

Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control ANNUAL FACILITY INSPECTION REPORT

for NPDES Permit for Storm Water Discharges from Separate Storm Sewer Systems (MS4)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. Complete each section of this report.

	recon total or			
Report Period: From March, 2021	To March,	2022		Permit No. ILR40 0173
MS4 OPERATOR INFORMATION: (As it app	pears on th	ne current pe	rmit)	
Name: City of Chicago		Mailing	Address 1: Jardine	Water Purification Plant
Mailing Address 2:1000 East Ohio Street				County: Cook
City: Chicago	State	: IL Zip	60611	Telephone: 312-744-7001
Contact Person: Brendan Schreiber (Person responsible for Annual Report)		_ Email Add	Iress: <u>Brendan.Sch</u>	reiber@cityofchicago.org
Name(s) of governmental entity(ies) in which	MS4 is lo	cated: (As it	t appears on the cu	rrent permit)
City of Chicago				
THE FOLLOWING ITEMS MUST BE ADDRESS	SED.			
A. Changes to best management practices (chec regarding change(s) to BMP and measurable		iate BMP cha	ange(s) and attach in	formation
1. Public Education and Outreach	V	4. Constructi	ion Site Runoff Conti	ol 🗌
2. Public Participation/Involvement	√ 5	5. Post-Cons	struction Runoff Con	trol
3. Illicit Discharge Detection & Elimination		6. Pollution F	Prevention/Good Hou	usekeeping
B. Attach the status of compliance with permit comanagement practices and progress towards MEP, and your identified measurable goals for	achieving t	the statutory	goal of reducing the	•
C. Attach results of information collected and ana	alyzed, incl	luding monito	oring data, if any dur	ing the reporting period.
D. Attach a summary of the storm water activities implementation schedule.)	s you plan	to undertake	during the next repo	orting cycle (including an
E. Attach notice that you are relying on another of	governmen	it entity to sa	tisfy some of your pe	ermit obligations (if applicable).
F. Attach a list of construction projects that your	entity has p	paid for durin	ng the reporting perio	d.
Any person who knowingly makes a false, fictitiou commits a Class 4 felony. A second or subsequent				
Angle and Charge Owner Signature			5/31/2 Date	22
Andrea R.H. Cheng			Commissioner	
Printed Name:			Title:	

EMAIL COMPLETED FORM TO: epa.ms4annualinsp@illinois.gov

or Mail to: ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

WATER POLLUTION CONTROL

COMPLIANCE ASSURANCE SECTION #19

1021 NORTH GRAND AVENUE EAST

POST OFFICE BOX 19276

SPRINGFIELD, ILLINOIS 62794-9276

CITY OF CHICAGO ANNUAL FACILITY INSPECTION REPORT

GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

Year 19 March 2021 – March 2022

Submitted to:
Illinois Environmental Protection Agency

By: City of Chicago

May 2022

A. Changes to Best Management Practices

The City of Chicago (City) continues its efforts to effectively manage stormwater runoff and protect the quality of area waters. This includes citywide implementation and modification of stormwater and pollution control Best Management Practices (BMPs) to reduce the negative impacts of stormwater runoff; illicit discharge investigations and enforcement to ensure only stormwater is conveyed; and public education and participation efforts intended to increase the awareness of stormwater and water quality management issues.

Due to changes in operations because of the COVID-19 pandemic, the Department of Buildings (DOB) and Department of Water Management (DWM) have adjusted their in person education strategies. DWM have also focused on other forms of communication, including social media posts and coordination with Aldermen regarding stormwater management and recommendations to reduce neighborhood flooding.

B. Status of Compliance with Permit Conditions

See Table 1 on Page 4 for progress on each of the established City BMPs for the six minimum controls.

Additionally, the City is continuing to examine the existing stormwater management program in regards to the approved Total Maximum Daily Loads (TMDLs) for Lake Michigan Nearshore, Lake Michigan Beaches, Higgins Creek, and the North Branch Chicago River to see if additional efforts are needed. In Year 19, the City continued performing inspections along North Branch Chicago River to verify the stormwater drainage extents relative to the combined sewer system; investigated implementing a sampling plan for Higgins Creek in order to evaluate whether the City's existing BMPs are adequately meeting the waste load allocation required by these TMDL reports; and continued reviewing the stormwater drainage areas to Lake Michigan and within the Lake Michigan Beach Protection Areas.

