio had only partial data available for five communities;
- New York—376 untreated CSO events. Note that New York had no data available for three communities;
- Michigan—273 untreated CSO events;

- Pennsylvania—seven untreated CSO events;
- Illinois—one untreated CSO event;
- Wisconsin—one untreated CSO event; and
- Indiana—zero untreated CSO events. Note that Indiana had no readily available data for 20 of the 27 communities discharging CSOs.

Table 3-7. Reported Untreated CSO Events by State in 2014 Based on Available Data

State	CSO Communities	Communities Reporting Overflow Events			Number of Untreated CSO Events
		Full Data Available	Partial Data Available	No Data Available	
New York	13	10	0	3[a]	376
Pennsylvania	1	1	0	0	7
Ohio	54	49	5[b]	0	824
Michigan	46	46	0	0	273
Indiana	27	7	0	20[c]	0
Illinois	41	41	0	0	1[d]
Wisconsin	2	2	0	0	1
Totals	184	156	5	23	1,482

***Note*:**

[a] Three communities in New York had no readily available data on the number of CSO events in 2014.

[b] Five Ohio communities [Elyria, Oak Harbor, Tiffin, Bucyrus, and Northeast Ohio Regional Sanitation District (Cleveland)] had no available data on the number of untreated CSO events in 2014.

[c] 20 Indiana communities had no readily available data on the number of CSO events in 2014.

[d] Illinois reported 41 CSO events from TARP in 2014. However, most of the events go to Chicago-area rivers that are outside the Great Lakes Basin and only one event in 2014 was to Lake Michigan.

A tabulation of reported untreated CSO events in 2014 by Great Lake is presented in Table 3-8. A total of 1,334 untreated CSO events were reported for Lake Erie in 2014, which was the most by far for any of the Great Lakes. Lake Ontario/St. Lawrence Seaway had the second most events (74 untreated CSO events), followed by Lake Michigan (73 untreated CSO events) and Lake Huron (one untreated CSO event). The states reported no untreated CSO events occurred in the Lake Superior basin.

Table 3-8. Reported Untreated CSO Events by Lake in 2014 Based on Available Data

Lake	CSO Communities	Communities Reporting Overflow Events			Number of Untreated CSO Events
		Full Data Available	Partial Data Available	No Data Available	
Ontario/St. Lawrence Seaway[a]	10	8	0	2	74
Erie[b]	93	81	5	7	1,334
Huron	6	6	0	0	1
Michigan[c]	72	58	0	14	73
Superior	3	3	0	0	0
Totals	184	156	5	23	1,482

***Note*:**

[a]Two communities in New York discharging into Lake Ontario/St. Lawrence Seaway had no available data on the number of treated or untreated CSO events.

[b]One New York community discharging into Lake Erie had no available data on the number of treated or untreated CSO events. Five Ohio communities discharging into Lake Erie had no available data on the number of untreated CSO events. Six Indiana communities discharging into Lake Erie had no available data on the number of treated or untreated CSO events.

[c]14 Indiana communities discharging into Lake Michigan had no available data on the number of treated or untreated CSO events. In addition, Illinois reported 41 CSO events from TARP in 2014. However, most of these events go to Chicago-area rivers that are outside of the Great Lakes Basin and only one discharged to Lake Michigan.

3.6 Summary of Untreated CSO Volume Reported in 2014

The states reported a total discharge of approximately 22,000 MG of untreated combined sewage from CSOs to the Great Lakes in 2014 (Table 3-9). The states reported the following numbers of untreated CSO overflow volumes:

- Michigan—8,800 MG.
- Indiana—8,100 MG.
- Ohio—3,200 MG. Note that eight Ohio communities had no available data on untreated CSO volume.
- New York—1,800 MG. Note that five New York communities had no readily available data on CSO volumes.
- Illinois—500 MG.
- Wisconsin—0.3 MG.
- Pennsylvania—0.1 MG.

Table 3-9. Reported Untreated CSO Volume by State in 2014 Based on Available Data

State	CSO Communities	Communities Reporting Overflow Volume			Volume of Untreated Events (MG)
		Full Data Available	Partial Data Available	No Data Available	
New York	13	8	0	5[a]	1,800
Pennsylvania	1	1	0	0	0.1
Ohio	54	46	8[b]	0	3,200
Michigan	46	46	0	0	8,800
Indiana	27	27	0	0	8,100
Illinois	41	41	0	0	500
Wisconsin	2	2	0	0	0.3
Totals	184	171	8	5	22,000

***Note*:**

[a]Five New York communities (Clayton Village, Ogdensburg, the Frank E. VanLare STP in Rochester, Lockport, and Niagara Falls) had no readily available data on CSO volumes.

[b]Eight Ohio communities [Avon Lake, Crestline, Elyria, Oak Harbor, Tiffin, Bucyrus, Lima, and Northeast Ohio Regional Sanitation District (Cleveland)] had no available data on untreated CSO volume.

As reported in Table 3-10, Lake Erie received 16,400 MG of untreated combined sewage in 2014, which was by far the highest untreated CSO volume discharged to a Great Lake in 2014. Lake Michigan received about 35 percent of what Lake Erie received (approximately 5,900 MG untreated discharge). Lake Ontario/St. Lawrence Seaway (150 MG untreated discharge), Lake Huron (0.4 MG untreated discharge), and Lake Superior (0 MG untreated discharge) received the lowest volumes of untreated CSO discharges in 2014.

Table 3-10. Reported Untreated CSO Volume by Lake in 2014 Based on Available Data

Lake	CSO Communities	Communities Reporting Overflow Volume			Untreated CSO Volume (MG)
		Full Data Available	Partial Data Available	No Data Available	
Ontario/St. Lawrence Seaway[a]	10	6	0	4	150
Erie[b]	93	84	8	1	16,400
Huron	6	6	0	0	0.4
Michigan	72	72	0	0	5,900
Superior	3	3	0	0	0
Totals	184	171	8	5	22,000

***Note*:**

[a]Four communities in New York discharging into Lake Ontario/St. Lawrence Seaway had no available data on the volume of treated or untreated CSO events.

[b]Eight Ohio communities had no available data on the volume of untreated CSO events. In addition, one community in New York had no available data on the volume of treated or untreated CSO events.

3.7 Treated CSO Events in 2014

The states reported 187 treated CSO events in the Great Lakes Basin in 2014 (Table 3-11). The states reported the following numbers of treated CSO events:

- Michigan—160 treated CSO events;
- Ohio—27 treated CSO events;
- New York—zero treated CSO events. Note that three communities in New York had no readily available data on the number of CSO events in 2014;
- Pennsylvania—zero treated CSO events;
- Illinois—zero treated CSO events;
- Wisconsin—zero treated CSO events; and
- Indiana— zero treated CSO events. Note that Indiana had no readily available data for 20 of the 27 communities discharging CSOs.

Table 3-11. Reported Treated CSO Events by State in 2014 Based on Available Data

State	CSO Communities	Communities Reporting Overflow Events			Number of Treated CSO Events
		Full Data Available	Partial Data Available	No Data Available	
New York	13	10	0	3[a]	0
Pennsylvania	1	1	0	0	0
Ohio	54	54	0	0	27
Michigan	46	46	0	0	160
Indiana	27	7	0	20[b]	0
Illinois	41	41	0	0	0
Wisconsin	2	2	0	0	0
Totals	184	156	0	23	187

***Note*:**

[a] Three communities in New York had no readily available data on the number of CSO events in 2014.

[b] 20 Indiana communities had no readily available data on the number of CSO events in 2014.

A tabulation of reported treated CSO events in 2014 by Great Lake is presented in Table 3-12. A total of 162 treated CSO events were reported for Lake Erie in 2014, which was the most by far for any of the Great Lakes. Lake Huron had the second most events (11 treated CSO events), followed by Lake Michigan (eight treated CSO events), and Lake Superior (six treated CSO events). The states reported no treated CSO events occurred in the Lake Ontario/St. Lawrence Seaway.

Table 3-12. Reported Treated CSO Events by Lake in 2014 Based on Available Data

Lake	CSO Communities	Communities Reporting Overflow Events			Number of Treated CSO Events
		Full Data Available	Partial Data Available	No Data Available	
Ontario/St. Lawrence Seaway[a]	10	8	0	2	0
Erie[b]	93	86	0	7	162
Huron	6	6	0	0	11
Michigan[c]	72	58	0	14	8
Superior	3	3	0	0	6
Totals	184	156	0	23	187

***Note*:**

[a]**Two communities in New York discharging into Lake Ontario/St. Lawrence Seaway had no available data on the number of treated or untreated CSO events.**

[b]**One New York community discharging into Lake Erie had no available data on the number of treated or untreated CSO events. Six Indiana communities discharging into Lake Erie had no available data on the number of treated or untreated CSO events.**

[c]**14 Indiana communities discharging into Lake Michigan had no available data on the number of treated or untreated CSO events.**

3.8 Summary of Treated CSO Volume Reported in 2014

The states reported a total discharge of approximately 26,000 MG of treated combined sewage from CSOs to the Great Lakes in 2014 (Table 3-13). The states reported the following numbers of treated CSO overflow volumes:

- Michigan—25,200 MG.
- Ohio—400 MG.
- Indiana—20 MG
- New York—0 MG. Note that five New York communities had no readily available data on CSO volumes.
- Pennsylvania—0 MG
- Illinois—0 MG.
- Wisconsin—0 MG.

Table 3-13. Treated CSO Volume by State in 2014 Based on Available Data

State	CSO Communities	Communities Reporting Overflow Volume			Treated CSO Volume (MG)
		Full Data Available	Partial Data Available	No Data Available	
New York	13	8	0	5[a]	0
Pennsylvania	1	1	0	0	0
Ohio	54	46	8	0	400
Michigan	46	46	0	0	25,200
Indiana	27	27	0	0	20
Illinois	41	41	0	0	0
Wisconsin	2	2	0	0	0
Totals	184	171	8	5	26,000

***Note*:**

[a]Five New York communities (Clayton Village, Ogdensburg, the Frank E. VanLare STP in Rochester, Lockport, and Niagara Falls) had no readily available data on CSO volumes.

As reported in Table 3-14, Lake Erie received 24,700 MG of treated combined sewage in 2014, which was by far the highest untreated CSO volume discharged to a Great Lake in 2014. Lake Huron received 800 MG of treated discharge, while Lake Superior received 200 MG of treated discharge and Lake Michigan received 10 MG of treated discharge. Lake Ontario/St. Lawrence Seaway reported no treated discharge volume in 2014.

Table 3-14. Treated CSO Volume by Lake in 2014 Based on Available Data

Lake	CSO Communities	Communities Reporting Overflow Volume			Treated CSO Volume (MG)
		Full Data Available	Partial Data Available	No Data Available	
Ontario/St. Lawrence Seaway[a]	10	6	0	4	0
Erie[b]	93	84	8	1	24,700
Huron	6	6	0	0	800
Michigan	72	72	0	0	10
Superior	3	3	0	0	200
Totals	184	171	8	5	26,000

***Note*:**

[a]Four communities in New York discharging into Lake Ontario/St. Lawrence Seaway had no available data on the volume of treated CSO events.

[b]One community in New York had no available data on the volume of treated CSO events.

3.9 Summary of Individual State Data

3.9.1 New York

New York has 13 communities with CSO discharges in the Great Lakes Basin, including 10 that discharge to Lake Ontario/St. Lawrence Seaway and three that discharge to Lake Erie (Figure 3-2 and Appendix Table A-1). New York's CSO communities in the Great Lakes Basin are primarily small, with the exception of Buffalo, which discharges into waterbodies leading to Lake Erie; and Rochester, which discharges into waterbodies leading to Lake Ontario. Most CSO communities in New York do not discharge directly into the Great Lakes, although Dunkirk discharges directly into Lake Erie.

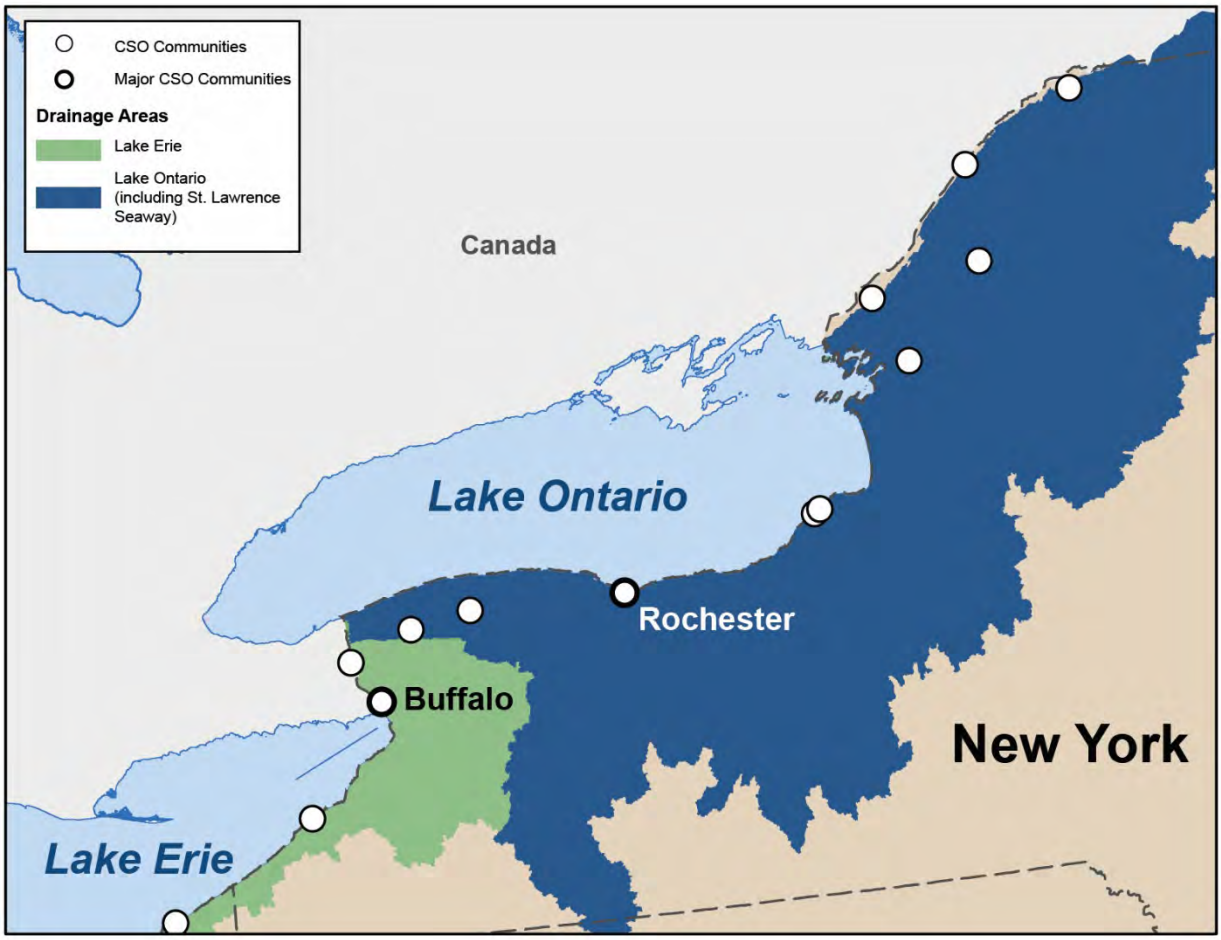

Figure 3-2. CSO Communities in the Great Lakes Basin in New York.

All CSO communities in New York require LTCPs, and LTCPs for all of these communities have been submitted and approved (Appendix Table A-2). Post-construction compliance monitoring plans are required for all CSO communities except Rochester, Medina, and Gouverneur (Appendix Table A-3). Post-construction compliance monitoring plans have been submitted for eight out of the 10 communities where they are required and approved in six.

New York reported 376 untreated CSO events in 2014, consisting of 1,800 MG of combined sewage (Appendix Table A-5). They included 302 CSO events with a total of 1,650 MG to Lake Erie, and 74 CSO events with a total of 150 MG to Lake Ontario/St. Lawrence Seaway. However, no data was readily

available for the number of CSO events for the Frank E. VanLare STP in Rochester, or for Lockport or Niagara Falls. In addition, no CSO volume data was readily available for Clayton Village, Ogdensburg, the Frank E. VanLare STP in Rochester, Lockport, or Niagara Falls. The number of CSO events and volume of combined sewage discharge are estimates based mostly on local modeling the overflows using a baseline annual precipitation. They are not actual measured quantities.

3.9.2 Pennsylvania

The City of Erie, located in northwestern Pennsylvania on Lake Erie, is the only CSO community in Pennsylvania that is in the Great Lakes Basin (Figure 3-3 and Appendix Table A-6). The city's CSOs include direct discharges into Lake Erie. The city's LTCP was approved in 2001 (Appendix Table A-7), but no data was available regarding its post-construction compliance monitoring program (Appendix Table A-8). Erie reported seven untreated CSO events in 2014, which discharged 0.12 MG of untreated combined sewage into Lake Erie (Appendix Table A-10).[4]

Figure 3-3.CSO Communities in the Great Lakes Basin in Pennsylvania.

[4] The City of Erie used the presumption approach in its LTCP (with an 85 percent capture WQBEL); however, the city has documented as of its 2014 Annual Report that it is capturing more than 99 percent of its CSO volume.

3.9.3 Ohio

The 54 CSO communities in the Great Lakes Basin in Ohio all discharge to Lake Erie (Figure 3-4). The communities range from very large systems [e.g., Northeast Ohio Regional Sewer District (NEORSD) around Cleveland] to very small systems (several communities, including Hamler and Metamora, serve populations of fewer than 1,000). Avon, Euclid, Lakewood, and NEORSD discharge directly into Lake Erie, while the remainder of the communities discharge to other receiving waters that eventually drain to Lake Erie (see Appendix Table A-11 for a list of individual communities).

