



Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street
Chicago, IL 60611

Legislation Details (With Text)

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Title: Issue a purchase order and enter into an agreement with the Iowa State University, for professional engineering services for Contract 14-062-2P, Evaluation of Revolving Algae Biofilm System for Recovery of Nutrients, O'Brien Water Reclamation Plant, in an amount not to exceed \$190,036.00, Account 201-50000-601170, Requisition 1381530

Sponsors:

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Attachments:

Date	Ver.	Action By	Action	Result
7/10/2014	1	Board of Commissioners	Approved	Pass
7/10/2014	1	Committee of the Whole	Recommended	Pass

TRANSMITTAL LETTER FOR BOARD MEETING OF JULY 10, 2014

COMMITTEE ON PROCUREMENT

Mr. David St. Pierre, Executive Director

Issue a purchase order and enter into an agreement with the Iowa State University, for professional engineering services for Contract 14-062-2P, Evaluation of Revolving Algae Biofilm System for Recovery of Nutrients, O'Brien Water Reclamation Plant, in an amount not to exceed \$190,036.00, Account 201-50000-601170, Requisition 1381530

Dear Sir:

Authorization is requested to issue a purchase order and enter into an agreement with the Iowa State University (ISU) for professional engineering services for Contract 14-062-2P, Evaluation of Revolving Algae Biofilm System for Recovery of Nutrients, O'Brien Water Reclamation Plant.

This project will be conducted under the auspices of the Master Agreement between ISU and the District authorized by the Board of Commissioners at the Board Meeting of February 6, 2014.

The purpose of the Master Agreement is to allow the District to directly take advantage of the expertise offered by the ISU in the field of algae cultivation and harvesting. This will be the first research project undertaken under this Master Agreement.

This research project will be accomplished in fulfillment of the special provisions of the O'Brien Water Reclamation Plant's (OWRP) NPDES permit, and of the District's long-term plan for control of phosphorus discharge in the OWRP effluent. The research project will investigate the efficiency of a patented rotating algae biofilm unit for the removal of phosphorus from various wastewater streams from District water reclamation plants. The unit will be investigated for performance under varying process conditions, with the

goal of eventually developing a full-scale unit. The benefit of using algae to remove phosphorus from wastewater is that the algae can be harvested and used in a variety of sustainable means, such as bioplastics or fertilizer. The time for completion of the research project is 18 months after award of the contract. There are no provisions in the agreement for the extension of time except for such reasonable period as may be agreed upon between parties. The deliverables to be provided under this agreement include:

- Supply and installation of pilot-scale rotating algae biofilm units and open pond cultivation tanks
- Development of a robust algal culture
- Quarterly Progress Reports
- Final report summarizing all data and removal efficiencies under varying operating parameters
- Standard operating procedures for system operations and controls for adaptability of system to different waste streams

The day-to-day operation of the research facility will be run by staff from the District's Monitoring and Research (M&R) Department. In addition, the District's M&R Department will perform all laboratory analysis, except for specialty analysis not normally conducted at District laboratories. The ISU will provide equipment, start-up, monitoring, direction, documentation and technical support during the research project. Two key personnel plus a research assistant and 1,845 hours of university time are estimated for this work. The estimated average payroll rate is \$30.93/hour.

The components of the total fee for the agreement are as follows:

- | | |
|--|-------------|
| 1. Direct Labor Costs: | \$47,635.00 |
| 2. Subcontractor costs (fabrication of equipment): | \$82,000.00 |
| 3. ISU travel and engineering students: | \$29,426.00 |
| 4. Indirect costs | \$30,975.00 |

Total Fee (Not to Exceed): \$190,036.00

Inasmuch as the Iowa State University possesses a high degree of professional skill, it is recommended that the Director of Procurement and Materials Management be authorized to issue a purchase order and enter into an agreement without advertising, per Section 11.4 of the Purchasing Act, in an amount not to exceed \$190,036.000.

Funds for the 2014 expenditure, in the amount of \$130,000.00, are available in Account 201-50000-601170. The estimated expenditure for 2015 is \$60,036.00. Funds for the 2015 expenditure are contingent on the Board of Commissioners' approval of the District's budget for that year.

Requested, Catherine A. O'Connor, Director of Engineering, TK
Recommended, Darlene A. LoCascio, Director of Procurement and Materials Management
Respectfully Submitted, Barbara J. McGowan, Chairman Committee on Procurement
Disposition of this agenda item will be documented in the official Regular Board Meeting Minutes of the Board of Commissioners for July 10, 2014