

Office of the Auditor General
Follow-Up Report on Prior Audit Recommendations

**Community and Noncommunity
Water Supplies**

Drinking Water and Municipal Assistance Division
Department of Environmental Quality

January 2019

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.

Article IV, Section 53 of the Michigan Constitution



OAG

Office of the Auditor General

Report Summary

*Follow-Up Report
Community and Noncommunity Water
Supplies
Drinking Water and Municipal Assistance
Division
Department of Environmental Quality
(DEQ)*

**Report Number:
761-0320-15F**

**Released:
January 2019**

We conducted this follow-up to determine whether DEQ had taken appropriate corrective measures in response to the one material condition and three reportable conditions noted in our March 2016 audit report.

Prior Audit Information	Follow-Up Results		
	Conclusion	Finding	Agency Preliminary Response
<p>Finding #1 - Material condition</p> <p>Improved oversight and monitoring of community water supplies needed.</p> <p>Agency agreed.</p>	Complied	Not applicable	
<p>Finding #2 - Reportable condition</p> <p>Improved processes needed for selecting lead and copper sample sites and determining populations.</p> <p>Agency agreed.</p>	Partially complied	Reportable condition still exists. See Finding #2 .	Agrees

Prior Audit Information
<p>Finding #3 - Reportable condition</p> <p>Sanitary surveys and surveillance visits of community water supplies not always conducted within required time frames.</p> <p>Agency agreed.</p>
<p>Finding #4 - Reportable condition</p> <p>Sanitary surveys, surveillance visits, and other monitoring not conducted within required time frames by local health departments for noncommunity water supplies.</p> <p>Agency agreed.</p>

Follow-Up Results		
Conclusion	Finding	Agency Preliminary Response
Partially complied	Reportable condition still exists. See <u>Finding #3</u> .	Agrees
Partially complied	Reportable condition still exists. See <u>Finding #4</u>	Agrees

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Doug A. Ringler, CPA, CIA
Auditor General

January 29, 2019

Ms. Liesl Eichler Clark, Director
Department of Environmental Quality
Constitution Hall
Lansing, Michigan

Dear Ms. Clark:

This is our follow-up report on the one material condition (Finding #1), three reportable conditions (Findings #2 through #4), and four corresponding recommendations reported in the performance audit of Community and Noncommunity Water Supplies, Office of Drinking Water and Municipal Assistance, Department of Environmental Quality. That audit report was issued and distributed in March 2016. Additional copies are available on request or at audgen.michigan.gov.

Your agency provided the preliminary responses to the follow-up recommendations included in this report. The *Michigan Compiled Laws* and administrative procedures require an audited agency to develop a plan to comply with the recommendations and to submit it to the State Budget Director. Within 30 days of receipt, the Office of Internal Audit Services, State Budget Office, is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.

We appreciate the courtesy and cooperation extended to us during our follow-up. If you have any questions, please call me or Laura J. Hirst, CPA, Deputy Auditor General.

Sincerely,

A handwritten signature in black ink that reads "Doug Ringler". The signature is written in a cursive, slightly slanted style.

Doug Ringler
Auditor General

TABLE OF CONTENTS

COMMUNITY AND NONCOMMUNITY WATER SUPPLIES

	<u>Page</u>
Report Summary	1
Report Letter	3
Introduction, Purpose of Follow-Up, and Description	6
Prior Audit Findings and Recommendations; Agency Plan to Comply; and Follow-Up Conclusions, Recommendations, and Agency Preliminary Responses	8
Findings:	
1. Improved oversight and monitoring of community water supplies needed.	8
2. Improved processes needed for selecting lead and copper sample sites and determining populations.	10
3. Sanitary surveys and surveillance visits of community water supplies not always conducted within required time frames.	13
4. Sanitary surveys, surveillance visits, and other monitoring not conducted within required time frames by LHDs for noncommunity water supplies.	16
Supplemental Information	
Community Water Distribution System and Service Line Illustration	21
Follow-Up Methodology, Period, and Agency Responses	22
Glossary of Abbreviations and Terms	25

INTRODUCTION, PURPOSE OF FOLLOW-UP, AND DESCRIPTION

INTRODUCTION

This report contains the results of our follow-up of the one material condition* (Finding #1), three reportable conditions* (Findings #2 through #4), and four corresponding recommendations reported in our performance audit* of Community and Noncommunity Water Supplies, Office of Drinking Water and Municipal Assistance (ODWMA), Department of Environmental Quality (DEQ), issued in March 2016.