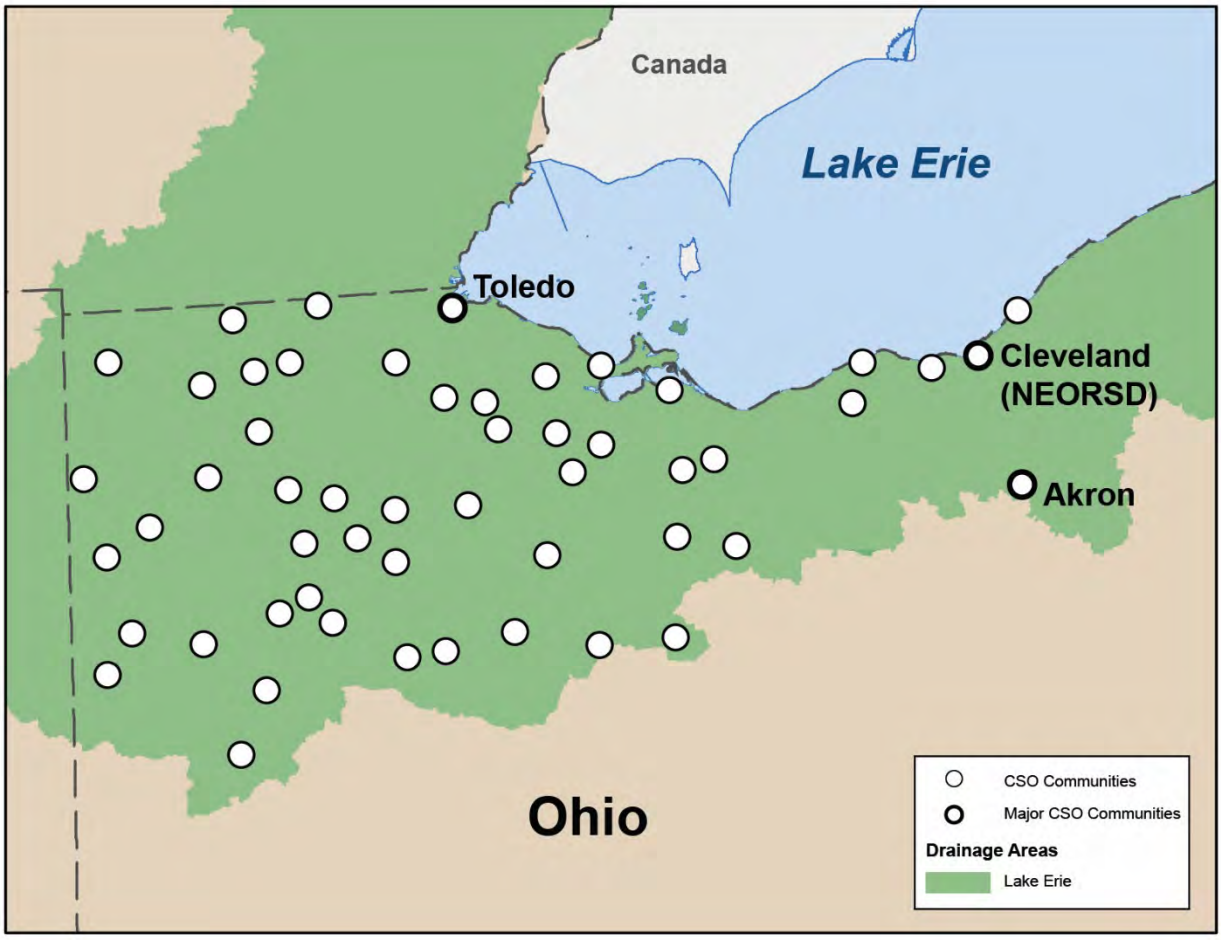

Figure 3-4. CSO Communities in the Great Lakes Basin in Ohio.

A total of 52 of the 54 communities in the Great Lakes Basin in Ohio required LTCPs or alternative CSO control plans (Table 3-3 and Appendix Table A-12).[5] Two communities did not require LTCPs or alternative CSO control plans:

- Wauseon submitted an LTCP to the state of Ohio, although the city's NPDES permit did not require it.
- Willard achieved compliance with the CSO Control Policy without needing an LTCP.

[5] Luckey's NPDES permit required submission of a sewer separation plan as an alternative CSO control plan rather than an LTCP.

Fifty-one of the 52 communities required to submit LTCPs or alternative CSO control plans have done so; Elyria is the exception (Appendix Table A-12). With the exception of Bucyrus and Lakewood, all of the LTCPs or alternative CSO control plans that have been submitted have been approved.

Fifty-three of 54 communities had a requirement to develop a post-construction compliance monitoring plan (Appendix Table A-13). Willard was the exception. Ten communities have submitted post-construction compliance monitoring plans that have been approved.

Thirty-two Ohio communities reported CSO events in 2014 (five communities did not have complete available data on CSO events in 2014) (Appendix Table A-15). They ranged from a high of 107 CSO events in Lakewood to single events in Bowling Green and Paulding. Almost all reported CSO events were untreated. However, NEORSD reported 27 treated CSO events resulting in 435 MG of discharge, but had no available data on untreated CSO events. The total reported volume of CSO discharges in in Ohio in 2014 was approximately 3,200 MG of untreated combined sewage and 440 MG of treated combined sewage. Akron and Fremont reported the highest volume of untreated combined sewage, at over 800 MG each. This was more than double the next highest reported volume, which was approximately 300 MG by the City of Toledo.

3.9.4 Michigan

There are 46 communities discharging CSOs to the Great Lakes in Michigan (Figure 3-5 and Appendix Table A-16). They include 18 CSO communities in the Detroit Water and Sewerage Department (DWSD) service area, as well as medium-sized cities like Grand Rapids and Lansing. There are also much smaller communities, like Croswell and Crystal Falls, which have populations under 3,000 people. CSO communities in Michigan discharge to four out of the five Great Lakes: 27 to Lake Erie (including the Detroit area CSOs), six to Lake Huron, 11 to Lake Michigan (including Grand Rapids and Lansing), and two to Lake Superior. There are no CSOs discharging directly to the Great Lakes in Michigan; all CSOs discharge to a river, stream, or other water body leading to a Great Lake.

Figure 3-5. CSO Communities in the Great Lakes Basin in Michigan.

Michigan has approved LTCPs for all 46 communities discharging CSOs to the Great Lakes in the state (Appendix Table A-17). Twenty of these communities also have approved post-construction compliance monitoring plans. Twenty-six communities do not require post-construction compliance monitoring plans (Appendix Table A-18).

Thirty-two of the 46 communities reported CSO events in 2014 (Appendix Table A-20). The number of events per community ranged from one to 60 (treated plus untreated events). The largest CSO volumes are summarized in Table 3-15.

Table 3-15. Largest CSO Dischargers in Michigan by Volume, 2014

CSO Name	CSOs in 2014 (MG)	
	Treated	Untreated
Detroit WWTP	18,800	7,000
South Oakland County Sewerage Disposal System/George W. Kuhn CSO Retention Treatment Basin	2,500	0
Dearborn CSO	344	698

3.9.5 Indiana

There are 27 CSO communities in the Great Lakes Basin in Indiana (Figure 3-6 and Appendix Table A-21). Nine of these communities (primarily in the northeastern part of the state) have CSOs that discharge to a water body that eventually discharges to Lake Erie, while the remaining 18 (mostly in the northwestern part of the state) have CSOs that discharge to a water body that eventually discharges to Lake Michigan. Most of the communities are relatively small, with only Gary, South Bend, Hammond, and Fort Wayne having substantial populations. There are no CSOs discharging directly to the Great Lakes in Indiana; all CSOs discharge to a river, stream, or other water body leading to a Great Lake.

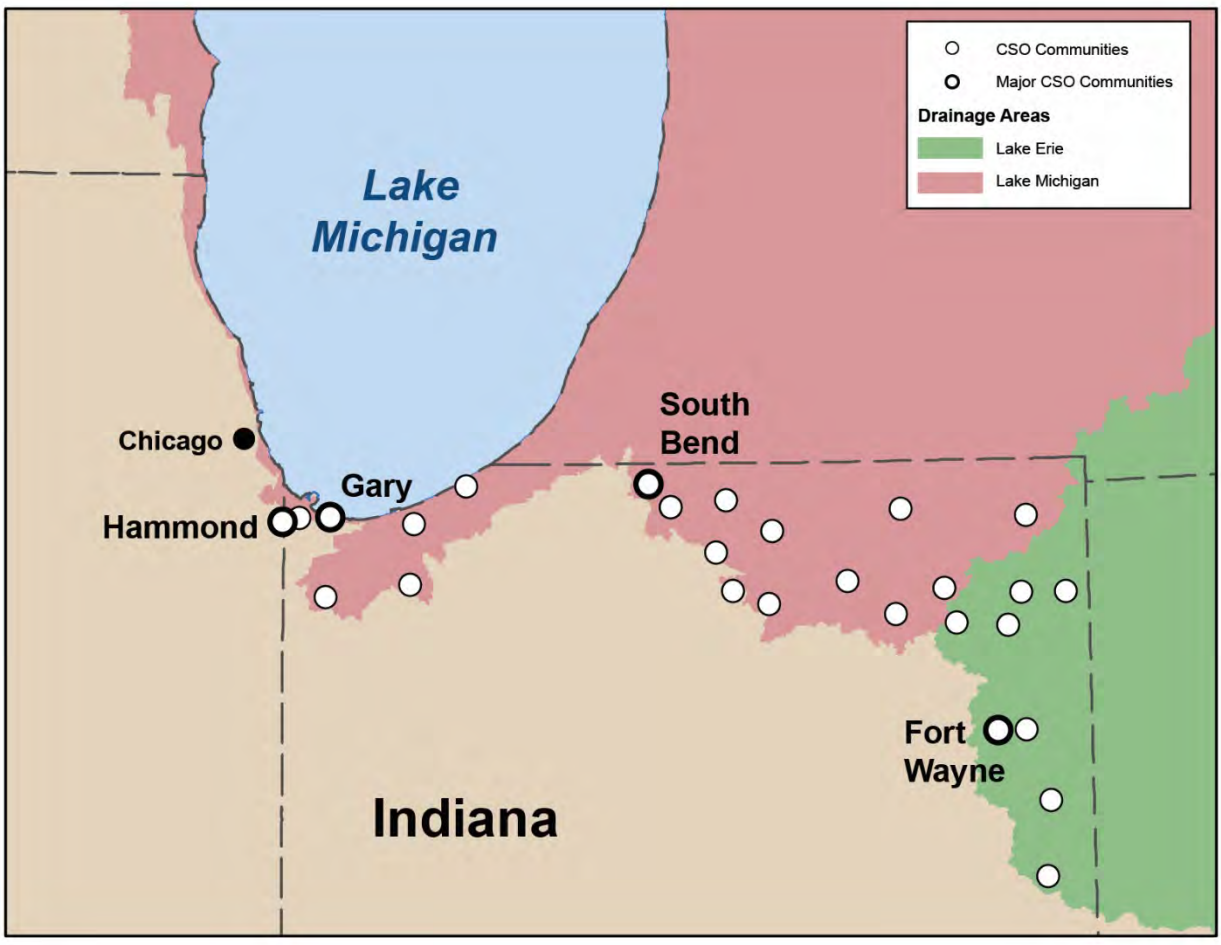

Figure 3-6. CSO Communities in the Great Lakes Basin in Indiana.

All 27 Indiana CSO communities in the Great Lakes Basin require LTCPs except Kendalville, which has completed an alternative control plan (Appendix Table A-22). All communities have submitted their LTCPs except for Gary, and all have had their plans accepted except for Gary and Hammond. A similar pattern occurs with post-construction compliance monitoring plans. All communities have submitted and had their plans approved except Gary and Hammond, which have yet to submit plans (Appendix Table A-23).

Indiana did not have data readily available on the number of CSO events in 2014 for a large majority of CSO communities (Appendix Table A-25). However, the state did have data available on CSO volume. All communities reported untreated CSO overflows in 2014 except the seven communities that had

completely separated their sewers, with untreated CSO volumes ranging from under 1 MG (in Angola, Auburn, Kendalville, and Ligonier) to over 1,000 MG (in Fort Wayne, Gary, and Hammond). Butler, Goshen, Valparaiso, and Waterloo also reported some treated CSO discharges, with volumes ranging from less than 1 MG to 14 MG.

3.9.6 Illinois

All CSO communities in the Great Lakes Basin in Illinois are in the Chicago metropolitan area (Figure 3-7 and Appendix Table A-26) and part of the TARP. TARP was approved as the LTCP for the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the City of Chicago, and 40 satellite communities. TARP provides a good example of an LTCP with CSO remedial control measures that, upon completion, are expected to address CSOs containing untreated sewage in Chicago area waterways that occur during flood and wet weather events. TARP is the subject of a Federal Judicial Consent Decree that was upheld in July 2015 by the Seventh Circuit Court of Appeals. Under the Consent Decree, MWRDGC will complete implementation of TARP to eliminate a substantial percentage of CSOs by December 31, 2029, that, upon completion, is estimated will cost more than $3 billion. This plan includes the construction of 109 miles of tunnels that will have a storage capacity of approximately 2.3 billion gallons and the completion of three reservoirs. The tunnel and reservoirs will have a combined capacity of approximately 17 billion gallons of sewage and flood water.

MWRDGC is required under the CSO Decree to implement a green infrastructure program. Under that program, where feasible, MWRDGC will prioritize green infrastructure projects where they (1) will help reduce flooding and basement backups; (2) can be readily accommodated as permanent stormwater control measures on vacant parcels that can be retrofitted into “stormwater parks” that would store and infiltrate or reuse rainfall and runoff, and be an amenity for local residents; and (3) can improve socioeconomic conditions in the MWRDGC service area where the need is greatest, specifically by improving conditions in areas impacted by environmental justice concerns.

Figure 3-7. CSO Communities in the Great Lakes Basin in Illinois.

Illinois reported 41 CSO events from TARP in 2014 (because TARP is an integrated system, this means that on 41 occasions in 2014, at least one of the CSO points in the TARP interceptors discharged combined sewage to the local waterway (Appendix Table A-30). However, only one of the events discharged to Lake Michigan; the other 40 discharged to Chicago-area rivers draining away from Lake Michigan. The one discharge event to Lake Michigan in 2014 resulted in a discharge of 525 MG of untreated CSO into the lake.

3.9.7 Wisconsin

Wisconsin has two CSO communities that discharge to the Great Lakes Basin (Appendix Table A-31). Milwaukee's Metropolitan Sewerage District (MMSD) discharges to Lake Michigan and the community of Superior discharges to Lake Superior (Figure 3-8). MMSD is a large system that serves 26 communities, including the City of Milwaukee; Superior is smaller. The MMSD permit includes discharges to waterbodies leading to Lake Michigan and two discharges into Milwaukee's Outer Harbor on Lake Michigan. Similarly, the City of Superior has direct discharges to Superior Bay and St. Louis Bay on Lake Superior, as well as to waterbodies leading to the lake.

Figure 3-8. CSO Communities in the Great Lakes Basin in Wisconsin.

Both MMSD and Superior have submitted required LTCPs (Appendix Table A-32). MMSD's LTCP was approved in 2007, while Superior's was approved in 2013. Both communities also have approved post-construction compliance monitoring plans (Appendix Table A-33). MMSD's plan was approved at the same time as its LTCP in 2007, while Superior's was approved in 2015.

MMSD reported one untreated CSO event in 2014, with an untreated CSO volume of 0.3 MG (Appendix Table A-35). Superior reported no CSO overflow events and no CSO overflow volume in 2014.

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References

EPA (U.S. Environmental Protection Agency). 1984. *National Municipal Policy on Publicly Owned Treatment Works*. U.S. Environmental Protection Agency, Washington, DC.

EPA (U.S. Environmental Protection Agency). 1994. *Combined Sewer Overflow (CSO) Control Policy*. EPA 830-94-001. U.S. Environmental Protection Agency, Office of Water, Washington, DC. Accessed September 2015. https://www.epa.gov/npdes/npdes-cso-control-policy.

EPA (U.S. Environmental Protection Agency). 2001a. *Guidance: Coordinating Combined Sewer Overflow (CSO) Long-Term Planning with Water Quality Standards Reviews*. EPA 833-R-01-002. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

EPA (U.S. Environmental Protection Agency). 2001b. *Report to Congress—Implementation and Enforcement of the Combined Sewer Overflow Control Policy*. EPA 833-R-01-003. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

EPA (U.S. Environmental Protection Agency). 2004. *Report to Congress—Impacts and Control of CSOs and SSOs*. EPA 833-R-04-001. U.S. Environmental Protection Agency, Office of Water, Washington, DC. Accessed September 2015. https://www.epa.gov/npdes/2004-npdes-cso-report-congress.

EPA (U.S. Environmental Protection Agency). 2007. *Report to Congress—Combined Sewer Overflows to the Lake Michigan Basin*. EPA-833-R-07-007. U.S. Environmental Protection Agency, Office of Water, Washington, DC. Accessed September 2015. https://www.epa.gov/npdes/2007-report-congress-combined-sewer-overflows-csos-lake-michigan-basin.

EPA (U.S. Environmental Protection Agency). 2015a. Great Lakes website. Accessed September 2015. http://epa.gov/greatlakes/.

EPA (U.S. Environmental Protection Agency). 2015b. Great Lakes Areas of Concern (AOCs) On-line. Accessed September 2015. https://www.epa.gov/great-lakes-aocs.

MAG (Management Advisory Group). 1992. *Recommendations from the Management Advisory Group to the Assistant Administrator for Water Concerning EPA's Proposed Expedited Combined Sewer Overflow Plan*. U.S. Environmental Protection Agency, Washington, DC.

MAG (Management Advisory Group). 1993. *Combined Sewer Overflow Work Group Policy Dialogue Final Report*. U.S. Environmental Protection Agency, Washington, DC.

Moffa, P., ed. 1997. *The Control and Treatment of Combined Sewer Overflows*, Second Edition. Van Nostrand Reinhold, New York, NY.

