

COMMISSION FILE NO: 26-025-2 **DATE INTRODUCED:** February 9, 2026

INTRODUCED BY: Executive Director (Signature on File in the Office of the Commission)

REFERRED BY COMMISSION CHAIRPERSON TO: Operations Committee

RELATING TO: Change Order Request, Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility, and Restore the Executive Director's Original Delegated Authority

SUMMARY:

The Commission is requested to authorize the Executive Director to execute a change order to Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility (JIWRF), with Carollo Engineers, Inc., (Carollo) in an amount not to exceed \$80,446 and to restore the Executive Director's original delegated authority.

Disinfection is the final treatment process at JIWRF. Disinfection is important, because wastewater contains pathogenic organisms, and many of these organisms are not removed in the primary and secondary treatment processes. JIWRF currently achieves effluent pathogen reduction by dosing with sodium hypochlorite; however, residual chlorine in the effluent can have a toxic effect on fish and other aquatic organisms. Residual chlorine is removed by dechlorination with sodium bisulfite.

The Wisconsin Department of Natural Resources (WDNR) issues a Wisconsin Pollutant Discharge Elimination System (WPDES) permit to the District, which allows the District to discharge treated wastewater to Lake Michigan from JIWRF. WPDES permits typically have a five-year term, and the District's next permit is anticipated to be issued in 2026. WDNR is incorporating new disinfection-related effluent standards in WPDES permits for wastewater treatment facilities throughout the State. WDNR's stated objective of the new standards is "to better protect recreational users from human health impacts related to the exposure to bacteria."

ATTACHMENTS: **BACKGROUND** ☐ **KEY ISSUES** ☐ **RESOLUTION** ☒
FISCAL NOTE ☒ **S/W/MBE** ☐ **OTHER** ☐ _____

OP_CO_J03006D01_Engineering_Services_Disinfection_Process_Improvements_Restore_Authority_legislative_file.docx
01-16-26

COMMITTEE ACTION: _____ **DATE:** _____

COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Change Order Request, Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility, and Restore the Executive Director's Original Delegated Authority

The District's existing WPDES permit uses fecal coliform as a pathogen indicator. The District's draft permit will also use *E. coli* as a pathogen indicator, and the new limits are more stringent compared to existing limits. The permit will also allow time for the District to implement any necessary improvements; staff anticipates that the District will have until April 30, 2031, to achieve compliance with the new standards.

In February 2024, the Commission authorized the Executive Director to enter into Contract J03006D01 with Donohue & Associates (Donohue) in an amount not to exceed \$1,591,369. The contract scope includes:

- Reviewing existing reference information and site conditions.
- Conducting meetings with representatives from the District and Veolia Water Milwaukee, LLC.
- Performing preliminary design:
 - Sampling and testing to provide additional data.
 - Evaluating the final two disinfection system alternatives:
 - Chlorination/dechlorination system.
 - Hybrid disinfection system using ultraviolet (UV) light disinfection and a chlorination/dechlorination system.
 - Modeling.
 - Providing instrumentation and controls.
- Conducting a geotechnical investigation, including soil borings.
- Completing lead and asbestos inspection and testing.
- Developing a construction strategy analysis to minimize the disruption of facility operations during construction.
- Providing evaluations and recommendations summarized in technical memoranda and a design report.
- Preparing bid and construction documents.
- Providing engineering services during construction and record drawings.
- Preparing startup plans and updates to facility operation and maintenance (O&M) manuals and conducting O&M staff training.
- Performing applications engineering.

The preliminary design evaluation of alternatives recommends the hybrid disinfection system. This solution will achieve effluent pathogen reduction using UV light disinfection for flows up to 150 million gallons per day (MGD) and using chlorination/dechlorination for flows over 150 MGD.

SUMMARY (Cont'd)

Change Order Request, Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility, and Restore the Executive Director's Original Delegated Authority

The original project and engineering contract scope assumed a new substation to power the new UV disinfection system would be in existing Disinfection Building 245. Further design development showed that the substation is larger than originally assumed and requires a separate facility. Carollo and District staff evaluated multiple locations and determined that a new UV Disinfection Substation Building is the only viable option.

District staff issued a change order under Executive Director authority for Donohue to provide geotechnical and design services for the new UV Disinfection Substation Building. This change order provided the design services through the “essentially complete” bid and construction documents. The scope of the requested change order includes the remaining engineering services necessary to support bidding and construction of the substation building and consists of the following services:

- Final bid and construction documents.
- Bid and award services.
- Engineering services during construction.

The cumulative value of previously authorized design change orders approached the Executive Director's delegated change order authority limit. As a result, staff deferred change order authorization of these remaining engineering services for the substation building and now request Commission authorization.

As this contract progressed, the District executed multiple change orders under the Executive Director's authority to advance and complete engineering services associated with the JIWRf UV disinfection improvements, including:

- Extended services to operate and maintain UV transmittance analyzer equipment used to collect design data for the new UV disinfection system.
- Evaluate use of ammonium sulfate storage and feed facilities to improve chemical disinfection efficiency.
- Evaluate adding air conditioning for the existing sodium hypochlorite storage room in Building 243.
- Estimate cash flow scenarios for the District's 10-year financing plan.
- Geotechnical and design services for new UV Disinfection Substation Building 244A.
- Design a new fire alarm system for new UV Disinfection Building 244 and new UV Disinfection Substation Building 244A.

SUMMARY (Cont'd)

Change Order Request, Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility, and Restore the Executive Director's Original Delegated Authority

CONTRACT COST CHANGES

	AMOUNT	PERCENTAGE INCREASE OVER ORIGINAL CONTRACT	AUTHORIZED BY	SWMBE
Original Contract	\$1,591,369		Commission	20.8%
Previous Change Orders	\$159,047	10%	Executive Director	20.1%
Requested Change Order	\$80,446	5%	Request of Commission	18.5%
Total Change Orders	\$239,493	15%		19.6%
TOTAL	\$1,830,862			20.6%

For engineering service contracts greater than or equal to \$500,000, the Commission has delegated to the Executive Director the authority to make changes up to \$200,000 or 10% of the original contract price, whichever is less. For this contract, a limit of \$159,137 prevails. To date, the Executive Director has utilized \$159,047 of this authority, leaving a balance of \$90. The request to restore the Executive Director's authority is in case any additional changes beyond the remaining Executive Director's authority are necessary. Without this restored authority, work may need to stop while staff obtains necessary change order authority from the Commission.

The existing Total Project Cost (TPC) for Project J03006 does not include the cost for the additional project scope to construct the UV Disinfection Substation Building. The total cost estimate for the new building is \$652,000. Staff will adjust the TPC to account for the additional cost as part of the 2027 Capital Budget process. Because the construction contract will not be awarded until a later date, the District will not incur these additional costs until a future budget year.

RESOLUTION

Change Order Request, Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility, and Restore the Executive Director's Original Delegated Authority

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute a change order to Contract J03006D01, Engineering Services – Disinfection Process Improvements at Jones Island Water Reclamation Facility, with Carollo Engineers, Inc., in an amount not to exceed \$80,446, and that the Executive Director's original delegated authority is restored.