C. Information and Data Collection Results

In Year 19, DWM and Chicago Department of Aviation (CDA) conducted visual observations of outfalls and their adjacent waterbodies for 84 storm outfall locations, while documenting color, odor, clarity, solids, foam, oil sheen, and other indicators of stormwater pollution in the waterbody. DWM continued to use its mobile application to efficiently log and track inspection metrics as well as facilitate investigations for any location identified from inspections as having a water quality issue.

Further evaluation of stormwater quality and impacts were not completed in Year 19 due to budget constraints.

D. Summary of Year 19 Stormwater Activities

See Table 1, referenced in Section B, for a listing of the stormwater activities planned to be undertaken during the next reporting cycle (i.e., Year 20) per each established City BMP.

E. Notice of Reliance upon Other Governmental Entities

The City of Chicago does not currently rely on other government entities for the City's MS4 program.

As part of its efforts to improve water quality of local waterways, the City is also part of the Chicago Area Waterways Chloride Workgroup. The group's main objective is to coordinate efforts by various stakeholders (e.g., municipalities, wastewater treatment plant operators, transportation entities, industrial discharges, etc.) in reducing chloride discharges into the environment.

F. Construction Projects during Year 19

See Tables 2 and 3 on Pages 15-16 for a documentation of the construction projects located in MS4 areas for Year 19.

Table 1 Sections B and D BMP Progress and Goals

Public Education and Outreach

BMP No.	BMP Category	Brief Description of BMP	Year 19 Measurable Goal Progress	Year 20 Measurable Goals
A.2	Speaking Engagement	Develop, organize, and run technical seminars for engineers, architects, and the public on Stormwater Ordinance requirements.	Taught a UIC Infrastructure and Culture class to provide additional information on City stormwater management.	Develop and present at least 1 seminar.
A.3	Public Service Announcement	Disseminate information to Aldermen to educate residents on stormwater management.	Provided Aldermen with statements to share with constituents, via a newsletter or other format, regarding stormwater management and frozen pipe prevention tips.	Distribute educational information to Aldermen for dissemination.
A.5	Classroom Education Material	Provide stormwater management education materials to schools. As part of the Space to Grow program that was initiated in 2014, provide financial support for schools where green infrastructure has been or will be installed to help provide educational resources for the students.	Supported Mann, Mireles, O'Keeffe, Wentworth, and Whistler elementary schools that had green infrastructure installed as part of Space to Grow and continued to work with the existing schools.	Plan to support additional schools that will have green infrastructure installed as part of Space to Grow and continue to work with the existing schools.
A.6	Other Public Education	Provide educational resources on the City's website and through social media about stormwater management.	Created 225 posts on DWM's social media accounts about stormwater management tips, water conservation, and pollution prevention. Updated website to include the Year 18 Annual Report.	Continue posting stormwater management and flood prevention tips to social media throughout the year. Continually update website with any new or revised information including the Year 19 Annual Report.

Public Involvement and Participation

BMP No.	BMP Category	Brief Description of BMP	Year 19 Measurable Goal Progress	Year 20 Measurable Goals
B.3	Stakeholder Meeting	Attend public events to inform the public about the stormwater management program.	Provided Aldermen with statements to share with constituents, via a newsletter or other format, regarding stormwater management and frozen pipe prevention tips. DWM participated in 39 various public outreach events with 23 Wards across the City.	Attend public meetings and educate the public about stormwater management.
B.6	Program Involvement	Provide stormwater management education materials, tools, and support as part of community workshops. As part of the Space to Grow program that was initiated in 2014, provide financial support for schools where green infrastructure has been or will be installed to help provide educational information and resource support for community workshops that promote rain barrels and rain gardens.	Supported Mann, Mireles, O'Keeffe, Wentworth and Whistler elementary schools that had green infrastructure installed as part of Space to Grow and continued to work with the existing schools.	Plan to support additional schools that will have green infrastructure installed as part of Space to Grow and continue to work with the existing schools.
B.7	Other Public Involvement	Work with residents to promote stormwater management BMP's on a community-wide level through neighborhood programs.	Coordinated reports of basement flooding issues from concerned residents via the Citywide 311 system.	Coordinate reports of basement flooding issues from concerned residents via the Citywide 311 system. Promote stormwater management BMPs with identified communities.

