

Office of the Auditor General
Performance Audit Report

**Flint Water Service Line Replacement
Expenditures**

Department of Environment, Great Lakes, and Energy

January 2023

The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof.

The auditor general may make investigations pertinent to the conduct of audits.

Article IV, Section 53 of the Michigan Constitution



OAG

Office of the Auditor General

Report Summary

*Performance Audit
Flint Water Service Line Replacement
Expenditures
Department of Environment, Great Lakes,
and Energy (EGLE)*

Report Number:
761-3017-22

Released:
January 2023

On March 28, 2017, a U.S. district judge approved a settlement agreement requiring the State to allocate \$87 million and set aside an additional \$10 million in reserves to pay for the replacement of residential lead and galvanized water service lines in the City of Flint. The agreement required the State to request the OAG to conduct annual "financial" and performance audits of EGLE's administration of the payments or reimbursements described in paragraph 23 of the agreement. This performance audit addresses these requirements and is our fifth report on the expenditures of these funds.

Audit Objective			Conclusion
Objective 1: To determine the appropriateness of EGLE's administrative process to issue payments or reimbursements for the Flint water service line replacements.			Appropriate
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
None reported.			Not applicable.

Audit Objective			Conclusion
Objective 2: To determine the appropriateness of EGLE's expenditure of the Flint water service line replacement appropriations as of July 31, 2022.			Appropriate
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
None reported.			Not applicable.

Observations Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
Of 132 addresses reviewed with City of Flint water service lines, 110 addresses had service lines replaced or already had copper pipe composition; 21 addresses either did not have active water accounts, declined service, or were nonresponsive to scheduling attempts; and one address had yet to be scheduled (<u>Observation 1</u>).	Not applicable for observations.		
Map Related to This Audit Objective			
City of Flint Map With Sampled Addresses			

Audit Objective			Conclusion
Objective 3: To report EGLE's expenditures of the Flint water service line replacement appropriations.			Information provided
Findings Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
None reported.	Not applicable.		
Exhibits Related to This Audit Objective			
<u>Exhibit 1</u> - Allocations Required by the Settlement Agreement <u>Exhibit 2</u> - Expenditures of Appropriations - EGLE <u>Exhibit 3</u> - Expenditures of Appropriations - Department of Treasury <u>Exhibit 4</u> - Expenditures of Appropriations - Michigan Department of Health and Human Services <u>Exhibit 5</u> - Summary of Replacements and Excavations by Phase <u>Exhibit 6</u> - Summary of Replacements and Excavations by Zip Code <u>Exhibit 7</u> - Summary of the City of Flint's Contractors			

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Doug A. Ringler, CPA, CIA
Auditor General

January 6, 2023

The Honorable Sarah Anthony, Chair
Senate Appropriations Committee
State Capitol Building
Lansing, Michigan

The Honorable Angela Witwer, Chair
House Appropriations Committee
State Capitol Building
Lansing, Michigan

The Minority Vice Chair
Senate Appropriations Committee
Connie B. Binsfeld Building
Lansing, Michigan

The Minority Vice Chair
House Appropriations Committee
Anderson House Office Building
Lansing, Michigan

Dear Senator Anthony, Representative Witwer, and Minority Vice Chairs:

This is our performance audit report on the Flint Water Service Line Replacement Expenditures, Department of Environment, Great Lakes, and Energy (EGLE). This audit was performed to meet the requirements of Public Act 340 of 2016 as well as the request for audit received in conjunction with the settlement agreement between the State and the Concerned Pastors for Social Action, et al.

Public Act 340 of 2016 requires the Office of the Auditor General (OAG) to conduct a preliminary audit of the City of Flint's use of the initial \$10 million of the \$25 million appropriated for water service line removal based on a signed grant agreement between the State and the City of Flint. Our preliminary audit, issued in June 2018, can be found at audgen.michigan.gov/wp-content/uploads/2018/06/r761301717-0005.pdf. The Act also requires the OAG to conduct a final audit of the City of Flint's use of these appropriations by January 1, 2020. Our second audit, issued in October 2019, addressed the final audit requirement and can be found at audgen.michigan.gov/wp-content/uploads/2019/10/r761301719-4488.pdf.

The settlement agreement required the State to request the OAG to conduct annual "financial" and performance audits of EGLE's administration of the payments or reimbursements described in paragraph 23 of the agreement. This performance audit addresses these requirements and is our fifth report on the expenditures of these funds.

We appreciate the courtesy and cooperation extended to us during this audit.

Sincerely,

Doug Ringler
Auditor General

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AUDIT OBJECTIVES, CONCLUSIONS, FINDINGS, AND OBSERVATIONS

APPROPRIATENESS OF ADMINISTRATIVE PROCESS FOR FLINT WATER SERVICE LINE REPLACEMENTS

BACKGROUND

The Flint Action and Sustainability Team (FAST), consisting of members of the Michigan National Guard, coordinated activities among the City of Flint, State and federal departments and agencies, and other stakeholders for the excavation of water service lines. FAST, whose mission ended on January 5, 2018, was replaced with the following oversight contracts:

- Effective October 25, 2017, the Office of Internal Audit Services, State Budget Office, entered into a contract with Deloitte to assist in providing necessary payment and compliance oversight as well as the design and construction monitoring for the funds appropriated for the Flint water emergency. The contract end date was December 31, 2021.
- Effective December 20, 2017, the City of Flint entered into a 12-month contract with AECOM to provide program management services related to Phase Five water service line replacement activities.
- Effective March 11, 2019, the City of Flint entered into a contract with Rowe Professional Services Company to provide program management services related to Phase Six water service line replacement activities.
- Effective August 8, 2022, the City of Flint entered into a contract with Lakeshore Global Corporation to provide Phase Seven water service line replacement activities and restorations for previous phase work.

AUDIT OBJECTIVE

To determine the appropriateness of the Department of Environment, Great Lakes, and Energy's* (EGLE's) administrative process to issue payments or reimbursements for the Flint water service line replacements.

CONCLUSION

Appropriate.

FACTORS IMPACTING CONCLUSION

- We did not identify any internal control* weaknesses in EGLE's administrative process to issue payments or reimbursements for the Flint water service line replacements.

