

COMMISSION FILE NO: 25-059-5 **DATE INTRODUCED:** May 5, 2025

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

REFERRED BY COMMISSION CHAIRPERSON TO: Operations Committee

RELATING TO: Material Capital Repair or Replacement No. 1738, Jones Island Water Reclamation Facility Dewatering and Drying Dried Recycle Solids Ladder Chute Replacements, Project J06075

SUMMARY:

The Commission is requested to authorize the Executive Director to execute a purchase order with Veolia Water Milwaukee, LLC, (VWM) for Material Capital Repair or Replacement (MCRR) No. 1738, Jones Island Water Reclamation Facility Dewatering and Drying (D&D) Dried Recycle Solids (DRS) Ladder Chute Replacements, Project J06075, in an amount not to exceed \$394,300.

Biosolids are removed from both the Jones Island and South Shore Water Reclamation Facilities and processed into Milorganite® in the D&D Facility. The District's D&D Facility utilizes 24 belt filter presses, 12 rotary drum dryers, and an extensive series of screw conveyors, belt conveyors, bucket elevators, and ladder chutes to move the dewatered and dried sludge through the process to produce Milorganite®. While most of the conveyance equipment in the D&D Facility is designed to move the biosolids horizontally and vertically upward, there are two areas that utilize ladder chutes to gently move the product vertically downward. Specifically, the DRS ladder chutes transition the product from the drying and recycle system equipment to the classification, screening, sizing, and cooling system equipment.

Each ladder chute is 32 feet tall and 16 inches by 16 inches wide and deep. To minimize dust and product degradation, there are 45-degree angled baffles every 16 inches vertically inside the ladder chute, each baffle alternately attached to opposite sides. This allows the product to slide downward across the angled face of each baffle to the one below, back and forth from the higher inlet elevation to the lower discharge elevation.

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

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COMMITTEE ACTION: _____ **DATE:** _____

COMMISSION ACTION: _____ **DATE:** _____

SUMMARY (Cont'd)

Material Capital Repair or Replacement No. 1738, Jones Island Water Reclamation Facility Dewatering and Drying Dried Recycle Solids Ladder Chute Replacements, Project J06075

The existing DRS ladder chutes were installed in 2010. The ladder chutes were fabricated of stainless steel to prevent corrosion, and ceramic tiles were installed on the angled face of each baffle; however, the abrasive nature of Milorganite® has worn away contact points of the housing at the change in direction below each baffle, where tile was not originally installed. VWM continues to weld apply metal patches over holes in each ladder chute as an interim measure, but replacement of both ladder chutes is required for long-term reliability. In addition, tiles routinely fall off the baffles into the process stream, resulting in wedging/jamming of the process stream and damage to downstream equipment.

To ensure continued ability to process biosolids and produce Milorganite®, District staff recommends replacing the existing ladder chutes. The design of the replacement chutes is an improvement over the existing and focused on adding abrasion resistant materials in high wear areas.

VWM prepared a bid/contract document for replacement of the ladder chutes, publicly bid the work, and received one bid. Doral Corporation (Doral) submitted the only bid, which is both responsible and responsive, in the amount of \$350,000. The purchase order will be issued to VWM, which is responsible for managing and overseeing the contract with Doral.

Doral's scope of work is to remove and replace both existing ladder chutes. The baffles and housing interior contact points of the new ladder chutes will be clad (weld overlayed) with tungsten carbide hard facing rather than tiles to protect the chutes from abrasion in these high wear areas.

The contract duration is 365 days.

RESOLUTION

Material Capital Repair or Replacement No. 1738, Jones Island Water Reclamation Facility Dewatering and Drying Dried Recycle Solids Ladder Chute Replacements, Project J06075

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute a purchase order with Veolia Water Milwaukee, LLC, for Material Capital Repair or Replacement No. 1738, Jones Island Water Reclamation Facility Dewatering and Drying Dried Recycle Solids Ladder Chute Replacements, Project J06075, in an amount not to exceed \$394,300.