

Drinking Water Revolving Fund
ORDER OF APPROVAL

Applicant/Issuer: City of Flint, Genesee County

Project No. 7422-01

Assistance Amount: \$77,740,825 (Seventy-seven Million Seven Hundred Forty Thousand Eight Hundred Twenty-five Dollars)

Rate: 0.00% (Zero Percent)

Term: Final maturity October 1, 2038.

Pursuant to: Part 54, Safe Drinking Water Assistance, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

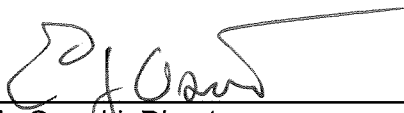
The Director of the Department of Environmental Quality of the state of Michigan, acting upon the application submitted by the applicant/issuer for assistance in financing the project pursuant to the referenced Act,

ORDERS that the application is approved based upon the requirements, provisions, and information included in the application and other documents submitted to the Department of Environmental Quality, and which are incorporated herein and made part hereof by this reference.

Special conditions of this Order are identified in the attached Exhibits A - C.

This approval is based on the application and other documents currently filed with the Director of the Department of Environmental Quality and no material change may be made to the application or this approval without the prior written approval of the Department of Environmental Quality.

The Department of Environment Quality certifies to the Michigan Finance Authority that the applicant/issuer is eligible to receive assistance as provided by this Order.



Eric Oswald, Director
Drinking Water and Municipal Assistance Division
Department of Environmental Quality

Dated: December 3, 2018
Lansing, Michigan

Drinking Water Revolving Fund
EXHIBIT A

Cost summary identifying design, construction, and administrative costs.

Planning Costs	\$395,804
Rate Methodology Development Costs	\$0
Design Engineering Cost	\$5,171,692
Legal/Financial Service Fees	\$0
Administrative Costs	\$0
Bond Counsel Fees	\$40,000
Bond Advertisement Costs	\$0
Bid Advertisement Costs	\$0
Capitalized Interest	\$0
Land Acquisition/Relocation Costs	\$0
Land Purchase Costs	\$0
Construction Engineering Costs	\$9,640,166
Construction Costs (bid contracts)	\$64,428,875
Construction Costs (force account)	\$0
Equipment Costs	\$0
Other Project Costs	\$0
Contingencies	\$0
LESS Other Sources of Funding (Michigan Department of Transportation funds and associated local share for construction, design engineering, and construction engineering for the Kearsley Street water main project)	<u>(\$1,935,712)</u>
TOTAL PROJECT COSTS APPROVED	\$77,740,825

Drinking Water Revolving Fund
EXHIBIT B

Project description, referencing the permit required by 1976 PA 399, Section 4.

Kearsley Street Water Main Replacement Project:
Permit Number W189044 Issued on March 26, 2018

*Before projects begin construction, applicable permits must be issued. Remaining project permit numbers to be determined

Project Description:

Secondary Water Source

Currently, there is a single pipeline that provides treated water from the Great Lakes Water Authority (GLWA) to the city of Flint. The city plans to build a connecting 5.5 mile 36-inch-diameter water main between Genesee County and the city of Flint water treatment plant (WTP) to provide a backup water source. This project would provide treated water in emergency situations or if the city exceeds the GLWA withdrawal rate and/or city storage capabilities. This project will address the situation causing the declared emergency by providing a backup water source per the Department of Environmental Quality regulations.

Dort Street and Cedar Street Reservoir and Pump Station Improvements

The Dort and Cedar Street storage reservoirs and pump station facilities were designed for a larger demand and customer base. The city plans to construct a new Dort Street Pump Station and make structural repairs to the reservoir, and upgrade the existing Cedar Street Pump Station and reservoir to improve reliability, water storage, mixing and distribution. Permanent sodium hypochlorite improvements will be made at the Cedar Street facility. This project will address the situation causing the declared emergency by providing the ability to maintain flows and pressure throughout the system needed to allow the city to meet its GLWA contract requirements and ensure an adequate quantity of water during peak demand periods.

