



# Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street  
Chicago, IL 60611

## Legislation Text

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**File #:** 17-0601, **Version:** 1

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### **TRANSMITTAL LETTER FOR BOARD MEETING OF JUNE 15, 2017**

#### COMMITTEE ON PROCUREMENT

Mr. David St. Pierre, Executive Director

Issue purchase order and enter into an agreement with Teledyne Instruments, Inc., to furnish, deliver, and install a QuickTrace M-8000 Cold Vapor Atomic Fluorescence Mercury Analyzer System and consumables, in an amount not to exceed \$38,147.00, Account 101-16000-634970, Requisition 1463032

Dear Sir:

Authorization is requested to issue a purchase order and enter into an agreement with Teledyne Instruments, Inc. (Teledyne) to furnish, deliver, and install a QuickTrace M-8000 Cold Vapor Atomic Fluorescence Mercury Analyzer System (QuickTrace M-800 System) and consumables. The Monitoring and Research Department's Calumet Analytical Laboratory at the Calumet Water Reclamation Plant (WRP) is the centralized location for the analysis of all the low-level mercury and total mercury samples for the Metropolitan Water Reclamation District of Greater Chicago. The types of samples analyzed include WRP outfalls for compliance with NPDES permits, Ambient Water Quality Monitoring, Chicago Area Waterway System (CAWS) Microbiome Research, and the monitoring of the water quality in the CAWS to meet the National Water Quality Standard. This purchase order will expire on December 31, 2017.

The Teledyne QuickTrace M-8000 System will replace an existing low-level mercury system and additionally, will serve as a backup for the total mercury analysis, due to its ability to analyze samples greater than 400 micrograms per liter without dilution. In order to maintain our excellent level of customer service and to continue meeting our clients' level of expectations, it is necessary for us to have an automated instrument that can analyze over the whole range of samples and concentrations that we receive. In order to accomplish this, we need an instrument that has the ability to adjust its sensitivity and to run unattended, which increases productivity. The system also needs to be quality control compliant with the low-level mercury and total mercury methods, have the ability to analyze for low-level mercury, and serve as a backup for the total mercury analysis to maintain our high level of customer service.

This is the only equipment that allows for total automation based on the following features. The analyzer is able to analyze samples greater than 400 micrograms per liter without dilution by switching between low microgram per liter and nanogram per liter analysis modes without hardware or tubing configuration changes. In addition, the unit has advanced contamination controls, including over range and smart rinse capabilities and gas control features eliminating air infusion into the system during sample probe movements when the two ultra-trace analysis modes are in use. The system also employs automatic end of run and inactivity standby routines which allow unattended operation, extending the workday and increasing the throughput of the laboratory. The standby feature combined with the gold trap smart rinse feature, which shuts down the flow rinse and slows the reagent rinse during gold trap desorption, reduces reagent purchase and waste disposal costs. This system meets the quality control requirements of both the low-level mercury USEPA Method 1631E and total mercury USEPA Method 245.7, allowing the instrument to be used as a backup for total mercury analysis of samples.

In addition, because this is a Teledyne mercury analyzer system and we have other Teledyne mercury analyzer systems in our possession, we are afforded multi-unit discounts on the purchase of new equipment and for preventive maintenance contracts. Teledyne has submitted pricing for the equipment and services required to furnish, deliver, and install a QuickTrace M-8000 System with a five percent discount on the equipment. In addition, a maintenance contract is already in place for other Teledyne equipment that provides a five percent discount, and future contracts can be easily adjusted to include this new equipment. Also, the six analysts who currently have their Demonstration of Capability certification, as mandated by our IEPA Lab Accreditation to analyze low-level mercury samples, would not have to receive major retraining to learn new operating system software and procedures, allowing us to maintain our high level of service in analyzing over 4,000 low-level mercury analyses per year. Inasmuch as Teledyne is the only source of supply for the equipment and services required, nothing would be gained by advertising for bids (Section 11.4 of the Purchasing Act).

Teledyne is registered and in good standing with the State of Illinois.

The Multi-Project Labor Agreement is not applicable due to the specialized nature of the equipment and 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 Teledyne, in an amount not to exceed \$38,147.00.

Funds are available in Account 101-16000-634970.

Requested, Edward W. Podczerwinski, Acting Director of Monitoring and Research, EWP:KB:cs/ae  
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 June 15, 2017