* See glossary at end of report for definition.

APPROPRIATENESS OF EXPENDITURE OF FLINT WATER SERVICE LINE REPLACEMENT APPROPRIATIONS AS OF JULY 31, 2022

AUDIT OBJECTIVE

To determine the appropriateness of EGLE's expenditure of the Flint water service line replacement appropriations as of July 31, 2022.

CONCLUSION

Appropriate.

**FACTORS
IMPACTING
CONCLUSION**

- We did not identify any significant errors in our review of the supporting documentation for the audited transactions.
- Sampled addresses within and surrounding Flint water service lines did not identify inappropriate billings for service line replacement work performed (Observation* 1).

* See glossary at end of report for definition.

OBSERVATION 1

Summary of service line replacement activity at 200 addresses.

We judgmentally and randomly selected 200 addresses from 99,746 parcel numbers across seven zip codes containing Flint water service lines (see City of Flint Map With Sampled Addresses) to determine the reasonableness of service line replacement activity.

Two zip codes exist entirely within the City of Flint, while the other five zip codes overlap into other cities and/or townships. As a result, not all addresses within these seven zip codes are on the Flint water service line and may not be subject to Flint service line replacement activities.

For the 200 addresses selected, we reviewed City of Flint water line account status listings, City of Flint water service line maps, contractor invoices, EGLE contractor invoice tracking records, address declination records, and nonresponsive scheduling records.

Our review identified 89 addresses with appropriate reasons for no record of water service line excavation or replacements:

	<u>Addresses</u>
Outside City of Flint water service line	68
Inactive account status on Flint water service line	13
Active account but declined replacement or was nonresponsive to scheduling attempts	8
Total	<u>89</u>

Of the remaining 111 addresses, our review identified 110 were completed and 1 address was yet to be scheduled:

	<u>Addresses</u>
Excavation identified copper pipe composition and no service line replacement necessary	63
Service lines replaced	47
Active water account with no record of work done	1
Total	<u>111</u>

In matching contractor invoices for restorations to completed excavation and water service line replacements, we determined 91 of the 110 excavations averaged 258 days for restoration, ranging from 21 to 852 days after excavation or line replacement:

<u>Days Between Excavation/Service Line Replacement and Restoration</u>	<u>Addresses</u>
0 to 90	21
91 to 180	14
181 to 360	38
More than 360	18
Total	<u>91</u>

We conducted site visits at the remaining 19 addresses without restorations recorded (3 addresses in October 2021 and 16 addresses in July 2022) and concluded 6 sites had complete restorations, 3 sites still needed restorations, and 10 sites were undeterminable because of obstructed property views or a lack of clear evidence of any restoration activity:

	<u>Addresses</u>
Undeterminable restoration status	10
Restoration confirmed complete	6
Additional restoration needed	<u>3</u>
Total	<u><u>19</u></u>

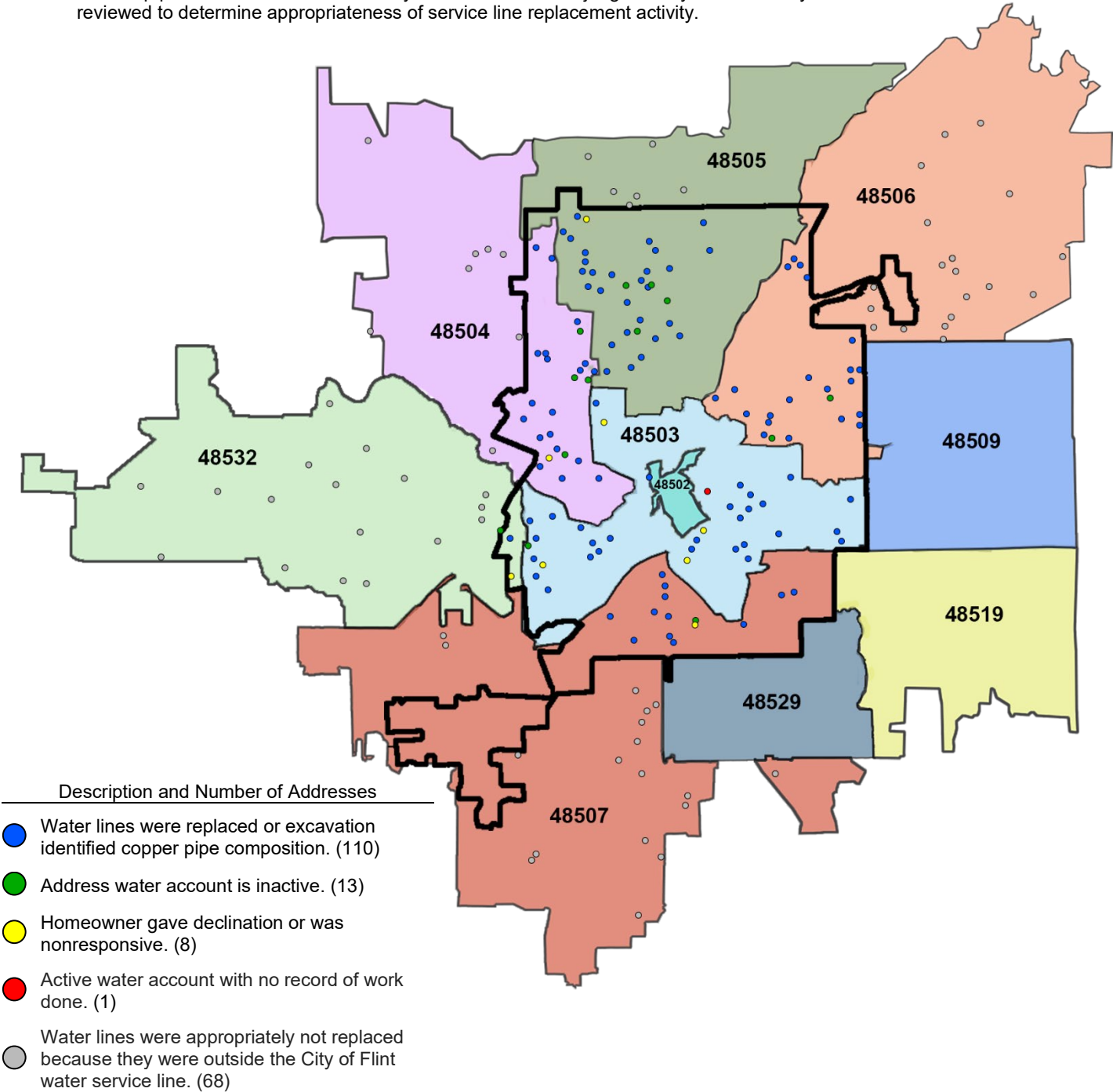
Also, our site visits included 7 addresses with at least 1 restoration invoice. We noted:

