

**COMMISSION FILE NO:** 21-132-10 **DATE INTRODUCED:** October 11, 2021

**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, Purchase Order No. 11472, Material Capital Repair or Replacement No. 1352, Jones Island Water Reclamation Facility Dewatering and Drying Dryers 1-12 Blade Replacements

**SUMMARY:**

The Commission is requested to authorize the Executive Director to execute a change order to Purchase Order No. 11472, Material Capital Repair or Replacement No. 1352, Jones Island Water Reclamation Facility (JIWRF) Dewatering and Drying Dryers 1-12 Blade Replacements, with Veolia Water Milwaukee, LLC, (VWM) in an amount not to exceed \$78,295.

At JIWRF, Milorganite® is produced within the Dewatering and Drying Facility. The sludge drying process utilizes 12 rotary dryers, each approximately eight feet in diameter and 57 feet in length, to heat-dry dewatered biosolids, producing Milorganite®. Drying occurs when hot gases from the combustion chamber pass through ports and enter the dryer drum, drying sludge via direct contact. The drums have various internal steel components that facilitate mixing, heating, and drying and ensure proper pellet shape and size. In addition, steel wear plates protect shrouds (which house the hot gas ports) and the drum liner.

Over time, the highly abrasive nature of Milorganite® has eroded the wear plates and attachment welds to the point where the surfaces of the shroud and drum liner are being exposed. Additional deterioration of the wear plates will result in damage to the shroud and drum liner and potential formation of holes through to the combustion chamber. The existing wear plates are 26 years old and have not been replaced since original installation.

The overall purpose of this project is to replace 12 rows of hardened steel wear plates in all 12 dryers that protect the air valve shrouds and drum liner.

**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, Purchase Order No. 11472, Material Capital Repair or Replacement No. 1352, Jones Island Water Reclamation Facility Dewatering and Drying Dryers 1-12 Blade Replacements

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Replacement and repair will restore the designed wear protection and structural integrity of the drum internal heating port shroud, thus ensuring ongoing and reliable heat drying of biosolids in the production of Milorganite®.

The District issued a purchase order to VWM in September 2020 in an amount not to exceed \$780,423. The scope of work included removal and replacement of internal wear plates in all 12 dryers.

Since this work has begun, staff inspections have identified additional areas worn thin by abrasion within all 12 dryers. The wear occurs as the rotating drums cause heat dried biosolids to continuously fall on certain locations within the drum, abrading the steel dryer drum shell. These wear areas can be repaired by welding one-half-inch-thick steel plates over their surface.

The cost to procure and install the additional steel plates is \$78,295 (including VWM markup). Staff is requesting authorization for a change order in this amount to cover the costs to perform the repairs.

## CHANGE ORDER SUMMARY

<b>PURCHASE ORDER</b>	<b>AMOUNT</b>	<b>PERCENT INCREASE OVER ORIGINAL PURCHASE ORDER</b>	<b>AUTHORIZED BY</b>	<b>SWMBE*</b>
Original	\$780,423		Commission	98.1%
Requested Change Order	\$78,295	10.0%	Request of Commission	100.0%
<b>TOTAL</b>	<b>\$858,718</b>			98.2%

\*Small, Women, and Minority Business Enterprise (SWMBE) participation shown is for contract between VWM and its vendor and does not include VWM markup.

## RESOLUTION

Change Order Request, Purchase Order No. 11472, Material Capital Repair or Replacement No. 1352, Jones Island Water Reclamation Facility Dewatering and Drying Dryers 1-12 Blade Replacements

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**RESOLVED**, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute a change order to Purchase Order No. 11472, Material Capital Repair or Replacement No. 1352, Jones Island Water Reclamation Facility Dewatering and Drying Dryers 1-12 Blade Replacements, with Veolia Water Milwaukee, LLC, in an amount not to exceed \$78,295.