NPDES Permit No. IL0001996
Notice No. SMT:24010501.smt

Public Notice Beginning Date: May 24, 2024

Public Notice Ending Date: June 25, 2024

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

City of Chicago
Department of Water Management
Bureau of Water Supply
1000 East Ohio Street
Chicago, Illinois 60611

Name and Address of Facility:

City of Chicago
Jardine Water Purification Plant
1000 East Ohio Street
Chicago, Illinois 60611
(Cook County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Shu-Mei Tsai at 217/782-0610.

The applicant is engaged in the production of potable water for the central and north sections of the City of Chicago and approximately 80 other surrounding suburban communities (SIC 4941). Wastewater consisting of sediment generated from the plant is currently conveyed to a nearby sewer interceptor through a sediment force main. The sediment force main is going to be rehabilitated. During construction, JWPP operators will rely solely on a permanent bypass pipeline for discharging the sediment volumes; therefore, there is a need to install a temporary emergency outlet that provides relief in the event the receiving sewer becomes surcharged and/or the sediment wet well reaches full capacity. The temporary emergency outlet, if used, can convey up to an average discharge of 2.592 MGD of emergency bypass wastewater from outfall 001. This emergency outlet would only be utilized during construction (approximately 3-month duration) and would be removed once the rehabilitated sediment force main is placed into service.

Application is made for the existing discharge located in Cook County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Outfall	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Lake Michigan	41° 55′ 00″ North	87° 34′ 18″ West	Lake Michigan Basin	Not Rated

To assist you further in identifying the location of the discharge please see the attached map.

Outfall 001 would discharge to Lake Michigan, at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. Lake Michigan is not listed as biologically significant in the Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*, or given an integrity rating in that document. Lake Michigan, waterbody segment IL_QLM-01 is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List.

Aquatic life, primary contact, and public and food processing water supply uses are fully supported. Lake Michigan is not subject to enhanced dissolved oxygen standards.

The following parameters have been identified as the pollutants causing impairment:

Designated Use	Potential Cause
Aesthetic	Total Phosphorus
Fish Consumption	Aldrin, Dieldrin, Endrin, Heptachlor, Mercury, Mirex, Polychlorinated biphenyls (PCBs), and Toxaphene

The discharge from the facility shall be monitored and limited at all times as follows:

Outfall 001 Emergency Bypass Wastewater (Design Average Flow = 2.592 MGD)

	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/L		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Flow						35 IAC 309.146
pH				6.5 – 9.0 s.u.		35 IAC 302.204
Total Residual Chlorine					0.05	40 CFR 125.3 & 35 IAC 302.208
Total Suspended Solids				15.0	30.0	35 IAC 304.124(a)

The following explain the conditions of the proposed permit:

Special conditions include the descriptions of flow measurement and reporting, pH, total residual chlorine, discharge monitoring report submission, monitoring location, and the requirement of renewal applications.

SUBJECT: City of Chicago - Jardine -- Antidegradation Assessment
NPDES Permit No. 0001996 (Cook County)
Bureau ID # W0318990014

The subject facility has applied for an NPDES permit for a short-term, temporary outfall in Chicago, Cook County, Illinois. The facility treats raw Lake Michigan water using disinfection, coagulation, flocculation and filtration to provide adequate quantities of safe potable water to central and north sections of Chicago and approximately eighty surrounding suburban communities.

The Jardine Water Purification Plant (JWPP) sediment disposal system includes a 175,000-gallon wet well that collects sediment volumes from four quadrant settling basins, three sediment pumps that are used to withdraw sediment volumes from the wet well sumps, and the sediment volumes are conveyed from the plant through approximately 5,500 lineal feet of 18-inch diameter sediment force main that discharges to an existing 54-inch Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) interceptor sewer.

The bypass line would be a permanent structure to allow for future bypassing should the rehabbed sediment force main be disrupted for any reason. This 12-inch diameter bypass pipeline will be installed from the point where the existing sediment force main exits the interior plant space, through the plant void space and routed through the plant site, and then discharged into a local Department of Water Management (DWM) sewer.

During construction, JWPP operators will rely solely on the bypass pipeline for discharging the sediment volumes; therefore, there is a need to install an emergency outlet that provides relief in the event the receiving sewer becomes surcharged and/or the sediment wet well reaches full capacity. This emergency outlet would only be utilized during construction (approximately 3-month duration) and would be removed once the rehabilitated sediment force main is placed into service. The project proposes operation of the sediment force main bypass line during construction and the proposed emergency outlet usage, which is required for IEPA's review and consideration for a NDPES permit.

Information used in this review was obtained from the permit application and antidegradation assessment dated October 4, 2023, November 17, 2023, and November 30, 2023.