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Appendix

Table A- 1. New York CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes? (Y/N/NA)	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
2	Gouverneur STP	NY0020117	St. Lawrence Seaway	N	Oswegatchie River	NDA	4,600	3.67
2	Watertown WPCP	NY0025984	Lake Ontario	N	Black River	35,000	48,000	8
2	Clayton Village WTF	NY0027545	St. Lawrence Seaway	N	St. Lawrence River	2,100	2,100	1.1
2	Ogdensburg WWTP	NY0029831	St. Lawrence Seaway	N	St. Lawrence River	11,128	12,500	6.5
2	Massena WWTP	NY0031194	St. Lawrence Seaway	N	Grasse and Raquette Rivers	10,813	12,000	4.8
2	Oswego-West Side STP	NY0029106	Lake Ontario	N	Oswego River	10,000	16,350	4
2	City of Oswego, East Side STP	NY0029114	Lake Ontario	N	Oswego River	8,000	9,400	5.35
2	Medina WWTP	NY0021873	Lake Ontario	N	Barge Canal and Oak Orchard Creek	6,650	6,500	10
2	Frank E. VanLare STP (Rochester)	NY0028339	Lake Ontario	N	Genesee River and Irondequoit Bay	462,224	462,224	400
2	Niagara Falls WWTP	NY0026336	Lake Ontario	N	Niagara River	49,722	61,840	48
2	Lockport WWTP	NY0027057	Lake Ontario	N	Barge Canal and Eighteenmile Creek	21,000	26,000	22
2	Dunkirk WWTP	NY0027961	Lake Erie	Y	Lake Erie	13,200	15,000	6
2	Buffalo Sewer Authority	NY0028410	Lake Erie	N	Niagara River, Buffalo River, Scajaquada Creek, Black Rock Canal, and Cazenovia Creek	258,310	600,000	180

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available

Table A- 2. New York LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					Submitted (Y/N)	Approved (Y/N)	Approval Date	Projected Date for Full Implementation	Milestones
Gouverneur STP	NY0020117	Y	N/A	NDA	Y	Y	NDA	NDA	Approved by NYSDEC on Sept. 9, 2015
Watertown WPCP	NY0025984	Y	Y	SS	Y	Y	04/29/2011	12/1/2017	Reconstruction and separation of sewers
Clayton Village WTF	NY0027545	Y	Y	Other	Y	Y	11/19/2012	2023	Removal of excessive I/I; diversion of flow away from the Riverside Pump Station; increase capacity to the existing pump stations
Ogdensburg WWTP	NY0029831	Y	Y	SS	Y	Y	07/26/2012	2023	Sewer separation along Paterson Street, green infrastructure projects, optimization of capture rate through weir modifications, hydraulic improvements, and installation of an 800,000 gallon storage including sewer separation along Paterson Street, green infrastructure projects, optimization of capture rate through weir modifications, hydraulic improvements, and installation of an 800,000 gallon storage facility for CSOs 001 and 002
Massena WWTP	NY0031194	Y	Y	Other	Y	Y	02/03/2009	NDA	Sewer extension
Oswego-West Side STP	NY0029106	Y	N	Other	Y	Y	03/09/2010	2016	Continuation to maintain the existing Excess Flow Management Facility (EFMF), disinfection, inline storage, and O best management practices.
City of Oswego, East Side STP	NY0029114	Y	N	Other	Y	Y	01/26/2006	5/16/2015	Increase in capacity at the existing storage tank; pump station upgrade; and increase in headworks capacity.
Medina WWTP	NY0021873	Y	Y	Other	Y	Y	08/14/2007	8/7/2015	Continue with the current best management practices and reduce CSO discharges
Frank E. VanLare STP (Rochester)	NY0028339	Y	Y	Other	Y	Y	NDA	NDA	CSO storage/conveyance tunnel system
Niagara Falls WWTP	NY0026336	Y	N	Other	Y	Y	04/21/2008	12/1/2009	Continuation of CSO BMP implementations especially weir adjustment at Gorge pump station, and Garfield; elimination of Bath and Walnut outfalls.
Lockport WWTP	NY0027057	Y	N	Other	Y	Y	03/12/2012	2012	CSO BMPs, sewer improvements including sewer separation, overflow weir modification, and sewer replacement
Dunkirk WWTP	NY0027961	Y	Y	Other	Y	Y	04/19/2007	5/1/2008	WWTP upgrade
Buffalo Sewer Authority	NY0028410	Y	N	Other	Y	Y	01/01/2014	3/1/2034	Proposed controls include weir modifications, real time controls, green infrastructure, storage, treatment upgrades

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available; SS = Sewer Separation

Table A- 3. New York Post Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post- Construction Compliance Monitoring Plan Submitted (Y/N)	Post- Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Gouverneur STP	NY0020117	N	N	N	N/A
Watertown WPCP	NY0025984	Y	Y	Y	NDA
Clayton Village WTF	NY0027545	Y	N	N	NDA
Ogdensburg WWTP	NY0029831	Y	N	N	NDA
Massena WWTP	NY0031194	Y	Y	Y	1/28/2011
Oswego-West Side STP	NY0029106	Y	Y	Y	9/24/2012
City of Oswego, East Side STP	NY0029114	Y	Y	N	NDA
Medina WWTP	NY0021873	N	N	N	NDA
Frank E. VanLare STP (Rochester)	NY0028339	N	N	N	NDA
Niagara Falls WWTP	NY0026336	Y	Y	Y	3/11/2013
Lockport WWTP	NY0027057	Y	Y	Y	5/26/2011
Dunkirk WWTP	NY0027961	Y	Y	Y	NDA
Buffalo Sewer Authority	NY0028410	Y	Y	N	NDA

Key: Y = Yes; N = No; NDA = No Data Available

Table A- 4. New York Pre and Post Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Gouverneur STP	NY0020117	0	6	NDA	NDA	NDA	NDA	NDA	NDA
Watertown WPCP	NY0025984	0	30+	NDA	61	NDA	NDA	NDA	NDA
Clayton Village WTF	NY0027545	NDA	30	NDA	NDA	NDA	19	NDA	NDA
Ogdensburg WWTP	NY0029831	NDA	50	NDA	NDA	NDA	16	NDA	NDA
Massena WWTP	NY0031194	NDA	35	NDA	38	NDA	6	NDA	NDA
Oswego-West Side STP	NY0029106	NDA	60	NDA	80	NDA	15	NDA	NDA
City of Oswego, East Side STP	NY0029114	NDA	10	NDA	8	NDA	3	NDA	NDA
Medina WWTP	NY0021873	NDA	1	NDA	0	NDA	0	NDA	NDA
Frank E. VanLare STP (Rochester)	NY0028339	NDA	8	NDA	232	NDA	7	NDA	NDA
Niagara Falls WWTP	NY0026336	NDA	39	NDA	282	NDA	43	NDA	NDA
Lockport WWTP	NY0027057	NDA	20	NDA	40	NDA	10	NDA	NDA
Dunkirk WWTP	NY0027961	NDA	23	NDA	27	NDA	23	1870	NDA
Buffalo Sewer Authority	NY0028410	NDA	296	NDA	1,749	NDA	0-9 each location	NDA	504

Key: NDA = No Data Available

Table A- 5. New York 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
Gouverneur STP	NY0020117	NDA	2	NDA	0.2
Watertown WPCP	NY0025984	NDA	18	NDA	76
Clayton Village WTF	NY0027545	NDA	19	NDA	NDA
Ogdensburg WWTP	NY0029831	NDA	11	NDA	NM
Massena WWTP	NY0031194	NDA	4	NDA	27.28
Oswego-West Side STP	NY0029106	NDA	4	NDA	4.14
City of Oswego, East Side STP	NY0029114	NDA	16	NDA	44.6
Medina WWTP	NY0021873	NDA	0	NDA	0
Frank E. VanLare STP (Rochester)	NY0028339	NDA	NDA	NDA	NDA
Niagara Falls WWTP	NY0026336	NDA	NDA	NDA	NDA
Lockport WWTP	NY0027057	NDA	NDA	NDA	NDA
Dunkirk WWTP	NY0027961	NDA	6	NDA	30
Buffalo Sewer Authority	NY0028410	NDA	296	NDA	1616.2

Key: NDA = No Data Available; NM = Not Measured

Table A- 6. Pennsylvania CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water- body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
3	The City of Erie	PA0026301	Lake Erie	Y	Lake Erie	NDA	200,000	68.6

Key: Y = Yes; NDA = No Data Available

Table A- 7. Pennsylvania LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					Submitted (Y/N)	Approved (Y/N)	Approval Date	Projected Date for Full Implementation	Milestones
The City of Erie	PA0026301	Y	NDA	NDA	Y	Y	10/1/2001	NDA	NDA

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available

Table A- 8. Pennsylvania Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
The City of Erie	PA0026301	NDA	NDA	NDA	NDA

Key: NDA = No Data Available

Table A- 9. Pennsylvania Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
The City of Erie	PA0026301	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA

Key: NDA = No Data Available

Table A- 10. Pennsylvania 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Notes
		Treated	Untreated	Treated	Untreated	
The City of Erie	PA0026301	NDA	7	NDA	0.1202	The City of Erie used the presumption approach in its LTCP (with an 85% capture WQBEL); however, the City has documented as of its 2014 Annual Report that it is capturing >99% of its CSO volume

Key: NDA = No Data Available

Table A- 11. Ohio CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	Avon Lake	OH0023981	Lake Erie	Y	Lake Erie	NDA	27000	6.5
5	Bluffton	OH0020851	Lake Erie	N	Riley Creek	NDA	3896	1.9
5	Bowling Green	OH0024139	Lake Erie	N	Poe Ditch	NDA	32000	10
5	Columbus Grove	OH0024759	Lake Erie	N	Plum Creek	NDA	2137	0.82
5	Crestline	OH0020664	Lake Erie	N	Westerly Creek	NDA	5088	0.95
5	Defiance	OH0024889	Lake Erie	N	Maumee River	NDA	18972	6
5	Delphos	OH0024929	Lake Erie	N	Jennings Creek	NDA	7101	3.83
5	Delta	OH0020974	Lake Erie	N	Bad Creek	NDA	3100	0.725
5	Deshler	OH0022471	Lake Erie	N	Brush Creek	NDA	1799	0.57
5	Dunkirk	OH0048321	Lake Erie	N	Shallow Run Ditch	NDA	680	0.137
5	Elyria	OH0025003	Lake Erie	N	Black River	NDA	56000	13
5	Fayette	OH0025127	Lake Erie	N	Unnamed stream to Deer Creek	NDA	1500	0.26
5	Findlay	OH0025135	Lake Erie	N	Blanchard River	NDA	45002	15
5	Forest	OH0025151	Lake Erie	N	Forest Simpson Ditch to Blanchard River	NDA	1488	0.2
5	Fremont	OH0025291	Lake Erie	N	Sandusky River	NDA	25384	7.6
5	Gibsonburg	OH0029122	Lake Erie	N	Hurlbut & SR 300 Ditch (to Portage River)	NDA	2510	0.5
5	Green Springs	OH0022578	Lake Erie	N	Flag Run Creek	NDA	1368	0*
5	Greenwich	OH0020486	Lake Erie	N	SW Branch of Vermillion River	NDA	1482	0.2
5	Hamler	OH0021105	Lake Erie	N	South Turkey Foot Creek	NDA	580	0.113
5	Hicksville	OH0025771	Lake Erie	N	Mill Creek	NDA	3581	2.25
5	Leipsic	OH0020826	Lake Erie	N	Little Yellow Creek	NDA	2285	1.5
5	Luckey	OH0058971	Lake Erie	N	Toussiant Creek	NDA	1020	0.1
5	McComb	OH0026263	Lake Erie	N	Algire Creek	NDA	1648	0.388
5	Metamora	OH0058408	Lake Erie	N	Ten Mile Creek	NDA	650	0.2
5	Monroeville	OH0020095	Lake Erie	N	West Branch Huron River	NDA	1400	0.3
5	Montpelier	OH0021831	Lake Erie	N	St. Joseph River	NDA	4600	1
5	Napoleon	OH0020893	Lake Erie	N	Maumee River	NDA	8749	2.5
5	North Baltimore	OH0020117	Lake Erie	N	Rocky Ford Creek	NDA	3361	0.8
5	Norwalk	OH0052604	Lake Erie	N	Rattlesnake Creek	NDA	16931	3.5
5	Oak Harbor	OH0026841	Lake Erie	N	Portage River	NDA	4080	0.93

Table A- 11. Ohio CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	Ohio City	OH0023396	Lake Erie	N	Long Prairie Creek	NDA	700	0.015
5	Pandora	OH0021148	Lake Erie	N	Riley Creek	NDA	1153	0.15
5	Paulding	OH0020338	Lake Erie	N	Flat Rock Creek	NDA	3595	0.75
5	Payne	OH0021326	Lake Erie	N	Flat Rock Creek	NDA	1152	0.27
5	Perrysburg	OH0021008	Lake Erie	N	Maumee River	NDA	28436	5.4
5	Sandusky	OH0027332	Lake Erie	N	Sandusky Bay	NDA	44800	15.7
5	Swanton	OH0020524	Lake Erie	N	Al Creek	NDA	3307	0.92
5	Tiffin	OH0052949	Lake Erie	N	Sandusky River	NDA	19000	4
5	Upper Sandusky	OH0020001	Lake Erie	N	Sandusky River	NDA	6800	2
5	VanWert	OH0027910	Lake Erie	N	Town Creek	NDA	10600	4
5	Wapakoneta	OH0027952	Lake Erie	N	Auglaize River	NDA	10634	4
5	Wauseon	OH0023400	Lake Erie	N	North Turkeyfoot Creek	NDA	7091	1.5
5	Willard	OH0028118	Lake Erie	N	Jacobs Creek	NDA	6290	4.5
5	Woodville	OH0020591	Lake Erie	N	Portage River	NDA	2135	0.3
5	Akron	OH0023833	Lake Erie	N	Cuyahoga River	NDA	299577	110
5	Bucyrus	OH0052922	Lake Erie	N	Sandusky River	NDA	13500	3.4
5	Clyde	OH0024868	Lake Erie	N	Raccoon Creek	NDA	8222	1.9
5	Euclid	OH0031062	Lake Erie	Y	Lake Erie	NDA	86387	22
5	Fostoria	OH0025364	Lake Erie	N	Portage River, East Branch	NDA	19894	12.7
5	Lakewood	OH0026018	Lake Erie	Y	Lake Erie	NDA	52551	18
5	Lima	OH0026069	Lake Erie	N	Ottawa River	NDA	47000	18.5
5	NEORSD	OH0043991	Lake Erie	Y	Lake Erie	NDA	1085439	365 (Easterly - 155; Southerly - 175; Westerly - 35)
5	Port Clinton	OH0052876	Lake Erie	N	Portage River	NDA	7211	2
5	Toledo	OH0027740	Lake Erie	N	Maumee River	NDA	322446	130

Key: Y = Yes; N = No; NDA = No Data Available

Table A- 12. Ohio LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					Submitted (Y/N)	Approved (Y/N)	Approval Date	Projected Date for Full Implementation	Milestones
Avon Lake	OH0023981	Y	N	SS	Y	Y	12/17/2004	2019	Phase 3 of separation by 2019
Bluffton	OH0020851	Y	N	NDA	Y	Y	1/16/1996	2007	NDA
Bowling Green	OH0024139	Y	N	NDA	Y	Y	3/1/2008	2009	NDA
Columbus Grove	OH0024759	Y	N	SS	Y	Y	6/17/2008	2018	Phase 3 separation by 2016; Phase 4 (full) separation by 2018
Crestline	OH0020664	Y	Y	Other	Y	Y	7/31/2005	2020	Phase 4 separation by 2015; Stage 2 Improvement Plan due 2018
Defiance	OH0024889	Y	Y	SS	Y	Y	Not known	2026	Annual phases of separation until full separation in 2026
Delphos	OH0024929	Y	Y	NDA	Y	Y	12/16/2004	TBD	Submit addendum for further controls by June 2015
Delta	OH0020974	Y	N	NDA	Y	Y	10/9/2013	2016	Plant improvements and 5 MG EQ basin by 2016
Deshler	OH0022471	Y	N	NDA	Y	Y	2/9/1994	2013	NDA
Dunkirk	OH0048321	Y	Y	SS	Y	Y	3/8/2006	2016	NDA
Elyria	OH0025003	Y	N	NDA	N	N	N/A	TBD	NDA
Fayette	OH0025127	Y	N	SS	Y	Y	5/1/2010	2015	Separation by 2015
Findlay	OH0025135	Y	N	NDA	Y	Y	1998	2000	NDA
Forest	OH0025151	Y	N	NDA	Y	Y	2/24/1997	2010	NDA
Fremont	OH0025291	Y	N	NDA	Y	Y	4/8/2010	2028	Plant improvements by 2015; HRT by 2022
Gibsonburg	OH0029122	Y	N	NDA	Y	Y	2/8/2007	TBD	EQ basin improvements in 2015; remaining schedule under review
Green Springs	OH0022578	Y	N	NDA	Y	Y	1/16/2008	2019	Supplemental sewer separation and I/I removal by 2019
Greenwich	OH0020486	Y	N	NDA	Y	Y	7/10/2008	2025	Evaluation of Phase I improvements in 2017
Hamler	OH0021105	Y	N	NDA	Y	Y	5/18/1998	2006	NDA
Hicksville	OH0025771	Y	N	NDA	Y	Y	6/19/2009	TBD	TBD
Leipsic	OH0020826	Y	N	NDA	Y	Y	9/19/2005	2009	NDA
Luckey	OH0058971	N	Y	SS	Y	Y	2/24/1997	2008	NDA
McComb	OH0026263	Y	N	NDA	Y	Y	1/2/2006	2018	Elimination of bypass by 2018
Metamora	OH0058408	Y	N	NDA	Y	Y	12/31/1998	2007	NDA
Monroeville	OH0020095	Y	N	SS	Y	Y	9/10/2010	2021	1st phase of separation by 2017; total separation by 2021
Montpelier	OH0021831	Y	N	SS	Y	Y	12/8/2006	2026	Phase 4 separation by 2019; Phase 5 by 2023; total separation by 2026