	<u>Addresses</u>
Restoration confirmed complete	4
Undeterminable restoration status	2
Additional sidewalk restoration needed	<u>1</u>
Total	<u><u>7</u></u>

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy

City of Flint Map With Sampled Addresses
 As of July 31, 2022

This map presents the border of the City of Flint and the 200 judgmentally and randomly selected addresses we reviewed to determine appropriateness of service line replacement activity.



Note: The bolded boundary shows the City of Flint.

Source: The OAG created this map using Google Earth. The plotted locations are approximate.

EXPENDITURES OF FLINT WATER SERVICE LINE REPLACEMENT APPROPRIATIONS

BACKGROUND

Public Act 340 of 2016 requires the Office of the Auditor General (OAG) to conduct a preliminary audit of the City of Flint's use of the initial \$10 million of the \$25 million appropriated for water service line removal based on a signed grant agreement between the State and the City of Flint. Our preliminary audit, issued in June 2018, can be found at audgen.michigan.gov/wp-content/uploads/2018/06/r761301717-0005.pdf. The Act also requires the OAG to conduct a final audit of the City of Flint's use of these funds by January 1, 2020. Our second audit, issued in October 2019, addressed the final audit requirement and can be found at audgen.michigan.gov/wp-content/uploads/2019/10/r761301719-4488.pdf.

In addition, a settlement agreement* between the State and the Concerned Pastors for Social Action, et al., required the State to request the OAG to conduct annual "financial" and performance audits* of EGLE's administration of the payments or reimbursements described in paragraph 23 of the agreement.

Due to the ongoing nature of the audit, not all reported expenditures were audited by the end of our fieldwork. Reported expenditures not subject to audit during the current audit will be considered for audit during future audits of Flint Water Service Line Replacement Expenditures.

AUDIT OBJECTIVE

To report EGLE's expenditures of the Flint water service line replacement appropriations.

CONCLUSION

Information provided.

FACTORS IMPACTING CONCLUSION

- We reported EGLE's expenditures of the appropriations as of July 31, 2022.

* See glossary at end of report for definition.

SUPPLEMENTAL INFORMATION

Exhibit 1

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES Department of Environment, Great Lakes, and Energy (EGLE)

Allocations Required by the Settlement Agreement

The *Concerned Pastors for Social Action, et al. v. Khouri, et al.*, settlement agreement required the State to allocate \$87 million and set aside an additional \$10 million in reserves to pay for the replacement of lead and galvanized water service lines in the City of Flint. Of the \$87 million, \$20 million will be the State matching funds appropriated by the State of Michigan related to the federal funding, Water Infrastructure Improvements for the Nation (WIIN) Act*. No more than \$20 million will be WIIN monies. Of the \$87 million, \$47 million will be funds allocated by the State of Michigan from sources other than the WIIN monies and the State matching funds.

	Settlement Requirement for Service Line Replacement	Allocation	Expenditures
State matching funds for WIIN:			
Public Act 340 of 2016 Sections 303(1) and 303(3)	\$20,000,000	\$20,000,000	\$20,000,000
WIIN:			
Public Act 33 of 2017 Section 301	20,000,000	20,000,000	20,000,000
Other than WIIN and State matching funds¹	<u>47,000,000</u>	<u>47,399,659²</u>	<u>45,509,547</u>
Subtotal	<u>\$87,000,000</u>	<u>\$87,399,659</u>	<u>\$85,509,547</u>
Reserve:			
Public Act 33 of 2017 Section 301	<u>10,000,000</u>	<u>10,000,000</u>	<u>5,889,000</u>
Total	<u><u>\$97,000,000</u></u>	<u><u>\$97,399,659</u></u>	<u><u>\$91,398,547</u></u>

¹Funding Source:

	Allocation	Expenditures
Public Act 207 of 2018 Section 602	\$20,000,000	\$20,000,000
Public Act 107 of 2017 Legislative Transfer 2018-3	9,000,000	9,000,000
Public Act 207 of 2018 Legislative Transfer 2019-1	5,613,000	5,612,900
Children's Health Insurance Program (CHIP)	10,319,659	10,319,659
MDHHS Drinking Water Declaration of Emergency Funding	2,467,000	576,988
Total	<u>\$47,399,659²</u>	<u>\$45,509,547</u>

²The State has allocated funding in excess of the court-mandated requirements.

Source: The OAG prepared this exhibit based on the specified Public Acts and information obtained from the Michigan Administrative Information Network* (MAIN) and the Statewide Integrated Governmental Management Applications* (SIGMA).

* See glossary at end of report for definition.

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy (EGLE)

Expenditures of Appropriations - EGLE
As of July 31, 2022

Public Act 340 of 2016

Appropriated: \$25,000,000

Authorized Uses: Sections 303(1) and 303(3)

Section 303(1): EGLE shall grant \$25 million to a city in which a declaration of emergency due to drinking water contamination was issued. The funds shall be provided for service line removal based on a signed grant agreement between the State and the city.

Section 303(3): A total of \$5 million, of the \$25 million, shall be paid to the city upon execution of the grant agreement. Additional funding will be provided on a reimbursement basis.

Expenditures By Authorized Use Category

	Funding	Total	Expenditures Subject to Review	
	<u>Allocation</u>	<u>Expenditures</u>	<u>Prior Audits</u>	<u>Current Audit</u>
Water Service Line Replacement - Grant	\$20,000,000	\$20,000,000	\$20,000,000	\$0
Water Service Line Replacement - Advance	5,000,000	5,000,000	5,000,000	0
Total	<u>\$25,000,000</u>	<u>\$25,000,000</u>	<u>\$25,000,000</u>	<u>\$0</u>

This exhibit continued on next page.

