



# MICHIGAN

OFFICE OF THE AUDITOR GENERAL



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AUDITOR GENERAL

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October 19, 2011

Mr. Dan Wyant, Director  
Department of Environmental Quality  
Constitution Hall  
Lansing, Michigan

Dear Mr. Wyant:

This is our report on our follow-up of the 3 material conditions (Findings 2, 3, and 4) and 5 corresponding recommendations reported in the performance audit of the Public Drinking Water Supply Program, Department of Environmental Quality (DEQ). That audit report was issued and distributed in July 2001. Additional copies are available on request or at <<http://www.audgen.michigan.gov>>.

Our follow-up disclosed that DEQ had complied with 4 of the recommendations and had partially complied with 1 recommendation. A material condition still exists relating to non-community monitoring violations and maximum contaminant level violations on the federal reporting system.

If you have any questions, please call me or Scott M. Strong, C.P.A., C.I.A., Deputy Auditor General.

*Michigan Auditor General*

AUDITOR GENERAL



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# **PUBLIC DRINKING WATER SUPPLY PROGRAM DEPARTMENT OF ENVIRONMENTAL QUALITY FOLLOW-UP REPORT**

## **INTRODUCTION**

This report contains the results of our follow-up of the material conditions and corresponding recommendations and the agency's preliminary response as reported in our performance audit of the Public Drinking Water Supply Program, Department of Environmental Quality (DEQ) (76-120-99), which was issued and distributed in July 2001. That audit report included 3 material conditions (Findings 2 through 4) and 6 other reportable conditions.

## **PURPOSE OF FOLLOW-UP**

The purpose of this follow-up was to determine whether DEQ has taken appropriate corrective measures in response to the 3 material conditions and 5 corresponding recommendations.

## **BACKGROUND**

The Public Drinking Water Supply Program, formerly operated by DEQ's Drinking Water and Radiological Protection Division (DWRPD), now operated by DEQ's Resource Management Division, provides oversight of drinking water supplied to residents of the State of Michigan and its visitors. DEQ contracts with 44 local health departments (LHDs) to oversee approximately 9,900 non-community drinking water supply systems in the State. The LHDs oversee public water supply systems that have at least 15 service connections or serve at least 25 individuals on an average daily basis for not less than 60 days per year. Public drinking water supply systems do not include private wells that supply water to an individual home.

## **SCOPE**

Our fieldwork was performed primarily in July and August 2011. To determine the status of compliance with our audit recommendations, we interviewed DEQ personnel and reviewed policy manuals, laws and regulations, and various reports provided by the LHDs and DEQ as they relate to the non-community drinking water program. We also reviewed communications between LHDs and the non-community water suppliers. In addition, we tested sanitary survey reports, water analysis reports, annual reviews completed by DEQ, and various forms of supporting documentation to ensure compliance with the Safe Drinking Water Act.

## **FOLLOW-UP RESULTS**

### **EFFECTIVENESS IN ENSURING THE SAFETY OF THE STATE'S PUBLIC DRINKING WATER SUPPLY**

#### **RECOMMENDATION AND RESPONSE AS REPORTED IN JULY 2001:**

##### **2. Non-Community Drinking Water Program Enforcement**

#### **RECOMMENDATION**

We recommend that DWRPD take appropriate steps to ensure that LHDs take timely action to address the issue of non-community drinking water suppliers who repeatedly fail to monitor or fail to comply with significant program requirements.

#### **AGENCY PRELIMINARY RESPONSE**

DEQ agrees with this recommendation and believes that it has taken appropriate steps.

DEQ believes that the best measure of a program is the compliance rate of the public water systems. The evaluation of compliance rates through the DEQ strategic planning process prior to the audit resulted in DWRPD focusing resources in this program area. As a result, DWRPD is calculating rates of compliance for each LHD and placing emphasis upon those LHDs with the highest violation rates. "Emphasis" means providing personal consultation and rating LHDs deficient during evaluations for failure to use existing administrative fine authority in the Safe Drinking Water Act, Act 1976, P.A. 399, as amended, or to use local authority when violation rates are high.

For violations considered "imminent hazards," as defined in the guidance manuals and Minimum Program Requirements (MPRs), action by the LHDs, including enforcement as necessary, is required. DWRPD is providing adequate oversight in those areas of primary importance to public health protection. (See Finding 3; this principle also applies to timely correction of sanitary survey deficiencies.)



The information presented in the audit finding focuses primarily on progressive enforcement and downplays compliance assistance. DEQ favors a comprehensive approach based upon the very large number of regulated facilities and the complexity of their operation. Non-community drinking water systems include a wide variety of facilities, such as restaurants, churches, schools, office buildings, and campgrounds. Many systems operate seasonally. DEQ has determined that no single mechanism to improve compliance works for all facilities.

