



1202 Musser Street
Muscatine, IA 52761-1645
(563) 263-2752
Fax (563) 263-3720

WATER POLLUTION CONTROL

MEMORANDUM

To: Gregg Mandsager, City Administrator

CC: Nancy Lueck, Finance Director
Fran Donelson, Secretary

From: Jon Koch, WPCP Director

Date: July 31, 2017

Re: Suspended Solids Meter for the Biosolids Dredge

INTRODUCTION: The Water Pollution Control Plant Biosolids Department requires a suspended solids meter to be installed on the discharge of the dredge to accurately determine percent solids being applied. Three bids were received: from Markland Specialty Engineering Ltd. for \$8981.00, from Hach Company for \$12,321.10 and from Valmet for \$23,495.00. \$10,000 was budgeted and approved for this item.

BACKGROUND: The dredge pulls solids from the bottom of the lagoon and sends it through hoses to a tractor for injection into the ground. The operator of the dredge rarely sees what is being pumped and applied. The DNR and EPA specify limits on how much material may be applied per acre. Currently a small sample is grabbed once a day during application for the lab to determine percent solids being applied. The operator is required to give a visual guess throughout the day as to the thickness of the material and therefore estimate the amount being applied. This meter will be able to give real-time percent solids to ensure the desired amount is being applied evenly. This will be particularly important when the MARRVE project is complete as the amount of solids to be applied will increase. This will ensure better coverage and verification of nutrients applied to the farmland with more accurate reporting to the DNR.

RECOMMENDATION/RATIONALE: Staff recommend the purchase of a 304 SS Construction Suspended Solids Meter from Markland Specialty Engineering Ltd. for \$8981.00.