Public Act 33 of 2017 and Public Act 87 of 2021

Appropriated: \$100,000,000*

Authorized Uses: Section 301 (Public Act 33 of 2017) and Section 1005 (Public Act 87 of 2021)

EGLE shall allocate \$100 million in federal funding, Water Infrastructure Improvements for the Nation (WIIN) Act, for the drinking water declaration of emergency. These funds shall be used for water treatment plant improvements, water service line replacement, distribution system upgrades, corrosion control, and other infrastructure needs.

In February 2017, the Department of Environmental Quality conditionally awarded the City of Flint a \$120 million grant with \$100 million authorized under the WIIN Act and the \$20 million required State match. Initially, funds were made available for three approved projects including Water Service Line Replacement, the Northwest Transmission Main Project, and the Local Assistance Project:

- Water Service Line Replacement
This project will remove both lead and galvanized steel service lines from the street to the home meter, diminishing the risk of potential drinking water lead contamination from service lines. Replacement is expected to be completed in December 2023.
- Northwest Transmission Main Project
This project provides a replacement for the transmission main serving the northern and the western portion of the City of Flint distribution system and ending north of the Flint River. The project will also provide for monitoring of the water quality at several locations throughout the water distribution system. This project was postponed and is estimated to start in spring 2023 utilizing other funding sources.
- Local Assistance Project
This project began in 2017 utilizing State and federal funding. EGLE requested \$1.5 million, or 1.5% of the federal supplemental grant for the Local Assistance Set-Aside, to provide technical assistance as part of the State's capacity development program to support operational improvement of the City of Flint's distribution system, including corrosion control studies and asset management program development. Work was completed in February 2021.

After the completion of several studies, EGLE approved the City of Flint's Final Project plan in August 2018, which included six additional projects:

- Chemical Feed Building Project
This project will establish a permanent chemical feed building at the Water Treatment Plant site to replace the existing, temporary treatment facilities. The new building will treat the water with chlorine to maintain chlorine residuals throughout the distribution system and sodium hydroxide and/or phosphoric acid for corrosion control. The current treatment facilities are not sufficient for long-term service. Work is now expected to be completed in December 2022.

* The *Michigan Compiled Laws* allow for work projects up to 48 months after the fiscal year in which the appropriation was originally made. Unspent funds from the \$100,000,000 appropriation in Public Act 33 of 2017 lapsed at the end of fiscal year 2021. EGLE estimated \$45,000,000 would be unspent at the end of fiscal year 2021 when budgeting for Public Act 87 of 2021, resulting in the total of the two appropriations being \$145,000,000. However, the total amount that can be spent from the federal grant remains at \$100,000,000.

This exhibit continued on next page.

- Dort and Cedar Project
This project modifies the pump station capabilities of the Dort and Cedar Street reservoirs to improve reliability, water storage, mixing, and distribution. This project will also provide the ability to maintain water flows and pressure throughout the system and ensure an adequate quantity of water during peak demand periods. Work on the Dort reservoir has been completed. The Dort Pump Station is expected to be completed in December 2022. The Cedar Street Pump Station project was postponed and is estimated to start in spring 2023 utilizing other funding sources.
- Meter Replacement Project
This project replaces existing meters for the entire City of Flint with an Advanced Meter Analytics System. This meter replacement work will ensure an appropriate rate is charged to customers, thereby creating a suitable revenue stream to fund future maintenance and replacement needs of the system. Work is now expected to be completed in December 2022.
- Secondary Water Source Project
This project constructs a 36-inch water main (5.5 miles) connecting Genesee County and the City of Flint water treatment plant to provide a backup water source. Work is now expected to be completed in December 2022.
- Water Main Replacement Project
This project replaces water mains throughout the City of Flint's water system that are at a high risk of failure and/or are critical to overall performance based on Arcadis Asset Management Plan. Some water mains will be replaced in conjunction with service line replacement projects, while additional water mains will be replaced as roadway funding is received from other sources to coordinate work efforts. Water main replacements began in July 2018. The Kearsley Street, Dupont, and Longway water mains are complete, though billings are still outstanding. The Atherton water main was completed in November 2021, and the Court St. water main was completed in July 2022.
- Water Quality Monitoring Project
This project installs an automated system to monitor chlorine residuals, turbidity, pH level, conductivity, pressure, phosphate, and bacteriological indicators to assist with water quality compliance and provide real time data. The system will also monitor 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. This project went through the planning phase in December 2017 and was approved in August 2018. This project was completed in April 2022.

This exhibit continued on next page.

Expenditures By Authorized Use Category

	Funding Allocation	Total Expenditures	Expenditures Subject to Review	
			Prior Audits	Current Audit
Water Service Line Replacement	\$ 20,000,000	\$ 20,000,000	\$20,000,000	\$ 0
Water Service Line Replacement Contingency ²	24,027,997 ¹	5,889,000	3,575,409	2,313,591
Chemical Feed Building Project ³	5,488,589 ¹	5,005,268	3,033,396	1,699,219
Dort and Cedar Project:				
Dort Reservoir ⁴	3,309,308 ¹	3,064,620	2,470,956	87,879
Dort Pump Station ⁵	4,249,169 ¹	2,377,047	483,073	1,771,605
Cedar Pump Station	0 ¹	0	0	0
Local Assistance Project	2,593,671 ¹	2,593,671	2,593,671	0
Meter Replacement Project ⁶	9,363,569 ¹	8,770,450	7,967,216	803,234
Northwest Transmission Main Project	423,595 ¹	423,595	423,595	0
Secondary Water Source Project ⁷	16,634,759 ¹	16,187,576	12,182,272	4,004,724
Water Main Replacement Project:				
Kearsley Street Water Main ⁸	1,428,483 ¹	1,115,344	1,081,002	34,342
Court Street Water Main ⁹	3,884,826 ¹	3,858,669	2,326,473	982,312
Dupont/Atherton Street Water Main ¹⁰	7,965,026 ¹	7,965,026	6,982,430	982,297
Longway Water Main	111,411 ¹	0	0	0
Water Quality Monitoring Project ¹¹	519,597 ¹	519,597	501,672	17,925
Total	\$100,000,000	\$77,769,863	\$63,621,165	\$12,697,128

¹EGLE reallocated funding between the December 2021 audit and the current audit. The total amount appropriated did not change. EGLE reported funding allocations and total expenditures as of September 30, 2022.