In January 2017, subsequent to our performance audit, DEQ reorganized and renamed ODWMA as the Drinking Water and Municipal Assistance Division (DWMAD).

PURPOSE OF FOLLOW-UP

To determine whether DEQ had taken appropriate corrective measures to address our corresponding recommendations.

DESCRIPTION

DWMAD is responsible for public drinking water and environmental health regulatory programs. There are approximately 10,700 public drinking water supplies in Michigan. Approximately 1,400 are community water supplies* that furnish drinking water year-round to residential populations of 25 or more. The remaining 9,300 are defined as noncommunity water supplies*.

DWMAD and contracted local health departments (LHDs) are responsible for enforcing compliance with community water supply and noncommunity water supply requirements, respectively, of the Michigan Safe Drinking Water Act (Public Act 399 of 1976, as amended). Michigan also is a primacy state, meaning it has received authority from the United States Environmental Protection Agency (EPA) to enforce compliance with the National Primary Drinking Water Regulations at all of its public water supplies.

All public water supplies must collect samples of their water on a set schedule and analyze the samples for contaminants. The sample results are reviewed by DWMAD and the LHDs. If contaminants that exceed drinking water standards are present and confirmed by repeat samples, the supply must post notice to the public and, if required, issue a "boil water" or "do not drink" notice until the underlying problem is corrected and the drinking water tests free of contaminants.

DWMAD is required to conduct sanitary surveys* of all community water supplies at least every three years to ensure that the supply is properly operated and maintained. A sanitary

* See glossary at end of report for definition.

survey is a comprehensive evaluation of the entire supply to determine the ability of the supply to produce, treat, and distribute adequate quantities of water to the public. During the survey, staff review operating and maintenance practices and records to ensure that drinking water produced meets all State and federal drinking water requirements. Survey findings often lead to the identification of potential problem areas that can be corrected before they become significant issues. LHDs are required to conduct sanitary surveys at all noncommunity water supplies at least once every five years. In addition, DEQ and LHDs are to complete periodic surveillance visits* of community and noncommunity water supplies to assist and help build a relationship with the operator and to confirm that regulatory requirements are being met and that the treatment system provides a continuous supply of water meeting drinking water standards.

* See glossary at end of report for definition.

PRIOR AUDIT FINDINGS AND RECOMMENDATIONS; AGENCY PLAN TO COMPLY; AND FOLLOW-UP CONCLUSIONS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

FINDING #1

Audit Finding Classification: Material condition.

Summary of the March 2016 Finding:

DEQ needs to improve its oversight and monitoring of community water supplies that implement a new water source or treatment process.

Recommendation Reported in March 2016:

We recommended that DEQ improve its oversight and monitoring of community water supplies that implement a new water source or treatment process to ensure that DEQ meets its mission of promoting wise management of water resources to support healthy communities.

AGENCY PLAN TO COMPLY*

DEQ's plan to comply dated May 26, 2016 indicated:

- On December 9, 2015, the City of Flint Water Treatment Plant began applying corrosion control treatment. The water quality is being assessed by DEQ on a weekly basis. On April 8, 2016, the EPA indicated that the water quality is improving.
- On March 14, 2016, DEQ sent a letter to all community water supplies, advising them to review and update their distribution system material inventory and the Lead and Copper Rule* (LCR) sampling pools to ensure compliance with the LCR and associated guidance and protocols.
- DEQ will implement a peer review process for evaluating significant and atypical changes in source or treatment. DEQ will establish a Project (Peer) Review Team* (PRT) comprised of engineering and technical specialists that will meet at least quarterly (more often if needed) to provide oversight and feedback to district engineers on complex or significant modifications to public water supplies.
- DEQ will also implement an ongoing training series to better inform staff of potential or future rule and guidance modifications, as well as existing regulations.
- DEQ will provide training to staff with regard to the LCR and associated policy and guidance. This training is scheduled for June 22, 2016 and will be given to approximately 70 technical and managerial staff from ODWMA. Topics will include sampling site selection,

* See glossary at end of report for definition.

distribution system inventories, corrosion control technologies, and source water or treatment modifications. The training will incorporate recommendations from the March 2016 EPA document *Optimal Corrosion Control Evaluation Technical Recommendations for States and Public Water Systems*. Content and attendance will be documented.

**FOLLOW-UP
CONCLUSION**

Complied.

The City of Flint reverted to using water from the Great Lakes Water Authority and entered into a 30-year service agreement with the Authority, effective December 1, 2017. DEQ informed us that the Authority adds corrosion control chemicals to the water and then the City of Flint supplements those measures to ensure that it meets the Interim Corrosion Control Water Quality Parameter targets detailed in a DEQ letter to the City dated December 13, 2017. DEQ also informed us that the City of Flint is in the process of conducting a detailed corrosion control study to optimize treatment.

