

REASON FOR REVIEW

Environmental, Social and Governance (ESG) initiatives are increasingly becoming essential priorities for all organizations. The environment affects citizens' quality of life, and clean water is a critical part of a healthy environment. In addition, potential investors use ESG information when making investment decisions. Bond rating agencies assess Tulsa's ESG landscape and report their findings to these potential investors. Disclosures about ESG are being developed to make this information readily available to the world. Accurate monitoring and annual reporting are essential components of the Environmental Protection Agency's National Primary Drinking Water Regulations (NPDWR).

HOW WE CONDUCTED THIS REVIEW

We identified two key risks in reporting water quality information. First there is a risk of inaccurate or incomplete reports. There is also a potential for "greenwashing." This means report information could be presented in a misleading way to appear more environmentally friendly.

We reviewed the 2021 Water Quality Report, which contained 2020 water quality data from January 1, 2020 through December 31, 2020. Our audit objectives included:

- Determine whether the process to produce the 2021 Annual Water Quality Report content had adequate internal controls to ensure accuracy and completeness.
- Verify whether the data reported were accurate and complete.

SIGNIFICANT RESULTS

Overall, the 2021 Annual Water Quality Report is accurate and complete. We provided minor suggestions to improve presentation and readability. Internal controls can be improved with better documentation of the process used to create the report and improved review of the report.

KEY OBSERVATIONS

1. Maintain a master list of the contaminants required to be monitored to stay current on monitoring and reporting;
2. Document policies and procedures for compiling the Annual Water Quality Report;
3. Compare the Annual Water Quality Report to Oklahoma Department of Environmental Quality's Consumer Confidence Report and investigate any differences.

INTRODUCTION

The City of Tulsa produces an Annual Water Quality Report that is both informative and reader friendly to describe the process of monitoring drinking water for the Tulsa metropolitan area, and any detectable contaminants found in lab testing. Overall, we found monitoring was occurring as required, the 2021 Water Quality Report was accurate and complete, and staff involved in the process were conscientious. A high degree of care formed the basis of the control environment. The observations and suggestions are offered to improve the maturity of the control activity processes and fine-tune reporting to the citizens of Tulsa.

OBSERVATIONS

Observation #1

Develop a master list of the NPDWR's 88 contaminants for internal monitoring on required contaminant monitoring and frequencies.

The 2021 Annual Water Quality Report states, "The City of Tulsa tests for a total of 88 different regulated contaminants on a yearly basis – this includes more than 33,000 water quality tests performed in 2020." Given that the EPA's National Primary Drinking Water Regulations has 88 contaminants, we expected to see evidence readily available that these 88 contaminants are monitored as required. There is no internal reconciliation between the EPA's 88 contaminants, and the raw water data monitored, which rolls up to the detectable contaminants reported in the Annual Water Quality Report. The Water Quality Assurance team relies on the Oklahoma Department of Environmental Quality (ODEQ) to let them know if anything is missing through the State Drinking Water Information System (SDWIS) process. No one could readily answer the question of, "how do you know if something is missing in the monitoring?"

Recommendations:

This condition results in a two-fold recommendation: 1) Develop and maintain a master list of the 88 EPA regulated contaminants. Describe in the master list any current ODEQ waivers. Include required monitoring schedules (i.e., daily, monthly, quarterly, annually, every three years, etc.) based on SDWIS guidance and EPA regulations. 2) Ensure laboratory management staff are included in maintaining the master monitoring list for added strength in communication and internal controls.

Response:

- 1) We have developed a master list of EPA regulated contaminants to include associated waivers.
- 2) We shall forward these documents to Water Supply Division Manager, Water Distribution and Laboratory Management.

Observation #2

Develop comprehensive policies and procedures for the Annual Water Quality Report process for consistency and back-up routines.

There are no established policies and procedures surrounding the process to produce and publish the Annual Water Quality Report. There is some guidance in the Excel worksheet used to prepare the report; however, this guidance is not enough to ensure understanding of how the process works and nothing is missed.

Recommendation:

For adequate internal control, the process needs to be documented thoroughly, including illustrations. Having detailed guidance is critical since the report provides the output of the Safe Drinking Water Act, Consumer Confidence Reports, and federal regulations in 40 CFR 141.152.

Response:

We are in process of developing a policy/procedure SOP for the Annual Water Quality Report. This will be included in a new document forthcoming in our Asset Management Roadmap Action Plan.

Observation #3

Implement comparison review of the state Consumer Confidence Report to the City's Annual Water Quality Report

The Oklahoma Department of Environmental Quality (ODEQ) produces a Consumer Confidence Report (CCR) which is available publicly on their website for the water distribution system. The City of Tulsa has elected to produce a more customer-friendly version of the state's CCR, which is the Annual Water Quality Report (AWQR). The AWQR is mailed to customers by July 1st annually, and included on the City's Water Quality website page.

When we compared the City's 2021 AWQR to the state's data, we found discrepancies. For example, the state's CCR shows lead's 90th percentile as 3.4 parts per billion (ppb). The City's AWQR shows lead's 90th percentile at 3.97 ppb. Water Quality Assurance staff should be aware of such differences and investigate why they exist. During our audit, Water Quality Assurance staff investigated the difference in the lead measurement and found it to be a variation on the methodology used.

Recommendation:

We recommend a reconciliation be performed comparing the state's CCR to the City's Annual Water Quality Report, with appropriate actions taken to address discrepancies.

Response:

The Environmental Compliance Supervisor and WQA Manager will compare ODEQ generated CCR to WQA's compilation. The variation on method used by ODEQ was explained to us. Staff have concerns with ODEQ's mathematical approach in their report, however did 'certify' our 90th percentile data for the 2021 AWQR.

Readability Suggestions:

The following suggestions are provided to improve presentation and readability of the Annual Water Quality Report:

- The Annual Water Quality Report displays detectable contaminants with a mix of formatting including whole numbers, tenths and sometimes hundredths decimal points. We observed the minimum detectable amount for chloride in lab data was 8.8 aesthetic level 250 parts per million. The Annual Water Quality Report rounds the minimum detectable amount to 9.0. The reported result becomes slightly less accurate by rounding up. We suggest minimum levels be consistently reported with rounding to the tenth decimal.
 - A table in the 2021 Annual Water Quality Report lists regulated contaminants with detectable amounts in the calendar year's monitoring. This table would be more meaningful if the contaminants were listed in alphabetical order. This would make year over year comparison easier for report readers. In the past, contaminants were not listed in any predictable order. The Water Quality Review team implemented this suggestion immediately and listed contaminants in alphabetical order in the 2022 Annual Water Quality Report.
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We thank the Water Department for their care and courtesy extended to us during this review.