²Water Service Line Replacement Contingency:

Current Audit Methodology and Results

We reviewed all expenditures totaling \$2,313,591 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

³Chemical Feed Building Project:

Current Audit Methodology and Results

We reviewed all expenditures totaling \$1,699,219 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

This exhibit continued on next page.

⁴Dort Reservoir:

Current Audit Methodology and Results

We reviewed all expenditures totaling \$87,879 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

⁵Dort Pump Station:

Current Audit Methodology and Results

We reviewed all expenditures totaling \$1,771,605 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

⁶Meter Replacement Project:

Current Audit Methodology and Results

We reviewed all expenditures totaling \$803,234 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

⁷Secondary Water Source Project:

Current Audit Methodology and Results:

We reviewed all expenditures totaling \$4,004,724 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

⁸Kearsley Street Water Main:

Current Audit Methodology and Results:

We reviewed all expenditures totaling \$34,342 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

This exhibit continued on next page.

⁹Court Street Water Main:

Current Audit Methodology and Results:

We reviewed all expenditures totaling \$982,312 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

¹⁰Dupont/Atherton Street Water Main:

Current Audit Methodology and Results:

We reviewed all expenditures totaling \$982,297 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

¹¹Water Quality Monitoring Project:

Current Audit Methodology and Results

We reviewed all expenditures totaling \$17,925 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

This exhibit continued on next page.

Public Act 207 of 2018

Appropriated: \$20,000,000

Authorized Uses: Section 602

EGLE is authorized to pay \$20 million for service line replacements related to the drinking water declaration of emergency. The tentative completion date was September 30, 2020.

Expenditures By Authorized Use Category

	Funding Allocation	Total Expenditures	Expenditures Subject to Review	
			Prior Audits	Current Audit
Water Service Line Replacement	\$20,000,000	\$20,000,000	\$20,000,000	\$ 0
Total	\$20,000,000	\$20,000,000	\$20,000,000	\$ 0

Source: The OAG prepared this exhibit based on the specified Public Acts and information obtained from MAIN, SIGMA, WIIN bank statements, and EGLE.

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy (EGLE)

Expenditures of Appropriations - Department of Treasury (Treasury)
As of July 31, 2022

Public Act 107 of 2017

Appropriated: \$9,000,000*

Authorized Uses: Legislative Transfer 2018-3

A \$9 million transfer from the Drinking Water Declaration of Emergency Reserve Fund (Department of Technology, Management, and Budget [DTMB]) for the cost of service line replacements.

Expenditures By Authorized Use Category

	<u>Funding</u>	<u>Total</u>	<u>Expenditures Subject to Review</u>	
	<u>Allocation</u>	<u>Expenditures</u>	<u>Prior Audits</u>	<u>Current Audit</u>
Water Service Line Replacement	<u>\$9,000,000</u>	<u>\$9,000,000</u>	<u>\$9,000,000</u>	<u>\$0</u>
Total	<u><u>\$9,000,000</u></u>	<u><u>\$9,000,000</u></u>	<u><u>\$9,000,000</u></u>	<u><u>\$0</u></u>

This exhibit continued on next page.

Public Act 207 of 2018

Appropriated: \$5,613,000*

Authorized Uses: Legislative Transfer 2019-1

A \$5.6 million transfer from the Drinking Water Declaration of Emergency Reserve Fund (DTMB).

Expenditures By Authorized Use Category

	Funding	Total	Expenditures Subject to Review	
	Allocation	Expenditures	Prior Audits	Current Audit
Water Service Line Replacement	\$5,613,000	\$5,612,900	\$5,612,900	\$0
Total	\$5,613,000	\$5,612,900	\$5,612,900	\$0

* EGLE was responsible for the administrative process of ensuring the appropriateness of the reimbursements to the City of Flint for water service line replacements utilizing the funding appropriated to Treasury.

Source: The OAG prepared this exhibit based on the specified Public Act and information obtained from MAIN, SIGMA, and EGLE.

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy (EGLE)

Expenditures of Appropriations - Michigan Department of Health and Human Services (MDHHS)
As of July 31, 2022

Public Act 107 of 2017

Appropriated: \$2,425,000*

Authorized Uses: Legislative Transfer 2018-1

A \$7.5 million transfer from the Drinking Water Declaration of Emergency Reserve Fund (DTMB) for City of Flint water emergency-related services. The State Budget Office repurposed \$2.425 million for Flint Lead Service Line Replacements.

Expenditures By Authorized Use Category

	Funding Allocation	Total Expenditures	Expenditures Subject to Review	
			Prior Audits	Current Audit
Water Service Line Replacement	\$2,425,000	\$576,988	\$22,456	\$554,532
Total	\$2,425,000	\$576,988	\$22,456	\$554,532

Water Service Line Replacement:

Current Audit Methodology and Results:

We reviewed all expenditures totaling \$554,532 and determined they were appropriately supported, approved, and charged to the appropriation. We did not identify any errors.

Observations

None

* EGLE was responsible for the administrative process of ensuring the appropriateness of the reimbursements to the City of Flint for water service line replacements utilizing the funding appropriated to MDHHS.

Source: The OAG prepared this exhibit based on the specified Public Act and information obtained from MAIN, SIGMA, and EGLE.

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy (EGLE)

Summary of Replacements and Excavations by Phase
As of July 31, 2022

The settlement agreement requires that the City of Flint shall have conducted the following excavations:

- A minimum of 6,000 households by January 1, 2018.
- A minimum of 12,000 households by January 1, 2019.
- A minimum of 18,000 households by January 1, 2020.

As of July 31, 2019, the City of Flint and EGLE have satisfied the January 1, 2018, January 1, 2019, and January 1, 2020 excavation requirements.