We reviewed 5 community water supplies that had requested a change in their water source or treatment process between October 2016 and June 2018 and noted:

- a. Each of the community water supplies utilized the PRT to analyze their project and implemented a corrosion control plan for the proposed change.
- b. The PRT analyzed how the change in water source or treatment impacted the quality of water for the 5 community water supplies reviewed. This analysis was considered by the community water supplies to ensure that an optimal corrosion control treatment* was implemented on a timely basis.

We also noted that PRT members cited high workloads as impediments to their ability to review water supply projects, as their PRT duties are in addition to their day-to-day work as DEQ district engineers. To ensure that all aspects of water system changes are considered and that public health continues to be protected, DEQ should continue to allocate sufficient time for the PRT to properly review potential changes to drinking water sources in the State of Michigan.

* See glossary at end of report for definition.

FINDING #2

Audit Finding Classification: Reportable condition.

Summary of the March 2016 Finding:

ODWMA needs to improve its processes to ensure that sample sites selected for lead and copper testing meet LCR tier requirements and that consistent sources are used to determine populations served.

Recommendation Reported in March 2016:

We recommended that ODWMA improve its processes to ensure that sample sites selected for lead and copper testing meet LCR tier requirements and that consistent sources are used to determine populations served.

AGENCY PLAN TO COMPLY

DEQ's plan to comply dated May 26, 2016 indicated:

- On March 14, 2016, DEQ sent a letter to all community water supplies advising them to review and update their distribution system material inventory and LCR sampling pools in order to ensure compliance with the LCR and associated guidance and protocols.
- DEQ will send additional detailed instructions to community water supplies due for LCR sampling during the summer of 2016. This mailing will include a revised Lead and Copper reporting form template that will allow DEQ staff to collect additional information from water supplies and more accurately assess that proper site selection criteria have been met.
- DEQ will revise its Policy ODWMA-399-013, Classification of Public Water Supplies, to incorporate a procedure for reviewing and evaluating population served values utilizing appropriate methods. This policy will encompass multiple methods of determining population served, since the process is necessarily different for municipalities and private supplies.

FOLLOW-UP CONCLUSION

Partially complied. A reportable condition still exists.

With regard to parts a. and b. of the finding, we noted that DEQ:

- a. Partially complied.

To address the finding that DEQ did not verify that community water supply test sites met LCR requirements, DEQ revised the lead and copper provisions of State statute to require community water supplies to perform a distribution system material inventory and correct any sampling pool that does not fully meet LCR requirements. Specifically, by January 1, 2020, community water supplies must submit to DEQ a preliminary distribution system materials inventory and an updated lead and

copper sampling pool, which must include the criteria by which sites were selected for sampling. By January 1, 2025, community water supplies must submit a complete distribution system materials inventory, including its verification methodology. The materials inventory shall include all materials in the service lines, including the portion on private property (see supplemental information). DEQ also sent additional sampling instructions to community water supplies and revised their reporting template to provide clearer expectations. In addition, DEQ offered training events for drinking water operators related to lead and copper requirements, which included an emphasis on proper site selection.

DEQ stated that it did not have the means to independently verify that community water supply test sites met LCR requirements. DEQ informed us that, to fully comply with this finding and independently verify that community water supplies are testing homes that meet the tier requirements of the LCR, staff would need to visit all lead and copper sampling locations and determine the service line material. DEQ noted that this would require observing the service line at the location where it enters the home (usually in the basement). To verify the composition of the entire service line between the home and the water main with certainty, DEQ indicated that the line would need to be exposed. DEQ reported that, in Michigan, over 4,000 homes are sampled each year for compliance with the LCR, making independent verification by DEQ impractical.

DEQ could randomly sample locations and review the community water supplies' documentation of sampling tier categorization to verify that they met LCR requirements. *Michigan Administrative Code R 325.10710a* requires the community water supply to describe how each site meets LCR tier criteria by January 1, 2020. In addition, DEQ could visit a selected number of homes that lack sufficient documentation to directly witness the service line material as it enters the home.

b. Complied.

DEQ updated its policy on August 1, 2016 to prioritize the sources to be used when verifying the population served by a community water supply. Our review of 5 judgmentally sampled community water supplies disclosed that the population served totals appeared reasonable.

**FOLLOW-UP
RECOMMENDATION**

We recommend that DWMAD continue to implement the revised lead and copper provisions of State statute to ensure that sample sites selected for lead and copper testing meet LCR tier requirements.