Table A- 12. Ohio LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					Submitted (Y/N)	Approved (Y/N)	Approval Date	Projected Date for Full Implementation	Milestones
Napoleon	OH0020893	Y	N	NDA	Y	Y	3/30/2007	2025	I/I reduction & sewer improvements by 2025
North Baltimore	OH0020117	Y	N	SS	Y	Y	2/27/2003	2017	Total separation by 2017
Norwalk	OH0052604	Y	N	NDA	Y	Y	1/2/2006	2027	Eliminate Pleasant St CSO by 2017; Washington St CSO reduction by 2022; Cline St CSO reduction by 2027
Oak Harbor	OH0026841	Y	N	NDA	Y	Y	6/7/2004	2009	NDA
Ohio City	OH0023396	Y	N	NDA	Y	Y	4/10/1996	2017	Stress testing and PCCM by 2017
Pandora	OH0021148	Y	N	NDA	Y	Y	5/17/1994	2012	PCCM results due in 2017
Paulding	OH0020338	Y	N	SS	Y	Y	12/12/2003	2018	Total separation by 2018
Payne	OH0021326	Y	N	NDA	Y	Y	11/1/2007	2012	NDA
Perrysburg	OH0021008	Y	N	SS	Y	Y	2/24/1997	2017	Total separation by 2017
Sandusky	OH0027332	Y	N	NDA	Y	Y	11/26/1997	TBD	Future controls and schedule being negotiated
Swanton	OH0020524	Y	N	SS	Y	Y	2/4/2011	2026	Phased separation; total separation by 2026
Tiffin	OH0052949	Y	N	NDA	Y	Y	11/1/2008	2026	Revised LTCP due 12/31/15
Upper Sandusky	OH0020001	Y	N	NDA	Y	Y	Not known	TBD	Separation of 3 project areas by 2016; new LTCP by 2016; WWTP improvements or replacement by 2020
VanWert	OH0027910	Y	N	NDA	Y	Y	6/30/2011	2021	Plans for EQ basin or other improvements by 2017
Wapakoneta	OH0027952	Y	N	NDA	Y	Y	5/28/2010	2021	Phase 1 improvements by 2015 (new interceptor, wet weather pump station, & storage basin); Phase 2 by 2017; Phase 3 by 2019; Phase 4 by 2021
Wauseon	OH0023400	Y	N	NDA	Y	Y	2/24/1997	2013	N/A
Willard	OH0028118	N	N	NDA	N	N	N/A	2000*	N/A
Woodville	OH0020591	Y	N	NDA	Y	Y	8/24/2007	2017	PCCM results due in 2015
Akron	OH0023833	Y	N	NDA	Y	Y	4/11/2012	2028	Ohio Canal storage tunnel by 2018; HRT at WWTP by 2019; Storage basins eliminating 9 CSOs by 2022; Northside Interceptor tunnel eliminating 4 CSOs by 2026; HRT for Ohio Canal tunnel by 2027
Bucyrus	OH0052922	Y	N	NDA	Y	N	N/A	TBD	N/A
Clyde	OH0024868	Y	N	NDA	Y	Y	2/1/2008	2015	Construction of EQ Basin by 12/30/15

Table A- 12. Ohio LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					Submitted (Y/N)	Approved (Y/N)	Approval Date	Projected Date for Full Implementation	Milestones
Euclid	OH0031062	Y	N	NDA	Y	Y	1/8/2013	2025	EQ basins for CSOs 06 & 09 by 2020; EQ basins for CSOs 07 & 12 by 2021; EQ basin for CSO 08 by 2024; EQ basin for CSO 12 by 2025
Fostoria	OH0025364	Y	N	NDA	Y	Y	7/5/2013	2029	Mitigate river intrusion by 2016; elimination of CSO 5 by 2019; Phase 2 WWTP upgrades by 2025; elimination of CSOs 2 and 3 by 2029
Lakewood	OH0026018	Y	N	NDA	Y	N	N/A	TBD	N/A
Lima	OH0026069	Y	N	NDA	Y	Y	1/13/2015	2038	Separation of 12 CSOs by 2017; WWTP upgrades by 2018; CSO storage basin by 2024; SSO controls by 2038
NEORSD	OH0043991	Y	N	NDA	Y	Y	6/30/2011	2034	Increase Easterly capacity by 2016; eventual HRT at all WWTPs; multiple storage tunnels by 2027
Port Clinton	OH0052876	Y	N	NDA	Y	Y	12/21/2000	2010	N/A
Toledo	OH0027740	Y	N	NDA	Y	Y	6/5/2009	2020	1.6 MG basin by 2017; 25.1 MG storage basin by 2018; additional conveyance & storage by 2020

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available; SS = Sewer Separation; TBD = To Be Determined

Table A- 13. Ohio Post-Construction Compliance Monitoring Program Status					
Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Avon Lake	OH0023981	Y	NDA	NDA	NDA
Bluffton	OH0020851	Y	NDA	NDA	NDA
Bowling Green	OH0024139	Y	Y	Y	NDA
Columbus Grove	OH0024759	Y	NDA	NDA	NDA
Crestline	OH0020664	Y	NDA	NDA	NDA
Defiance	OH0024889	Y	Y	Y	2010
Delphos	OH0024929	Y	Y	Y	NDA
Delta	OH0020974	Y	Y	Y	10/9/2013
Deshler	OH0022471	Y	Y	Y	NDA
Dunkirk	OH0048321	Y	NDA	NDA	NDA
Elyria	OH0025003	Y	N	N	N/A
Fayette	OH0025127	Y	Y	Y	Not known
Findlay	OH0025135	Y	Y	Y	12/15/2014
Forest	OH0025151	Y	NDA	NDA	Not known
Fremont	OH0025291	Y	Y	Y	4/8/2010
Gibsonburg	OH0029122	Y	NDA	NDA	NDA
Green Springs[1]	OH0022578	Y	NDA	NDA	NDA
Greenwich	OH0020486	Y	Y	Y	7/10/2008
Hamler	OH0021105	Y	NDA	NDA	NDA
Hicksville[2]	OH0025771	Y	NDA	NDA	NDA
Leipsic	OH0020826	Y	Y	Y	5/6/2014
Luckey[3]	OH0058971	Y	NDA	NDA	NDA
McComb	OH0026263	Y	NDA	NDA	NDA
Metamora	OH0058408	Y	NDA	NDA	NDA
Monroeville	OH0020095	Y	NDA	NDA	NDA
Montpelier	OH0021831	Y	NDA	NDA	NDA
Napoleon	OH0020893	Y	NDA	NDA	NDA
North Baltimore	OH0020117	Y	NDA	NDA	NDA
Norwalk	OH0052604	Y	NDA	NDA	NDA
Oak Harbor	OH0026841	Y	NDA	NDA	NDA
Ohio City	OH0023396	Y	NDA	NDA	NDA
Pandora	OH0021148	Y	NDA	NDA	NDA
Paulding	OH0020338	Y	NDA	NDA	NDA
Payne	OH0021326	Y	NDA	NDA	NDA

Table A- 13. Ohio Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Perrysburg	OH0021008	Y	NDA	NDA	NDA
Sandusky	OH0027332	Y	NDA	NDA	NDA
Swanton	OH0020524	Y	NDA	NDA	NDA
Tiffin	OH0052949	Y	NDA	NDA	NDA
Upper Sandusky	OH0020001	Y	NDA	NDA	NDA
VanWert	OH0027910	Y	NDA	NDA	NDA
Wapakoneta	OH0027952	Y	NDA	NDA	NDA
Wauseon[4]	OH0023400	Y	NDA	NDA	NDA
Willard[5]	OH0028118	N	NDA	NDA	NDA
Woodville	OH0020591	Y	NDA	NDA	NDA
Akron	OH0023833	Y	NDA	NDA	NDA
Bucyrus	OH0052922	Y	NDA	NDA	NDA
Clyde	OH0024868	Y	NDA	NDA	NDA
Euclid	OH0031062	Y	NDA	NDA	NDA
Fostoria	OH0025364	Y	NDA	NDA	NDA
Lakewood	OH0026018	Y	NDA	NDA	NDA
Lima	OH0026069	Y	NDA	NDA	NDA
NEORSD	OH0043991	Y	NDA	NDA	NDA
Port Clinton	OH0052876	Y	NDA	NDA	NDA
Toledo	OH0027740	Y	NDA	NDA	NDA

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available

[1] Old WWTP operates as EQ basin; Green Springs flow connected to Clyde's system

[2] LTCP Addendum II under review

[3] Permit required submission of Sewer Separation plan rather than LTCP

[4] LTCP submitted with no requirements in permit to do so

[5] Achieved compliance with CSO Policy without need for LTCP

Table A- 14. Ohio Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Avon Lake	OH0023981	NDA	NDA	NDA	153.6	0	0	0	0
Bluffton	OH0020851	NDA	NDA	NDA	NDA	0	0	0	0
Bowling Green	OH0024139	NDA	NDA	NDA	NDA	0	4	0	NDA
Columbus Grove	OH0024759	NDA	NDA	NDA	NDA	0	0	0	0
Crestline	OH0020664	NDA	NDA	NDA	NDA	0	0	0	0
Defiance	OH0024889	NDA	NDA	NDA	NDA	0	0	0	0
Delphos	OH0024929	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Delta	OH0020974	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Deshler	OH0022471	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Dunkirk	OH0048321	NDA	NDA	NDA	NDA	0	0	0	0
Elyria	OH0025003	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
Fayette	OH0025127	NDA	NDA	NDA	NDA	0	0	0	0
Findlay	OH0025135	NDA	NDA	NDA	NDA	0	4	0	NDA
Forest	OH0025151	NDA	NDA	NDA	NDA	0	0	0	0
Fremont	OH0025291	0	36	0	969	0	4	NDA	NDA
Gibsonburg	OH0029122	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Green Springs	OH0022578	NDA	NDA	NDA	NDA	0	0	0	0
Greenwich	OH0020486	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Hamler	OH0021105	NDA	NDA	NDA	NDA	0	0	0	0
Hicksville	OH0025771	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
Leipsic	OH0020826	NDA	NDA	NDA	NDA	0	0	0	0
Luckey	OH0058971	NDA	NDA	NDA	NDA	0	0	0	0
McComb	OH0026263	NDA	NDA	NDA	NDA	0	0	0	0
Metamora	OH0058408	NDA	NDA	NDA	NDA	0	0	0	0
Monroeville	OH0020095	NDA	NDA	NDA	NDA	0	0	0	0
Montpelier	OH0021831	NDA	NDA	NDA	NDA	0	0	0	0
Napoleon	OH0020893	NDA	NDA	NDA	NDA	0	4	NDA	NDA
North Baltimore	OH0020117	NDA	NDA	NDA	NDA	0	0	0	0
Norwalk	OH0052604	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Oak Harbor	OH0026841	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Ohio City	OH0023396	NDA	NDA	NDA	NDA	0	0	0	0

Table A- 14. Ohio Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Pandora	OH0021148	NDA	NDA	NDA	NDA	0	0	0	0
Paulding	OH0020338	NDA	NDR	NDR	NDR	0	0	0	0
Payne	OH0021326	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Perrysburg	OH0021008	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Sandusky	OH0027332	0	35	0	190.58	NDA	NDA	NDA	NDA
Swanton	OH0020524	0	29	0	2.65	0	0	0	0
Tiffin	OH0052949	0	37	0	195.42	0	4	NDA	NDA
Upper Sandusky	OH0020001	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
VanWert	OH0027910	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Wapakoneta	OH0027952	0	64	0	45	0	4	0	5
Wauseon	OH0023400	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Willard	OH0028118	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Woodville	OH0020591	NDA	NDA	NDA	NDA	0	0	0	0
Akron	OH0023833	NDA	NDA	NDA	NDA	7	2	188	7.4
Bucyrus	OH0052922	NDA	NDA	NDA	NDA	NDR	NDR	NDA	NDA
Clyde	OH0024868	0	23	0	12.57	0	3	NDA	NDA
Euclid	OH0031062	0	55	0	NDA	0	4	NDA	NDA
Fostoria	OH0025364	NDA	NDA	NDA	NDA	0	5	NDA	NDA
Lakewood	OH0026018	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
Lima	OH0026069	0	43	0	491.2	0	5	NDA	NDA
NEORSD	OH0043991	NDA	NDA	0	4500	0	4	NDA	454
Port Clinton	OH0052876	NDA	NDA	NDA	NDA	0	4	NDA	NDA
Toledo	OH0027740	0	34	0	624	3	4	120	69

Key: NDA = No Data Available; NDR = No Data Reported

Table A- 15. Ohio 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)		Notes
		Treated	Untreated	Treated	Untreated	
Avon Lake	OH0023981	0	20	0	NDA	
Bluffton	OH0020851	0	0	0	0	
Bowling Green	OH0024139	0	1	0	1.99	
Columbus Grove	OH0024759	0	0	0	0	
Crestline	OH0020664	0	22	0	NDA	
Defiance	OH0024889	0	92	0	180.8	
Delphos	OH0024929	0	23	0	98.25	
Delta	OH0020974	0	6	0	3.24	
Deshler	OH0022471	0	5	0	11.25	
Dunkirk	OH0048321	0	0	0	0	
Elyria	OH0025003	0	NDA	0	NDA	
Fayette	OH0025127	0	0	0	0	
Findlay	OH0025135	0	2	0	7.5	
Forest	OH0025151	0	0	0	0	
Fremont	OH0025291	0	26	0	862.56	
Gibsonburg	OH0029122	0	6	0	76.64	
Green Springs	OH0022578	0	0	0	0	Old WWTP operates as EQ basin; Green Springs flow connected to Clyde's system
Greenwich	OH0020486	0	48	0	4.61	
Hamler	OH0021105	0	0	0	0	
Hicksville	OH0025771	0	4	0	5.75	LTCP Addendum II under review
Leipsic	OH0020826	0	0	0	0	
Luckey	OH0058971	0	0	0	0	Permit required submission of Sewer Separation plan rather than LTCP
McComb	OH0026263	0	0	0	0	
Metamora	OH0058408	0	0	0	0	
Monroeville	OH0020095	0	0	0	0	
Montpelier	OH0021831	0	0	0	0	
Napoleon	OH0020893	0	7	0	0.78	
North Baltimore	OH0020117	0	16	0	9.68	
Norwalk	OH0052604	0	6	0	2.49	
Oak Harbor	OH0026841	0	NDA	0	NDA	
Ohio City	OH0023396	0	0	0	0	
Pandora	OH0021148	0	0	0	0	
Paulding	OH0020338	0	1	0	0.05	

Table A- 15. Ohio 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)		Notes
		Treated	Untreated	Treated	Untreated	
Payne	OH0021326	0	0	0	0	
Perrysburg	OH0021008	0	12	0	82.78	
Sandusky	OH0027332	0	20	0	73.61	
Swanton	OH0020524	0	14	0	0.535	
Tiffin	OH0052949	0	NDA	0	NDR	
Upper Sandusky	OH0020001	0	45	0	34.51	
VanWert	OH0027910	0	13	0	26.09	
Wapakoneta	OH0027952	0	10	0	19.4	
Wauseon	OH0023400	0	5	0	5.68	LTCP submitted with no requirements in permit to do so
Willard	OH0028118	0	0	0	0	Achieved compliance with CSO Policy without need for LTCP
Woodville	OH0020591	0	0	0	0	
Akron	OH0023833	0	80	0	878.25	
Bucyrus	OH0052922	0	NDA	0	NDA	
Clyde	OH0024868	0	5	0	1.46	
Euclid	OH0031062	0	58	0	71.56	
Fostoria	OH0025364	0	56	0	169.14	
Lakewood	OH0026018	0	107	0	210.73	
Lima	OH0026069	0	69	0	NDR	
NEORSD	OH0043991	27	NDR	434.7	NDR	
Port Clinton	OH0052876	0	6	0	7.7	
Toledo	OH0027740	0	39	0	311.05	

Key: NDA = No Data Available; NDR = No Data Reported

Table A- 16. Michigan CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	Adrian WWTP	MI0022152	Lake Erie	N	South Branch Raisin River	21,133	35,789	7.0
5	Bay City WWTP	MI0022284	Lake Huron	N	Saginaw River	70,971	94,157	32.0
5	Birmingham	MI0025534	Lake Erie	N	Rouge River	11,410	2,959,021 (Detroit)	930.0
5	Bloomfield Village CSO	MI0048046	Lake Erie	N	Rouge River	9,180	2,959,021 (Detroit)	930.0
5	Chapaton RTB	MI10025585	Lake Erie	N	Chapaton Canal	42,508	2,959,021 (Detroit)	930.0
5	Croswell WWTP	MI10021083	Lake Erie	N	Black River	2,447	2,447	0.5
5	Crystal Falls CSO	MI0048879	Lake Michigan	N	Paint River	1,900	1,900	1.15 (ground water discharge)
5	Dearborn CSO	MI0025542	Lake Erie	N	Rouge River; Lower Rouge River	98,153	2,959,021 (Detroit)	930.0
5	Dearborn Heights CSO	MI0051811	Lake Erie	N	Middle Rouge River	56,620	2,959,021 (Detroit)	930.0
5	Detroit WWTP	MI0022802	Lake Erie	N	Rouge River; Detroit River	1,016,585	2,959,021 (Detroit)	930.0
5	Dundee WWTP	MI0020401	Lake Erie	N	Raisin River	4,600	4,600	1.5
5	East Lansing WWTP	MI0022853	Lake Michigan	N	Red Cedar River	46,500	85,500	18.8
5	Essexville WWTP	Mi0022918	Lake Huron	N	Saginaw River	3,478	57,018 (West Bay Co Regional WWTP)	10.3
5	Gladwin WWTP	MI0023001	Lake Huron	N	Cedar River	3,000	3,000	0.7
5	Grand Rapids WWTP	MI0026069	Lake Michigan	N	Grand River	197,800	261,189	61.1
5	Grosse Pointe Farms CSO	MI0026077	Lake Erie	N	Lake St. Clair	9,310	2,959,021 (Detroit)	930.0
5	Grosse Pointe Shores CSO	MI0026085	Lake Erie	N	Lake St. Clair	2,450	2,959,021 (Detroit)	930.0
5	Inkster/Dearborn Heights CSO	MI0051837	Lake Erie	N	Lower Rouge River	NDA	2,959,021 (Detroit)	930.0
5	Iron Mountain Kingsford WWTP	MI0023205	Lake Michigan	N	Menominee River	12,757	14,200	3.3
5	Lansing WWTP	MI0023400	Lake Michigan	N	Grand River; Red Cedar River	114,297	122,451	35.0
5	Manistee WWTP	MI0020362	Lake Michigan	N	Manistee Lake	6,226	7,226	1.3
5	Manistique WWTP	MI0023515	Lake Michigan	N	Manistique River	3,483	3,483	1.5
5	Marysville WWTP	MI0020656	Lake Erie	N	St. Clair River	9,959	9,959	3.6
5	Menominee WWTP	MI0025631	Lake Michigan	N	Menominee River	8,600	8,600	3.2
5	Milk River CSO RTB	MI0025500	Lake Erie	N	Milk River	30,275	2,959,021 (Detroit)	930.0
5	Mt. Clemens WWTP	MI0023647	Lake Erie	N	Clinton River	16,399	16,699	6.0
5	Niles WWTP	MI0023701	Lake Michigan	N	St. Joseph River	11,200	23,504	5.8