<u>Phase</u>	<u>Water Service Lines Replaced</u>	<u>Excavations Completed - Copper to Copper¹</u>	<u>Hydro-Excavations Completed - Copper to Copper²</u>	<u>Hydro-Excavations (Full Excavation Needed)³</u>	<u>Total Excavations Completed</u>
One	40 ⁴	3	0	0	43
Two	225	40	0	0	265
Three	596	215	0	0	811
Four	5,535	1,573	2,246	4,022	13,376
Five	1,980	9,431	0	0	11,411
Six	1,700	3,874	0	0	5,574
Total	10,076	15,136	2,246	4,022	31,480 ^{5,6}

¹ Full excavations completed that identified a copper pipe composition resulting in no additional excavations or water service line replacements.

² Hydro-excavations completed that identified a copper pipe composition resulting in no additional excavations or water service line replacements. Hydro-excavation activities ended in June 2018.

³ Hydro-excavations that did not identify a copper pipe composition require additional excavations or water service line replacements. Completed hydro-excavations of 3,599 are included in the columns for water service lines replaced or excavations completed – copper to copper. At the time of our review, 423 of the original hydro-excavations still required additional excavations or water service line replacements. Hydro-excavation activities ended in June 2018.

⁴ The U.S. Environmental Protection Agency (EPA) funded water service line replacements for 6 homes.

⁵ This exhibit includes only activity that has been reimbursed by EGLE to the City of Flint as of July 31, 2022. All subsequent activity will be reviewed in future audits of Flint Water Service Line Replacement Expenditures.

⁶ Review of archived invoices identified additional replacements, excavations, and hydro-excavations and records that required reclassification.

Source: The OAG prepared this exhibit based on financial status reports provided by the City of Flint and contractor invoices provided by EGLE.

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy (EGLE)

Summary of Replacements and Excavations by Zip Code¹
As of July 31, 2022

Zip Code	Active Residential Water Accounts ²	Water Service Lines Replaced	Excavations Completed - Copper to Copper ³	Hydro-Excavations Completed - Copper to Copper ⁴	Estimated Active Water Accounts Remaining ⁵
48502	297	8	6	0	283
48503	7,272	3,337	3,233	511	191
48504	6,002	2,182	3,576	231	13
48505	4,249	1,555	2,706	323	0 ⁶
48506	4,445	1,457	2,530	660	0 ⁶
48507	4,839	1,457	2,631	521	230
48509	1	0	0	0	1
48532	585	80	454	0	51
Total	27,690	10,076	15,136	2,246	

¹This exhibit does not include hydro-excavations that resulted in an unknown, lead, or galvanized pipe composition as shown in Exhibit 5. At the time of our review, 423 hydro-excavations were not complete; however, they are included in the Estimated Active Water Accounts Remaining column because they will require a full excavation to determine pipe composition.

²Active Residential Water Accounts include only activity of residential accounts as of June 17, 2022. If a resident activates a new water account, the city will make reasonable efforts to obtain permission to replace the service line. Accounts may become inactive after excavation or replacement.

³Full excavations completed that identified a copper pipe composition resulting in no additional excavations or water service line replacements.

⁴Hydro-excavations completed that identified a copper pipe composition resulting in no additional excavations or water service line replacements. Hydro-excavations activities ended in June 2018.

⁵Estimated active water accounts remaining will require excavations to determine pipe composition and changes as water accounts fluctuate between active and inactive.

⁶The total number of water lines replaced or excavated exceeds the number of active accounts because an account may become inactive after work is completed.

Source: The OAG prepared this exhibit based on a list of all active water accounts as of June 17, 2022 obtained from the City of Flint Treasurer's Office, financial status reports provided by the City of Flint, and contractor invoices provided by EGLE.

FLINT WATER SERVICE LINE REPLACEMENT EXPENDITURES
 Department of Environment, Great Lakes, and Energy (EGLE)

Summary of the City of Flint's Contractors
As of July 31, 2022

Table 1: By Phase

Phase Beginning Date:		Scope of Work Key:	
Phase I	March 2016	A	Project Management
Phase II-III	August 2016	B	Excavations
Phase IV	May 2017	C	Water Service Line Replacements
Phase V	May 2018	D	Restoration Services
Phase VI	April 2019	E	Miscellaneous

Phase	Contractor	Contract Amount	Scope of Work (See Key)
Phase I:	Johnson & Wood Inc.	\$ 486,400	B, C
	Rowe Professional Services Co.	422,460	A
Phase II:	Goyette Mechanical Co.	619,500	B, C, D
	Johnson & Wood Inc.	320,000	B, C
	National Guard	No Contract ¹	A
	WT Stevens Construction	320,000	B, C
Phase III:	City of Flint	No Contract ²	D
	Goyette Mechanical Co.	1,663,300	B, C, D
	National Guard	No Contract ¹	A
	WT Stevens Construction	2,306,384	B, C
Phase IV:	City of Flint	No Contract ²	D
	Dependable Sewer Cleaners	550,000 ³	B
	Goyette Mechanical Co.	10,738,500	B, C, D
	Lang Constructors Inc.	1,890,675	B, C
	Lewis & Munday	No Contract ⁴	E
	MI Fair Contracting Center	3,500 ⁴	E
	ML Chartier Excavating Inc.	700,000 ³	B
	National Guard	No Contract ¹	A
	Waldorf and Sons Inc.	2,335,950	B, C, D
	WT Stevens Construction	10,980,000	B, C, D
Zito Construction Co.	6,794,250	D	
Phase V:	AECOM	6,156,148	A
	City of Flint	No Contract ²	D
	Goyette Mechanical Co.	23,459,276	B, C, D
	Lang Constructors Inc.	4,855,000	B, C
	Martha Brown Custom Builders LLC.	2,034,618 ³	B
	MI Fair Contracting Center	1,100 ⁴	E
	Super Construction LLC.	2,482,850	B, C
	Waldorf and Sons Inc.	2,648,020	B, C
	WT Stevens Construction	11,048,000	B, C
Phase VI:	City of Flint	No Contract ²	A
	Commonwealth Heritage Group	74,000 ⁴	E
	Goyette Mechanical Co.	4,099,205	D
	Lang Constructors Inc.	8,721,908	B, C
	Rowe Professional Services Co.	5,538,735	A
	WT Stevens Construction	5,624,600	B, C
Total		\$ 116,874,379 ⁵	

This exhibit continued on next page.