Illicit Discharge Detection and Elimination

BMP No.	BMP Category	Brief Description of BMP	Year 19 Measurable Goal Progress	Year 20 Measurable Goals
C.1	Sewer Map Preparation	Accurately represent the MS4 sewer system in geographic information system mapping (GIS).	Maintained GIS outfall feature class, and updated outfalls per recently supplied record information. Total number of storm sewer outfalls is now 166. Performed desktop analysis of the GIS mapping of outfalls and connecting sewers with the Atlas Pages. Continued coordination with the CDA to remove abandoned MS4 outfall locations on O'Hare property in master database.	Maintain GIS outfall feature class and add new outfalls when additional information becomes available. Update GIS to reflect the estimated locations, connectivity, and attributes of the MS4 outfalls and their corresponding upstream pipes. Continue coordination with CDA to complete update of MS4 outfall locations on O'Hare property in master database.
C.2	Regulatory Control Program	Investigate and enforce regulations that prohibit illegal dumping and illicit discharges.	Issued citations for illegal dumping or illicit discharges, and brought 16 cases to hearings.	Issue citations for illegal dumping and illicit discharges.
C.6	Program Evaluation and Assessment	Institute an inspection frequency to evaluate the condition of all MS4 outfalls.	Inspected 84 of the 166 currently mapped MS4s.	Perform inspections for next 20% of outfalls.
C.7	Visual Dry Weather Screening	Institute an inspection frequency to ensure there are no dry weather flows.	Inspected 84 of the 166 currently mapped MS4s.	Perform inspections for next 20% of outfalls.
C.9	Public Notification	Identify catch basins upstream of MS4 outfalls as stormwater only.	Installed "No Dumping" lids for storm sewer catch basins that are rehabilitated or installed in capital projects.	Continue to install "No Dumping" lids for storm sewer catch basins that are rehabilitated or installed in capital projects.
C.10	Other Illicit Discharge Controls	Develop an MS4 outfall inspection database and create a centralized location for MS4 information from all departments.	Continued to utilize MS4 outfall inspection database using inspection data collected this year.	Continue to add additional inspection information to centralized outfall database.

Construction Site Runoff Control

BMP No.	BMP Category	Brief Description of BMP	Year 19 Measurable Goal Progress	Year 20 Measurable Goals
D.1	Regulatory Control Program	Ensure all regulated construction projects (over 15,000 square feet of land area or 7,500 square feet of paved area) are in compliance with the Stormwater Ordinance. Issue permits for projects that are in compliance with Municipal Code Chapter 11-18.	Reviewed 199 regulated development projects for Stormwater Ordinance compliance.	Review plans and when applicable, issue permits for regulated construction projects.
D.1	Regulatory Control Program	Ensure all projects at O'Hare obtain coverage under General Permit ILR10.	Website is continuously updated posting each Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and Notice of Coverage (NOC). (http://www.flychicago.com/community/environment/NPDES/pages/default.aspx)	Obtain ILR10 coverage for projects on O'Hare property. Continuously update MS4 Compliance website with relevant information.
D.2	Erosion and Sediment Control BMPs	Ensure correct erosion and sediment control BMP's are being regulated through review of stormwater management documents.	Drafted revisions of the Stormwater Regulations and Manual and currently in approval review. One of the major revisions is the transition from Bulletin 70 to Bulletin 75 rainfall data.	Finalize and publish new update of the Stormwater Regulations and Manual.
D.2	Erosion and Sediment Control BMPs	Ensure reviewed and finalized Sediment and Erosion plans are followed during construction for regulated developments.	Required permittees to sign soil erosion and sediment control affidavit for all regulated developments. Affidavits kept on file.	Require permittees sign affidavit.
D.2	Erosion and Sediment Control BMPs	Prevent spreading of sediment and debris from construction sites.	Issued 285 citations for construction site cleanliness during the 2021 calendar year.	Perform inspections and issue citations as needed.
D.3	Other Waste Control Program	Encourage planned developments to exceed sustainable development guidelines. Require planned developments that are applying for additional benefits like TIF assistance or city land write-downs,	6 projects incorporated stormwater strategies into their developments as part of the Sustainable Development Policy.	Enforce planned developments applying for the specific programs to exceed sustainable development guidelines to receive benefits.

