



MANAGER'S MEMORANDUM

Prepared for: **Naperville City Council**

By: City Manager's office

1/03/2019

A. MANAGER'S MEMORANDUM

Source:
1. Water Utilities

Subject:
Springbrook Water Reclamation Center
2016 NDPEs Permit Renewal Final Permit
Issuance

Action:
FYI

**CITY OF NAPERVILLE
MANAGER'S MEMORANDUM**

DATE: December 27, 2018

TO: Douglas A. Krieger, City Manager

THRU: Marcie Schatz, Deputy City Manager
Mark Curran, Interim Director, Water Utilities

FROM: Amy N. Ries, Deputy Director, Water Utilities

SUBJECT: **Springbrook Water Reclamation Center 2016 NPDES Permit Renewal
Final Permit Issuance**

PURPOSE:

The purpose of this memorandum is to provide City Council with information regarding the Springbrook Water Reclamation Center's final National Pollutant Discharge Elimination System (NPDES) permit, with an effective date of January 1, 2019.

BACKGROUND:

Every five years, the City is required to apply to the Illinois Environmental Protection Agency (IEPA) for a NPDES permit for discharges into the DuPage River from Springbrook Water Reclamation Center's 26.25 million gallons per day capacity wastewater treatment plant. The permit outlines the standards, limits and conditions the utility must meet to discharge wastewater effluent from the treatment plant into the Lower DuPage River. The City's current NPDES permit expired on April 30, 2016, and the City has been without a new permit, operating under the expired permit, since that time.

In addition, at the November 1, 2016 City Council meeting, the City Council adopted Resolution 16-038, authorizing the City to accept the Special Conditions to the 2016 NPDES Permit for the Springbrook Water Reclamation Center (SWRC). The resolution is attached. The Special Conditions referenced in the resolution are related to a watershed-based approach adopted by many agencies in the region, through membership in a watershed group such as Lower DuPage River Watershed Coalition (LDRWC) and DuPage River Salt Creek Workgroup (DRSCW). The City is a member of both watershed groups.

LDRWC and DRSCW focus on in-stream improvements rather than new processes at treatment plants in order to meet water quality goals. The permit contains a project list for various in-stream improvement projects in the watershed, including low-flow dam removal and stream bank restoration projects. The projects are intended to focus on improving water quality, habitat and aquatic life. Member communities cooperatively fund these improvements, with the intention of leveraging this funding to maximize water quality benefits in the stream. Participating in these water quality projects as part of the watershed groups allows the City to receive an extended implementation period for phosphorus limits at SWRC. This allows the City additional time to plan both operationally and financially to meet new permit regulations.

DISCUSSION:

The City received notification on December 18, 2018 of a Final NPDES permit to be issued by the Illinois Environmental Protection Agency (IEPA), effective January 1, 2019. Please see the final permit attached. The final NPDES permit contains various Special Conditions and are the Utility's operating parameters and requirements. Some of the Special Conditions are new requirements related to phosphorous and some are related to optimizing operations and/or enhanced oversight of the utility by the IEPA. The new requirements and their completion dates are below:

- An inventory of all industrial users within the SWRC's service area (includes the City of Warrenville) and the development of an Industrial Pre-Treatment Program, containing the development of an Industrial Pre-Treatment Ordinance, changes to the Sewer Use Ordinance, Enforcement Response Plan, local limitations development, funding and staffing plan to implement a program (12 months).
- Implement a formal Capacity, Management, Operations and Maintenance (CMOM) program, which includes a study of the sanitary sewer system's capacity including the development of a hydraulic model, action plan to correct identified structural deficiencies/capacity constraints, a formalized asset management program, design and performance monitoring, an Overflow Response Plan, a System Evaluation Plan, a Reporting and Monitoring Plan, and a Third Party Notice Plan (12 months, reporting annually).
- Develop and submit an Implementation Schedule listing Inflow & Infiltration (I&I) reduction projects identified in the CMOM, including projects, completion dates, expected results and annual progress reports. (18 months, reporting annually after 24 months).
- Participation in the implementation of a Chloride Reduction Program to decrease watershed chloride application rates used in winter road safety, with the objective of decreasing watershed chloride loading (Ongoing, reporting annually).
- Completion of a Phosphorous Discharge Optimization Plan to evaluate a range of measures to existing facilities at SWRC for reducing phosphorous discharges from the treatment plant, including a schedule to implement all of the evaluated measures and a report noting the basis for rejecting evaluated measures (24 months).
- Completion of a Feasibility Study examining the timeline, construction and O&M costs for reducing phosphorus levels in the treatment plant effluent flow to consistently meet P discharge concentrations of 1.0 mg/L, 0.5 mg/L and 0.1 mg/L. The study will also evaluate the effects the various treatments methods and discharge concentrations have on the average household utility rates (24 months).
- Design, construction and operation of the SWRC to consistently meet a phosphorus discharge concentration of less than the 1.0 mg/L limit in 10-11 years from the date of permit issuance (Achieve phosphorus requirements by 2029/2030).
- Completion of a Nutrient Improvement Plan to reduce non-point source discharges (such as urban and agricultural runoff) of phosphorous (December 31, 2023).

These final NPDES Permit Special Conditions represent additional project work and financial requirements. The items noted are long term obligations that will require the Utility to use engineering consultants in the coming years to conduct the required inventories and prepare the noted plans. However, the Industrial Pre-Treatment Program and many of the CMOM items have ongoing requirements which may necessitate additional staff.

Furthermore, the issuance of the NPDES permit will trigger financial obligations related to the City's agreement with LDRWC/DRSCW as part of the Special Conditions. Per the agreement, the City will have to remit three years' worth of payments to LDRWC for a total of \$667,055.52. Funds for these

payments have been budgeted in the O&M budget for the past three years, but were held pending receipt of the City's new NPDES permit.

RECOMMENDATION:

Please forward this information to the City Council in the Manager's Memorandum.