



City of Aurora and Fox Metro Water Reclamation District CSO Pollution Prevention Plan



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1 OVERVIEW

1.1 Purpose of Plan

Congress enacted the Pollution Prevention Act of 1990 in an effort to implement a national strategy for reducing contamination from all sources. The Act establishes the following hierarchy for pollution management efforts:

- Pollution should be prevented or reduced at the source wherever feasible.
- Pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible.
- Pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible.
- Disposal or release of pollution into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.

The objective of a Pollution Prevention Plan (PPP) is to reduce to the greatest extent possible the amount of contaminants that enter a combined sewer system (CSS) through best management practices (BMPs). BMPs are intended not only to reduce the volume of pollutants entering a CSS but to reduce the number of combined sewer overflows (CSOs) that occur during a rain event.

The CSS in the City of Aurora conveys wastewater and a portion of stormwater flow to the Fox Metro Water Reclamation District (FMWRD) wastewater treatment plant for treatment. During certain rainfall events, stormwater flow exceeds the hydraulic capacity of the CSS resulting in the discharge of combined wastewater and stormwater through several discharge points along the Fox River and Indian Creek. The discharge of this combined flow is permitted by the Illinois Environmental Protection Agency (IEPA) under the National Pollution Discharge Elimination System (NPDES) through both FMWRD's NPDES permit (Permit No. IL0020818) and the City of Aurora's permit (Permit No. IL0048518).

Since both FMWRD and the City of Aurora are responsible for maintaining their respective portions of the CSS (as defined in Section 1.2) they have opted to prepare a combined Pollution Prevention Plan (PPP) for this service area. The plan has been developed in compliance with the requirements of a special condition contained within both FMWRD's and the City of Aurora's NPDES permits which require that a PPP be established for the CSS in accordance with the United States Environmental Protection Agency guidance document, "*Combined Sewer Overflows*,

Guidance for Nine Minimum Controls". Both FMWRD and the City of Aurora currently have a PPP in place. This document is an update of their existing plans.

1.2 Summary of the CSS

The CSS encompasses approximately 7,145 acres serviced by approximately 130 miles of combined sewers and is located entirely within the corporate limits of the City of Aurora. There are presently sixteen permitted combined sewer overflow diversion structures in the City of Aurora's CSS and one permitted combined sewer overflow diversion structure at the headworks of the Fox Metro Water Reclamation District's wastewater treatment plant. The City's CSS is served by the Original East and West Bank Interceptor which ranges in size from 36-inches to 69-inches in diameter. This interceptor transports all dry weather flows and a portion of the wet weather flows to the FMWRD's wastewater treatment plant. FMWRD owns this interceptor, one combined sewer overflow structure at the wastewater treatment plant and all separated sanitary sewers with a diameter greater than fifteen inches. The City of Aurora owns the remaining combined sewer overflow diversion structures, all sewers within the CSS and all separated sanitary sewers less than fifteen inches in diameter.

All permitted combined sewer overflows discharge into the Fox River with the exception of an overflow structure located at Dearborn and Trask that discharges into Indian Creek, which is tributary to the Fox River. The FMWRD and City of Aurora CSO Operational and Maintenance Plan discusses the CSOs in more detail.

1.3 Description of the Pollution Prevention Plan

Since CSS discharges consist of wastewater and stormwater, pollution contained therein could include industrial wastewater, discarded litter from streets and parks, domestic wastewater, household hazardous wastes, oil and gasoline from streets and parking lots, and any other chemicals that may be discharged into the CSS. By minimizing pollutants entering the CSS, significant water quality and habitat benefits can be achieved. Pollution prevention is one of the Nine Minimum Controls (NMCs) that every CSS community is expected to implement. Pollution prevention as a rule relies on low technology practices which involve BMPs to reduce or eliminate the generation of waste and pollutants at the source.

This PPP addresses the following types of source control:

- Street Cleaning
- Public Education Programs
- Solid Waste Collection and Recycling
- Product Ban/Substitution
- Control of Product Use
- Illegal Dumping
- Bulk Refuse Disposal
- Hazardous Waste Collection
- Water Conservation
- Commercial/Industrial Pollution Prevention

These control measures are discussed in detail in Section 2.0 of this plan.

2 CONTROL MEASURES

In the 1990's, FMWRD and the City of Aurora formed a CSO partnership to maintain the CSS. Currently, the City of Aurora and FMWRD meet on a monthly basis to discuss the status of CSO maintenance, the progress of both FMWRD's and City of Aurora's long term control plans (LTCP) and sewer maintenance issues. Through this partnership, FMWRD and the City of Aurora collaborate on the investigation, maintenance and repair of combined and separated sewers throughout the city of Aurora.