**FOLLOW-UP
AGENCY
PRELIMINARY
RESPONSE**

DEQ provided us with the following response:

DEQ agrees with the recommendation. To address the original audit recommendation, the newly-promulgated Lead and Copper Rule contains a requirement that a distribution system material inventory, including service lines, be submitted to DWMAD by January 1, 2020, and a verified inventory be submitted by January 1, 2025. Until a verified inventory has been submitted and approved, DWMAD continues to review all submitted monitoring forms and follow up on notable incongruencies in tiering criteria. Reliance on certification of sampling locations by the water supply is consistent with current practices in other Region 5 state environmental agencies.

DWMAD will also produce a questionnaire that will be completed by field inspectors during a surveillance visit at all water supplies. These questions will address the level of available documentation for lead and copper sample pool tiering.

FINDING #3

Audit Finding Classification: Reportable condition.

Summary of the March 2016 Finding:

ODWMA did not always conduct community water supply sanitary surveys or surveillance visits within the time frames required by DEQ policy.

Recommendation Reported in March 2016:

We recommended that ODWMA conduct community water supply sanitary surveys and surveillance visits within the time frames required by DEQ policy.

AGENCY PLAN TO COMPLY

DEQ's plan to comply dated May 26, 2016 indicated:

- Since January 1, 2016, DEQ completed 58 sanitary surveys. Due to the fact that sanitary surveys are undertaken on a rolling three-year time frame, other sanitary surveys have come due since that time. As of April 15, 2016, DEQ had a backlog of 124 overdue sanitary surveys, of which 14 were more than a year overdue. These 14 surveys were in the process of being scheduled and will be completed. A strategy to address the remaining 110 sanitary surveys and eliminate ongoing backlog will be developed.
- DEQ will conduct a workload and process analysis to optimize the sanitary survey procedures and identify the necessary resources to improve the timeliness of sanitary survey completeness. This may incorporate technological improvements and additional personnel.
- While routine surveillance visits are not a requirement of the Safe Drinking Water Act, DEQ strives to accomplish these visits in order to provide ongoing assistance and oversight at community water supplies. DEQ will conduct a workload analysis to determine the optimal frequency of on-site visits and request the necessary resources to meet DEQ's goals.
- DEQ will revise its Policy ODWMA-399-026, Frequency of Surveillance at Community Public Water Systems, to require standardized written documentation of visits.

FOLLOW-UP CONCLUSION

Partially complied. A reportable condition still exists.

With regard to parts a. through c. of the finding, we noted that DEQ:

- a. Complied.

ODWMA policy 399-021 requires DEQ to conduct sanitary surveys of community water supplies every 3 years and allows for a 6-month grace period after the 3-year cycle.

DWMAD initiated a Lean Process Improvement format with a desired outcome of having a more efficient, effective, and timely sanitary survey process.

Our performance audit noted that DEQ was overdue in conducting surveys at 137 (10%) of the 1,389 community water supplies within a 3-year time frame, ranging from 2 months to more than 5 years past due. Our follow-up testing disclosed that only 41 (3%) of 1,385 sanitary surveys were more than 6 months overdue as of July 31, 2018, as follows:

Time Past Due	Number of Surveys Past Due
5 years or more	0
3 to 5 years	0
2 to 3 years	0
1 to 2 years	13
6 to 12 months	28
	<u>41</u>

b. Not complied.

ODWMA policy 399-026 requires surveillance visits of community water supplies one to four times per year, depending on the type of system and treatment utilized. Our testing of all community water supplies disclosed that, during 2017, DEQ did not conduct the required number of surveillance visits at 496 (36%) of the 1,388 community water supplies. DEQ indicated that, because the frequency of surveillance visits is not statutorily mandated, DEQ used its available resources to complete sanitary surveys instead.

c. Complied.

We conducted site visits at 3 DEQ district offices and judgmentally sampled 32 surveillance visits for review. We determined that DWMAD staff had documented the results of all 32 surveillance visits.

**FOLLOW-UP
RECOMMENDATION**

We again recommend that DWMAD conduct community water supply surveillance visits within the time frames required by DEQ policy.

**FOLLOW-UP
AGENCY
PRELIMINARY
RESPONSE**

DEQ provided us with the following response:

DEQ agrees with the recommendation. As noted in the follow-up report, after the 2016 audit, available resources were deployed to address a backlog of sanitary surveys and ensure that these statutorily mandated inspections were completed in a timely

manner. In order to ensure that the frequency of surveillance visits is in accordance with policy, DWMAD Policy 399-026 will be amended to state that the frequency of surveillance visits is an important programmatic goal but not a requirement. If surveillance visits cannot be completed on the recommended frequency due to on-going resource issues, they will be prioritized on the basis of relative public health concern.