		to provide a holistic approach to sustainable development that exceeds minimum requirements.		
D.4	Site Plan Review Procedures	Review site plans for Stormwater Ordinance compliance. Ensure site plans that require a stormwater management review get reviewed and approved before construction begins.	Reviewed applicable site plans for Stormwater Ordinance compliance.	Review regulated construction site plans.
D.6	Site Inspection / Enforcement Procedures	For projects at O'Hare, complete inspections on a weekly basis and following precipitation events greater than .5" for regulated construction.	Inspections conducted weekly and after precipitation events greater than 0.5 inches.	Perform inspections weekly and after rain events greater than 0.5 inches.
D.7	Other Construction Site Runoff Controls	Prevent unnecessary debris from entering the system through catch basins during construction. When identified, require contractors to install debris covers on catch basins adjacent to construction sites.	Required contractors to cover catch basins adjacent to construction sites to prevent debris from entering the sewer system.	Require contractors to cover catch basins adjacent to construction sites.

Post-Construction Stormwater Management

BMP No.	BMP Category	Brief Description of BMP	Year 19 Measurable Goal Progress	Year 20 Measurable Goals
E.1	Community Control Strategy	Collect and retain stormwater through the installation of green infrastructure on City property. Install green infrastructure as part of various projects including road reconstruction work, streetscape and traffic calming projects, schoolyard reconstruction, parking lot transformations, and sewer and water replacement projects.	Completed 25 projects incorporating green infrastructure, including schoolyard reconstruction, bioinfiltration areas, permeable pavement/pavers, and bioswales.	Install green infrastructure as part of public projects.
E.2	Regulatory Control Program	Ensure correct post-construction runoff controls are being properly regulated through review of stormwater management documents.	Drafted revisions of the Stormwater Regulations and Manual and currently in approval review. One of the major revisions is the transition from Bulletin 70 to Bulletin 75 rainfall data.	Finalize and publish new update of the Stormwater Regulations and Manual.
E.3	Long Term O&M Procedures	Enforce development and implementation of O&M plans for regulated projects. Verify developments have an approved O&M plan in place prior to construction.	Reviewed applicable O&M plans for Stormwater Ordinance compliance.	Review O&M plans.
E.4	Pre-Construction Review of BMP Designs	Review site plans for BMP design compliance with Stormwater Ordinance.	Reviewed applicable site plans for Stormwater Ordinance compliance.	Review regulated construction site plans and their corresponding BMP designs.
E.6	Post-Construction Inspections	Ensure that post-construction runoff controls on all regulated construction projects are in compliance. Perform post-construction final inspection by licensed professional engineer on regulated projects to confirm that the site is in compliance with the	Inspected approximately 200 project sites for Stormwater Ordinance compliance.	Inspect constructed projects for compliance for post-construction runoff controls.