FMWRD, the City of Aurora and other local agencies administer several pollution prevention programs to help keep contaminants, such as litter and sediment wastes, from entering the CSS. A discussion of these practices follows.

2.1 Street Cleaning

Street cleaning can be an effective means of reducing the accumulation of street debris which can enter the CSS during wet weather events. In addition to removing litter, leaves and dirt on the streets, street sweeping can also reduce nutrients, BOD, bacteria and metal loading to the CSS. In addition, street sweeping can add aesthetic benefit to the community by reducing the litter that accumulates in the street over time.

Streets within FMWRD's boundaries are maintained by the local municipalities having jurisdiction. The streets within the CSS area are all located in the City of Aurora. The City operates a street cleaning program to reduce litter and other materials from streets and curbsides. Barring equipment or personnel issues, downtown streets are scheduled to be swept approximately five nights a week, major roads outside of the downtown are scheduled to be swept approximately one time per month and residential streets are scheduled to be swept approximately every other month.

Since pedestrian and commercial traffic is high in the downtown area, this program of frequent mechanical broom street sweeping in the downtown area is instrumental in reducing the amount of potential litter in CSO discharges.

The City of Aurora offers a free leaf collection service for two weeks in spring and six weeks in the fall. Leaves are placed in 30-gallon paper yard waste bags and put out on the curb for pickup

during weekly garbage collection. More information on this program can be found at <https://www.aurora-il.org/sanitation/yardwaste.php>.

2.2 Public Education Programs

Public awareness is a critical component in pollution reduction. Public education programs can encourage the proper disposal of litter, household hazardous wastes, sanitary and personal hygiene items, and grease which all can affect the CSS. The general public has a limited understanding of what the CSS is and how they can impact receiving stream water quality. Programs which educate the public on the repercussions of dumping and littering may decrease the frequency of such incidents.

FMWRD offers public education programs for students from grade school through college ages. This includes classroom programs and site tours of the wastewater treatment facility. Classroom programs focus on a variety of items, some of which include the proper disposal of household items, pesticides and herbicides, as well as non-point source pollution and what can be done on an individual basis to help control pollution.

FMWRD has a permanent display at the SciTech Hands-on-Museum in downtown Aurora. SciTech's mission is to engage people in experiencing and learning science and technology in a fun and interactive way. In 2016, this display will be upgraded by FMWRD to include a 55 inch touch screen kiosk that allows users to have an age appropriate interactive experience with FMWRD's facility. The display will allow children to watch a short film on how wastewater reaches the treatment facility from their house and how the wastewater is treated. There will also be games for the children to play which help them understand the wastewater treatment process. For older participants, there will be more in depth exhibits which discuss the history of the wastewater treatment plant and how large quantities of wastewater are treated.

FMWRD participates in local fairs and Earth Day events to help educate the public about the proper waste disposal of household and hazardous waste items and pharmaceuticals. FMWRD provides free of charge fat trappers for household use in order to educate the public on proper oil and grease disposal.

FMWRD maintains a website (<http://www.foxmetro.dst.il.us>) and posts a variety of information including:

- FMWRD ordinances such as the Sewer Use Ordinance, Pretreatment Program Ordinance and Grease Program Ordinance.
- Information and links to other web sites regarding household hazardous waste collection programs administered by the IEPA and Kane County Environmental Management Department as well as scheduled collection days for local residents.
- Information regarding FMWRD's Industrial Pretreatment Program.
- Information on combined sewer overflows.
- Pollution prevention information as well as links to other web sites that help educate residential users on pollution prevention and proper disposal methods.
- Pharmaceutical collection program.

FMWRD and the City of Aurora also participate in voluntary clean ups within the Aurora area. Previous events were scheduled in 2008, 2009, 2010 and 2012. In 2015, approximately 300 to 320 volunteers along with employees from both FMWRD and the City of Aurora joined with the local Kiwanis Club in picking up trash along Indian Creek and the Fox River. In 2015 approximately 65 cubic yards of trash was collected. In previous years the quantity ranged from 50 to 70 cubic yards. As part of this event, FMWRD also collected pharmaceuticals for proper disposal.

Both FMWRD and the City of Aurora have strived to label their storm drains and catch basins to indicate that these structures drain to the river and therefore nothing should be dumped down the drains.