FINDING #4

Audit Finding Classification: Reportable condition.

Summary of the March 2016 Finding:

ODWMA did not ensure that LHDs conducted all sanitary surveys, surveillance visits, and other monitoring within the time frames required by DEQ policy for noncommunity water supplies.

Recommendation Reported in March 2016:

We recommended that ODWMA ensure that LHDs conduct sanitary surveys, surveillance visits, and other monitoring within the time frames required by DEQ policy for noncommunity water supplies.

AGENCY PLAN TO COMPLY

DEQ's plan to comply dated May 26, 2016 indicated:

- On March 22, 2016, DEQ notified LHDs with past due sanitary surveys via e-mail to prioritize and perform all noncommunity public water supply sanitary surveys that are past due. Some of these supplies are seasonal in nature and were closed until late spring or early summer and, therefore, cannot be surveyed until they are back open to the public. DEQ will track and follow up on these surveys to ensure completion. If the LHDs were unable to follow up with the identified past due surveys, a formal corrective action plan will be arranged between the LHD and DEQ.
- DEQ will amend the requirements within the annual grants to LHDs to specify the required time frames for completing sanitary surveys. DEQ will include a step in the contract quarterly review process to identify LHDs that are behind in their sanitary survey field visits, rather than waiting until the annual review process, which is an after-the-fact audit.
- DEQ will provide a sanitary survey training event to LHDs, which will include information regarding the timeline requirements for surveys and deadlines for formal documentation in the database after the survey is performed. This will also include a directive that a sanitary survey or field assessment must be performed before bringing an inactive system back into the noncommunity water supply inventory.
- DEQ will conduct a workload and process analysis to optimize the sanitary survey procedures and identify the necessary resources to improve timeliness of sanitary survey completeness. This may incorporate technological improvements and a request for additional funding for LHDs.
- On April 1, 2016, new rules went into effect regarding the required activities for *E. coli* violations. DEQ is working closely with LHDs and noncommunity water supplies to ensure proper implementation of these new requirements

related to repeat samples, site visits/assessments, and public notice. The database notifies DEQ of all *E. coli* results and, with this information, DEQ will assist in assuring compliance and initiate enforcement if a supply fails to act.

- On March 31, 2016, DEQ contacted LHDs that did not have in their possession documentation that the nontransient noncommunity water supplies* performed public education for a lead action level exceedance. Therefore, public education of the consumers will be carried out by the water supply owner.
- On February 18, 2016, DEQ spoke with LHD administrators about oversight related to the sampling for lead and copper at nontransient noncommunity water supplies. To ensure that all required activities for lead action level exceedances occur in the future, DEQ implemented a documented process where DEQ and LHD staff work together from the beginning on every lead/copper action level exceedance. This will ensure that public education, consumer notification, and the removal of fixtures with high sample results and other remediation actions will occur timely. This increased partnership with the LHDs will be officially announced in a mailed correspondence.
- DEQ reminded LHDs via e-mail on April 18, 2016 that noncommunity water supplies with regulated treatment need a treatment surveillance visit annually. While this visit is not a requirement of the Safe Drinking Water Act, it is a positive public health measure to ensure proper operation and maintenance of treatment equipment. DEQ will conduct a workload analysis to determine the optimal frequency of on-site visits and request the necessary resources to contract out to LHD to meet these goals. DEQ will implement a process for sending out a reminder to perform this visit.

**FOLLOW-UP
CONCLUSION**

Partially complied. A reportable condition still exists.

With regard to parts a. through d. of the finding, we noted that DEQ:

- a. Complied.

Michigan Administrative Code R 325.10702 requires noncommunity water supplies to undergo sanitary surveys at least once every 5 years. Our performance audit noted

* See glossary at end of report for definition.

that DEQ was overdue in conducting surveys within a 5-year time frame at 294 (5%) of the 5,744 noncommunity water supplies reviewed, ranging from 2 months to more than 6 years past due.

Our follow-up testing of all noncommunity water supplies disclosed that DEQ ensured that LHDs conducted the majority of sanitary surveys within the past 5 years. As of July 31, 2018, sanitary surveys of only 188 (2%) of 9,271 supplies were more than 2 months overdue, as follows:

Time Past Due	Number of Surveys Past Due
6 years or more	2
5 to 6 years	0
4 to 5 years	0
3 to 4 years	0
2 to 3 years	1
1 to 2 years	15
6 to 12 months	42
4 to 6 months	38
2 to 4 months	90
	<u>188</u>

b. Not complied.

