



# Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street  
Chicago, IL 60611

## Legislation Details (With Text)

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**Title:** Issue purchase order and enter into an agreement with the Colorado School of Mines, to provide professional services to study plant uptake of perfluoroalkyl acids from soils amended with biosolids, in an amount not to exceed \$29,500.00, Account 101-16000-601170, Requisition 1383886

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Date	Ver.	Action By	Action	Result
9/4/2014	1	Board of Commissioners	Approved	Pass
9/4/2014	1	Committee of the Whole	Recommended	Pass

### TRANSMITTAL LETTER FOR BOARD MEETING OF SEPTEMBER 4, 2014

#### COMMITTEE ON PROCUREMENT

Mr. David St. Pierre, Executive Director

Issue purchase order and enter into an agreement with the Colorado School of Mines, to provide professional services to study plant uptake of perfluoroalkyl acids from soils amended with biosolids, in an amount not to exceed \$29,500.00, Account 101-16000-601170, Requisition 1383886

Dear Sir:

Authorization is requested to issue a purchase order and enter into an agreement with the Colorado School of Mines to provide professional services to study plant uptake of perfluoroalkyl acids (PFAAs) from soils amended with biosolids. This purchase order will expire on December 31, 2014.

Dr. Christopher P. Higgins of the Colorado School of Mines will be the principal investigator to provide professional assistance to study plant uptake of PFAAs from soils amended with biosolids under field conditions. PFAAs are persistent, bioaccumulative, and toxic anthropogenic compounds that are used in a myriad of consumer and industrial applications (e.g., non-stick packaging, stain-resistant textiles). As such, they persist through conventional municipal wastewater treatment and can reside in significant quantities in biosolids. Subsequently, uptake by crops from land-applied biosolids can introduce these chemicals into the terrestrial food chain. There have been public concerns associated with this issue over the past few years. Information on the fate and uptake potential of these compounds in biosolids applied to soil will help minimize the potential impact of public concern regarding these contaminants on the Metropolitan Water Reclamation District of Greater Chicago's (District) Biosolids Management Program.

The District does not have the analytical capability to study these compounds. Therefore, the professional services of Dr. Higgins are required to conduct a study on the fate and uptake of PFAAs in field soil amended with District biosolids. Dr. Higgins is the most suitable to conduct this work because he has conducted

pioneering research on plant uptake of PFAAs from soils amended with biosolids, including a recent greenhouse study under a United States Environmental Protection Agency (USEPA) project on the uptake of PFAAs in vegetables. His laboratory has state-of-the-art capabilities to study the fate of PFAAs in soil, biosolids, and plant tissues.

The District collaborated with the USEPA on the project and provided support by conducting a three-year field study growing six vegetables (lettuce, tomatoes, carrots, zucchini, sweet corn, and radish) on soil amended with varying rates of District biosolids and collected biosolids, soil, and plant tissue samples. The field study was initiated because data from multi-year field studies for the vegetable uptake is required to supplement data from the greenhouse studies to conduct any meaningful risk assessment on PFAAs from soils amended with biosolids. The samples were submitted to Dr. Higgins' laboratory for PFAAs analysis, but due to the lack of USEPA funding, the only vegetable samples analyzed from the first year's field study were lettuce and tomatoes from treatments with very high biosolids application rates (two and four times the agronomic rate).

Samples from these two vegetables and the other four vegetables grown from biosolids application at agronomic rates were not analyzed. The results from this study will supplement the original work and are important for the District to promote the safe use of biosolids and composted biosolids for urban agriculture. All of the samples collected from this study are stored for the analysis of PFAAs and are available to Dr Higgins for analysis.

The project work will entail the following tasks:

1. Conduct PFAAs analysis of soil and plant tissue samples from treatments with corn, lettuce, and radish from four biosolids application rates: (i) control, (ii) agronomic rate (AR), (iii) 2xAR, and (iv) 4xAR.
2. Summarize data and prepare a final report.

The Colorado School of Mines, the expert provider to provide professional services to study plant uptake of PFAAs from soils amended with biosolids, has submitted pricing for the services required. Inasmuch as the Colorado School of Mines is the expert provider for the services required, nothing would be gained by advertising for bids (Section 11.4 of the Purchasing Act).

The Colorado School of Mines is a not-for-profit, educational institution and is not required to register with the State of Illinois.

The Multi-Project Labor Agreement is not applicable due to the specialized nature of the services required.

In view of the foregoing, it is recommended that the Director of Procurement and Materials Management be authorized to issue a purchase order and enter into an agreement with the Colorado School of Mines, in an amount not to exceed \$29,500.00.

Funds are available in Account 101-16000-601170.

Requested, Thomas C. Granato, Director of Monitoring and Research, TCG:MPC:KB:mh/jvs  
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 September 4, 2014