The City of Aurora actively promotes sustainability measures through their website. Some topics include:

- The reduction of non-point source pollutants at http://www.aurora-il.org/green/nps_pollution.php
- Water conservation at <http://www.aurora-il.org/waterbilling/conservation.php>;
- Recycling of materials and electronics at <http://www.aurora-il.org/sanitation/recycling.php>.
- The use of rain barrels at http://www.aurora-il.org/publicworks/rain_barrels.php

The City of Aurora is also active in promoting green infrastructure through: educational and outreach measures at fairs and other community events; through their website; and by presenting at

conferences and seminars. They have also produced and distributed a brochure on Green Infrastructure which details what citizens can do to reduce their environmental impact.

The City of Aurora has produced a Stormwater Toolkit to educate and assist residents, businesses and developers to comply with the City of Aurora's stormwater management requirements. This document details sources of stormwater planning strategies including: BMPs for stormwater treatment, storage technology and conveyance technology; planning a project; retention practices; filtration practices; and assessment, monitoring, operation and maintenance of the chosen alternatives.

The City of Aurora currently posts their monthly Discharge Monitoring Reports (DMRs) for their combined sewer overflows at https://www.aurora-il.org/engineering/discharge_monitoring.php. As part of this reporting, the City is in the process of creating a webpage to educate the public on combined sewer overflows.

2.3 Solid Waste Collection and Recycling

Solid waste management can reduce the amount of litter and pollutants within a CSS area. Solid waste collection and recycling within the FMWRD boundaries are performed by the local municipalities having jurisdiction.

The City of Aurora manages a comprehensive solid waste collection program which includes not only garbage and trash removal, but also curbside recycling and yard waste collection. Refuse, yard waste and curbside recycling services are provided once a week for each residence through a contracted service (presently Republic Services). Currently Aurora residents receive curbside collection of the following materials:

- normal household trash
- recyclable trash such as mixed paper, newspaper and containers made of plastic, tin, aluminum, glass or cardboard
- household furniture and appliances
- construction materials 4 ft. in length
- completely dried or empty paint cans

- yard waste and spring and fall leaf collection
- unbundled brush

Detailed information regarding the City's curbside waste collection and recycling programs and its limitations are available in the City's "*Trash & Recycling Reference Guide*" or at the City's website at <http://www.aurora-il.org/sanitation/recycling.php>.

In addition to the curbside waste collection program, the City maintains numerous trash receptacles located throughout the downtown area. These receptacles are generally emptied three times per week. Likewise, the Fox Valley Park District (FVPD) maintains approximately 550 garbage receptacles on their park and trail properties throughout Aurora and other neighboring towns. These are emptied on a weekly basis. In addition during the mowing season, mowing operators pick up litter each time they mow a park usually about once a week. Roving crews pick up litter on Mondays at locations where there has been heavy use over the weekend.

2.4 Product Ban/Substitution

Currently, neither the City of Aurora nor FMWRD specifically ban any product or participate in product substitution.

However, there are state wide bans. In 2010, the State of Illinois banned the use of phosphorus in fertilizer for most commercial applicators. As of January 1, 2012, electronic waste is banned from Illinois landfills. In support of this electronics ban, the City of Aurora offers collection events at the City's Customer Service Center located at 3770 McCoy Drive and Central Garage facility located at 720 N. Broadway Ave.

2.5 Control of Product Use

During wet weather events, applied fertilizers and pesticides can be washed from the ground surface into the CSS and into the river through a CSO. These fertilizers and pesticides contain high levels of nutrients and can contribute to eutrophication of streams and can be toxic to aquatic life.

FMWRD sparingly uses materials such as fertilizers, pesticides, de-icing salts, etc. at their facility. All operators for the City of Aurora are certified in the use of these products. The City of Aurora uses herbicides sparingly throughout the summer/autumn (May through October). Sprayings

concentrate directly on the weed or wild growth. Care is taken to avoid over spraying herbicides. The City's mosquito abatement program relies on green products for mosquito control.

The City of Aurora has also developed a "Sensible Salting" program. The objective of this program is to reduce the amount of salt used on roadways during winter months in order to decrease the amount of salt in storm runoff. Guidelines include: planning, personnel training, equipment maintenance, spreader calibration, proper storage, proper maintenance around chemical storage areas and environmental awareness. The City of Aurora salt applicator staff receive training every two years on the proper use and application rates of roadway salt. In addition, roadway surfaces are pre-treated to reduce the use of salt and to prevent snow from sticking to the plows. Salt spreaders are also routinely maintained and calibrated.

