



City of Grand Island

Tuesday, May 10, 2022

Council Session

Item G-5

#2022-125 - Approving Award of Proposal for Sludge Dewatering Polymer

Staff Contact: John Collins, P.E. - Public Works Director

Council Agenda Memo

From: Matt Walker PE, Assistant Public Works Director- Wastewater

Meeting: May 10, 2022

Subject: Approving Award of Proposal for Sludge Dewatering Polymer

Presenter(s): John Collins PE, Public Works Director

Background

The Grand Island Wastewater Treatment Plant uses polymer as a flocculent for dewatering sludge. The polymer flocculants are positively charged particles that cause the solids in sludge to coagulate thereby making them heavier and therefore easier to settle out and separate from water. Polymer, when used in conjunction with the belt filter presses are how the Grand Island Wastewater Treatment Plant dewateres sludge, making it lighter and therefore more economical to transport to the landfill.

The two types of sludge that must be dewatered are WAS (waste activated sludge removed from the final clarifiers) and Raw sludge (settled solids from the primary clarifiers) which have a solids content of 2-3% and 5-7% respectively. Solids dewatering, when employing belt filter presses and polymer flocculants, increase the solids component of the sludge to 15-22%.

A Request for Proposals (RFP) to supply polymer for the primary/final clarifier sludge was advertised in the Grand Island Independent on March 10, 2022. The RFP was also sent to sixteen (16) potential proposers by the Wastewater Division of the Public Works Department.

Two (2) proposals were received and opened on March 29, 2022. Both responding suppliers were selected to provide polymer and conduct onsite testing at the Wastewater Treatment Plant (WWTP).

- Consolidated Water Solutions of Omaha, Nebraska
- Marubeni America Corporation of New York, New York

Discussion

Proposals were evaluated and ranked based upon the following criteria, using the weight percentages assigned to each element.

- Vendor experience with product – 25%
- Delivery time – 10%
- Jar testing performance report (jar testing done within previous 12 months is acceptable) – 25%
- Performance testing on actual Belt Filter Presses – Cost per dry ton 40%

Based on jar testing performed by operations staff on both pure WAS and a mixture of Raw sludge and WAS (an 80/20 or 85/15 WAS/RAW mixture is the typical subject for our solids dewatering operations), the efficacy of the Consolidated product was twice that of the Marubeni competitor. In terms of cost, for every \$1.00 we spent on the Consolidated polymer, we'd spend \$1.81 [$(\$1.88 \times 2) / \2.08] on the Marubeni equivalent. On average 45,000 pounds of polymer is used in a year's time at the Wastewater Treatment Plant.

The evaluation team consisted of the WWTP Operations Engineer and Lead Operator. WWTP staff is in mutual agreement that the polymer selection and optimal performance setup have been achieved by Consolidated Water Solutions of Omaha, Nebraska. The polymer supplied and tested by Consolidated Water Solutions is the most cost effective in terms of Operator handling time and polymer expense per dry ton cake produced and is also more stable. Different dewatering conditions can be handled by using one product with this polymer.

Consolidated Water Solutions price of \$2.08 per pound (including shipping) is from May 11, 2022 through April 23, 2023, with a cost of \$2.20 per pound (including shipping) from April 24, 2023 through April 23, 2024.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

Recommendation

City Administration recommends that the Council approve the award of the proposal to Consolidated Water Solutions of Omaha, Nebraska.

Sample Motion

Move to approve the award.



Stacy Nonhof, Purchasing Agent

*Working Together for a
Better Tomorrow, Today*

**REQUEST FOR PROPOSAL
FOR
SLUDGE DEWATERING POLYMER FOR PRIMARY/FINAL
CLARIFIER SLUDGE 2022**

RFP DUE DATE: March 29, 2022 at 4:15 p.m.
DEPARTMENT: Public Works
PUBLICATION DATE: March 10, 2022
NO. POTENTIAL BIDDERS: 16

PROPOSALS RECEIVED

Consolidated Water Solutions
Omaha, NE

Marubeni America Corporation
New York, NY

cc: John Collins, Public Works Director
Jerry Janulewicz, City Administrator
Stacy Nonhof, Purchasing Agent
Sean Schwartz, Biosolids Technician

Catrina DeLosh, PW Admin. Coordinator
Patrick Brown, Finance Director
Robert Greenberg, WWTP Operations Eng.

P2364

RESOLUTION 2022-125

WHEREAS, on March 10, 2022 a Request for Proposals (RFP) was advertised in the Grand Island Independent to supply Sludge Dewatering Polymer; and

WHEREAS, on March 29, 2022 two (2) proposals were received and opened; and

WHEREAS, both responding suppliers were selected to provide polymer and conduct onsite testing at the Wastewater Treatment Plant (WWTP), and

WHEREAS, after extensive testing required to compare the product Consolidated Water Solutions of Omaha, Nebraska has shown the best value in testing of their polymer in the Belt Filter Press facility based on cost per ton of solids processed; and

WHEREAS, Consolidated Water Solutions will honor the price of \$2.08 per pound (including shipping) from May 11, 2022 through April 23, 2023; and

WHEREAS, Consolidated Water Solutions will honor the price of \$2.20 per pound (including shipping) from April 24, 2023 through April 23, 2024.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the supply of a manufactured polymer from Consolidated Water Solutions of Omaha, Nebraska, in the amount of \$2.08 per pound (including shipping) from May 11, 2022 through April 23, 2023 for supply and services in Sludge Dewatering Polymer for the Belt Filter Press process is hereby approved as the manufactured liquid polymer proposed for the best value per ton of solids processed.

BE IT FURTHER RESOLVED, that the supply of a manufactured polymer from Consolidated Water Solutions of Omaha, Nebraska, in the amount of \$2.20 per pound (including shipping) from April 24, 2023 through April 23, 2024 for supply and services in Sludge Dewatering Polymer for the Belt Filter Press process is hereby approved as the manufactured liquid polymer proposed for the best value per ton of solids processed.

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Adopted by the City Council of the City of Grand Island, Nebraska, May 10, 2022.

Roger G. Steele, Mayor

Attest:

RaNae Edwards, City Clerk

Approved as to Form	☐ _____
May 6, 2022	☐ City Attorney