Table A- 16. Michigan CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	North Houghton Co W&SA CSO	MI0043982	Lake Superior	N	St. Louis Creek; Douglas Creek	2,130	6,680	2.4 (ground water discharge)
5	Norway WWTP	MI0020214	Lake Michigan	N	White Creek	2,835	3,408	0.5
5	Oakland Co-ACACIA Park CSO	MI0037427	Lake Erie	N	Rouge River	7,650	2,959,021 (Detroit)	930.0
5	Oakland Co-SOCSDS 12 Towns RTF (George W. Kuhn CSO RTB)	MI0026115	Lake Erie	N	Red Run Drain	208,279	2,959,021 (Detroit)	930.0
5	Port Huron WWTP	MI0023833	Lake Erie	N	St. Clair River; Black River	32,000	64,000	20.0
5	Redford TWP CSO	MI0051829	Lake Erie	N	Ashcroft-Sherwood Drain	48,360	2,959,021 (Detroit)	930.0
5	River Rouge CSO	MI0028819	Lake Erie	N	Rouge River	8,255	268,706 (Wayne Co Downriver WWTP)	125.0
5	Saginaw TWP WWTP	MI0023973	Lake Huron	N	Tittabawassee River	40,000	49,000	6.5
5	Saginaw WWTP	MI0025577	Lake Huron	N	Saginaw River	70,971	94,157	32.0
5	Sault St. Marie WWTP	MI0024058	Lake Huron	N	St. Marys River; Edison Power Canal	15,000	15,500	8.0
5	South Macomb SD Martin RTB	MI0025453	Lake Erie	N	Lake St. Clair	67,728	2,959,021 (Detroit)	930.0
5	Southgate/ Wyandotte CSO RTF	MI0036072	Lake Erie	N	Trenton Channel	58,142	268,706 (Wayne Co Downriver WWTP)	125.0
5	St. Clair WWTP	MI0020591	Lake Erie	N	St. Clair River	7,564	7,564	1.4
5	St. Joseph CSO	MI0026735	Lake Michigan	N	St. Joseph River	8,800	57,581	15.3
5	Wakefield WWSL	MI0021440	Lake Superior	N	Planter Creek	1,851	1,851	0.6
5	Wayne Co/Dearborn Heights CSO	MI0051489	Lake Erie	N	Middle Rouge; Upper Rouge; Lower Rouge Rivers	5,000	2,959,021 (Detroit)	930.0
5	Wayne Co/Inkster CSO	MI0051471	Lake Erie	N	Lower Rouge River	26,031	2,959,021 (Detroit)	930.0
5	Wayne Co/Inkster/ DRBRN HTS CSO	MI0051462	Lake Erie	N	Lower Rouge River	Unavailable	2,959,021 (Detroit)	930.0
5	Wayne Co/RDFRD/ Livonia CSO	MI0051535	Lake Erie	N	Ashcroft-Sherwood Drain; Upper Rouge River; Bell Branch of Upper Rouge River	15,000	2,959,021 (Detroit)	930.0

Key: N = No; NDA = No Data Available

Table A- 17. Michigan LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan[1]	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
Adrian WWTP	MI0022152	Y	Y	SS	Y	Y	4/28/2010	4/1/2-16	Footnote 1
Bay City WWTP	MI0022284	Y	N	Other	Y	Y	Unavailable, 5 RTBs constructed in 1977, last upgrade to RTB in 2001	Complete	Footnote 2
Birmingham	MI0025534	Y	N	Other	Y	Y	10/1/1989	Complete	Footnote 3
Bloomfield Village CSO	MI0048046	Y	N	Other	Y	Y	10/1/1989	Complete	Footnote 4
Chapaton RTB	MI10025585	Y	N	Other	Y	Y	Original facilities constructed in 1969, 12/1/1998 LTCP update	Complete	Footnote 5
Croswell WWTP	MI10021083	Y	Y	SS	Y	Y	Unavailable	Completed in 2008	Footnote 6
Crystal Falls CSO	MI0048879	Y	Y	SS	Y	Y	5/15/1997	Complete	Footnote 7
Dearborn CSO	MI0025542	Y	Y	Other	Y	Y	2002 revised May 2014	1/1/2027	Footnote 8
Dearborn Heights CSO	MI0051811	Y	Y	SS	Y	Y	2001	Complete	Footnote 9
Detroit WWTP	MI0022802	Y	Y	Other	Y	Y	July 1996, last updated March 2015	12/1/2019	Footnote 10
Dundee WWTP	MI0020401	Y	Y	SS	Y	Y	~1994	Complete	Footnote 7
East Lansing WWTP	MI0022853	Y	N	Other	Y	Y	5/19/1993	Complete	Footnote 11
Essexville WWTP	Mi0022918	Y	N	Other	Y	Y	Unavailable, last updated 2012	10/1/2018	Footnote 12
Gladwin WWTP	MI0023001	Y	Y	SS	Y	Y	Unavailable	Complete	Footnote 7
Grand Rapids WWTP	MI0026069	Y	Y	SS	Y	Y	10/1/1991, addenda 2/13/2001 & 9/21/2006	9/1/2021	Footnote 13
Grosse Pointe Farms CSO	MI0026077	Y	Y	SS	Y	Y	1997	Complete	Footnote 7
Grosse Pointe Shores CSO	MI0026085	Y	Y	SS	Y	Y	1997	Complete	Footnote 7
Inkster/Dearborn Heights CSO	MI0051837	Y	N	Other	Y	Y	5/1/2007	12/1/2022	Footnote 14
Iron Mountain Kingsford WWTP	MI0023205	Y	N	Other	Y	Y	Unavailable; RTB constructed in 1983	Complete	Footnote 15
Lansing WWTP	MI0023400	Y	Y	SS	Y	Y	3/9/1992	12/1/2019	Footnote 16
Manistee WWTP	MI0020362	Y	Y	SS	Y	Y	1996/97	12/1/2016	Footnote 17
Manistique WWTP	MI0023515	Y	Y	SS	Y	Y	1988	6/1/2022	Footnote 18

Table A- 17. Michigan LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan[1]	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
Marysville WWTP	MI0020656	Y	Y	SS	Y	Y	1992	Complete	Footnote 7
Menominee WWTP	MI0025631	Y	Y	SS	Y	Y	Unavailable	Complete	Footnote 7
Milk River CSO RTB	MI0025500	Y	N	Other	Y	Y	Unavailable, original facility constructed in 1960, last upgraded in 1994	Complete	Footnote 19
Mt. Clemens WWTP	MI0023647	Y	N	Other	Y	Y	1997	Complete	Footnote 20
Niles WWTP	MI0023701	Y	N	SS	Y	Y	1998, last updated 2014	6/1/2019	Footnote 21
North Houghton Co W&SACSO	MI0043982	Y	Y	Other	Y	Y	Unavailable, last updated 6/25/2007	Complete	Footnote 22
Norway WWTP	MI0020214	Y	N	Other	Y	Y	Original facility constructed in 1977/78	Complete	Footnote 23
Oakland Co-ACACIA Park CSO	MI0037427	Y	N	Other	Y	Y	10/1/2989	Complete	Footnote 3
Oakland Co-SOCSDS 12 Towns RTF (George W. Kuhn CSO RTB)	MI0026115	Y	N	Other	Y	Y	Original facility constructed in 1972, 6/1/2000 LTCP update	Complete	Footnote 24
Port Huron WWTP	MI0023833	Y	Y	SS	Y	Y	1998; last updated July 2009	12/1/2016 (one outfall correction may be extended past 2016)	Footnote 25
Redford TWP CSO	MI0051829	Y	Y	Other	Y	Y	5/1/2007	12/30/2022 (pending extension to October 2025)	Footnote 26
River Rouge CSO	MI0028819	Y	Y	Other	Y	Y	1992	Complete	Footnote 27
Saginaw TWP WWTP	MI0023973	Y	N	Other	Y	Y	Unavailable, last upgrade to RTB in 1991	Complete	Footnote 28
Saginaw WWTP	MI0025577	Y	N	Other	Y	Y	Unavailable, last upgrade to RTB in 1998	Complete	Footnote 29
Sault St. Marie WWTP	MI0024058	Y	Y	SS	Y	Y	1993, last updated 2010	4/1/2022	Footnote 30
South Macomb SD Martin RTB	MI0025453	Y	Y	Other	Y	Y	Original facilities constructed in 1969, 12/1/1998 LTCP update	Complete	Footnote 23

Table A- 17. Michigan LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan[1]	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
Southgate/Wyandotte CSO RTF	MI0036072	Y	Y	Other	Y	Y	Original facility constructed in 1977, 6/1/2003 LTCP update	10/1/2015	Footnote 31
St. Clair WWTP	MI0020591	Y	Y	SS	Y	Y	1990	Complete	Footnote 7
St. Joseph CSO	MI0026735	Y	Y	SS	Y	Y	Original 2002, last updated 2011, Projected Update 2015	11/1/2020	Footnote 32
Wakefield WWSL	MI0021440	Y	Y	SS	Y	Y	1995, last updated 2004, Projected Update 2015	Complete	Footnote 33
Wayne Co/Dearborn Heights CSO	MI0051489	Y	Y	Other	Y	Y	5/1/2007	9/1/2015 (pending extension to October 2025)	Footnote 34
Wayne Co/Inkster CSO	MI0051471	Y	Y	Other	Y	Y	5/1/2007	3/1/2016	Footnote 35
Wayne Co/Inkster/DRBRNHTS CSO	MI0051462	Y	Y	Other	Y	Y	5/1/2007	9/1/2018	Footnote 36
Wayne Co/RDFRD/Livonia CSO	MI0051535	Y	Y	Other	Y	Y	5/1/2007	Partially complete (pending extension to October 2025)	Footnote 37

Key: Y = Yes; N = No; N/A = Not Applicable; SS = Sewer Separation

1. Nearing completion of separation and storage projects.

2. Currently collecting flow and rain fall data to conduct an evaluation study (Submitted) and model collection system for each of the 5 retention/treatment basins to determine whether adequate presumptive treatment is provided for the discharges; improvements to the retention/treatment basins may be required in the future pending the results of the evaluation studies. The study will evaluate basin 4 as a representative of basins 1 thru 4, and basin 5 separately.

3. Long-term Control Program being implemented; retention/treatment basin (RTB) construction complete and facility is "on-line"; no remaining untreated overflow outfalls; RTB has been shown to provide treatment that meets criteria for elimination of raw sewage & protection of public health, protection of dissolved oxygen standard, protection of physical characteristic standard, and no significant impact on downstream biological communities. The permit required "Total Residual Chlorine Mixing Zone/Plume Definition Study" has been submitted and reviewed and it has been determined that TRC in discharges does not cause violations of water quality standards. Therefore dechlorination is not required.

4. Long-term Control Program being implemented; retention/treatment basin (RTB) construction complete and facility is "on-line"; no remaining untreated overflow outfalls; RTB has been shown to provide treatment that meets criteria for elimination of raw sewage & protection of public health, protection of dissolved oxygen standard, protection of physical characteristic standard, and no significant impact on downstream biological communities. The permit required "Total Residual Chlorine Mixing Zone/Plume Definition Study;" has been submitted and is currently under review by the Department. The report evaluates whether or not the Total Residual Chlorine (TRC) discharges from the RTB cause violations of water quality standards.

5. Long-term Control Program has been completed; program & permit required 3-phase sewer construction project designed to reduce wet-weather flow quantities directed to the retention/treatment basin (RTB); permit also required submittal of RTB Evaluation Study to determine whether adequate treatment is provided to meet water quality standards (the results of the study were ultimately approved on Jan. 31, 2007); the actual construction phase of the current project is complete; there are no "uncontrolled" (i.e., untreated) CSO outfalls associated with this permittee/program. An "In-Stream Total Residual Chlorine (TRC) Effluent Plume Evaluation" is required by the permit (October 1, 2012) and shall identify the location and size of the TRC effluent plume during and after CSO discharge events and identify the maximum TRC concentrations instream at various downstream locations.

6. Mostly separated, retention basin and overflow pond constructed to retain excess wet weather flow.

Table A- 17. Michigan LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan[1]	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
7. Separation complete.									
8. Long-term Control Program being implemented; the Department reissued a permit that recognizes a modified LTCP. The permittee submitted a revised basis of design report in late 2009 followed by a financial capability assessment. The City requested a modified LTCP (and NPDES permit), to extend the construction schedule due to economic hardship. The modified LTCP will 1) correct existing construction issues with some shafts by using sewer separation and/or reconfigured use of shafts, and 2) revise some of the additional shaft projects to sewer separation projects. The Department approved the City's request and issued a schedule in the modified permit requiring elimination of all overflow outfalls by December 31, 2025; several outfalls and the associated overflows have already been eliminated.									
9. Final outfall re-routed to Wayne Co Dearborn Heights RTB.									
10. Long-term Control Program being implemented; controls include retention/treatment basins (6 online), CSO Screening/Disinfection Facilities (3 online), and 13 in-system storage dams in the collection system sewers (online) for temporary storing and subsequent transport of combined flow to the wastewater treatment plant; expansion of primary treatment capacity at the WWTP to 1700 MGD (online). To date, 14 CSOs have been eliminated, and construction of the Oakwood RTB has been completed. In addition to these 14 outfalls, 5 untreated Rouge River CSOs downstream of the turning basin are now controlled. An amended LTCP was submitted in late 2008 that proposed control projects and associated schedules for 3 untreated CSOs to the Old Channel of the Rouge River, and the 39 remaining untreated CSOs to the Detroit River. However, in 2009, due to its deteriorating financial condition, Detroit terminated construction of the Upper Rouge CSO Capture Tunnel (URT). A financial capability assessment (FCA) was submitted and approved by the Department. The alternative LTCP was included in the 2011 permit modification. Another FCA was submitted by Detroit in 2012 as required by the Permit. The FCA again documented that costs associated with continued implementation of the CSO correction program were a high burden to the City of Detroit residents. Reflecting the 2012 FCA and updated costs for effectively operating the WWTP and other facilities, and taking into account opportunities to use Green Infrastructure and apply adaptive management, the permit again revised the LTCP. Remaining high-priority outfalls are due corrected by 2037. Note that the adaptive approach was acceptable to EPA because of the high level of treatment (95%) by 2019 upon completion of disinfection of all excess flow at the WWTP.									
11. Long-term Control Program complete; controls included both sewer separation and construction of a retention treatment basin (RTB) and tunnel.									
12. Presumptive basin construction complete. An "In-Stream Total Residual Chlorine (TRC) Effluent Plume Evaluation" is required by the permit (October 1, 2018) and shall identify the location and size of the TRC effluent plume during and after CSO discharge events and identify the maximum TRC concentrations in-stream at various downstream locations.									
13. Long-term Control Program being implemented; controls include 30-MG Market Ave. Retention Treatment Basin in conjunction with sewer separation construction; permittee has completed sewer separation projects; permit is in the process of being revised to include a schedule for a system project performance certification.									
14. Outfall 011 scheduled to be eliminated by 12/30/22.									
15. Long-term Control Program considered complete (an existing retention/treatment basin); permittee submitted 2008 report characterizing discharges from existing retention/treatment basin based upon the type of sewer collection system (i.e., separate or combined) leading to this CSO treatment facility adjacent to the municipal wastewater treatment plant. Facility is implementing revisions to disinfection feed system and conducting visual assessments of CSO discharges to evaluate screening effectiveness.									
16. Long-term Control Program (sewer separation project) being implemented; separation construction is to be conducted in 6 phases; Phases I, II, III and IV have been completed; permit schedule requires completion of construction of sewer separation phases and elimination of overflows by 2019.									
17. Long-term Control Program (sewer separation project) being implemented; permit requires elimination of overflows from Outfall 018 by Dec. 31, 2016.									
18. Long-term Control Program being implemented; permit requires elimination of discharges from the one remaining outfall by Jan. 1, 2020. Facility is one construction project away from elimination of the last CSO.									
19. Long-term Control Program being implemented; existing retention/treatment basin was upgraded in mid-1990s; reissued permit required an "Instream Dissolved Oxygen Study" to determine whether discharges from the facility cause violations of water quality standards and if additional corrections might be necessary; there are no uncontrolled (i.e., untreated) CSO outfalls associated with this permittee/program.									
20. Long-term Control Program has been implemented; controls included partial sewer separation & in-system storage tunnel in conjunction w/existing retention/treatment basin; construction phase of the project is complete and all discharges have been re-directed to the storage tunnel; and the permittee has certified the project; there are no remaining "uncontrolled" (i.e., untreated) CSO outfalls associated with this permittee/program.									
21. Separation and basin construction complete; sewer lining and manhole rehabilitation planned.									
22. Long-term Control Program being implemented; two existing clarifiers with disinfection and dechlorination; additional work is being conducted (infiltration/inflow reduction) to increase transport capacity to the wastewater treatment plant; permit requires submittal of Evaluation Study to confirm whether adequate treatment is provided.									
23. RTB construction complete.									