¹The National Guard provided project management oversight of Phases II-IV of the FAST Start Program. However, there was no contract and the National Guard did not receive reimbursement specific to this project from the City of Flint or the State of Michigan.

²The City of Flint performed various restoration activities throughout Phases III-V of the FAST Start Program. During Phase VI, the City of Flint provided project management oversight of restoration activities. The City of Flint was reimbursed approximately \$1.7 million by the State for these services; however, there was no contract.

³Dependable Sewer Cleaners, ML Chartier Excavating Inc., and Martha Brown Custom Builders LLC performed hydro-excavations and referred any necessary replacements to other contractors.

⁴Miscellaneous Contractors:

Lewis & Munday: The City of Flint's financial advisor during Phase IV of the FAST Start Program. Lewis & Munday was reimbursed \$49,148 for these services; however, there was no contract.

Michigan Fair Contracting Center: Contracted during Phases IV and V to ensure compliance with the Davis-Bacon Act federal wage requirements.

Commonwealth Heritage Group: During Phase V, the State Historic Preservation Office (SHPO) determined that certain excavations could potentially impact Native American artifacts. As a result, a federally qualified archeologist was required to observe excavations at the addresses designated by SHPO. Commonwealth was contracted during Phase VI to provide the archeologist and to conduct all SHPO mandated testing.

⁵Phase VII began in August 2022 under a new contract with Lakeshore Global Corporation for \$17,871,748 to complete excavation, water service line replacement, and site-restoration activities. This exhibit only reflects activity through July 31, 2022.

Table 2: By Contractor

<u>Contractor</u>	<u>Total Contract Amount</u>	<u>Total Expenditures</u>
AECOM	\$ 6,156,148	\$ 5,162,477
City of Flint	No Contract	1,402,398
Commonwealth Heritage Group	74,000	73,863
Dependable Sewer Cleaners	550,000	549,585
Goyette Mechanical Co.	40,579,781	32,334,340
Johnson & Wood Inc.	806,400	773,099
Lang Constructors Inc.	15,467,583	14,186,875
Lewis & Munday	No Contract	49,148
Martha Brown Custom Builders LLC.	2,034,618	1,191,533
MI Fair Contracting Center	4,600	3,500
ML Chartier Excavating Inc.	700,000	700,000
National Guard	No Contract	N/A ¹
Rowe Professional Services Co.	5,961,195	2,346,883
Super Construction LLC.	2,482,850	2,472,850
Waldorf and Sons Inc.	4,983,970	4,546,865
WT Stevens Construction	30,278,984	28,930,162
Total	\$ 116,874,379	\$ 98,132,368

Source: The OAG prepared this exhibit based on contracts as of July 31, 2022 obtained from the City of Flint and contractor invoices provided by EGLE.

DESCRIPTION

On January 5, 2016, former Governor Rick Snyder declared a state of emergency for Genesee County (referred to as the Flint declaration of emergency) due to the ongoing health and safety issues caused by elevated lead levels in the City of Flint's drinking water. The state of emergency expired August 14, 2016.

On March 28, 2017, a U.S. district judge approved a settlement agreement that required the State to allocate \$87 million and set aside an additional \$10 million in reserves to pay for the replacement of residential lead and galvanized water service lines in the City of Flint. In accordance with the settlement agreement, 18,000 residential service lines must be excavated by January 1, 2020. As of July 31, 2022, a total of 31,480 excavations were completed (see Exhibit 5) and an estimated 769 residential addresses still required pipe composition verification (see Exhibit 6).

The six-phase, three-year program, referred to as the FAST Start Program, planned to excavate 6,000 residential water service lines per year for a total of 18,000 lines excavated by January 1, 2020. The initial team consisted of members of the Michigan National Guard and was established to coordinate the FAST Start Program activities among the City of Flint, State and federal departments and agencies, and other stakeholders.

Phase One of the FAST Start Program began in March 2016 and targeted high-risk households in Flint for lead water service line removal and replacement. High-risk households include those with children under age 6, children with elevated blood lead levels, pregnant women, senior citizens, residential day care facilities, people with compromised immune systems, and households where water tests indicate high levels of lead at the tap. Phase One was primarily funded by Public Act 3 of 2016 expenditures that were subject to review in our Flint Emergency Expenditures audits issued in July 2016 (000-2016-16) and January 2017 (000-2016-17).

Phases Two and Three of the FAST Start Program began in August 2016 and continued to focus on high-risk households. Phases Two and Three were funded with a \$5 million advance appropriated in Public Act 340 of 2016. Phase Three introduced hydro-excavation, a method of digging utilizing pressurized water and a vacuum system to quickly and safely expose pipe materials currently underground. Hydro-excavations provided a more efficient method to verify the underground pipe composition without having to complete a full excavation.

Phase Four began in May 2017, focusing on 10 zones within the City of Flint that were identified with the highest concentrations of lead-tainted pipes (see Exhibit 5). Phase Four was funded with \$20 million from Public Act 340 of 2016 and \$20 million from Public Act 33 of 2017.

Phase Five began in May 2018, focusing on 10 zones within the City of Flint that were selected based on the results of Phase Four activity. Phase Five continued with hydro-excavations, water service line replacements, and site restorations activities; however, the City of Flint ended hydro-excavation activities in June 2018. Phase Five was funded with \$9 million from Public Act 107 of 2017 and \$20 million from Public Act 207 of 2018. It will be completed with funds from Legislative Transfers 2018-1 and 2019-1.

Phase Six began in April 2019 and was intended to be the final phase of the excavation, water service line replacement, and site-restoration activities; however, additional addresses remained to be contacted, and Phase Seven was subsequently added. Phase Six first focused on the 5,200 addresses identified by the Amendment to the Settlement Agreement, signed in March 2019, and then moved on to the remaining households in all 10 zones within the City of Flint. Phase Six was funded from Public Act 33 of 2017.

Phase Seven began in August 2022 under a new contract with Lakeshore Global Corporation to complete excavation, water service line replacement, and site-restoration activities. Phase Seven was funded from Public Act 87 of 2021.