Stormwater Ordinance, plans, approvals, and permit conditions.	y.
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Pollution Prevention and Good Housekeeping

BMP No.	BMP Category	Brief Description of BMP	Year 19 Measurable Goal Progress	Year 20 Measurable Goals
F.1	Employee Training Program	Educate employees about stormwater management and pollution prevention BMPs. For the various departments in the City of Chicago, provide specific trainings and seminars that are applicable to the department and the employee's role.	AIS: Fleet and Facility Operations employees completed trainings on pollution prevention BMPs, and new hires completed trainings as part of the Sustainable Operations Plan onboarding process. CDA: Regular trainings offered at O'Hare on spill reporting and prevention. During the permit year, 102 City employees and contractors received these specific trainings. CDOT: Staff completed training on construction site stormwater runoff controls. DOB: Provided annual DWM Mason Inspectors Training regarding inspection of stormwater restrictors and stormwater BMPs. DWM: Construction Manager completed training on construction site runoff controls.	Train employees on stormwater management and pollution prevention BMPs.
F.1	Employee Training Program	Educate employees about green infrastructure. For the various departments in the City of Chicago, provide specific trainings and seminars that are applicable to the department and the employee's role.	AIS: Fleet and Facility Operations employees completed trainings on green infrastructure BMPs. CDOT: Staff completed training on the MS4 program including green infrastructure utilized as runoff control. DOB: Provided annual DWM Mason Inspectors Training regarding inspection of stormwater restrictors and stormwater BMPs.	Train employees about green infrastructure design, installation, maintenance, and repairs.

	Inspection and	Maintain and rehabilitate the sewer	DSS: Completed street sweeper driver training for all drivers, and included Green Alley SOP. DWM: Staff completed training on permeable pavement, rain garden, detention, bioswale, and runoff BMPs design and maintenance. Cleaned 19,443 structures, lined 48.8	Clean 15,000 catch basins, line 42
F.2	Maintenance Program	system through cleaning, lining and replacement.	miles of sewers and 9,455 structures, and replaced 12.6 miles of sewers during the 2021 calendar year.	miles of sewers, line 8,000 structures, and replace 8 miles of sewers for the 2022 calendar year.
F.3	Municipal Operations Stormwater Control	Prevent unnecessary debris from entering the system through catch basins. For catch basins that are part of CIP projects or are rehabbed/replaced, install new catch basin lids with narrow slot lids to prevent debris from entering system.	Installed narrow slot lids for catch basins that were addressed as part of CIP projects or rehabilitation work.	Install narrow slot lids.
F.4	Municipal Operations Waste Disposal	Institute a robust street sweeping protocol to prevent debris before entering the MS4 system. Deploy a street sweeper each day for every ward (50 wards) during sweeping season (April through November).	Swept 224,568 miles of streets and 7,274 alleys, and collected 144,681 cubic yards of debris for the 2021 calendar year.	Sweep over 200,000 miles of streets and over 2,000 alleys for the 2022 calendar year.
F.4	Municipal Operations Waste Disposal	Utilize a trash collecting skimmer boat along the Riverwalk during the warmer months. The Riverwalk has significant pedestrian traffic and allows direct access to the water, which increases the likelihood of pollution and thus the need for additional attention.	Deployed 1 or 2 skimmer boats 7 days a week, weather permitting, along the Riverwalk from March through November 2021.	Deploy skimmer boat during warm weather months.
F.4	Municipal Operations Waste Disposal	On O'Hare property, remove and dispose of excess waste from pavement before entering the MS4 system. When needed, use a waste	Collected waste and litter from airport grounds as needed.	Collect waste and litter from airport grounds.

F.5	Floodplain Management / Assess Guidelines	collection contractor to collect municipal operations waste and take off-site to a municipal landfill. Collect litter from airfield pavement. Ensure proper floodplain controls are performed. Perform floodplain reviews for regulated projects within and adjacent to the mapped floodplain.	Reviewed 10 regulated developments within floodplains to confirm compliance with the City's Flood Control Ordinance.	Review regulated projects within floodplains.
F.6	Other Municipal Operations Controls	Follow specific department policies that involve pollution prevention.	AIS: Followed documented BMPs for both fleet operations and facility operations, including specific pollution prevention BMPs. CDA: Followed O'Hare site wide SWPPP. ILR10 site specific SWPPPs are continuously reviewed and approved based on project scope. CDOT: Continued enforcement of environmental terms and conditions. For Webster Ave Bascule Bridge over the North Branch of the Chicago River, permitted through United States Army Corps of Engineers (USACE), Illinois Department of Natural Resources (IDNR), and the United States Coast Guard (USCG), and followed applicable water quality and pollution prevention measures. DSS: Salt spreaders are calibrated annually. Vehicles also have spreader controls that limit the amount of salt spread per lane mile. 95th Street Salt Pile is tarped when not in use, and facility follows specific BMPs.	Follow department specific processes.