2.6 Illegal Dumping

FMWRD employees in conjunction with City of Aurora employees are constantly on the watch for illegal activities. The ability for FMWRD to enforce illegal dumping regulation is done through the following control documents: Sewer Use Ordinance No. 800, Industrial Wastewater Pretreatment Ordinance No. 517 and the Grease Program Ordinance No. 784.

In order to reduce undesirable activities such as illegal dumping, all City of Aurora employees have been trained to detect and report suspicious activity. In order to encourage employees to be vigilant, some City Divisions have set goals for the number of Suspicious Activity Reports filed per month. The City's Division of Neighborhood Standards patrols the City looking for code violations such as illegal dumping and the accumulation of trash and debris.

The Aurora Police Department investigates illegal dumping occurrences. Items that have been dumped are collected by the Public Works Department after the initial investigation and disposed accordingly.

2.7 Bulk Refuse Disposal

Bulk refuse disposal within FMWRD's boundaries is performed by the local municipalities having jurisdiction. The City's solid waste program includes bulk refuse disposal for each residence through their contracted services. Currently, Aurora residents receive curbside collection of household furniture, appliances (such as refrigerators, freezers, televisions, etc.) and construction materials from residential home improvements.

In addition, there are many local commercial recycling facilities within the City of Aurora that will pay for metal refuse material made from steel, copper, aluminum, etc. Illinois law requires tire retailers to accept used tires at their facility.

2.8 Hazardous Waste Collection

For a number of years FMWRD has operated a Medication Take Back Program for residents of its service area. To encourage the use of this program, residents can anonymously and free of charge, dispose of medications at a drop box located at the offices of FMWRD. This program helps reduce disposal of medications in the sewer system by collecting the follow items:

- Non-controlled DEA drugs
- Medication samples
- Prescription medications
- Over-the-counter medications
- Medicated ointments and lotions
- Vitamins
- Medications for pets
- Inhalers

Through their respective websites, both FMWRD and the COA encourage residents to dispose of their hazardous waste at the household hazardous waste collection facility located just north of Naperville's Department of Public Works at 156 Fort Hill Drive in Naperville. This facility is open Saturdays and Sundays, from 9:00 a.m. to 2:00 p.m., excluding holidays and accepts the following materials:

- Household cleaners, drain openers
- Used oil
- Paints (oil based only)
- Mineral spirits, strippers, solvents
- Insecticides, herbicides
- Flammables, automotive fluids
- Fluorescent fixtures
- Household batteries

- Unknown hazardous substances
- Prescription medication

2.9 Water Conservation

Water conservation can be broadly defined as practices and techniques that improve the efficiency of water use. Water conservation programs can help reduce sanitary flow and increase the CSS collection and treatment capacity during storm events.

FMWRD conserves water at their wastewater treatment facilities by reusing over two million gallons per day of their treated effluent in lieu of potable water. Various reuses of treated effluent at the wastewater treatment plant include irrigation, mechanical seal water, boiler system water, wash down of floors, heating and cooling in their administration and laboratory buildings and fire protection. FMWRD has also been actively pursuing the potential expansion of water reuse with local manufacturing (i.e. Caterpillar, etc.) and government agencies (i.e. Fox Valley Park District, City of Aurora Parks Department, etc.) for further conservation of potable water resources.

The City of Aurora regularly reviews and amends their Water Conservation Ordinance (Chapter 48, Section 31 of the Aurora Code of Ordinances). The latest amendment in May 2013 allows residents to water lawns based on an odd/even protocol based on the last digit of the street address. Watering is limited to the hours of 6:00 a.m. to 9:00 a.m. and 6:00 p.m. to 9:00 p.m. The ordinance prohibits the waste of water as well as sodding/ seeding during the months of July and August.

The City of Aurora and FMWRD partnered with the Sierra Club and the Illinois EPA to install rain gardens at seventeen intersections on the east side of Aurora. One rain garden has recently been completed on the west at Russell Avenue and Kensington Place. The City is evaluating whether to install up to ten more rain gardens at intersections on the west side of Aurora. The rain gardens are designed to retain stormwater runoff during rain events and allow it to slowly infiltrate into the ground. This process naturally removes runoff contaminants such as sand, dirt and grit, excess fertilizer and chemicals from vehicles before it returns to the ground. Removing stormwater runoff from the CSS reduces frequency of surcharging and CSOs as well as reduces the quantity of stormwater transported to FMWRD's treatment plant. See <https://www.aurora-il.org/green/raingarden.php> for more details on this program.