Table A- 17. Michigan LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan[1]	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
[24] Long-term Control Program has been completed; permit & program required construction project to upgrade the George W. Kuhn (formerly "12 Towns") Retention Treatment Facility to ensure that facility provides adequate presumptive treatment of discharges; upgrades included capacity/volume increase and disinfection improvements; construction of facility upgrades was completed on Dec. 22, 2005; presumptive basin; there are no "uncontrolled" (i.e., untreated) CSO outfalls associated with this permittee/program.									
[25] Long-term Control Program (sewer separation project) being implemented; Director's Final Order (issued 2/19/98) & permit include schedule requiring elimination of all overflow outfalls by Dec. 31, 2012. The City requested a 4-year schedule extension in April 2007, due to economic hardship. The Department approved the City's request and issued a schedule in the modified permit requiring elimination of all overflow outfalls by December 31, 2016; several outfalls and the associated overflows have already been eliminated through sewer separation construction.									
[26] Long-term Control Program being implemented. The reissued permit will require CSO correction that may include a regional project with DWSD, with completion by 2025.									
[27] Long-term Control Program has been implemented; the program included a presumptively sized retention/treatment basin to provide adequate treatment of all combined sewer overflows (the facility went "on-line" and began treating overflows in 1999); remaining corrective projects have been completed and the project has been certified. The permit required "Total Residual Chlorine Mixing Zone/Plume Definition Study" has been submitted and is currently under review by the Department. The report evaluates whether or not the Total Residual Chlorine (TRC) discharges from the RTB cause violations of water quality standards.									
[28] Long-term Control Program complete; existing retention/treatment basin provides adequate treatment to meet Water Quality Standards at times of discharge.									
[29] Long-term Control Program being implemented; upgrades for two of the "RTBs" (Weiss St. RTB & 14th St. RTB) in order to provide for adequate treatment of all overflows has been completed; in accordance with the permit & approved program, permittee is re-conducting a Retention/Treatment Basin Evaluation Studies for the "East Side" system and "West Side" system to determine whether these facilities provide adequate treatment and whether facility upgrade will be required; the original studies were not approvable.									
[30] Long-term Control Program (sewer separation project) being implemented; approved program with phased construction requires elimination of all discharges by Dec. 31, 2018.									
[31] Long-term Control Program currently considered complete (existing retention/treatment facility); reissued permit requires a Water Quality Study (due October 1, 2015) for a determination of whether the facility provides adequate treatment of all overflows; Long-term Control Program for facility upgrade and provisions for adequate treatment may be required in the future. The NPDES permit also requires the permittee to submit a Hydraulic Capacity Study for the Pine St PS. The study will be used to determine if any improvements can be made to eliminate CSO discharges from the Pine St PS.									
[32] Long-term Control Program approved; program requires elimination of overflows through reduction of flows (via sewer rehabilitation, infiltration/inflow removal, etc.) and transport of all flows to the wastewater treatment plant; on or before April 30, 2016, the permittee shall submit a plan and schedule for implementation of Corrective Measures. On or before November 30, 2017, the permittee shall complete construction/implementation of the collection system corrective measures. The construction for the in-line storage tanks shall be completed by November 30, 2020. A Project Performance Certification (PCC) will follow.									
[33] Long-term Control Program (sewer separation project) was agreed to in February 1995 and modified in June 1996 and includes sewer separation to eliminate discharges. A number of separation projects have been completed to date, resulting in elimination of all outfalls. Permit is in the process of being revised to include a schedule for a system project performance certification.									
[34] Long-term Control Program revised in reissued permit; construction of retention/treatment basin is complete & facility is "on-line" and the Department agrees that the RTB protects public health, eliminates raw sewage, protects the physical characteristics standard, and does not impact biological communities. An evaluation of the RTB discharges on the dissolved oxygen standard has been submitted and is under Department review. Outfalls M18 & M19 have been eliminated and certified by December 2005 (flow has been directed to the existing RTB). The permit requires control of one outfall by October 2012. The reissued permit will require CSO correction that may include a regional project with DWSD, with completion by 2025.									
[35] Long-term Control Program revised in reissued permit; construction of retention/treatment basin is complete & facility is "on-line" and the Department agrees that the RTB protects public health, eliminates raw sewage, protects the physical characteristics standard, and does not impact biological communities. An evaluation of the RTB discharges on the dissolved oxygen standard has been submitted and is under Department review. Outfalls M18 & M19 have been eliminated and certified by December 2005 (flow has been directed to the existing RTB). The permit requires control of one outfall by October 2012. Upcoming permit reissuance will likely include a schedule extension due to financial considerations.									
[36] Long-term Control Program revised in reissued permit; the program will address the two remaining "uncontrolled" (i.e., untreated) CSO outfalls; permit requires completion of construction by July 1, 2015 of an approved program for facilities to meet criteria for elimination of raw sewage discharges & protection of public health, and to ensure compliance with water quality standards; the Department agreed to a revised correction schedule for control of the remaining untreated outfalls based on the City of Inkster's financial demonstration.									

Table A- 17. Michigan LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan[1]	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones

[37] Long-term Control Program revised in reissued permit; the program will address the two remaining "uncontrolled" (i.e., untreated) CSO outfalls; permit requires completion of construction by July 1, 2015 of an approved program for facilities to meet criteria for elimination of raw sewage discharges & protection of public health, and to ensure compliance with water quality standards; the Department agreed to a revised correction schedule for control of the remaining untreated outfalls based on the City of Inkster's financial demonstration. The reissued permit will require CSO correction that may include a regional project with DWSD, with completion by 2025.

Table A- 18. Michigan Post Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post- Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post- Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Adrian WWTP	MI0022152	N	N	N	N/A
Bay City WWTP	MI0022284	N	N	N	Total Residual Chlorine Plume Evaluation Work Plan due 2016
Birmingham	MI0025534	Y	Y	Y	All 4 parts of the post construction monitoring approved in 2015
Bloomfield Village CSO	MI0048046	Y	Y	Y	3 of 4 parts of the post construction monitoring approved in 2000
Chapaton RTB	MI10025585	Y	Y	Y	3 of 4 parts of the post construction monitoring approved in 2007
Croswell WWTP	MI10021083	N	N	N	N/A
Crystal Falls CSO	MI0048879	N	N	N	N/A
Dearborn CSO	MI0025542	Y	Y	Y	2 of 4 parts of the post construction monitoring approved in 2011
Dearborn Heights CSO	MI0051811	N	N	N	N/A
Detroit WWTP	MI0022802	Y	Y	Y	July 1996, last updated March 2015
Dundee WWTP	MI0020401	N	N	N	N/A
East Lansing WWTP	MI0022853	Y	Y	Y	1/10/2010
Essexville WWTP	Mi0022918	N	N	N	Total Residual Chlorine Plume Evaluation Work Plan due 2016
Gladwin WWTP	MI0023001	N	N	N	N/A
Grand Rapids WWTP	MI0026069	N	N	N	N/A
Grosse Pointe Farms CSO	MI0026077	N	N	N	N/A
Grosse Pointe Shores CSO	MI0026085	N	N	N	N/A
Inkster/Dearborn Heights CSO	MI0051837	Y	Y	Y	5/1/2007
Iron Mountain Kingsford WWTP	MI0023205	Y	Y	Y	1999
Lansing WWTP	MI0023400	N	N	N	N/A

Table A- 18. Michigan Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post- Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post- Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Manistee WWTP	MI0020362	N	N	N	N/A
Manistique WWTP	MI0023515	N	N	N	N/A
Marysville WWTP	MI0020656	N	N	N	N/A
Menominee WWTP	MI0025631	N	N	N	N/A
Milk River CSO RTB	MI0025500	Y	Y	Y	2006
Mt. Clemens WWTP	MI0023647	N	N	N	N/A
Niles WWTP	MI0023701	N	N	N	N/A
North Houghton Co W&SA CSO	MI0043982	N	N	N	N/A
Norway WWTP	MI0020214	Y	Y	Y	Unavailable
Oakland Co-ACACIA Park CSO	MI0037427	Y	Y	Y	All 4 parts of the post construction monitoring approved in 2015
Oakland Co-SOCSDS 12 Towns RTF (George W. Kuhn CSO RTB)	MI0026115	N	N	N	Project Performance Certification approved Jan 2006
Port Huron WWTP	MI0023833	N	N	N	N/A
Redford TWP CSO	MI0051829	Y	Y	Y	5/1/2007
River Rouge CSO	MI0028819	N	N	N	TBD
Saginaw TWP WWTP	MI0023973	Y	Y	Y	Due October 2018
Saginaw WWTP	MI0025577	Y	Y	Y	2008, Need to re-conduct evaluations and another plan to be submitted
Sault St. Marie WWTP	MI0024058	N	N	N	N/A
South Macomb SD Martin RTB	MI0025453	Y	Y	Y	2006
Southgate/Wyandotte CSO RTF	MI0036072	Y	Y	Y	3 of 4 parts of the post construction monitoring approved in 2007
St. Clair WWTP	MI0020591	N	N	N	N/A
St. Joseph CSO	MI0026735	N	N	N	N/A
Wakefield WWSL	MI0021440	N	N	N	N/A
Wayne Co/Dearborn Heights CSO	MI0051489	Y	Y	Y	5/1/2007
Wayne Co/Inkster CSO	MI0051471	Y	Y	Y	5/1/2007
Wayne Co/Inkster/DRBRN HTS CSO	MI0051462	Y	Y	Y	5/1/2007
Wayne Co/RDFRD/Livonia CSO	MI0051535	Y	Y	Y	5/1/2007

Key: Y = Yes; N = No; N/A = Not Applicable; TBD = To Be Determined

Table A- 19. Michigan Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Adrian WWTP	MI0022152	0	Footnote 1	0	NDR	0	0	0	0
Bay City WWTP	MI0022284	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Birmingham	MI0025534	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Bloomfield Village CSO	MI0048046	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Chapaton RTB	MI10025585	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Croswell WWTP	MI10021083	0	Footnote 1	0	NDA	0	0	0	0
Crystal Falls CSO	MI0048879	0	Footnote 1	0	NDA	0	0	0	0
Dearborn CSO	MI0025542	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Dearborn Heights CSO	MI0051811	0	Footnote 1	0	NDA	0	0	0	0
Detroit WWTP	MI0022802	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 2	0
Dundee WWTP	MI0020401	0	Footnote 1	0	NDA	0	0	0	0
East Lansing WWTP	MI0022853	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Essexville WWTP	Mi0022918	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Gladwin WWTP	MI0023001	0	Footnote 1	0	NDA	0	0	0	0
Grand Rapids WWTP	MI0026069	0	Footnote 1	0	NDA	0	0	0	0
Grosse Pointe Farms CSO	MI0026077	0	Footnote 1	0	NDA	0	0	0	0
Grosse Pointe Shores CSO	MI0026085	0	Footnote 1	0	NDA	0	0	0	0
Inkster/Dearborn Heights CSO	MI0051837	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Iron Mountain Kingsford WWTP	MI0023205	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Lansing WWTP	MI0023400	0	Footnote 1	0	NDA	0	0	0	0
Manistee WWTP	MI0020362	0	Footnote 1	0	NDA	0	0	0	0
Manistique WWTP	MI0023515	0	Footnote 1	0	NDA	0	0	0	0
Marysville WWTP	MI0020656	0	Footnote 1	0	NDA	0	0	0	0
Menominee WWTP	MI0025631	0	Footnote 1	0	NDA	0	0	0	0
Milk River CSO RTB	MI0025500	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Mt. Clemens WWTP	MI0023647	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Niles WWTP	MI0023701	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
North Houghton Co W&SACSO	MI0043982	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Norway WWTP	MI0020214	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0

Table A- 19. Michigan Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Oakland Co-ACACIA Park CSO	MI0037427	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Oakland Co-SOCSDS 12 Towns RTF (George W. Kuhn CSO RTB)	MI0026115	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Port Huron WWTP	MI0023833	0	Footnote 1	0	NDA	0	0	Footnote 3	0
Redford TWP CSO	MI0051829	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
River Rouge CSO	MI0028819	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Saginaw TWP WWTP	MI0023973	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Saginaw WWTP	MI0025577	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Sault St. Marie WWTP	MI0024058	0	Footnote 1	0	NDA	0	0	Footnote 3	0
South Macomb SD Martin RTB	MI0025453	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Southgate/Wyandotte CSO RTF	MI0036072	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
St. Clair WWTP	MI0020591	0	Footnote 1	0	NDA	0	0	0	0
St. Joseph CSO	MI0026735	0	Footnote 1	0	NDA	0	0	0	0
Wakefield WWSL	MI0021440	0	Footnote 1	0	NDA	0	0	0	0
Wayne Co/Dearborn Heights CSO	MI0051489	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Wayne Co/Inkster CSO	MI0051471	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Wayne Co/Inkster/DRBRN HTS CSO	MI0051462	0	Footnote 1	0	NDA	Footnote 2	0	Footnote 3	0
Wayne Co/RDFRD/ Livonia CSO	MI0051535	0	Footnote 1	0	NDA	NDA	0	Footnote 3	0

Key: NDR = No Data Reported; NDA = No Data Available

1. Using data from 2005-2013, the average annual statewide total volume of treated discharges of combined sewage from existing RTBs was 16,882 MG/year. In 2019, when Detroit provides disinfection for discharges from outfall 050A, that average (using 2005-2013 data) will increase to 28,833 MG/year. For reference, during the time period 2005-2013, the average annual discharge of untreated CSOs was 16,348 MG/year (including discharges from Detroit outfall 050A).

2. RTBs designed under the Presumptive definition in Michigan are expected to discharge adequately treated combined sewage ~4 times per year or less. Those designed under the Demonstration definition are expected to discharge adequately treated combined sewage ~4-10 times per year.

3. Generally, a 0.2" rainfall event might trigger a CSO. Using this estimate, and an average number of 0.2" or greater events occurring approximately 30-50 times per year, a rough estimate of the number of events per outfall would be ~30-50 times per year. In 1988, Michigan had 613 untreated CSOs, in 2013 there were 136 untreated CSOs remaining.

Table A- 20. Michigan 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
Adrian WWTP	MI0022152	0	0	0	0
Bay City WWTP	MI0022284	2	0	133.1	0
Birmingham	MI0025534	2	0	10.5	0
Bloomfield Village CSO	MI0048046	2	0	14.5	0
Chapaton RTB	MI10025585	8	0	304.6	0
Croswell WWTP	MI10021083	0	0	0	0
Crystal Falls CSO	MI0048879	0	0	0	0
Dearborn CSO	MI0025542	8	48	344.4	698.4
Dearborn Heights CSO	MI0051811	0	0	0	0
Detroit WWTP	MI0022802	27	33	18829.7	6957.3
Dundee WWTP	MI0020401	0	0	0	0
East Lansing WWTP	MI0022853	2	0	2.9	0
Essexville WWTP	Mi0022918	1	0	4.8	0
Gladwin WWTP	MI0023001	0	0	0	0
Grand Rapids WWTP	MI0026069	0	0	0	0
Grosse Pointe Farms CSO	MI0026077	0	0	0	0
Grosse Pointe Shores CSO	MI0026085	0	0	0	0
Inkster/Dearborn Heights CSO	MI0051837	0	0	0	0
Iron Mountain Kingsford WWTP	MI0023205	6	0	4.2	0
Lansing WWTP	MI0023400	0	45	0	521.9
Manistee WWTP	MI0020362	0	9	0	46.8
Manistique WWTP	MI0023515	0	3	0	0.3
Marysville WWTP	MI0020656	0	0	0	0
Menominee WWTP	MI0025631	0	0	0	0
Milk River CSO RTB	MI0025500	17	0	525.5	0
Mt. Clemens WWTP	MI0023647	3	0	45.3	0
Niles WWTP	MI0023701	0	0	0	0
North Houghton Co W&SA CSO	MI0043982	6	0	180.1	0
Norway WWTP	MI0020214	0	0	0	0
Oakland Co-ACACIA Park CSO	MI0037427	5	0	22.9	0
Oakland Co-SOCSDS 12 Towns RTF (George W. Kuhn CSO RTB)	MI0026115	8	0	2513.2	0
Port Huron WWTP	MI0023833	0	21	0	9.5
Redford TWP CSO	MI0051829	0	15	0	14.1
River Rouge CSO	MI0028819	7	0	39.7	0

Table A- 20. Michigan 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
Saginaw TWP WWTP	MI0023973	4	0	89.3	0
Saginaw WWTP	MI0025577	4	0	614.3	0
Sault St. Marie WWTP	MI0024058	0	1	0	0.4
South Macomb SD Martin RTB	MI0025453	6	0	290.7	0
Southgate/Wyandotte CSO RTF	MI0036072	20	9	1138.1	310.8
St. Clair WWTP	MI0020591	0	0	0	0
St. Joseph CSO	MI0026735	0	14	0	2.1
Wakefield WWSL	MI0021440	0	0	0	0
Wayne Co/Dearborn Heights CSO	MI0051489	7	14	49.8	26.4
Wayne Co/Inkster CSO	MI0051471	10	22	61.5	97.4
Wayne Co/Inkster/DRBRN HTS CSO	MI0051462	0	27	0	70.9
Wayne Co/RDFRD/Livonia CSO	MI0051535	5	12	11	57.8

