



## Legislation Text

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Resolution to Accept a Grant from the Water Research Foundation (\$100,000.00), Approve a Project Funding Agreement with the Water Research Foundation (\$450,082.00), and Approve a Research Agreement with the University of Michigan (\$192,500.00) for Research at the Water Treatment Plant This resolution requests approval for the research project, funding mechanisms, and agreements for the research project entitled “Impact of UV treatment on microbial communities in a full-scale drinking water distribution system.” 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 its UV treatment system and inform decisions about how the system is operated to optimize 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 agreements, one with the Water Research Foundation (\$450,082.00) and the other with the University of Michigan (\$192,500.00).

The Water Treatment Plant (WTP) recently installed a UV irradiation system to augment its ability to disinfect the drinking water for *Cryptosporidium*, which is a protozoan microbial parasite that has been found in the Huron River. This research project will examine benefits of UV treatment to downstream water quality and identify optimal operating conditions for the system.

The City of Ann Arbor has had a long history of research partnerships with Dr. Raskin and her research team at University of Michigan. Over that past three years, University of Michigan doctoral students have studied the City’s filters, ozone disinfection system, and distribution system, focusing on microbiology that inhabits these processes. In 2021, The Water Research Foundation - an organization that supports and advances research in the water industry - identified waterborne pathogens in distribution systems as a focus area for future research. This focus area aligned well with research that the University of Michigan had already conducted, as well as with the Water Treatment Services Unit’s strategic goal to support and present research in the water supply field that can benefit City customers. Leveraging the work that has already been started, the City submitted a proposal to The Water Research Foundation with the University of Michigan as a subcontractor. Specifically, this project will assess the impact that the new UV system has on microbial water quality in the distribution system.

The total project value is estimated to be \$450,082.00. The research plan is to be conducted over a period of two and a half years. The Water Research Foundation Grant award is in the amount of \$100,000.00. The University of Michigan is contributing \$219,460.00 of in-kind goods and services, the UV system vendor Trojan is contributing \$9,000.00 of in-kind services, and the City of Ann Arbor is providing the cost-share (both cash and in-kind) of the remaining \$121,622.00 over two and a half years. The City of Ann Arbor’s contribution of \$121,622.00 is included in the Water Treatment Services Unit’s FY22 Operations and Maintenance Budget. The costs to the City, aside from the subcontract to the University of Michigan, include a subcontract to collect samples from

the reservoir (\$7,500.00) and the staff costs of leading the project, providing regular monitoring data to University of Michigan, and administering the agreements (\$21,622.00).

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, The 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 approved FY22 Water Supply System Operations and Maintenance Budget.

Budget/Fiscal Impact:

Revenue: \$100,000.00 from Water Research Foundation  
Expenditures: \$21,622.00 in-kind time for City Staff  
\$7,500.00 subcontract for reservoir sampling  
\$192,500.00 Research Agreement with the University of Michigan  
\$219,460.00 third party in-kind support from the University of Michigan (Funded by the University of Michigan)  
\$9,000.00 third party in-kind support from Trojan (Funded by Trojan)

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: Milton Dohoney Jr., Interim 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 "Impact of UV treatment on microbial communities in a full-scale drinking water distribution system;"

Whereas, The project will examine benefits of UV treatment to downstream water quality and identify optimal operating conditions for the drinking water distribution system;

Whereas, Funding of \$100,000.00 is budgeted in the 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 City Council accept the grant award from the Water Research Foundation in the amount of \$100,000.00;

RESOLVED; That City 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 City Council approve the Project Funding Agreement with the Water Research Foundation in the amount of \$450,082.00 to study optimization of the City's use of their UV treatment technology;

RESOLVED, That City Council approve a Research Agreement with the University of Michigan in the amount of \$192,500.00 to study optimization of the City's use of their UV treatment technology;

RESOLVED, That the City portion of the Research Agreements is to be funded from the 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 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.