Section 11.4 of the Noncommunity Water Supply Program Staff Reference Manual requires LHDs to conduct surveillance visits of noncommunity water supplies that treat their water with certain chemicals. The frequency of these visits ranged from once per year to once every three years, depending on how the water is treated. Our review of 230 noncommunity water supplies that DWMAD reported as treating their water during calendar years 2016 and 2017 disclosed that 112 (25%) of the 443 required surveillance visits were not documented as completed. DEQ indicated that, because the frequency of surveillance visits is not statutorily mandated, DEQ used its available resources to complete sanitary surveys instead.

c. Complied.

During our site visits to five LHDs, we judgmentally sampled and reviewed 30 noncommunity water supply surveillance visits to determine whether the visits had been documented. We determined that the visits were generally documented in hard-copy records and that the records matched DEQ's electronic site visit data.

d. Partially complied. Specifically, our follow-up noted that DEQ:

(1) Complied.

We reviewed 5 *E. coli* detections that occurred at a noncommunity water supply between June 27, 2017 and March 23, 2018 to determine whether LHDs ensured that repeat samples were collected within 24 hours of being notified that the original sample was coliform positive, as required by *Michigan Administrative Code R 325.10707*. We noted that all 5 of the noncommunity water supplies collected the repeat samples in a timely manner.

(2) Complied.

For *E. coli* violations, the Noncommunity Water Staff Reference Manual requires LHDs to visit the location within 5 days of a violation being issued to verify that the public notice and precautions were in place and that acceptable actions were underway to identify and correct the violation. For the 5 detections that we reviewed, the LHDs visited each noncommunity water supply location within 5 days.

(3) Partially complied.

Michigan Administrative Code R 325.10410 requires that noncommunity water supplies provide public education within 60 days from the end of a lead action level exceedance. Our review of 5 judgmentally sampled lead action level exceedances that occurred between June 20, 2017 and July 9, 2018 disclosed that the LHD could not document that a noncommunity water supply provided public education for 1 (20%) of the 5 exceedances.

**FOLLOW-UP
RECOMMENDATION**

We again recommend that DWMAD ensure that LHDs conduct surveillance visits and other monitoring within the time frames required by DEQ policy for noncommunity water supplies.

**FOLLOW-UP
AGENCY
PRELIMINARY
RESPONSE**

DEQ provided us with the following response:

DEQ agrees with the recommendation. As noted in the follow-up report, after the 2016 audit, available LHD resources were deployed to address a backlog of sanitary surveys and ensure that these statutorily-mandated inspections were completed in a timely manner. In order to ensure that the frequency of LHD's surveillance visits is in accordance with policy, the Noncommunity Water Supply Program Staff Reference Manual will be amended to, under certain circumstances, allow an LHD to request a reduction to the required surveillance visit frequency to a level

that is consistent with the available LHD inspectors. If more resources are provided in the future, DWMAD may modify the Manual to remove this option.

With regard to Finding 4.d.3, DWMAD will continue to work with LHDs to emphasize the importance of documenting that water supplies have provided public education in the event of a lead action level exceedance. DWMAD staff will review this documentation during on-site program reviews at all LHDs.