Identification and Characterization of the Affected Water Body

Outfall 001 would discharge to Lake Michigan, a Lake Michigan Basin Use water, at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. Lake Michigan is not listed as biologically significant in the Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*, or given an integrity rating in that document. Lake Michigan, waterbody segment IL_QLM-01 is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List, as impaired for aesthetic quality use with a potential cause given as total phosphorus, and fish consumption use with potential causes give as aldrin, dieldrin, endrin, heptachlor, mercury, mirex, polychlorinated biphenyls (PCBs), and toxaphene. Aquatic life, primary contact, and public and food processing water supply uses are fully supported. Lake Michigan is not subject to enhanced dissolved oxygen standards.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses

The emergency discharge will be filtered to reduce the amount of sediment entering the slip to have total suspended solids ranging 10-15 mg/l or less. It is anticipated the filtration system (i.e. filter bags, etc.) will be located on a barge adjacent to the (Lake Michigan) slip if it cannot fit along the loading dock area.

Fate and Effect of Parameters Proposed for Increased Loading

During periods when there are wet weather events, the discharge rate into the receiving manhole will likely need to be reduced to avoid surcharging the sewer. A level sensor will be installed inside the existing sewer system at or nearby the downstream of the permanent bypass connection to monitor the water levels, and this signal will be sent to the bypass pump controls at the plant so that the pumping rate can be varied accordingly. If the water levels in the receiving manhole are high for an extended period (e.g., prolonged wet weather event), and/or sediment volumes in the wet well reach a level that necessitates relief, then DWM would need to proceed with opening the emergency outlet. At this time, it is anticipated that this outlet would be into the adjacent (Lake Michigan) slip pending IEPA review and approval. The proposed emergency outlet would only be utilized during construction (approximately 3-month duration) when a prolonged wet weather event risked a surcharge at the receiving manhole. The emergency outlet would be removed once the rehabilitated sediment force main is placed into service.

Purpose and Social & Economic Benefits of the Proposed Activity

The sediment force main is approaching the end of its useful life expectancy and is a single point of failure for conveying sediments from the plant. The objective of this project is to rehabilitate the existing sediment force main to improve reliability, ease of maintenance, and includes considerations for redundancy that allows Department of Water Management (DWM) operators to reliably operate the sediment disposal system for the plant.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation

Rehabilitation alternatives were evaluated using a weighted ranking matrix and close-fitting sliplining was the selected approach and requires the installation of a bypass line during construction.

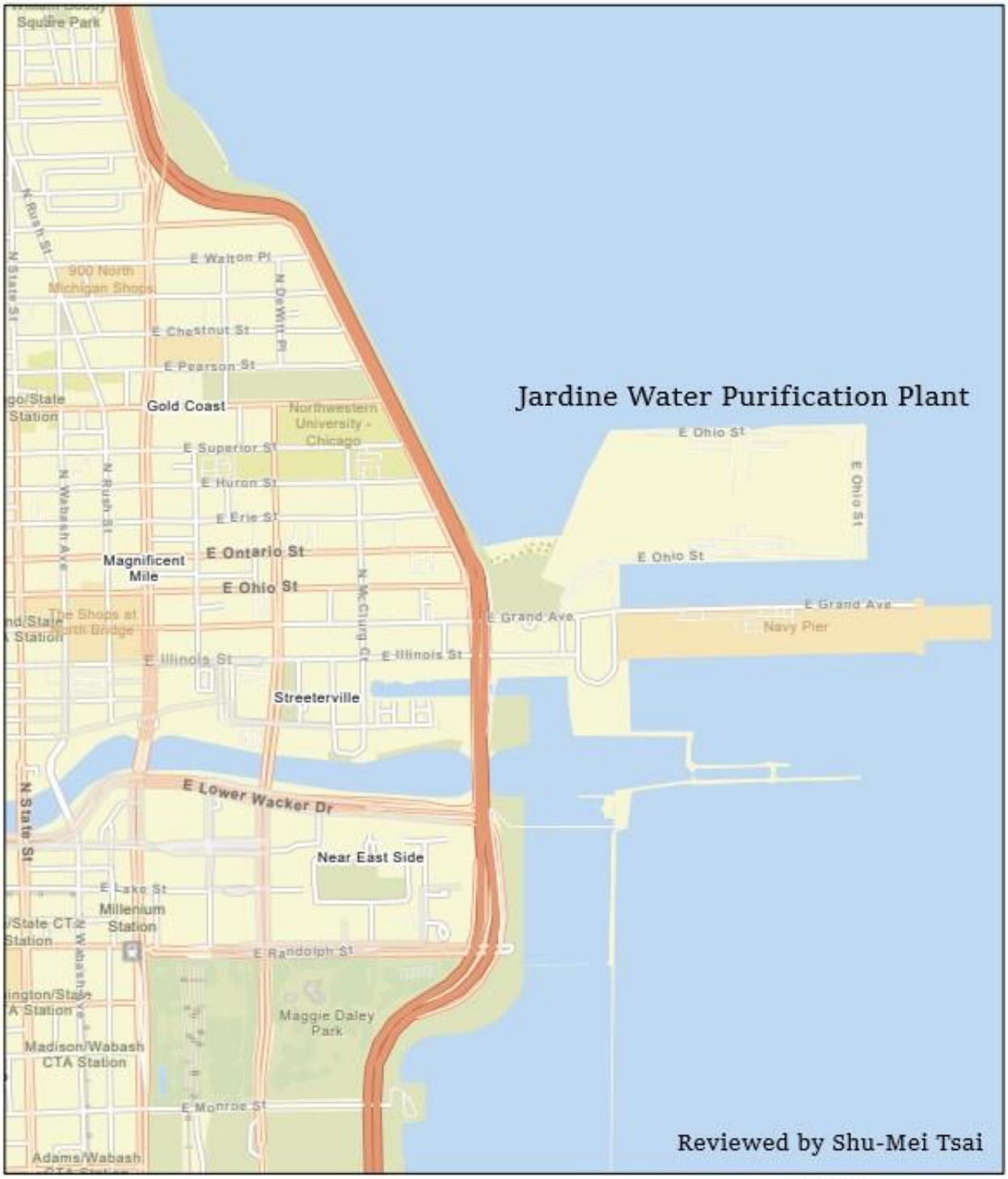
Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

