

Water Corporation

Memorandum of Understanding for Drinking Water

Abridged report

Summary of 2017 Drinking Water Quality Management Performance Audit

July 2018

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Purpose

On 5 November 2007, the Department of Health (**the Department**) and the Water Corporation (**the Corporation**) entered into a Memorandum of Understanding for Drinking Water (**MoU**) for managing drinking water quality in the Corporation's area of control. Section 16.5 of the current MoU provides for the Department to conduct a performance audit of the Corporation's systems and databases used to manage and report drinking water quality. The Department commissioned this audit to cover the five year period from 1 July 2012 to 30 June 2017. This report is an abridged version, which presents the purpose, scope and results, of the full report regarding the performance audit.

Scope

This performance audit has been conducted in accordance with the Objective and Scope Statement (refer Appendix A) accepted by the Senior Policy Officer, Department of Health and the Manager Water Quality, Water Corporation.

This report should be read in the context of the "Statement of responsibility" detailed in this report.

Results

Objective 1

S010's interpretation and application of 2004 Australian Drinking Water Guidelines and the Department's directions

Regional compliance with S010, S097, SPOM, Drinking Water Sampling Procedures and Binding Protocols 2, 3 and 4 of the MoU

Through our examination of key documents, discussions with key stakeholders, examination of the Corporation's Water Quality Management System (**WQMS**), observations of related processes, procedures and operations, and sample testing, nothing came to our attention to indicate that the Corporation had not maintained, in all material respects, during the period 1 July 2012 to 30 June 2017:

- Its "Drinking Water Quality Performance" S010 manual to accurately interpret and apply the combined requirements of the:
 - ADWG (2004)
 - Additional directions by the Department of Health.
- Practices, which resulted in nominated regions complying with:
 - S010 - Drinking Water Quality Performance
 - Drinking Water Sampling Procedures
 - The requirements of the SPOM and S097
 - Binding Protocols 2, 3 and 4 of the MoU as appropriate.

We note that no events have occurred during the audit period that resulted in the need to implement the Joint Agency Coordination Plan (**JACP**).

Objective 2

Adequacy and effectiveness of WQMS

Through our examination and testing of WQMS as above and the key components of the Corporation's drinking water quality management processes as described at Objective 1 above, we observed that during the period 1 July 2012 to 30 June 2017, the Corporation:

- Managed and reported on the requirements within S010, Drinking Water Sampling Procedures and Binding Protocols 2, 3 & 4 of the MOU, as appropriate
- Monitored compliance in the regions with these requirements, as appropriate.

Objective 3

Adequacy and effectiveness of the implementation of Source Protection Operations Manual (SPOM) and Standard S097

Regional compliance with requirements of SPOM and S097

Through observation, examination of key documents, field visit to a sample of catchments in the North West and Perth regions, discussions with catchment management staff, rangers and staff at the Water Quality Branch (**WQB**), and walkthrough of source protection operations, we observed that the Corporation has demonstrated:

- An understanding of the inherent value in protecting drinking water at source
- A continued commitment to source protection
- Continuous improvement in its methods and practices for managing source protection across its operations.

This audit identified two opportunities for the Corporation to further strengthen the effectiveness of its implementation of SPOM and S097. Those opportunities were presented to management for consideration and action.

Objective 4

Adequacy and effectiveness of the management framework employed by WQB

Through examination of key documents, discussions with key stakeholders, examination of WQMS, observations of related processes, procedures and operations in relation to the management framework, we observed that the Corporation:

- Maintained a resourced management structure and assigned responsibilities to staff for managing drinking water quality
- Established and maintained processes and procedures that are designed to facilitate its compliance with the requirements of the MoU in relation to drinking water. The continued support and enhancement of WQMS has further consolidated the Corporation's ability to meet its drinking water quality objectives
- Maintained (with continuous enhancements) its reporting and monitoring mechanism for its drinking water quality obligations
- Continued to demonstrate a strong commitment to monitoring and achieving its compliance with the requirements of the MoU in relation to drinking water.

This audit identified two opportunities for the Corporation to further strengthen the effectiveness of its drinking water quality management framework. Those opportunities were presented to management for consideration and action.

Objective 5

Follow up of previous audit recommendations

The three recommendations from the 2012 audit have been addressed and closed out by the Corporation.

Statement of responsibility

This report has been prepared in accordance with the requirements of the Scope and Objective Statement signed in August 2017, the Corporation's general conditions of contract for consultancy services to which Deloitte has agreed, and subject to the following limitations:

- In relation to Objective 1 of this engagement, where a determination of compliance or an assessment of status was required, we conducted our work in accordance with Australian Standard on Assurance Engagements ASAE 3500 "Performance Engagements". Our procedures were designed to provide limited assurance as defined by ASAE 3500, which recognises the fact that absolute assurance is rarely attainable due to such factors as the use of judgment in gathering and evaluating evidence and forming conclusions, and the use of selective testing, and because much of the evidence available to the auditor is persuasive rather than conclusive in nature
- In relation to Objectives 2, 3, 4 and 5 of this engagement, where consideration of adequacy and effectiveness was required, the procedures we performed did not constitute an assurance engagement in accordance with Australian Standards for Assurance Engagements, nor did they represent any form of audit under Australian Standards on Auditing and consequently, no assurance conclusion or audit opinion is provided
- Because of the inherent limitations of any procedure, it is possible that fraud, error or non-compliance may occur and not be detected. We cannot, in practice, examine every activity and procedure, nor can we be a substitute for management's responsibility to maintain adequate controls over all levels of operations and its responsibility to prevent and detect irregularities, including fraud. Accordingly, readers of our reports should not rely on the report to identify all potential instances of procedural deficiencies, which may occur
- Our procedures were not designed to detect all weaknesses in control procedures as they were not performed continuously throughout the period and the tests performed are on a sample basis
- The matters raised in this report are only those which came to our attention during the course of performing our procedures and are not necessarily a comprehensive statement of all the weaknesses that exist or improvements that might be made
- Suggestions for improvement should be assessed by management for their full commercial impact before they are implemented
- Any projection of the evaluation of the control procedures to future periods is subject to the risk that the systems may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