Table A- 21. Indiana CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	Angola	IN0021296	Lake Michigan	N	UNT Pigeon Creek	NDA	7,922	1.7
5	Auburn	IN0020672	Lake Erie	N	Cedar Creek	NDA	13,086	4.5
5	Berne	IN0021369	Lake Erie	N	Habegger Ditch, Spruger Ditch	NDA	3,999	0.673
5	Butler	IN0022462	Lake Erie	N	Big Run	NDA	2,700	2
5	Chesterton	IN0022578	Lake Michigan	N	East Arm Little Calument River	NDA	13,199	4.6
5	Crown Point	IN0025763	Lake Michigan	N	Main Beaver Dam Ditch	NDA	27,317	5.2
5	Decatur	IN0039314	Lake Erie	N	St. Mary's River	NDA	9,300	3.25
5	East Chicago	IN0022829	Lake Michigan	N	Indiana Harbor Canal, Grand Calument River	NDA	32,000	15
5	Goshen	IN0025755	Lake Michigan	N	Elkhart River	NDA	30,000	5
5	Kendallville	IN0020656	Lake Michigan	N	UNT Henderson Lake	NDA	9,616	2.68
5	Ligonier	IN0023582	Lake Michigan	N	Elkhart River	NDA	3,600	1.5
5	Nappanee	IN0021466	Lake Michigan	N	Berlin Court Ditch, Armey Ditch	NDA	6,648	1.9
5	New Haven (Satellite Community	IN0020346	Lake Erie	N	Martin Ditch, UNT Maumee River	NDA	12,406	No WWTP
5	Wakarusa	IN0024775	Lake Michigan	N	Werntz Ditch	NDA	1,700	0.5
5	Elkhart	IN0025674	Lake Michigan	N	Elkhart River, St. Joseph River, Christina Creek	NDA	37,347	20
5	Fort Wayne	IN0032191	Lake Erie	N	Maumee River, St Mary's River, Spy Run Creek, St. Joseph River, UNT	NDA	252,339	60
5	Gary	IN0022977	Lake Michigan	N	Grand Calumet River, Little Calumet River	NDA	99,961	60
5	Hammond	IN0023060	Lake Michigan	N	Grand Calumet River, East Arm Little Calumet River	NDA	83,048	37.8
5	Mishawaka	IN0025640	Lake Michigan	N	St. Joseph River, Eller Ditch	NDA	48,252	20
5	Albion	IN0022144	Lake Michigan	N	None	NDA	NDA	NDA
5	Avilla	IN0020664	Lake Erie	N	None	NDA	NDA	NDA
5	Lagrange	IN0020478	Lake Michigan	N	None	NDA	NDA	NDA
5	Michigan City	IN0023752	Lake Michigan	N	Trail Creek	NDA	11,474	12

Table A- 21. Indiana CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	Milford	IN0038318	Lake Michigan	N	None	NDA	NDA	NDA
5	Valparaiso	IN0024660	Lake Michigan	N	Salt Creek	NDA	31,360	8
5	Waterloo	IN0020711	Lake Erie	N	Cedar Creek	NDA	2,200	0.369
5	South Bend	IN0024520	Lake Michigan	N	St. Joseph River	NDA	101,163	48

Key: N = No; NDA = No Data Available

Table A- 22. Indiana LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					Submitted (Y/N)	Approved (Y/N)	Approval Date	Projected Date for Full Implementation	Milestones
Angola	IN0021296	Y	N	NDA	Y	Y	7/1/2007	Completed	
Auburn	IN0020672	Y	N	NDA	Y	Y	9/1/2007	9/30/2027	
Berne	IN0021369	Y	N	NDA	Y	Y	2/27/2006	12/31/2024	
Butler[1]	IN0022462	Y	N	NDA	Y	Y	4/1/2007	Completed	
Chesterton	IN0022578	Y	N	NDA	Y	Y	11/1/2006	Completed	
Crown Point	IN0025763	Y	N	NDA	Y	Y	2/1/2008	9/30/2018	
Decatur[1]	IN0039314	Y	N	NDA	Y	Y	6/1/2007	Completed	
East Chicago	IN0022829	Y	N	NDA	Y	Y	12/30/2011	12/31/2032	
Goshen	IN0025755	Y	N	NDA	Y	Y	6/1/2006	Completed	
Kendallville	IN0020656	N	Y	Other	Y	Y	7/1/2006	Completed	
Ligonier	IN0023582	Y	N	NDA	Y	Y	2/1/2008	6/30/2016	
Nappanee	IN0021466	Y	N	NDA	Y	Y	1/1/2011	12/31/2017	
New Haven (Satellite Community	IN0020346	Y	N	NDA	Y	Y	4/1/2007	12/31/2026	
Wakarusa	IN0024775	Y	N	NDA	Y	Y	1/4/2008	12/31/2017	
Elkhart	IN0025674	Y	N	NDA	Y	Y	5/1/2012	3/31/2029	
Fort Wayne	IN0032191	Y	N	NDA	Y	Y	4/1/2008	12/31/2025	
Gary	IN0022977	Y	N	NDA	N	N	NDA	NDA	
Hammond	IN0023060	Y	N	NDA	Y	N	NDA	NDA	
Mishawaka	IN0025640	Y	N	NDA	Y	Y	5/23/2014	12/31/2031	
Albion	IN0022144	Y	N	NDA	Y	Y	8/1/2004	Completed	
Avilla	IN0020664	Y	N	NDA	Y	Y	9/9/2010	Completed	
Lagrange	IN0020478	Y	N	NDA	Y	Y	4/1/2002	Completed	
Michigan City	IN0023752	Y	N	NDA	Y	Y	1/1/2009	Completed	
Milford	IN0038318	Y	N	NDA	Y	Y	2/1/2006	Completed	
Valparaiso	IN0024660	Y	N	NDA	Y	Y	11/29/2006	Completed	
Waterloo	IN0020711	Y	N	NDA	Y	Y	2/1/2007	Completed	
South Bend	IN0024520	Y	N	NDA	Y	Y	5/2/2012	12/31/2031	

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available

[1] The original LTCP implementation is complete, however the community is currently in or developing a CSO Compliance Plan for not meeting the LTCP level of control.

Table A- 23. Indiana Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Angola	IN0021296	Y	Y	Y	7/1/2007
Auburn	IN0020672	Y	Y	Y	9/1/2007
Berne	IN0021369	Y	Y	Y	2/27/2006
Butler	IN0022462	Y	Y	Y	4/1/2007
Chesterton	IN0022578	Y	Y	Y	11/1/2006
Crown Point	IN0025763	Y	Y	Y	2/1/2008
Decatur	IN0039314	Y	Y	Y	6/1/2007
East Chicago	IN0022829	Y	Y	Y	12/30/2011
Goshen	IN0025755	Y	Y	Y	6/1/2006
Kendallville	IN0020656	Y	Y	Y	7/1/2006
Ligonier	IN0023582	Y	Y	Y	2/1/2008
Nappanee	IN0021466	Y	Y	Y	1/1/2011
New Haven (Satellite Community)	IN0020346	Y	Y	Y	4/1/2007
Wakarusa	IN0024775	Y	Y	Y	1/4/2008
Elkhart	IN0025674	Y	Y	Y	5/1/2012
Fort Wayne	IN0032191	Y	Y	Y	4/1/2008
Gary	IN0022977	Y	N	N	N/A
Hammond	IN0023060	Y	N	N	N/A
Mishawaka	IN0025640	Y	Y	Y	5/23/2014
Albion	IN0022144	Y	Y	Y	8/1/2004
Avilla	IN0020664	Y	Y	Y	9/9/2010
Lagrange	IN0020478	Y	Y	Y	4/1/2002
Michigan City	IN0023752	Y	Y	Y	1/1/2009
Milford	IN0038318	Y	Y	Y	2/1/2006
Valparaiso	IN0024660	Y	Y	Y	11/29/2006
Waterloo	IN0020711	Y	Y	Y	2/1/2007
South Bend	IN0024520	Y	Y	Y	5/2/2012

Key: Y = Yes; N = No; N/A = Not Applicable

Table A- 24. Indiana Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP) or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Angola	IN0021296	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Auburn	IN0020672	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Berne	IN0021369	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Butler	IN0022462	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Chesterton	IN0022578	NDA	NDA	NDA	NDA	None	None	None	None
Crown Point	IN0025763	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Decatur	IN0039314	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
East Chicago	IN0022829	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Goshen	IN0025755	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Kendallville	IN0020656	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Ligonier	IN0023582	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Nappanee	IN0021466	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
New Haven (Satellite Community)	IN0020346	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Wakarusa	IN0024775	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Elkhart	IN0025674	NDA	NDA	NDA	NDA	None	9	NDA	NDA
Fort Wayne	IN0032191	NDA	NDA	NDA	NDA	None	4	NDA	NDA
Gary	IN0022977	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
Hammond	IN0023060	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
Mishawaka	IN0025640	NDA	NDA	NDA	NDA	None	4	NDA	NDA
Albion	IN0022144	NDA	NDA	NDA	NDA	0	0	0	0
Avilla	IN0020664	NDA	NDA	NDA	NDA	0	0	0	0
Lagrange	IN0020478	NDA	NDA	NDA	NDA	0	0	0	0
Michigan City	IN0023752	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Milford	IN0038318	NDA	NDA	NDA	NDA	None	None	None	None
Valparaiso	IN0024660	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
Waterloo	IN0020711	NDA	NDA	NDA	NDA	Footnote 1	Footnote 1	Footnote 1	Footnote 1
South Bend	IN0024520	NDA	NDA	NDA	NDA	None	4 events	NDA	NDA

Key: NDA = No Data Available

1. Treatment of 10-yr, 1-hr design storm

Table A- 25. Indiana 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
Angola	IN0021296	NDA	NDA	0	0.67
Auburn	IN0020672	NDA	NDA	0	0.2
Berne	IN0021369	NDA	NDA	0	129.29
Butler	IN0022462	NDA	NDA	2.2	13.42
Chesterton	IN0022578	NDA	NDA	0	1.27
Crown Point	IN0025763	NDA	NDA	0	41.15
Decatur	IN0039314	NDA	NDA	0	41.35
East Chicago	IN0022829	NDA	NDA	0	450.29
Goshen	IN0025755	NDA	NDA	2.8	1.3
Kendallville	IN0020656	NDA	NDA	0	0.94
Ligonier	IN0023582	NDA	NDA	0	0.53
Nappanee	IN0021466	NDA	NDA	0	64.92
New Haven (Satellite Community	IN0020346	NDA	NDA	0	3.09
Wakarusa	IN0024775	NDA	NDA	0	3.11
Elkhart	IN0025674	NDA	NDA	0	191.4
Fort Wayne	IN0032191	NDA	NDA	0	3,123.93
Gary	IN0022977	NDA	NDA	0	1,257.22
Hammond	IN0023060	NDA	NDA	0	2,355.03
Mishawaka	IN0025640	NDA	NDA	0	12.34
Albion	IN0022144	0	0	0	0
Avilla	IN0020664	0	0	0	0
Lagrange	IN0020478	0	0	0	0
Michigan City	IN0023752	0	0	0	0
Milford	IN0038318	0	0	0	0
Valparaiso	IN0024660	0	0	0.78	0
Waterloo	IN0020711	0	0	14.37	0
South Bend	IN0024520	NDA	NDA	0	409.6

Key: NDA = No Data Available

Table A- 26. Illinois CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	TARP[1]	N/A	Lake Michigan	Y	Lake Michigan	N/A	N/A	N/A
5	Brookfield CSO TARP	N/A	Lake Michigan	N	Salt Creek	NDA	NDA	1200
5	Chicago CSO TARP	N/A	Lake Michigan	N	*Chicago CSO - North Shore Channel, North Branch Chicago River, Little Calumet River, Calumet River, Chicago River, South Branch of Chicago River (SBCR), South Fork of SBCR, Chicago Sanitary and Ship Canal, Collateral Channel and Des Plaines River	NDA	NDA	1200; 354; 333
5	City of Blue Island CSO TARP	N/A	Lake Michigan	N	Cal-Sag Channel	NDA	NDA	354
5	City of Calumet City CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	City of Evanston CSO TARP	N/A	Lake Michigan	N	North Shore Channel	NDA	NDA	333
5	City of Harvey TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Des Plaines TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Dixmoor CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Franklin Park CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Golf CSO TARP	N/A	Lake Michigan	N	North Branch Chicago River	NDA	NDA	333
5	LaGrange Park CSO TARP	N/A	Lake Michigan	N	Salt Creek	NDA	NDA	1200
5	Lansing CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Lincolnwood CSO TARP	N/A	Lake Michigan	N	North Shore Channel	NDA	NDA	333
5	MWRDGC Calumet TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	MWRDGC Kirie TARP	N/A	Lake Michigan	N	Weller's Creek	NDA	NDA	52
5	MWRDGC Stickney TARP	N/A	Lake Michigan	N	Chicago Sanitary and Ship Canal	NDA	NDA	1200
5	MWRDGC Northside TARP	N/A	Lake Michigan	N	North Shore Channel	NDA	NDA	333
5	Park Ridge CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Phoenix CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Posen CSO TARP	N/A	Lake Michigan	N	Cal-Sag Channel	NDA	NDA	354
5	Riverside CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Skokie CSO TARP	N/A	Lake Michigan	N	North Shore Channel	NDA	NDA	333
5	Summit CSO TARP	N/A	Lake Michigan	N	Chicago Sanitary and Ship Canal	NDA	NDA	1200

Table A- 26. Illinois CSO Community Summary Information

EPA Region	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	Village of Arlington Heights CSO TARP	N/A	Lake Michigan	N	Weller's Creek	NDA	NDA	52
5	Village of Burnham CSO TARP	N/A	Lake Michigan	N	Grand Calumet River	NDA	NDA	354
5	Village of Calumet Park CSO TARP	N/A	Lake Michigan	N	Cal-Sag Channel	NDA	NDA	354
5	Village of Dolton CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Village of Forest Park CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of LaGrange CSO TARP	N/A	Lake Michigan	N	Salt Creek	NDA	NDA	1200
5	Village of Lyons CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of Maywood CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of Melrose Park CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of Morton Grove CSO TARP	N/A	Lake Michigan	N	North Branch Chicago River	NDA	NDA	333
5	Village of Niles CSO TARP	N/A	Lake Michigan	N	North Branch Chicago River	NDA	NDA	333
5	Village of North Riverside TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of River Forest CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of River Grove CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of Riverdale CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Village of Schiller CSO TARP	N/A	Lake Michigan	N	Des Plaines River	NDA	NDA	1200
5	Village of South Holland CSO TARP	N/A	Lake Michigan	N	Little Calumet River	NDA	NDA	354
5	Village of Stickney CSO TARP	N/A	Lake Michigan	N	Chicago Sanitary and Ship Canal	NDA	NDA	1200

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available

[1] All CSO communities in the Great Lakes Basin in Illinois are in the Chicago metropolitan area and part of the Tunnel and Reservoir Plan (TARP). TARP was approved as the LTCP for the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the City of Chicago, and 40 satellite communities. Therefore, while each individual community that is part of TARP is listed in this table, there is also a record for the TARP system as a whole because all LTCP and CSO-related data is reported for TARP as a whole.

Table A- 27. Illinois LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
TARP[1]	N/A	Y	N/A	N/A	Y	Y	June 28,1995	N/A	
Brookfield CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Chicago CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
City of Blue Island CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
City of Calumet City CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
City of Evanston CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
City of Harvey TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Des Plaines TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Dixmoor CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Franklin Park CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Golf CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
LaGrange Park CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Lansing CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Lincolnwood CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
MWRDGC Calumet TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
MWRDGC Kirie TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	completed	Progress reports every 6 months
MWRDGC Stickney TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
MWRDGC Northside TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Park Ridge CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Phoenix CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Posen CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Riverside CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Skokie CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Summit CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months

Table A- 27. Illinois LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
Village of Arlington Heights CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	completed	Progress reports every 6 months
Village of Burnham CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Village of Calumet Park CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Village of Dolton CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Village of Forest Park CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of LaGrange CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of Lyons CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of Maywood CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of Melrose Park CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of Morton Grove CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of Niles CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of North Riverside TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of River Forest CSO -TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of River Grove CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of Riverdale CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Village of Schiller CSO TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months
Village of South Holland CSO - TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2015	Progress reports every 6 months
Village of Stickney CSO - TARP	N/A	Y	N	N/A	Y	Y	June 28,1995	12/31/2029	Progress reports every 6 months

Key: Y = Yes; N = No; N/A = Not Applicable

[1] All CSO communities in the Great Lakes Basin in Illinois are in the Chicago metropolitan area and part of the Tunnel and Reservoir Plan (TARP). TARP was approved as the LTCP for the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the City of Chicago, and 40 satellite communities. Therefore, while each individual community that is part of TARP is listed in this table, there is also a record for the TARP system as a whole because all LTCP and CSO-related data is reported for TARP as a whole.

Table A- 28. Illinois Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
TARP[1]	N/A	Y	N	N	N/A
Brookfield CSO TARP	N/A	Y	N	N	N/A
Chicago CSO TARP	N/A	Y	N	N	N/A
City of Blue Island CSO TARP	N/A	Y	Y	N	N/A
City of Calumet City CSO TARP	N/A	Y	Y	N	N/A
City of Evanston CSO TARP	N/A	Y	N	N	N/A
City of Harvey TARP	N/A	Y	Y	N	N/A
Des Plaines TARP	N/A	Y	N	N	N/A
Dixmoor CSO TARP	N/A	Y	Y	N	N/A
Franklin Park CSO TARP	N/A	Y	N	N	N/A
Golf CSO TARP	N/A	Y	N	N	N/A
LaGrange Park CSO TARP	N/A	Y	N	N	N/A
Lansing CSO TARP	N/A	Y	Y	N	N/A
Lincolnwood CSO TARP	N/A	Y	N	N	N/A
MWRDGC Calumet TARP	N/A	Y	Y	N	N/A
MWRDGC Kirie TARP	N/A	Y	N	N	N/A
MWRDGC Stickney TARP	N/A	Y	N	N	N/A
MWRDGC Northside TARP	N/A	Y	N	N	N/A
Park Ridge CSO TARP	N/A	Y	N	N	N/A
Phoenix CSO TARP	N/A	Y	Y	N	N/A
Posen CSO TARP	N/A	Y	Y	N	N/A
Riverside CSO TARP	N/A	Y	N	N	N/A
Skokie CSO TARP	N/A	Y	N	N	N/A
Summit CSO TARP	N/A	Y	N	N	N/A
Village of Arlington Heights CSO TARP	N/A	Y	N	N	N/A
Village of Burnham CSO TARP	N/A	Y	Y	N	N/A
Village of Calumet Park CSO TARP	N/A	Y	Y	N	N/A
Village of Dolton CSO TARP	N/A	Y	Y	N	N/A
Village of Forest Park CSO TARP	N/A	Y	N	N	N/A
Village of LaGrange CSO TARP	N/A	Y	N	N	N/A
Village of Lyons CSO TARP	N/A	Y	N	N	N/A
Village of Maywood CSO TARP	N/A	Y	N	N	N/A

Table A- 28. Illinois Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date
Village of Melrose Park CSO TARP	N/A	Y	N	N	N/A
Village of Morton Grove CSO TARP	N/A	Y	N	N	N/A
Village of Niles CSO TARP	N/A	Y	N	N	N/A
Village of North Riverside TARP	N/A	Y	N	N	N/A
Village of River Forest CSO TARP	N/A	Y	N	N	N/A
Village of River Grove CSO TARP	N/A	Y	N	N	N/A
Village of Riverdale CSO TARP	N/A	Y	Y	N	N/A
Village of Schiller CSO TARP	N/A	Y	N	N	N/A
Village of South Holland CSO TARP	N/A	Y	Y	N	N/A
Village of Stickney CSO TARP	N/A	Y	N	N	N/A

Key: Y = Yes; N = No; N/A = Not Applicable

[1] All CSO communities in the Great Lakes Basin in Illinois are in the Chicago metropolitan area and part of the Tunnel and Reservoir Plan (TARP). TARP was approved as the LTCP for the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the City of Chicago, and 40 satellite communities. Therefore, while each individual community that is part of TARP is listed in this table, there is also a record for the TARP system as a whole because all LTCP and CSO-related data is reported for TARP as a whole.

