

**COMMISSION FILE NO:** 20-134-9 **DATE INTRODUCED:** September 14, 2020

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

**REFERRED BY COMMISSION CHAIRPERSON TO:** Operations Committee

**RELATING TO:** Contract S01015D01, Engineering Services – Grit and Screenings Handling Equipment Replacement at South Shore Water Reclamation Facility

**SUMMARY:**

The Commission is requested to authorize the Executive Director to execute on behalf of the District Contract S01015D01, Engineering Services – Grit and Screenings Handling Equipment Replacement at South Shore Water Reclamation Facility (SSWRF), with Arcadis U.S., Inc., (Arcadis) in the amount not to exceed \$802,088. Arcadis was the highest scoring proposer based on a qualifications-based selection method among four proposals received.

The SSWRF preliminary treatment process removes larger materials, such as grit and larger solids, from raw wastewater before it reaches primary clarification. Removing these materials helps reduce wear and tear on downstream equipment and risks from plugging equipment and channels. The preliminary treatment process includes seven screenings channels with traveling belt fine screens, followed by seven grit basins. The material removed from the grit basins and screens is handled by grit and screening handling equipment. All equipment in this project is in the Preliminary Treatment Building. This equipment began operating nearly 20 years ago.

SSWRF is designed to operate under peak flows of 300 million gallons per day (MGD). The District is in process of increasing SSWRF's peak flow capacity up to 375 MGD (using blending).

The purpose of this project is to ensure that the preliminary process treatment reliably manages grit and screened material. The project will replace the existing grit and screenings handling equipment with new equipment that will be designed to meet current and future operating conditions, including possible changes due to the increased peak flow rate.

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

*OP\_AW\_S01015D01\_Grit\_and\_Screenings\_Handling\_Equipment\_legislative\_file.docx*  
08-27-20

**COMMITTEE ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**COMMISSION ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## **SUMMARY (Cont'd)**

### **Contract S01015D01, Engineering Services, Grit and Screenings Handling Equipment Replacement at South Shore Water Reclamation Facility**

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The equipment addressed under this project manages material captured by grit collection and screening processes and includes:

- Seven wastewater screenings washers.
- Seven wastewater screenings compactors.
- Seven grit collectors (slurry cups).
- Four grit dewatering units (grit snails and clarifiers).
- The shared grit/screenings belt conveyor.
- The sludge screen belt conveyor.
- The forward/reversing lower level belt conveyor and discharge chutes.
- Two roll-off container winches.
- Corroded branch piping, such as wash water supplies.
- Corroded structural supports.
- Associated electrical, instrumentation, and local controls.

Contract S01015D01 is an engineering contract, and the consultant will:

1. Conduct preliminary engineering evaluations for:
  - a. Redundant equipment at locations where it does not currently exist.
  - b. Mitigating and preventing corrosion.
  - c. Improved grit pumping.
2. Perform grit and screenings sampling, characterization, and analysis.
3. Conduct modeling to identify ways to increase grit capture.
4. Design replacements for the equipment above to meet current and future operating conditions.
5. Evaluate and define temporary equipment and construction strategies as required to minimize process outages and capacity reductions during construction.
6. Provide bid and construction documents (plans and specifications).
7. Provide engineering services during construction.

The District's original request for proposal included all tasks above except for tasks 2 and 3. Arcadis's proposal identified five additional tasks for consideration by the District. District staff evaluated these tasks and recommend adding these two tasks. District staff negotiated final scope and costs with Arcadis for these additional tasks.

After the design work is complete, the District will publicly bid the construction contract.

The duration for this contract is approximately 60 months.

## **RESOLUTION**

Contract S01015D01, Engineering Services – Grit and Screenings Handling Equipment Replacement at South Shore Water Reclamation Facility

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**RESOLVED**, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to execute Contract S01015D01, Engineering Services – Grit and Screenings Handling Equipment Replacement at South Shore Water Reclamation Facility, with Arcadis U.S., Inc., in an amount not to exceed \$802,088.