The City of Aurora promotes the use of rain barrels by selling rain barrels through the Conservation Foundation and has an active display on the use of rain barrels at the Stover's Visitor Center at Phillips Park.

2.10 Commercial/Industrial Pollution Prevention

FMWRD manages an Industrial Wastewater Pretreatment Program in order to minimize the discharge of pollutants into the sewer system. The program is designed to meet the requirements of their Industrial Wastewater Pretreatment Ordinance No. 517. The pretreatment discharge limits included in the pretreatment ordinance incorporate federal, state and local pretreatment discharge standards. Also included in the ordinance are strict enforcement and compliance strategies.

Industrial users in the program are required to have Spill Prevention and Counter Control Measure Plans on file with FMWRD. At a minimum FMWRD visits each industry at least once a year to insure that the details contained within the plan have been implemented and enforced. All industrial users in the program are required to have and use best management practices (BMP's) to minimize pollutant discharges.

FMWRD also manages a Grease Ordinance Program through Ordinance No. 784. This ordinance sets forth uniform requirements for both food service establishments (FSEs) and Non-FSE fats, oil and grease (FOG) dischargers that discharge wastewater into the sewer system. The objectives of the ordinance are:

- To prevent the introduction of pollutants into FMWRD's collection system by FOG dischargers that will interfere with the operation of the wastewater treatment plant;
- To prevent the introduction of pollutants into FMWRD's collection system by FOG dischargers that could cause combined sewer overflows (CSOs) or sanitary sewer overflows (SSOs);
- To protect the environment from pollution caused by CSOs and SSOs;
- To adequately regulate the sale and use of additives added to Grease Removal Systems (GRSs).

The ordinance applies to all non-residential users defined as FSEs or non-FSEs that discharge or may discharge excess FOG to the sewer system. The ordinance authorizes inspection and regulation of these users; authorizes monitoring, compliance, and enforcement activities; establishes administrative review procedures; requires user record keeping; provides for the

issuance of control mechanisms if deemed necessary; and provides for the setting of fees for the equitable distribution of costs resulting from the program, if deemed necessary.

The City of Aurora and FMWRD work together to implement the elements contained within this PPP. This PPP will be updated as modifications to the plan occur.

APPENDIX A

CSO POLLUTION PREVENTION PLAN CERTIFICATION

CSO POLLUTION PREVENTION PLAN CERTIFICATION

(To be Completed by Permittee)

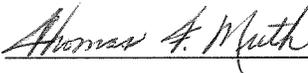
Facility Name Fox Metro Water Reclamation District **NPDES No.** IL 0020818

Additional information on each of the following items can be found in Chapter 8 of Combined Sewer Overflows, Guidance for Nine Minimum Controls, USEPA, May, 1995 (EPA 832-B-95-003). Copies are available from USEPA or can be downloaded from the internet at <http://www.epa.gov/npdes/pubs/owm0030.pdf>.

		Included Yes	No	Administrative N/A	Acceptance
Describe any street cleaning efforts performed on a regular basis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts aimed at educating the public including anti-litter campaigns, proper disposal of sanitary and personal hygiene items, and proper application of fertilizers, pesticides and herbicides.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe solid waste collection procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any recycling efforts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts undertaken to ban or substitute products that do not degrade in the environment such as polystyrene (see Section 8.1.4).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts to control product use such as fertilizers, pesticides, de-icing salts that are under the control of the Permittee (see Section 8.1.5).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe efforts taken to control illegal dumping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts to collect bulk refuse (see Section 8.1.7).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any hazardous waste collection programs offered from time to time in the Permittee's service area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any water conservation efforts in the Permittee's service area.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any pollution prevention activities required of commercial or industrial dischargers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explain all 'No' and 'N/A' on a separate sheet and attach.

I attest that this form has been completed by me or by others under my direct supervision and that the information contained herein is, to the best of my knowledge, true and complete.

	District Manager	4/14/2016
(Signature)	(Title)	(Date)

NOTE: Signature should be authorized according to 35 Ill. Adm. Code 309.103(e).

Contact Person: <u>Thomas F. Muth</u>	Title: <u>District Manager</u>
Address: <u>682 Route 31</u>	Phone: <u>(630) 892-4378</u>
<u>Oswego, IL 60543</u>	

-----SPACE BELOW RESERVED FOR IEPA USE ONLY-----

ADMINISTRATIVE REVIEW

FIELD VERIFICATION

(Signature)

(Date)

(Signature)

(Date)

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WPC 728 1/2004