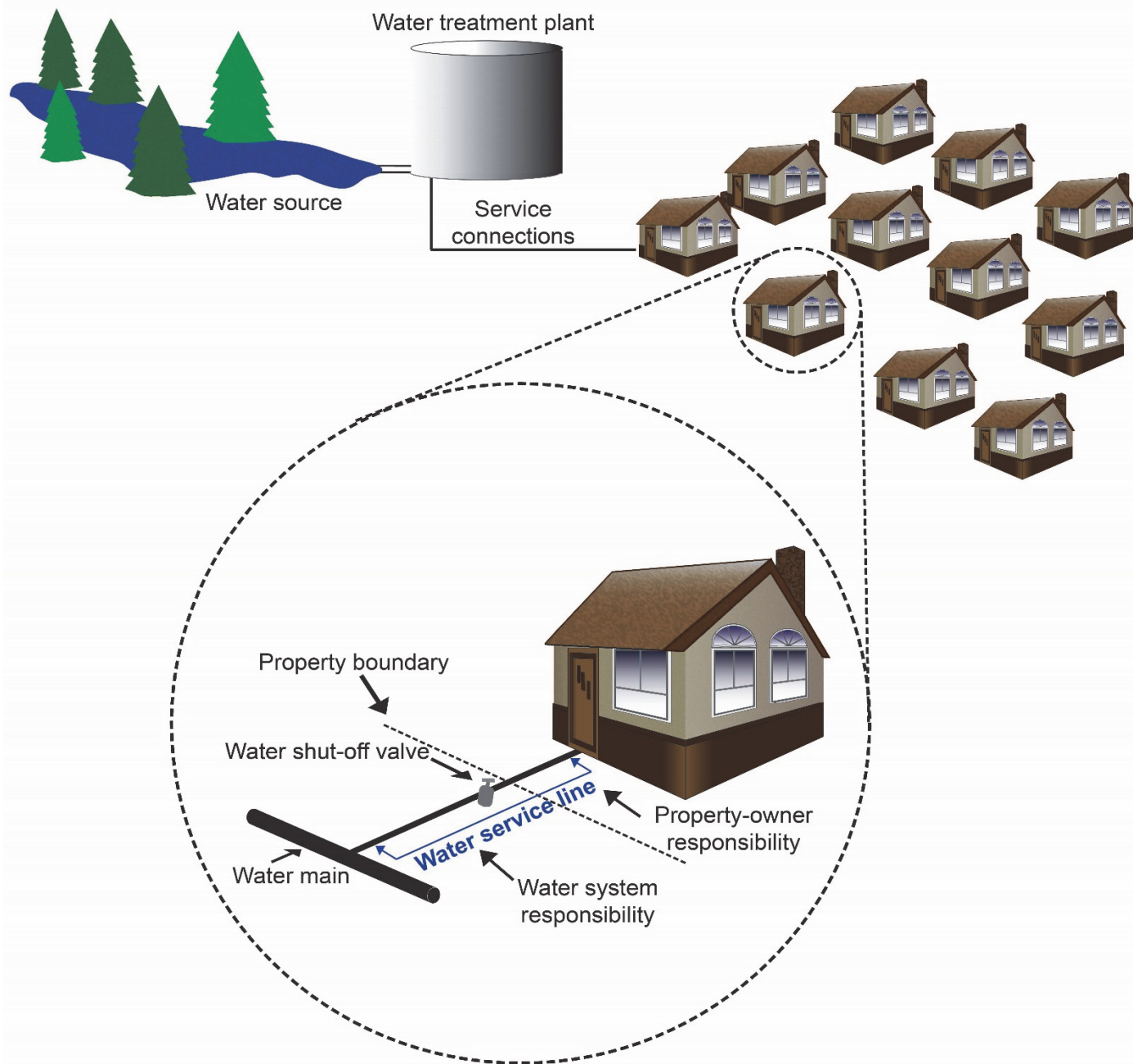
SUPPLEMENTAL INFORMATION

COMMUNITY AND NONCOMMUNITY WATER SUPPLIES

Drinking Water and Municipal Assistance Division

Department of Environmental Quality

Community Water Distribution and Service Line Illustration



Source: The OAG prepared this supplemental information.

FOLLOW-UP METHODOLOGY, PERIOD, AND AGENCY RESPONSES

METHODOLOGY

We reviewed DEQ's corrective action plan as well as policies, procedures, and standards related to community and noncommunity water supplies. Specifically, for:

a. Finding #1, we:

- Interviewed DWMAD staff to obtain an understanding of their processes and involvement in water supply source changes.
- Reviewed training provided to DEQ staff on various rules and the LCR.
- Judgmentally sampled 5 of the 43 projects that the PRT consulted on between June 24, 2016 and July 9, 2018 to determine whether the water supplies submitted their testing plans to DEQ and demonstrated that the change in treatment or source would not have an adverse impact on their water quality before being put online.

b. Finding #2, we:

- Interviewed DWMAD staff to determine how they verify LCR sample sites at community water supplies.
- Interviewed DWMAD staff to determine how they verify the population that community water supplies serve.
- Reviewed the revision to *Michigan Administrative Code R 325.10710a*.
- Reviewed the revised ODWMA policy on verifying populations served.
- Judgmentally sampled 5 of the 43 community water supplies that changed or added a water source or altered their treatment process during our audit period to review the populations served.

c. Finding #3, we:

- Analyzed data as of July 31, 2018 to determine whether the most recent sanitary survey was completed timely by DEQ at all 1,385 community water supplies.
- Visited 3 of DEQ's 8 district offices and reviewed hard-copy records of 31 judgmentally sampled of

562 sanitary surveys completed between April 1, 2015 and July 30, 2018 to verify the accuracy of DEQ's electronic data.