Chemical Feed Building

Although the city will receive treated water from the GLWA and/or Genesee County, there is a need to add (or have the capability to add) additional chemicals. A new, permanent chemical feed building at the water treatment plant site will be constructed to replace the existing, temporary treatment facilities. The new building will house equipment to feed chlorine to maintain chlorine residuals throughout the distribution system, and sodium hydroxide and/or phosphoric acid for corrosion control. This project will address the situation causing the declared emergency by properly treating the water supplied by the GLWA and Genesee County as the current treatment facilities are not sufficient for long-term service.

Northwest Transmission Main

The current 24-inch-diameter transmission main was constructed in the 1930s, is near the end of its useful life and is too large of a diameter for current water demands. Therefore, it needs to be replaced. A new 16-inch-diameter water main will be installed from the WTP west and south

to connect with the water main at University Avenue. This project will address the situation causing the declared emergency by resizing the main to help with water age in the system.

Water Main Replacement

Water mains will be replaced throughout the city's water system that are at a high risk of failure and/or are critical to overall performance based on the Arcadis Asset Management Plan. A priority list of water main segments by year was included in the 2018 DWRP Project Plan. Some water main may be replaced in conjunction with service line replacement projects or will be replaced as roadway funding is received from other sources to coordinate work efforts. The roadway funding approved to date includes a project on Kearsley Street. The Kearsley Street project will be funded in coordination with other road rehabilitation work funded by the Michigan Department of Transportation. A notice to proceed was issued for this project in November 2018.

Water Meter Replacement

Currently, the city has a program to replace existing, manual read meters with an Advanced Meter Analytics System to allow automated meter reading. At the time of the DWRP project plan submittal in June 2016, the city had replaced approximately 5,500 meters. Meter replacement is planned for the entire city, not only where service lines are replaced (install approximately 28,000 residential and 1,000 commercial water meters). Meter replacement will reduce unaccounted for water and ensure an appropriate rate is charged to customers thereby creating a revenue stream to fund future maintenance and replacement needs of the system. This project will address the situation causing the declared emergency as many meters are defective and have exceeded their useful lives; new meters will assist with water system operations and accurately monitor water usage and losses.

Water Quality Monitoring

Currently, water monitoring is done manually (i.e., collection, analysis, data entry, etc.) at several locations in the water system. An automated monitoring system would be installed that would include chlorine residuals, turbidity, pH level, conductivity, pressure, phosphate, and bacteriological indicators. This will assist with water quality compliance and provide real time data. This project will address the situation causing the declared emergency by monitoring the water supply to ensure a safe supply of drinking water and allow operators to respond faster to water quality changes in the distribution system.

Service Line Replacement Contingency

This is a contingent project if current funding for service line replacements is insufficient per the Concerned Pastors for Social Action settlement agreement. The project would remove lead and galvanized steel service lines from the street to inside the home. This project will address the situation causing the declared emergency by removing lead and galvanized steel from the water system.

Drinking Water Revolving Fund
EXHIBIT C

Additional special conditions.

1. Financial assistance authorized by this Order of Approval is conditioned upon receipt by the Michigan Finance Authority (the "Authority") by December 7, 2018, or such other date approved by the Authority, of all documentation necessary to satisfy the Authority's municipal obligation purchase requirements as set forth in the Shared Credit Rating Act, 1985 PA 227, as amended.
2. The Notice to Proceed must be issued within 60 days of contract award for each construction contract.
3. The applicant must comply with Section 1452(a) of the Safe Drinking Water Act (42 U.S.C. 300 et seq.), which requires that all of the iron and steel products used in the project be produced in the United States unless the applicant obtains a waiver from the U.S. Environmental Protection Agency.
4. Financial assistance authorized by this Order of Approval is in part supported by funding from the federal fiscal year 2017 Water Infrastructure Improvements for the Nation Act (WIIN) appropriation law covering the U.S. Environmental Protection Agency (P.L. 114-322) and includes loan principal forgiveness of \$77,740,825.