AUDIT SCOPE, METHODOLOGY, AND OTHER INFORMATION

AUDIT SCOPE

To determine if EGLE's administrative process to issue payments or reimbursements for the Flint water service line replacements was appropriate and if the expenditures charged to the Flint water service line replacement appropriations were appropriate and to report those expenditures. Our audit was limited to expenditures reported by July 31, 2022 and funded by Public Act 340 of 2016, Public Acts 33 and 107 of 2017, Public Act 107 of 2017, Public Act 207 of 2018, and Public Act 87 of 2021.

Due to the ongoing nature of the audit, not all reported expenditures were audited by the end of our fieldwork. Reported expenditures not subject to audit during the current audit will be considered for audit during future audits of Flint Water Service Line Replacement Expenditures, unless otherwise noted. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

PERIOD

Our audit procedures, which included audit planning, audit fieldwork, report preparation, and quality assurance, generally covered August 1, 2021 through July 31, 2022.

METHODOLOGY

In our initial audit, we conducted a preliminary survey to gain an understanding of the Flint water service line replacement process and to establish our audit objectives, scope, and methodology. Because this audit is a continuation of the first audit, we utilized the same objectives and scope. During this audit, we:

- Continued to meet with various City of Flint management and staff to enhance our understanding of Flint's administrative process to submit water service line replacement invoices to EGLE for expenditure reimbursement.
- Reviewed the new contract agreements to enhance our understanding of the oversight process for the water service line replacement activities.

OBJECTIVE 1

To determine the appropriateness of EGLE's administrative process to issue payments or reimbursements for the Flint water service line replacements.

To accomplish this objective, we:

- Continued to meet with EGLE management and staff to enhance our understanding of EGLE's administrative process to issue payments or reimbursements for the Flint water service line replacements.
- Continued to evaluate EGLE's administrative process to ensure that payments or reimbursements issued for the Flint water service line replacement activities were appropriate.
- Tested EGLE's administrative process for consistency in ensuring that payments or reimbursements issued for the Flint water service line replacement activities were appropriate.

OBJECTIVE 2

To determine the appropriateness of EGLE's expenditure of the Flint water service line replacement appropriations as of July 31, 2022.

To accomplish this objective, we:

- Reviewed source documentation supporting expenditures to ensure that EGLE properly reimbursed the City of Flint for excavations, water service line replacements, restoration services, and other projects.
- Validated the prices charged on the contractor invoices to the prices listed in the contract between the contractors and the City of Flint.
- Reviewed 200 addresses across City of Flint zip codes to assess the appropriateness of the work billings to each address. Our random samples were selected to eliminate bias and enable us to project the results to the respective populations. We selected other samples judgmentally to ensure representativeness and could not project those results to the respective populations.

OBJECTIVE 3

To report EGLE's expenditures of the Flint water service line replacement appropriations.

To accomplish this objective, we:

- Updated the account coding used by EGLE for expenditures of appropriations.
- Extracted the expenditures charged to the appropriations from MAIN and SIGMA.
- Reconciled expenditure totals to contractor invoices and City of Flint financial status reports.

CONCLUSIONS

We base our conclusions on our audit efforts and any resulting material conditions*, reportable conditions*, or observations.

AGENCY RESPONSES

Not applicable.

SUPPLEMENTAL INFORMATION

Our audit report includes supplemental information presented as Exhibits 1 through 7.

Occasionally, information (such as amounts appropriated, funding allocations, total expenditures, or expenditures subject to review) may change between reports. In most instances, this is a result of agency coding changes, expenditure transfers, or errors identified during our review. Exhibits are adjusted as we become aware of these changes.

* See glossary at end of report for definition.

GLOSSARY OF ABBREVIATIONS AND TERMS

Department of Environment, Great Lakes, and Energy (EGLE)	Formerly known as the Department of Environmental Quality (DEQ). Executive Order No. 2019-6 renamed DEQ as EGLE effective April 22, 2019.
DTMB	Department of Technology, Management, and Budget.
FAST	Flint Action and Sustainability Team.
internal control	A process, effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance about the achievement of the entity's objectives with regard to the reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations.
material condition	A matter that, in the auditor's judgment, is more severe than a reportable condition and could impair the ability of management to operate a program in an effective and efficient manner and/or could adversely affect the judgment of an interested person concerning the effectiveness and efficiency of the program. Our assessment of materiality is in relation to the respective audit objective.
MDHHS	Michigan Department of Health and Human Services.
Michigan Administrative Information Network (MAIN)	The State's automated administrative management system that supported accounting, purchasing, and other financial management activities through fiscal year 2017.
OAG	Office of the Auditor General.
observation	A commentary highlighting certain details or events that may be of interest to users of the report. An observation may not include all of the attributes (condition, effect, criteria, cause, and recommendation) presented in an audit finding.
performance audit	An audit that provides findings or conclusions based on an evaluation of sufficient, appropriate evidence against criteria. Performance audits provide objective analysis to assist management and those charged with governance and oversight in using the information to improve program performance and operations, reduce costs, facilitate decision-making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.

reportable condition	A matter that, in the auditor's judgment, is less severe than a material condition and falls within any of the following categories: a deficiency in internal control; noncompliance with provisions of laws, regulations, contracts, or grant agreements; opportunities to improve programs and operations; or fraud.
settlement agreement	The settlement agreement between the State and the Concerned Pastors for Social Action, et al., requiring the State to make payments of at least \$87 million through January 1, 2020 for water service line replacement. The agreement included a provision for the State to request the Auditor General to conduct annual "financial" and performance audits of EGLE's administration of the payments or reimbursements for water service line replacement. The Auditor General agreed to the audit request on April 17, 2017.
SHPO	State Historic Preservation Office.
Statewide Integrated Governmental Management Applications (SIGMA)	The State's enterprise resource planning business process and software implementation that support budgeting, accounting, purchasing, human resource management, and other financial management activities.
Water Infrastructure Improvements for the Nation (WIIN) Act	A 2016 federal act that addresses, supports, and improves America's drinking water infrastructure. Included in the WIIN Act are three new drinking water grants that promote public health and the protection of the environment.



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