DWRPD has delegated program implementation to the LHDs, much the same as the United States Environmental Protection Agency (EPA) has delegated the program to Michigan under the primacy agreement. The LHDs have an array of tools available to implement the program satisfactorily. Formal enforcement is but one of those tools and the most resource intensive.

When formal enforcement is necessary, the LHDs are required to take action and they have several choices, including: enforcing local ordinances, using State authority to levy administrative fines, or referring particularly difficult cases to DEQ. DEQ periodically submits a written "enforcement strategy" to the EPA for its review and approval. The current DEQ enforcement strategy has been deemed acceptable and approved by the EPA.

DWRPD believes that this approach is working, based upon program data. In the eight-month period from February to October 2000, significant violators (as defined by the EPA) were reduced from 303 to 185, a 40% reduction. In addition, work continues on the remaining systems, and that work effort is carefully reviewed during LHD evaluations. In addition, Exhibit B of this audit indicates that LHDs strongly support the approach used by DEQ, that is, to implement a strong compliance assistance program to gain voluntary compliance with use of strong enforcement only as necessary.

### **FOLLOW-UP CONCLUSION**

We concluded that DEQ complied with this recommendation. DEQ made improvements in its oversight of LHDs. Through the utilization of its WaterTrack System, DEQ and the LHDs perform on-demand queries of the disposition of water

systems within their areas of responsibility. Also, DEQ requires quarterly reporting from LHDs on the disposition of serious violators. As a result, DEQ and the LHDs significantly reduced the number of water suppliers in the State that the EPA classified as "significant noncompliers" from 1,026 at the time of the audit to 17 as of August 19, 2011.

### **RECOMMENDATIONS AND RESPONSE AS REPORTED IN JULY 2001:**

#### **3. Sanitary Surveys of Non-Community Drinking Water Systems**

#### **RECOMMENDATIONS**

We recommend that DWRPD increase its oversight of LHDs to help ensure that they complete sanitary surveys in a timely manner and follow up serious deficiencies.

We also recommend that DWRPD monitor LHDs to help ensure that follow-up of serious sanitary survey deficiencies is a top priority.

We further recommend that DWRPD require LHDs to identify which sanitary survey deficiencies are considered serious.

#### **AGENCY PRELIMINARY RESPONSE**

DEQ partially agrees with these recommendations.

The requirement for sanitary surveys to be conducted on a five-year frequency means that a sanitary survey must be completed for each system during a five-year period. It does not mean that an LHD must complete exactly 20% of the sanitary surveys each year. DEQ and LHDs address any yearly shortfall to ensure that the five-year requirement is met.

During the audit period, some of the LHDs were not performing inspections and sanitary surveys at a 20% per year rate. That situation is being addressed through the LHD program evaluation process, and the LHDs are responding with corrective action plans. As a result, data from April to October 2000 shows that the annual rate of performing sanitary surveys is in excess of 20%. DEQ calculates the "backlog reduction" during this six-month period to be 34% (the April backlog was 1,518; the October backlog was 996).

In regard to identification and follow-up of serious deficiencies, the LHDs currently follow up each sanitary survey with a letter to the system owner where deficiencies are identified. This letter provides a corrective action schedule for all identified deficiencies. At the time of the audit, the LHDs were not required to identify which deficiencies were serious. DEQ agrees to modify its LHD contracts in the future to require such designation.

### **FOLLOW-UP CONCLUSION**

We concluded that DEQ complied with these recommendations.

DEQ made improvements in its oversight of LHDs. LHDs significantly reduced the number of sanitary surveys that had not been completed within a five-year period from 9.0% at the time of the audit to 1.7% as of March 2011.

On a quarterly basis, DEQ followed up the disposition of incomplete sanitary surveys and other monitoring and reporting violations and deficiencies through the review of quarterly reports. LHDs are required to document the disposition of monitoring, reporting, and other water system violations in the WaterTrack System. Information documented in the WaterTrack System is subject to verification during the LHDs' annual evaluation. DEQ documented satisfactory compliance with minimum program requirements during its annual evaluation of each LHD that we selected for review in this follow-up.

DEQ established policies and procedures that identified which sanitary survey deficiencies are considered serious and provided training to the LHDs on the new policies and procedures to ensure that follow-up of serious sanitary survey deficiencies was a top priority for LHDs. In addition, DEQ documented maximum contaminant level (MCL) violations and deficiencies in the WaterTrack System.