Total Loan Amount:	Amount of Principal Forgiven:
\$77,740,825	\$77,740,825

5. The following projects from the 2018 project plan are what is included in the scope of work in this Order of Approval, along with the proposed timeline for construction and estimated cost as provided by the city:

Project Rank	Description	Estimated Construction Start Date	Estimated WIIN Cost *
1	Secondary water source	April 2019	\$9,163,300
2	Dort and Cedar storage/pumping	March 2019	\$10,125,000
3	Chemical feed building	April 2019	\$3,400,000
4	Northwest transmission main	April 2019	\$12,296,900
5	Water main replacement	November 2018**	\$13,683,125
6	Water meter replacement	February 2019	\$18,460,000
7	Water quality monitoring	April 2019	\$612,500
8	Service line replacement contingency	July 2019	\$10,000,000
			\$77,740,825

*Includes planning, engineering, and legal/financial costs

**Kearsley Street Water Main project anticipated start date, remaining water main anticipated start date April 2020

6. The city must make adequate/timely progress to complete construction of the projects included in this Order of Approval. Sufficient progress will be measured by examining the performance required under the agreement in conjunction with the milestone

schedules, the time remaining for performance within the project period and/or the availability of funds necessary to complete the project. The assistance agreement may be terminated for failure to ensure reasonable completion of the project within the project period.

7. Projects under any Enforcement Order must be completed per the Enforcement Order.
8. To maintain eligibility for loan funding for each project described in this Order of Approval, construction cannot begin until:
 - a. The DEQ has issued the necessary permit(s)
 - b. The DEQ-Revolving Loan Section (RLS) has approved the plans and specifications for WIIN funding eligibility
 - c. The RLS has issued an Environmental Assessment and the 30-day Public Notice period has expired, with no significant comments received
 - d. The contract(s) has been competitively bid through a state-wide process in accordance with Drinking Water Revolving Fund requirements
 - e. The RLS reviews the contract(s) to ensure program-specific requirements have been met.
9. Prior to the reimbursement of funds, the city shall provide a list of all city staff that will perform work related to the grant including their titles, wages, duties related to the loan project, and estimate of time to be spent on loan activities. Elected official's time and wages are not eligible for reimbursement under this loan.
10. All invoices must clearly separate and identify costs by project. This includes but is not limited to planning, engineering, and construction. City force account costs must be identified by project as well.
11. Prior to the reimbursement of funds, the city shall provide executed contract(s) for all vendors providing services over \$50,000.
12. All contract addenda and change orders must be approved by the DEQ prior to release of funds. No funds will be reimbursed for work completed outside of the contract scope without an executed change order.
13. The city will send construction progress meeting minutes to the RLS as they occur. The city will inform the DEQ of meeting times so staff can be in attendance.
14. Each contract must be financially closed prior to any funds being reallocated to other contracts in the loan. Final loan closeout must occur within six months of substantial contract completion.
15. If a project is started under the loan but funding is exhausted prior to completion, the city must complete the project with its own or other funds.
16. Service line replacement must be done in accordance with the Michigan Lead and Copper Rule of the Safe Drinking Water Act, 1976 PA 399, Section 5, as well as the Concerned Pastors Settlement Agreement entered into on March 28, 2017.

17. The final \$10 million of this loan reserved as service line replacement contingency cannot be used for any project(s) until the city completes all service line replacement work, as defined in the Concerned Pastors Settlement Agreement. After completion of service line replacement, to the extent any of this \$10 million has not been used, any remaining amounts may be redirected to eligible costs for projects under this loan.
18. Projects that have design costs reimbursed under the loan but do not complete construction may be required to pay back those design costs.