

COMMISSION FILE NO: 25-099-7 **DATE INTRODUCED:** July 14, 2025

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 S04041P01, Planning Services – High Strength Waste System Improvements, and Approve Change in Total Project Cost

SUMMARY:

The Commission is requested to authorize the Executive Director to execute a change order to Contract S04041P01, Planning Services – High Strength Waste System Improvements, with T.Y. Lin International Great Lakes, Inc., (TYLI), formerly Greeley and Hansen, LLC, in an amount not to exceed \$149,901.

Further, the Commission is requested to increase the total project cost (TPC) for Project S04041, High Strength Waste System Improvements, by \$199,901 for an amended TPC of \$796,683 and to make a corresponding change to the TPC for Project M99001, Allowance for Cost and Schedule Changes.

In March 2024, the Commission adopted an Energy Plan (Plan), which provides a framework and pathway to meet District energy and greenhouse gas emission goals as outlined in the 2035 Vision. The Plan's framework recommends multiple elements at both the Jones Island and South Shore Water Reclamation Facilities (JIWRF and SSWRF respectively). One of the recommended elements specific to SSWRF is for the District to significantly increase the volume of digester gas (DG) generated in anaerobic digesters by receiving additional quantities of high strength waste (HSW).

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

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COMMITTEE ACTION: _____ **DATE:** _____

COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Change Order Request, Contract S04041P01, Planning Services – High Strength Waste System Improvements, and Approve Change in Total Project Cost

Certain types of manufacturers and processors generate HSW that contains high concentrations of organic matter, which can be used to increase DG production. HSW can be trucked to a water reclamation facility (WRF), discharged into a HSW receiving station, temporarily stored, then discharged into a digester. HSW is combined with the WRF's biosolids in digesters, and the resultant mixture then produces DG. The added HSW produces an increased quantity of DG, which can then be used to produce additional electricity and heat. HSW that can significantly increase gas production include certain types of food, beverage, and industrial wastes and used airport deicing fluids. It is also possible to obtain revenue in the form of tipping fees from the HSW dischargers.

At SSWRF, the District currently receives some HSW and co-digests them with biosolids to increase DG production. The current HSW receiving station has a finite capacity, as do the existing digesters, gas storage spheres, and engine generator. Expanding the HSW program and related SSWRF infrastructure to accept larger quantities of HSW and resultant DG production and use is consistent with the adopted Plan and advances the District toward achieving the 2035 Vision goals. Such an expansion will increase the District's source of internal, renewable energy at SSWRF and help lower its overall carbon footprint by reducing the need to purchase electricity from the grid.

To evaluate how to expand the District's HSW program and related infrastructure, in July 2024, the Commission authorized the Executive Director to enter into Contract S04041P01. Generally, work under this contract is evaluating how to expand the District's capabilities to increase HSW into SSWRF and to generate additional DG. Under this contract, TYLI is performing the following services:

- Project management.
- Determining the capacity of the existing HSW system to receive additional HSW.
- Developing and conducting a HSW survey to identify possible suppliers.
- Performing market research to understand suppliers' alternatives for disposing HSW.
- Forecasting HSW quantities based on the survey results and market research.
- Interviewing other utilities with successful HSW programs.
- Identifying, evaluating, and recommending SSWRF improvements necessary to accommodate potential increases in HSW.
- Preparing a final report.

SUMMARY (Cont'd)

Change Order Request, Contract S04041P01, Planning Services – High Strength Waste System Improvements, and Approve Change in Total Project Cost

In general, manufacturers and processors can generate a wide spectrum of industrial wastes. Any entity that discharges into the District's system is held to the District's Rules, Chapter 11, Discharge Regulations and Enforcement Procedures. These rules exist to prevent damage to or surcharging within the sewer system, injury to workers, and interference of the WRFs' processes. Depending on the pollutants discharged, industrial waste generators may be required to pretreat their waste prior to discharging into the sewage system. Industrial waste generators may own onsite pretreatment systems, or they may send their wastes to a centralized waste treater (CWT). CWT's are private businesses that receive and process industrial waste from various users, sometimes from hundreds of miles away, and treat it before discharge to a municipal sewer. Within the District's service area, there are multiple CWT's, all which are required to comply with federal regulations and District's Chapter 11 Rules.

Despite the District's Chapter 11 Rules and based on evaluating SSWRF influent and operational data, the District believes that there are industrial discharges that may be creating operational process challenges at SSWRF. One method to manage this situation is to design and construct an industrial pretreatment facility at SSWRF. Under this scenario, industrial waste would be trucked to the pretreatment facility, treated to a level that prevents process upsets, and then routed to existing WRF treatment processes. Tipping fees would offset operational and administrative costs. To evaluate this possibility, staff proposes a change order to Contract S04041P01. The change order would include a feasibility investigation, planning level study, and cost estimation for an onsite industrial waste pretreatment facility owned and operated by the District. Both HSW facilities and industrial waste pretreatment facilities require truck receiving stations due to external waste sources being transported to the WRF's directly. This change order would identify how to implement industrial waste pretreatment in coordination with expansion of the HSW facilities.

Under this proposed change order, TYLI will:

- Identify potential industrial waste sources.
- Conduct, in conjunction with the District's Legal Services Division, a regulatory review of pretreatment facility ownership and operation.
- Identify treatment methods for common and identified expanded industrial waste sources to develop infrastructure and operational requirements.
- Identify improvements to create an on-site pretreatment facility.
- Analyze WRF operation and Milorganite® production impact from the processing of expanded industrial waste sources.
- Estimate the net energy impact resulting from a pretreatment system, factoring in any additional waste which may be utilized by anaerobic digestion.
- Provide capital, operational, and maintenance cost estimates associated with the proposed pretreatment program to be used for the District to develop tipping fees.

SUMMARY (Cont'd)

Change Order Request, Contract S04041P01, Planning Services – High Strength Waste System Improvements, and Approve Change in Total Project Cost

CONTRACT COST CHANGES

	AMOUNT	PERCENTAGE INCREASE OVER ORIGINAL CONTRACT	AUTHORIZED BY	SWMBE
Original Contract	\$386,782		Commission	30.4%
Previous Change Orders	\$0	0%	Executive Director	30.4%
Requested Change Order	\$149,901	38.8%	Request of Commission	0%
Total Change Orders	\$149,901	38.8%		0%
TOTAL	\$536,683			21.9%

The scope addition adds six months duration to the existing contract.

The requested change order is more than budgeted, and staff requests to increase the TPC by the change order amount (\$149,901) plus \$50,000. The additional \$50,000 is due to increased District project management labor for the expanded scope of work.

RESOLUTION

Change Order Request, Contract S04041P01, Planning Services – High Strength Waste System Improvements, and Approve Change in Total Project Cost

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute a change order to Contract S04041P01, Planning Services – High Strength Waste System Improvements, with T.Y. Lin International Great Lakes, Inc., in an amount not to exceed \$149,901.

FURTHER RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the total project cost for Project S04041, High Strength Waste System Improvements, is increased by \$199,901 for an amended total project cost of \$796,683, and that a corresponding change is made to the total project cost for Project M99001, Allowance for Cost and Schedule Changes.