



Legislation Text

File #: 17-0902, **Version:** 1

Resolution to Accept Grant from the Water Research Foundation (\$100,000.00), Approve a Multi-Funded Research Agreement with the Water Research Foundation (\$341,649.00), and Approve a Research Agreement with the University of Michigan (\$204,366.00)

This resolution requests approval for the research project, funding mechanisms, and agreements for the research project entitled "Optimizing Filter Backwashing Procedures to Reduce Selection for Opportunistic Pathogens in Drinking Water". In collaboration with the University of Michigan, the City submitted a grant proposal to the Water Research Foundation's Tailored Collaboration Research Program to seek funding for this project. The project is designed to further the City's understanding of the microbiology that exists in its filters and ultimately develop opportunities to improve the quality of the City's drinking water.

The City of Ann Arbor was awarded a grant from the Water Research Foundation in the amount of \$100,000.00. The award requires the approval of two research agreements, one with the Water Research Foundation (\$341,649.00) and the other with the University of Michigan (\$204,366.00). This memorandum summarizes the background on this project for Council's information as they consider this award.

In 1999, the City constructed a pilot filter plant at the Water Treatment Plant. This pilot plant was constructed to evaluate the performance of different filter media and instrumentation prior to a filter rehabilitation project. The plant was operated for a period of 12 months before it was decommissioned for potential future use.

In the interim years, several University of Michigan doctoral students have studied the City's filters and ozone disinfection system, focusing on microbiology that inhabits these processes. In 2016, the Water Research Foundation-- an organization that supports and advances research in the water industry -- identified biofiltration and waterborne pathogens in distribution systems as focus areas for future research. These focal points aligned well with research that the University of Michigan had already conducted, as well as with a strategic goal of the Water Treatment Services Unit. A strategic goal of the WTSU is to support and present research in the water supply field as it relates to City treatment processes and which can benefit City customers. Leveraging the work that has already been started, the City submitted a proposal to the Water Research Foundation to support future research in this area, and included the University of Michigan as a subcontractor.

The premise for this project is that the City's operational procedures may be responsible for pre selecting for microbial pathogens in the City's filters, and that modifying these procedures may improve the quality of the City's finished water. The City intends to recondition and operate its pilot filter system as part of this research effort.

The total project value is estimated to be \$341,649.00. The research plan is to be conducted over a period of two years. The Water Research Foundation Grant award is in the amount of \$100,000.00. The University of Michigan is contributing in-kind goods and services to this project of \$67,108.00

and the City of Ann Arbor is providing the cost-share (both cash and in-kind) of the remaining \$174,541.00 over two years. The costs to the City, aside from the subcontract to the University of Michigan, include materials and supplies (\$11,100.00), the recommissioning costs of the pilot filter (approximately \$44,000.00) and the staff costs of leading the project and administering the agreements (\$15,075.00).

As a part of the grant agreement, the Water Research Foundation also requires a cash co-funding amount of \$100,000.00, which will be remitted back to the City as costs are incurred for this project along with the \$100,000.00 of the Foundation's funds.

The two proposed Agreements reflect the agreement between these three organizations (City, Water Research Foundation, and University of Michigan) to complete the work proposed. The agreement with the Water Research Foundation awards the grant funding to the City and includes the project's scope of work, deliverables, and project schedule. The agreement with the University of Michigan outlines their role in staffing the project and describes the services that they will provide. The City's portion of the project costs is included in the FY18 Water Supply System Operations and Maintenance Budget approved by Council.

Budget Impacts

Revenue:

\$100,000.00 from Water Research Foundation

Expenditures:

\$85,641.00 in-kind time and materials for City Staff and equipment

\$204,366.00 Research Agreement with the University of Michigan

\$67,108.00 third party in-kind support from the University of Michigan

The University of Michigan complies with the City's Non-discrimination and Living Wage ordinances.

Prepared by: Brian Steglitz, Manager, Water Treatment Services Unit

Reviewed by: Craig Hupy, Public Services Area Administrator

Approved by: Howard S. Lazarus, City Administrator

Whereas, The City was awarded a grant from the Water Research Foundation in the amount of \$100,000.00 to complete a project in partnership with the University of Michigan Department of Civil and Environmental Engineering to study "Optimizing Filter Backwashing Procedures to Reduce Selection for Opportunistic Pathogens in Drinking Water";

Whereas, The proposed project to advance research in the water field where it provides benefit to City water customers and is in alignment with the Water Treatment Service Unit's strategic goals;

Whereas, Funding of \$200,000.00 is budgeted in the FY18 Water Supply System Operations and Maintenance Budget specifically for this project;

Whereas, The University of Michigan complies with the City's Non-discrimination and Living Wage ordinances and

Whereas, the Research Agreement with the University of Michigan will be partially funded by the Water Research Foundation Grant;

RESOLVED, That Council accepts the grant award from the Water Research Foundation in the amount of \$100,000.00;

RESOLVED; That Council approve the \$100,000 cash co-funding amount to be disbursed to the Water Research Foundation, which will be subsequently reimbursed during the life of the project as costs are incurred;

RESOLVED, That Council approve the Multi-Funded Research Agreement with the Water Research Foundation in the amount of \$341,649.00 to study optimization of the City's filter backwashing procedures

RESOLVED, That Council approve the Research Agreement with the University of Michigan in the amount of \$204,366.00 to study optimization of the City's filter backwashing procedures;

RESOLVED, That the City portion of the Research Agreements is to be funded from the approved FY18 Operation and Maintenance Budgets for the Water Supply System;

RESOLVED, That funds for this project are available for the life of the project without regard to fiscal year;

RESOLVED, That the Mayor and City Clerk are authorized and directed to execute the Research Agreements after approval as to substance by the City Administrator and approval as to form by the City Attorney; and

RESOLVED, That the City Administrator be authorized to take the necessary administrative actions to implement this resolution.