

COMMISSION FILE NO: 24-105-7 **DATE INTRODUCED:** July 8, 2024

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

REFERRED BY COMMISSION CHAIRPERSON TO: Operations Committee

RELATING TO: Restore the Executive Director's Original Delegated Authority, Contract P01005C06, Contract P01005C06, Pipeline Cleaning Phase 2 – Interplant Sludge System Improvements

SUMMARY:

The Commission is requested to restore the Executive Director's original delegated change order authority on Contract P01005C06, Pipeline Cleaning Phase 2 – Interplant Sludge System (IPS) Improvements, with Terra Engineering & Construction Corporation (Terra).

The IPS System allows for the transfer of sludge (or biosolids) between the Jones Island Water Reclamation Facility (JIWRF) and the South Shore Water Reclamation Facility (SSWRF). The IPS System is critical for processing biosolids and producing Milorganite®. An IPS System outage can result in operational challenges, lost opportunities to create digester gas, and significant increases in operating costs.

The IPS System consists of a pump station located at JIWRF, a pump station located at SSWRF, and four parallel ductile iron pipelines connecting the two facilities. Each pipeline is 12 miles long for a total length of 48 miles. Two of the pipelines are 12-inch diameter and the other two are 14-inch diameter. The IPS System has been in service for approximately 30 years.

The transfer of biosolids between JIWRF and SSWRF has been reasonably reliable; however, there has been a reduction in pipeline flow capacity since the system was commissioned. The cause of the reduced flow capacity is a buildup of settled solids in the pipeline, primarily at low points. The decrease in flow capacity increases the amount of energy needed to transfer biosolids between facilities. The overall purpose of this project is to restore the reliability, operational capability, and energy efficiency of the IPS System.

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

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COMMITTEE ACTION: _____ **DATE:** _____

COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Restore the Executive Director's Original Delegated Authority, Contract P01005C06,
Contract P01005C06, Pipeline Cleaning Phase 2 – Interplant Sludge System
Improvements

In January 2022, the Commission awarded Contract P01005C06 to Terra in the amount of \$8,453,660. Under this contract, Terra is:

- Preparing each pipeline for cleaning by removing valves and fittings on various pipeline valve vaults and venting the pipeline.
- Draining and disposing liquid from each pipeline.
- Jet cleaning the pipeline low points with disposal of cleaning water and solids.
- Televising each pipeline.
- Performing final pipeline cleaning using a pipeline insertion gauge (PIG).
- Installing new PIG-compatible valves, piping, supports, and fittings on various valve vaults.
- Improving pipe bonding in each vault to maximize performance of the pipeline cathodic protection system.
- Abating existing lead-based paint coatings and recoat the existing piping and valves in each vault.
- Returning each pipeline back to service.

As the contract progressed, several change orders have been executed under the Executive Director's delegated change order authority to address additional scope items necessary to complete the project. The work under these change orders includes:

- Providing additional pipe spool pieces in IPS pipeline valve vaults.
- Cleaning and removing existing debris from bottom of four valve vaults.
- Replacing existing isolation valves in one valve vault.
- Modifying existing valve vault pipe supports.
- Adjusting pipeline cleaning unit quantity.
- Providing flushing connections on existing valves.
- Providing new snubbers at the PIG receiving stations at JIWRP and SSWRF.
- Providing handwheel operators on two pipeline drain valves.
- Filling pits on the exterior of pipes in one valve vault.

Terra completed all work on IPS pipeline number 3 and is now cleaning pipeline number 2. While using the PIG to clean pipeline number 2, the PIG became stuck. This is believed to be due to highly solidified material in the pipeline. The contract recognized getting a PIG stuck as a possibility and included an allowance to compensate the contractor to perform the additional work necessary to release the PIG. To release the PIG, the contractor has now brought in specialized cleaning equipment that, once used, should allow the PIG to be released.

SUMMARY (Cont'd)

Restore the Executive Director's Original Delegated Authority, Contract P01005C06,
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Due to the type of material found in pipeline number 2 and the amount of work remaining, staff has directed the contractor to utilize this specialized cleaning equipment to clean most of the remainder of pipeline number 2, to prevent future PIGs from getting stuck. District staff is working to issue a change order under Executive Director's delegated authority for additional cleaning of pipeline number 2. The change order will use up most of the remaining authority.

The Commission has delegated the Executive Director the authority to make changes to construction contracts up to \$400,000 or 10 percent of the original contract price, whichever is less. For this contract, \$400,000 prevails. After issuing a change order for additional cleaning of pipeline 2, the Executive Director will utilize approximately \$370,000 of this authority, leaving a balance of approximately \$30,000. The request to restore the Executive Director's authority is in case any additional construction changes requiring the Executive Director's change authority are necessary. Without this restored authority, work may need to stop while staff obtains necessary change order authority from the Commission.

RESOLUTION

Restore the Executive Director's Original Delegated Authority, Contract P01005C06,
Contract P01005C06, Pipeline Cleaning Phase 2 – Interplant Sludge System
Improvements

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director's original delegated change order authority is restored on Contract P01005C06, Pipeline Cleaning Phase 2 – Interplant Sludge System Improvements, with Terra Engineering & Construction Corporation.