Appendix A - Objective and scope statement



Government of **Western Australia**
 Department of **Health**
 Public Health

Background

On 5 November 2007 the Department of Health and Water Corporation entered into a Memorandum of Understanding for Drinking Water (MoU).

Section 16.5 of the MoU states that the Department may conduct an audit of the Corporation's systems and data bases used to manage and report drinking water quality in relation to the following sections of the MoU:

- Section 4.0 Administration of Drinking Water Quality
- Section 6.0 Systems Analysis and Management
- Section 7.0 Materials and Chemicals
- Section 8.0 Data Exchange
- Section 9.0 Events of public health significance

The audit report should include recommendations for improvements where appropriate.

Schedule 1 of the MoU sets out the Drinking Water Quality Requirements that the Water Corporation is formally required to meet in its Operating Licence with the Economic Regulation Authority. This audit should in part aim to fulfil this requirement.

Binding Protocol 2 of the MoU lists the Water Quality Management Processes and Procedures that enable the Water Corporation to demonstrate compliance with Schedule 1 and any additional direction given by the Department of Health.

The principal drinking water quality management operating manuals used by the Water Corporation are:

- S010 Drinking Water Quality Performance
- Drinking Water Sampling Procedures Manual
- S097 Source Protection Operations
- Source Protection Operations Manual (SPOM)

A computerised Water Quality Management System (WQMS) is used throughout the Water Corporation to apply the requirements prescribed by Standard S010 Drinking Water Quality Performance.

The Chief Executive Officers shall endorse the audit report and timetable for improvements. The responsible officers (Director Environmental Health, Department of Health and Manager Water Quality, Water Corporation) shall provide regular progress reports.

Objectives

1. To determine whether:
 - the “Drinking Water Quality Performance” Standard S010 accurately interprets and applies the combined requirements of the:
 - Australian Drinking Water Guidelines as published in 2004;
 - Any additional directions given by the Department of Health;
 - nominated regions comply with the directions contained within S010 to a locality or zone level;
 - nominated regions comply with Drinking Water Sampling Procedures Manual;
 - nominated regions comply with the requirements of the SPOM and S097;
 - nominated regions comply with Binding Protocols 2, 3 and 4 of the MoU as appropriate.
2. To assess the adequacy and effectiveness of the Water Quality Management System (WQMS) to:
 - manage and report on the requirements within S010, Drinking Water Sampling Procedures and Binding Protocols 2, 3 and 4 of the MoU as appropriate;
 - enable the Corporation to monitor compliance in the regions with these requirements, as appropriate.
3. To assess the adequacy and effectiveness of the Water Corporation’s implementation of the SPOM and Standard S097 within the catchment areas of the nominated regions to:
 - manage and report on the requirements of the standard;
 - enable the Corporation to monitor activities within each catchment area.
4. To assess the adequacy and effectiveness of the management framework employed by the Water Corporation’s Drinking Water Quality Process Manager, the Water Quality Branch (WQB)
5. To follow-up on the implementation of the previous audit recommendations.

Scope and Focus

The scope of the audit covers:

- the “Drinking Water Quality Performance”, S010 manual;
- the Source Protection Operations Manual (SPOM) and S097;
- visits to the North West and Perth Metro Alliances;
- testing transactions over the period 1 July 2012 to 30 June 2017;
- testing the reliability and integrity of Binding Protocol 2 reporting over the period 1 July 2012 to 30 June 2017;
- the computerised Water Quality Management System (WQMS);
- the management framework administering:
 - S010 “Drinking Water Quality Performance”;
 - the Water Quality Management System (WQMS); and
 - Drinking Water Sampling Procedures
 - within the WQB Central Office, the North West Region and Perth Metro Alliances;
- the implementation of the 2012 Drinking Water Quality Management Audit recommendations.

The audit will test whether:

- Under S010 and Binding Protocol 2:
 - sampling programs are consistent with S010;
 - samples are taken in accordance with the sampling programs;

- remedial actions are taken when samples exceed guidelines;
- sampling locations are appropriate;
- samples are handled correctly;
- reporting is complete and accurate.
- Under Binding Protocol 3:
 - the coordination plan is up to date and tested.
- Under Binding Protocol 4:
 - exception protocols are followed.
- Under Source Protection:
 - demonstrated commitment to source protection
 - Catchment Management Strategies are consistent with S097 requirements
 - surveillance functions have taken place
 - by-law enforcement has taken place in accordance with the SPOM
 - Sampling programs are consistent with the SPOM
 - reporting is complete and accurate.
- The management framework administering:
 - water quality management performance is subjected to continual review;
 - water quality exceptions are adequately identified and evaluated;
 - remedial plans are appropriate and timely; and
 - communication between the Water Quality Branch and Department of Health is aligned with Binding Protocol 4.