- Analyzed surveillance site visit information to determine whether all 1,388 community water supplies completed the appropriate number of visits during 2017.
- Reviewed hard-copy records of 32 judgmentally sampled surveillance visits completed between May 19, 2016 and July 3, 2018 from 3 of DEQ's 8 district offices we visited to verify that DEQ documented these visits and that DEQ's electronic data was accurate.

d. Finding #4, we:

- Analyzed data to determine whether the most recent sanitary survey was completed in a timely manner at all 9,271 noncommunity water supplies.
- Judgmentally sampled and reviewed hard-copy records of the most recently completed sanitary survey for 40 of the 1,601 noncommunity water supplies located within the jurisdiction of 5 selected LHDs to verify the accuracy of DEQ's electronic data.
- Analyzed surveillance site visit information for all 230 noncommunity water supplies that DEQ reported as treating their water during calendar years 2016 and 2017.
- Judgmentally sampled and reviewed hard-copy records for 30 of the 36 surveillance visits that occurred between March 5, 2013 and July 31, 2018 at 5 selected LHDs to verify that the LHDs documented these visits and that DEQ's electronic data was accurate.
- Judgmentally sampled and completed file reviews of 5 of the 7 *E. coli* violations that occurred between April 27, 2017 and March 23, 2018 and 5 of the 88 lead action level exceedances that occurred between January 7, 2017 and July 24, 2018.

Our samples were selected using a risk-based approach. As a result, because our samples were judgmental, we could not project our results to the respective population.

PERIOD

Our follow-up generally covered January 1, 2016 through July 31, 2018.

**AGENCY
RESPONSES**

Our follow-up report contains 3 recommendations. DEQ's preliminary response indicated that it agrees with the recommendations.

The agency preliminary response that follows each follow-up recommendation in our report was taken from the agency's written comments and oral discussion at the end of our fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100) require an audited agency to develop a plan to comply with the recommendations and to submit it to the State Budget Director. Within 30 days of receipt, the Office of Internal Audit Services, State Budget Office, is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.

GLOSSARY OF ABBREVIATIONS AND TERMS

agency plan to comply	The response required by Section 18.1462 of the <i>Michigan Compiled Laws</i> and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100). The audited agency is required to develop a plan to comply with the Office of the Auditor General audit recommendations and to submit the plan to the State Budget Director. Within 30 days of receipt, the Office of Internal Audit Services, State Budget Office, is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.
community water supply	A public water supply that provides year-round service to not fewer than 15 living units or that regularly provides year-round service to not fewer than 25 residents. Also known as a water system. Examples include municipalities, subdivisions, apartments, and condominiums.
DEQ	Department of Environmental Quality.
DWMAD	Drinking Water and Municipal Assistance Division.
EPA	United States Environmental Protection Agency.
Lead and Copper Rule (LCR)	A regulation published by the EPA in 1991 to control lead and copper in drinking water provided through public water systems.
LHD	local health department.
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.
noncommunity water supply	A public water system that provides service on an average daily basis to 25 or more individuals or 15 or more service connections for not less than 60 days per year but does not meet the criteria to be considered a community water supply. Also known as a water system. Examples include places of employment, schools, hotels, restaurants, and campgrounds.

nontransient noncommunity water supply	A public water system that regularly supplies water to at least 25 of the same people for at least six months per year. Some examples are factories, office buildings, schools, and hospitals.
ODWMA	Office of Drinking Water and Municipal Assistance.
optimal corrosion control treatment	The corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the public water supply to be in violation of any drinking water regulations.
Peer Review Team (PRT)	A group of water supply program staff appointed by DWMAD that is responsible for an additional review of drinking water supply system project proposals involving additions or changes of water source and/or significant changes to, or additions of, treatment techniques or systems.
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: an opportunity for improvement within the context of the audit objectives; a deficiency in internal control that is significant within the context of the audit objectives; all instances of fraud; illegal acts unless they are inconsequential within the context of the audit objectives; significant violations of provisions of contracts or grant agreements; and significant abuse that has occurred or is likely to have occurred.
sanitary survey	An on-site review of a water system, including the water source; treatment; distribution system; finished water storage; pumps, pump facilities, and controls; and monitoring, reporting, and data verification for existing or potential health hazards for the purpose of determining the ability of the public water supply to produce, treat, and distribute adequate quantities of water meeting State and federal drinking water requirements.
surveillance visit	An on-site inspection or meeting with personnel from the public water system to observe operational procedures; inspect well houses, treatment facilities, and storage tanks; review regulatory compliance; discuss construction activities; consult on system planning; conduct operation training; or provide compliance assistance.



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