An EcoCAT endangered species consultation (Project # 2406750) was submitted on November 17, 2023, to the Illinois Department of Natural Resources. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 and 1090 is terminated.

Agency Conclusion

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this assessment was written. We tentatively find that the proposed activity will result in the attainment of water quality standards. All technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity. This activity will benefit the community by allowing DWM operators to reliably operate the sediment disposal system for the plant. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

IL0001996 City of Chicago



NPDES Permit No. IL0001996

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:
Effective Date:

Name and Address of Permittee:

City of Chicago
Department of Water Management
Bureau of Water Supply
1000 East Ohio Street
Chicago, Illinois 60611

Facility Name and Address:

City of Chicago
Jardine Water Purification Plant
1000 East Ohio Street
Chicago, Illinois 60611
(Cook County)

Discharge Number and Name:

001 Emergency Bypass Wastewater

Receiving Waters:

Lake Michigan

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEL:SMT:24010501.smt

NPDES Permit No. IL0001996

Effluent Limitations and Monitoring

From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall 001 Emergency Bypass Wastewater (Design Average Flow = 2.592 MGD)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVERAGE	LOAD LIMITS lbs/day DAF (DMF) DAILY MAXIMUM	CONCENTRATION LIMITS mg/L 30 DAY AVERAGE	CONCENTRATION LIMITS mg/L DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Flow	See Special Condition 1				Daily when Discharging	Measurement
pH	See Special Condition 2				Daily when Discharging	Grab
Total Residual Chlorine	See Special Condition 3			0.05	Daily when Discharging	Grab
Total Suspended Solids			15.0	30.0	Daily when Discharging	Grab

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum value on the monthly Discharge Monitoring Report. The monthly average shall consist of the summation of the daily flows divided by the number of days the facility discharged during that month.

SPECIAL CONDITION 2. The pH shall be in the range 6.5 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

For the purposes of this permit, TRC means those substances which include combined and uncombined forms of both chlorine and bromine and which are expressed, by convention, as an equivalent concentration of molecular chlorine.

SPECIAL CONDITION 4. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, https://epa.illinois.gov/topics/water-quality/surface-water/netdmr.html

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees that have been granted a waiver shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 5. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 6. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 7. For the purpose of this permit, this discharge from Outfall 001 is limited to emergency bypass wastewater, free from process and other wastewater discharges.

SPECIAL CONDITION 8. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 9. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 10. To receive the renewal authorization to discharge under this permit, the applicant must complete and submit Application Forms 1, and 2C for all existing discharge, a Form 2D for any new discharge, and a Form 2F for stormwater discharge. Pursuant to 40 CFR 122.21(c)(1), permittees must submit a renewal application at least 180 days prior to expiration of the current permit.

SPECIAL CONDITION 11. The permit is being issued with the understanding the emergency bypass wastewater (Outfall 001) will be used during construction activities and is expected to last for a 3-month duration. If discharges are required beyond the

Special Conditions

3-month duration (i.e. beyond 3 months from the initial discharge date), the permittee shall provide written notification 30-days in advance of the expected discharge date. Notification shall be provided to

Illinois Environmental Protection Agency
Bureau of Water – Compliance Assurance, #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Illinois Environmental Protection Agency
Des Plaines Office
9511 Harrison Street
Des Plaines, Illinois 60016