## **RECOMMENDATION AND RESPONSE AS REPORTED IN JULY 2001:**

### **4. Non-Community Monitoring Violations and MCL Violations on the Federal Reporting System**

#### **RECOMMENDATION**

We recommend that DWRPD develop an effective oversight system to ensure that LHDs are posting monitoring violations and MCL violations on the federal reporting system.

#### **AGENCY PRELIMINARY RESPONSE**

DEQ partially agrees with the recommendation and findings.

DWRPD does provide oversight to ensure that LHDs are posting monitoring violations and MCL violations on the federal reporting system. This oversight emphasizes those violations that pose the greatest risk to public health.

The MCL violations discussed in item c. pose the greatest risk to public health. However, a detailed review of each of the five cases indicates:

- a. There were two cases in which the LHD failed to provide adequate file documentation after invalidating samples in accordance with administrative rules. There was no MCL violation in either case.
- b. In one case, the facility closed before the MCL violation was confirmed and did not reopen.
- c. In one case, an MCL violation occurred and was not reported, but the file documents that all other work was properly performed, including required sampling, public notification, and imposition of public health protective measures.
- d. In one case, an MCL violation occurred and was not reported. However, despite a lack of documentation, DWRPD determined that the LHD provided proper advice to the owner on requirements to protect public health.

DWRPD asserts that there was no instance during the audit period in which the LHDs failed to provide proper advice to protect public health. If a health-based violation occurs, an immediate response to a public health threat is the top priority of both DEQ and LHDs. Water systems with these violations receive appropriate advice and are required to respond appropriately.

The EPA Web site cited in the finding is not an effective information source on the current compliance status of any non-community water system. The data on the web site is at least six months old.

A much more effective measure to address MCL violations and immediate risks to public health is the iron-clad administrative practice used in the Michigan non-community drinking water program to shut the system down or arrange for an alternate supply of safe drinking water. In addition, the system owner/operator is required to issue appropriate notice for protection of the public whenever a violation occurs. Public exposure to an unsafe condition ceases immediately following knowledge of the problem by either DEQ or LHD personnel.

DWRPD does not condone underreporting of monitoring violations by LHDs, which is discussed in item a. DWRPD has and will continue to focus on this issue in the LHD oversight process.

The issue of coliform sample holding time discussed in item b. is a technical violation. The problem is insignificant from a health standpoint, and any further work effort beyond existing efforts is not making the best use of limited resources for maximum public health benefit. The EPA has not cited DEQ for underreporting monitoring violations resulting from exceeding the 30-hour criteria in the annual program audits, despite the statement in the finding based upon a telephone interview with an EPA staff member.

DWRPD has closely examined the 30-hour criteria because of the necessity for public water systems to mail samples. In fact, Michigan performed a specific study several years ago on the effects of an extended holding time on sample results. The study results were submitted to the EPA with a request to approve up to 48 hours holding time as an "alternative analytical technique" under the federal Safe Drinking Water Act. The EPA took no action on the request, citing a lack of

resources to review alternative analytical techniques. The DWRPD study concludes that there is no adequate scientific basis for the requirement (at least up to 48 hours) and that there is no practical way for the Michigan water systems to achieve compliance.

Despite this, DEQ is presently exploring the cost and means to conduct another similar "holding time study." If the study continues to indicate no concern with greater than a 30-hour holding time, DEQ will again seek the EPA's approval and a revision to the federal regulations.

### **FOLLOW-UP CONCLUSION**

DEQ did not fully address 1 of the 3 parts of this finding. Therefore, DEQ partially complied with this recommendation and a material condition still exists. Specifically, our follow-up disclosed:

- a. DEQ improved the reporting by LHDs of monitoring violations with the implementation of its WaterTrack System. The WaterTrack System maintains the inventory for all water systems in the State of Michigan. The LHDs are required to enter each sanitary survey, water sample results, and information from the annual evaluations in the WaterTrack System. DEQ and LHD staff have the ability to periodically query the WaterTrack System to monitor the water systems and the disposition of reporting and monitoring violations. DEQ informed us that information entered into the WaterTrack System by the LHDs is subject to verification by DEQ annually.
- b. DEQ did not ensure that accepted water samples had not exceeded the 30-hour time limit from the time the samples were collected to the time the samples were tested. Of the 103 water sample results we reviewed, 6 (5.8%) had exceeded the 30-hour time limit. In addition, 40 (38.8%) did not contain enough information to determine whether or not the 30-hour time limit from sample collection to sample testing had been exceeded.
- c. DEQ properly reported MCL violations to the EPA. We verified that violations reported in the WaterTrack System were also reported to the EPA's federal reporting system.