Table A- 29. Illinois Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
TARP[1]	N/A	0	NDA	0	NDA	0	NDA	0	85%
Brookfield CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Chicago CSO TARP	N/A	0	NDA	0	NDA	NDA	NDA	NDA	85%
City of Blue Island CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
City of Calumet City CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
City of Evanston CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
City of Harvey TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Des Plaines TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Dixmoor CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Franklin Park CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Golf CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
LaGrange Park CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Lansing CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Lincolnwood CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
MWRDGC Calumet TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
MWRDGC Kirie TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
MWRDGC Stickney TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
MWRDGC Northside TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Park Ridge CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Phoenix CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Posen CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Riverside CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Skokie CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Summit CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Arlington Heights CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Burnham CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%

Table A- 29. Illinois Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Village of Calumet Park CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Dolton CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Forest Park CSO - TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of LaGrange CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Lyons CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Maywood CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Melrose Park CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Morton Grove CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Niles CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of North Riverside TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of River Forest CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of River Grove CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Riverdale CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Schiller CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of South Holland CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%
Village of Stickney CSO TARP	N/A	0	NDA	0	NDA	0	NDA	0	85%

Key: NDA = No Data Available; N/A = Not Applicable

[1] All CSO communities in the Great Lakes Basin in Illinois are in the Chicago metropolitan area and part of the Tunnel and Reservoir Plan (TARP). TARP was approved as the LTCP for the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the City of Chicago, and 40 satellite communities. Therefore, while each individual community that is part of TARP is listed in this table, there is also a record for the TARP system as a whole because all LTCP and CSO-related data is reported for TARP as a whole.

Table A- 30. Illinois 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
TARP[1]	N/A	0	1	0	525
Brookfield CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Chicago CSO TARP	N/A	0	Footnote 2	0	Footnote 2
City of Blue Island CSO TARP	N/A	0	Footnote 2	0	Footnote 2
City of Calumet City CSO TARP	N/A	0	Footnote 2	0	Footnote 2
City of Evanston CSO TARP	N/A	0	Footnote 2	0	Footnote 2
City of Harvey TARP	N/A	0	Footnote 2	0	Footnote 2
Des Plaines TARP	N/A	0	Footnote 2	0	Footnote 2
Dixmoor CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Franklin Park CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Golf CSO TARP	N/A	0	Footnote 2	0	Footnote 2
LaGrange Park CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Lansing CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Lincolnwood CSO TARP	N/A	0	Footnote 2	0	Footnote 2
MWRDGC Calumet TARP	N/A	0	Footnote 2	0	Footnote 2
MWRDGC Kirie TARP	N/A	0	Footnote 2	0	Footnote 2
MWRDGC Stickney TARP	N/A	0	Footnote 2	0	Footnote 2
MWRDGC Northside TARP	N/A	0	Footnote 2	0	Footnote 2
Park Ridge CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Phoenix CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Posen CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Riverside CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Skokie CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Summit CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Arlington Heights CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Burnham CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Calumet Park CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Dolton CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Forest Park CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of LaGrange CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Lyons CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Maywood CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Melrose Park CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Morton Grove CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Niles CSO TARP	N/A	0	Footnote 2	0	Footnote 2

Table A- 30. Illinois 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
Village of North Riverside TARP	N/A	0	Footnote 2	0	Footnote 2
Village of River Forest CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of River Grove CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Riverdale CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Schiller CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of South Holland CSO TARP	N/A	0	Footnote 2	0	Footnote 2
Village of Stickney CSO TARP	N/A	0	Footnote 2	0	Footnote 2

Key: N/A = Not Applicable

[1] All CSO communities in the Great Lakes Basin in Illinois are in the Chicago metropolitan area and part of the Tunnel and Reservoir Plan (TARP). TARP was approved as the LTCP for the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), the City of Chicago, and 40 satellite communities. Therefore, while each individual community that is part of TARP is listed in this table, there is also a record for the TARP system as a whole because all LTCP and CSO-related data is reported for TARP as a whole.

[2] Illinois reported 41 CSO events from TARP in 2014. However, most of the events go to Chicago-area rivers and only one event went to Lake Michigan.

Table A- 31. Wisconsin CSO Community Summary Information

EPA Region	State	Name of Municipal Operator of CSS	NPDES Permit Number	Name of Great Lake Discharged to	Direct Discharge into Great Lakes?	Name of Water Body Directly Discharged into	Population Served by CSS	Population Served by WWTP	Design Capacity of WWTP (MGD)
5	WI	Milwaukee	WI0036820	Lake Michigan	Y	Lake Michigan	NDA	1.1 million	123
5	WI	Superior	WI0025593	Lake Superior	Y	Lake Superior	NDA	27,000	7.6

Key: Y = Yes; NA = No Data Available

Table A- 32. Wisconsin LTCP Status

Name of Municipal Operator of CSS	NPDES Permit Number	LTCP Required (Y/N/NA)	Alternative CSO Control Plan Instead of LTCP (Y/N/NA)	Description of Alternative CSO Control Plan	LTCP or Alternative CSO Control Plan				
					CSO Control Plan (LTCP or Alternative CSO Control Plan) Submitted (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approved (Y/N)	CSO Control Plan (LTCP or Alternative CSO Control Plan) Approval Date	Projected Date for Full Implementation of LTCP or Alternative CSO Control Plan	CSO Control Plan (LTCP or Alternative CSO Control Plan) Milestones
Milwaukee	WI0036820	Y	NA	Other	Y	Y	12/26/2007	The major CSO abatement efforts were completed in 1994 and additional improvements implemented between 2004 and 2007.	NDA
Superior	WI0025593	Y	NA	Other	Y	Y	4/1/2013	Major facilities were completed by 1980 the LTCP and updates document continued improvements	NDA

Key: Y = Yes; N = No; N/A = Not Applicable; NDA = No Data Available

Table A- 33. Wisconsin Post-Construction Compliance Monitoring Program Status

Name of Municipal Operator of CSS	NPDES Permit Number	Post-Construction Compliance Monitoring Plan Required (Y/N)	Post-Construction Compliance Monitoring Plan Submitted (Y/N)	Post-Construction Compliance Monitoring Plan Approved (Y/N)	Post-Construction Compliance Monitoring Plan Approval Date	Notes
Milwaukee	WI0036820	Y	Y	Y	12/26/2007	
Superior	WI0025593	Y	Y	Y	3/23/2015	

Key: Y = Yes; N = No

Table A- 34. Wisconsin Pre- and Post-Construction CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Average Annual Number of CSO Events Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Historic Volume of CSOs Before Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)		Average Annual Number of CSO Events After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan)		Average Annual Volume of CSOs Anticipated After Implementation of CSO Control Plan (LTCP or Alternative CSO Control Plan) (MG/yr)	
		Treated	Untreated	Treated	Untreated	Treated	Untreated	Treated	Untreated
Milwaukee	WI0036820	NDA	50 to 60	NDA	8000 - 9000	NDA	<3	NDA	770
Superior	WI0025593	N/A	NDA	N/A	NDA	0.74	NDA	NDA	NDA
Key: N/A = Not Applicable; NDA = No Data Available									

Table A- 35. Wisconsin 2014 CSO Status

Name of Municipal Operator of CSS	NPDES Permit Number	Total Number CSO Events in 2014		Total CSO Overflow Volume in 2014 (MG/yr)	
		Treated	Untreated	Treated	Untreated
Milwaukee	WI0036820	0	1	0	0.337
Superior	WI0025593	0	0	0	0

Glossary

A

Alternative Combined Sewer Overflow (CSO) Control Plan
Any CSO control plan that is recognized by a regulatory authority as an acceptable CSO control plan but does not meet the nine elements of a long-term control plan as documented in the CSO Control Policy, and/or does not meet the minimum requirements for a long-term control plan for a small community under 75,000, as described in the CSO Control Policy. Examples include sewer separation, grandfathered or pre-policy CSO control, and Tunnel and Reservoir Plan.

B

Best Available Technology Economically Achievable (BAT)
Technology-based standard established under the Clean Water Act (CWA) for effluent limitations in National Pollutant Discharge Elimination System (NPDES) permits for toxic antim sd nonconventional pollutants.

Best Conventional Pollutant Control Technology (BCT)
Technology-based standard established under the C WA for effluent limitations in NPDES permits for conventional pollutants, including biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease.

C

Clean Water Act (CWA)
Refers to the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500), 33 U.S.C. 1251 et seq., as amended.

Combined Sewer Overflow (CSO)
The discharge from a combined sewer system at a point prior to the publicly owned treatment works treatment plant.

Combined Sewer Overflow (CSO) Control Policy
An EPA policy published on April 19, 1994 (59 FR 18688).

Combined Sewer Overflow (CSO) Event
One or more overflows from a combined sewer system resulting from a wet weather event that does not receive at least primary clarification, solids and floatables disposal, and disinfection of the effluent.

Combined Sewer Overflow (CSO) Volume
The total volume (in millions of gallons) of effluent discharged in a combined sewer overflow event.

Combined Sewer System (CSS)
A wastewater collection system owned by a state or municipality [as defined by section 502 (4) of the CWA] that conveys sanitary wastewaters (domestic, commercial, and industrial wastewaters) and stormwater through a single-pipe system to a publicly owned treatment works treatment plant [as defined in 40 CFR 403.3(p)].

Construction Grants Program
Federal assistance program authorized under Section 201 of the Clean Water Act to make grants to states, municipalities, and inter-municipal or interstate agencies for the construction of publicly owned treatment works.

Conventional Pollutants
The CWA defines conventional pollutants that include biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease.

D

Demonstration Approach
One of two methods described in the CSO Control Policy for developing a LTCP. The CSO Control Policy provides that a permittee may demonstrate that a selected control program is adequate to meet the water quality-based requirements of the CWA.

Direct Discharger
For the purposes of this Report to Congress, an owner/operator of a combined sewer system with one or more combined sewer overflow outfalls discharging directly into one of the Great Lakes.

Dissolved Oxygen (DO)
The oxygen freely available in water, which is vital for sustaining fish and other aquatic life as well as for preventing odors. DO levels are considered one of the most important indicators of a water body's ability to support desirable aquatic life.

Dry Weather Flow Conditions
Hydraulic flow conditions within the combined sewer system resulting from one or more of the following: flows of domestic sewage, ground water infiltration, commercial and industrial wastewaters, or any other nonprecipitation event-related flows (e.g., tidal infiltration under certain circumstances).

F

Floatables and Trash
Visible buoyant or semi-buoyant solids including but not limited to organic matter, personal hygiene items, plastics, styrofoam, paper, rubber, glass, and wood.

G

Great Lakes Basin
The total watershed areas within the United States discharging into the Great Lakes. Note that areas of Canada also discharge into the Great Lakes, but they are not considered in this Report.

Green Infrastructure
An engineered structure or natural feature that utilizes natural processes to control stormwater runoff as close to its source as possible. Green infrastructure reduces the quantity and rate of stormwater flows through the processes of infiltration, evapotranspiration, and capture and use (i.e., rainwater harvesting).

H

Headworks of a Wastewater Treatment Plant
The initial structures, devices, and processes provided at a wastewater treatment plant, including screening, pumping, measuring, and grit removal facilities.

I

Infiltration
Stormwater and ground water that enter a sewer system through such means as defective pipes, pipe joints, connections, or manholes. (Infiltration does not include inflow).

Infiltration/Inflow (I/I)
The combined volume of flow in a sewer system from both infiltration and inflow.

Inflow
Water, other than wastewater, that enters a sewer system from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm drains and sanitary sewers, catch basins, cooling towers, stormwater, surface runoff, street waste waters, and other drainage. (Inflow does not include infiltration).

L

Long-Term Control Plan (LTCP)
A combined sewer overflow control plan that is ultimately intended to result in compliance with the CWA. LTCPs consider the site-specific nature of combined sewer overflows and evaluate the cost-effectiveness of a range of controls. The CSO Control Policy describes two

approaches for selecting an adequate level of control in the LTCP - the presumption approach and the demonstration approach.

M

Major Publicly Owned Treatment Works (POTW)
A classification for POTWs that are designed to discharge 1 million or more gallons per day. Some publicly owned treatment works with smaller design flows are classified as major when the NPDES authority deems it necessary for a specific NPDES permit to have a stronger regulatory focus.

Million Gallons per Day (MGD)
A unit of flow commonly used for wastewater discharges. One million gallons per day is equivalent to a flow rate of 1.547 cubic feet per second over a 24-hour period.

Minor Publicly Owned Treatment Works (POTW)
A classification for POTWs that are designed to discharge less than 1 million gallons per day.

N

National Pollutant Discharge Elimination System (NPDES)
The national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 318, 402, and 405 of the CWA.

Nine Minimum Controls (NMC)
Specific steps set forth in the CSO Control Policy that comprise the minimum technology-based effluent limitations to be included in a NPDES permit for combined sewer overflows.

Nutrient
A compound that is necessary for metabolism.

P

Point Source
Defined in section 502(14) of the CWA as any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fixture, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may could be discharged. The term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

Post-Construction Compliance Monitoring
A water quality monitoring program to verify compliance with WQSs and protection of designated uses as well as to ascertain the effectiveness of combined sewer overflow controls after completion of construction called for in the long-term control plan, as described in Section II.C.9 of the CSO Control Policy.

Presumption Approach
One of two methods described in the CSO Control Policy for developing a LTCP. The CSO Control Policy provides that a program in a LTCP that meets certain minimum performance criteria defined in the Policy "... would be presumed to provide an adequate level of control to meet the water quality-based requirements of the CWA, provided the permitting authority determines that such presumption is reasonable in light of the data and analysis conducted in the characterization, monitoring, and modeling of the system and the consideration of sensitive areas..." (CSO Control Policy II.C.4.a).

Primary Treatment
First steps in wastewater treatment wherein screens and sedimentation tanks are used to remove most materials that float or will settle. For purposes of this Report, "primary treatment" means the same as "primary treatment or equivalent treatment" in Section 301(h) of the CWA: "treatment by screening, sedimentation, and skimming adequate to remove 30 percent of biochemical oxygen demand (BOD) and 30 percent of suspended solids."

Publicly Owned Treatment Works (POTW)
As defined in 40 CFR 403.3(q), a treatment works as defined by section 212 of the CWA that is owned by a state or municipality. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a publicly owned treatment works treatment plant.

S

Sanitary Sewer Overflow (SSO)
An untreated or partially treated sewage release from a separate sanitary sewer system.

Secondary Treatment
Technology-based requirements for discharges from municipal sewage treatment facilities. 40 CFR 133.102 defines secondary treatment as 30-day averages of 30 milligrams per liter BOD_5 and 30 milligrams per liter suspended solids, along with maintenance of pH within 6.0 to 9.0 (except as provided for special considerations and treatment equivalent to secondary treatment).

Separate Sanitary Sewer (SSS)
A municipal wastewater collection system that conveys domestic, commercial, and industrial wastewater, and limited amounts of infiltrated ground water and stormwater to a publicly owned treatment works treatment plant. Areas served by separate sanitary sewer systems often have a municipal separate storm sewer system to collect and convey runoff from rainfall and snowmelt.

Sewer Separation
The practice of separating a combined sewer system into storm sewers for stormwater flows and separate sanitary sewers for sanitary flows.

State Revolving Fund (SRF) Program
A federal program created by the CWA Amendments in 1987 that offers low-interest loans for wastewater treatment projects.

T

Total Suspended Solids (TSS)
A measure of the filterable solids present in a sample of water or wastewater (as determined by the method specified in 40 CFR Part 136).

Toxics
Materials contaminating the environment that cause death, disease, and/or birth defects in organisms that ingest or absorb them. The quantities and length of exposure necessary to cause these effects can vary widely.

Treated CSO Discharges
CSO discharges that receive a minimum of:

- Primary clarification (Removal of floatables and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification.);

- Solids and floatables disposal; and

- Disinfection of effluent, if necessary, to meet WQSs, protect designated uses and protect human health, including removal of harmful disinfection chemical residuals, where necessary.

W

Water Quality Standard (WQS)
A law or regulation that defines the goals for a water body by designating its use, setting criteria to protect those uses, and establishing provisions such as antidegradation policies to protect waterbodies from pollutants.

Water Quality-based Effluent Limitations (WQBELs)
Effluent limitations in NPDES permits that are required when technology-based limitations are insufficient for attainment of WQSs.

Waters of the United States (WOUS)
Defined in 40 CFR §122.2.

Wet Weather Event
A discharge from a combined or separate sanitary sewer system that occurs in direct response to rainfall or snowmelt.

Wet Weather Flow
Dry weather flow along with flows from a wet weather event in a sewer.

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