DWM: Followed documented BMPs for	
purification plant operations, including	
specific pollution prevention BMPs.	

Section F
Table 2
Year 19 ILR10 Construction Projects

NPDES#	Project Name	NOI	NOC	NOT
ILR10ZB6G	SC19 Apron Replacement	11/10/2021	12/10/2021	TBD
ILR10AP57	Terminal 5 Landside Parking Garage	10/15/2021	11/14/2021	TBD
ILR10ZAXZ	Rehabilitation of Taxiways Y, Y1, Y2, Y3 and Y4	8/11/2021	9/10/2021	TBD
ILR10ZAQY	UPS Parking Lot Improvements Phase II	6/24/2021	7/25/2021	TBD
ILR10ZAHB	Stockpile 98N	4/14/2021	5/14/2021	TBD
ILR10ZACK	Lower Level Utility and Pavement Reconstruction	3/19/2021	4/18/2021	TBD
ILR10ZACL	Terminal 5 Landside Parking Improvements	3/19/2021	4/18/2021	TBD
ILR10ZACJ	Taxiways A&B Service Road	3/19/2021	4/18/2021	TBD
ILR10BN58	Northeast Cargo Development - Phase 3 Sitework	7/13/2020	8/18/2020	TBD
ILR10BI14	Terminal 5 Extention Core Expansion/Repurposing	3/10/2020	8/4/2020	TBD
ILR10BL96	Fuel System Improvement Program - Super Satellite Decom.	6/18/2020	8/4/2020	TBD
ILR10BJ44	Fuel System Improvement Program - Tank Farm Improvements	4/10/2020	5/13/2020	TBD
ILR10BI42	Reloocation of Taxiway A&B - East/West Advance Work	3/16/2020	5/8/2020	TBD
ILR10BF12	Runway 9R-27L Extension - East	1/8/2020	2/14/2020	TBD
ILR10BD48	Northeast Cargo Snow Removal Pad	11/6/2019	12/6/2019	TBD
ILR10AJ21	North ORD SMR Faciltiy	9/6/2018	9/24/2018	TBD
ILR10Z568	FSIP - Truck Rack Facility	12/14/2017	1/12/2018	1/12/2022

ILR10Z457	Runway 9C-27C Package 2	11/6/2017	12/7/2017	12/23/2021
ILR10AH31	Runway 9C-27C Package 3	8/13/2018	9/4/2018	12/21/2021
ILR10AP57	Terminal 5 - M Extention Site/Civil Package	1/25/2019	3/11/2019	11/17/2021
ILR10AL27	Temporary ATS Bus Storage Parking Lot	10/23/2018	11/9/2018	10/19/2021
ILR10W209	O'Hare Airport Transit System	12/21/2015	1/22/2016	10/7/2021
ILR10AT58	Fuel System Improvement Program - North Transmission Main	4/24/2019	5/22/2019	8/11/2021
ILR10AM24	Fuel System Improvement Program - South Transmission Mains	12/4/2018	1/4/2019	8/11/2021
ILR10AM14	Runway 9R RWSL	12/4/2018	1/4/2019	7/7/2021
ILR10BJ86	Runway 4R-22L Rehabilitation	4/20/2020	5/22/2020	6/29/2021
ILR10AM34	Runway 9R-27L Extension - West	12/4/2018	1/4/2019	4/21/2021
ILR10Y704	Runway 10R-28L Safety and Security Additions Package 2	5/23/2017	6/23/2017	4/21/2021
ILR10V084	Joint Use Facility and ATS Extension	4/22/2015	5/21/2015	4/21/2021

Table 3
Year 19 CDOT Applicable Construction Projects

Project Name	USCG Bridge Permit #	USACE Permit #	IDNR Permit #
Webster Ave Bascule Bridge Over North Branch Chicago River	16590	LRC-2014-00468	N20190149