

Drinking Water Service Annual Report 2024-2025

Distribution list

Name	Title
Department of Local Government, Water and Volunteers	Water Supply Regulation

Document control

Approved for issue			
Date	Name	Position	Signature
11 December 2025	Duncan Middleton	Manager Technical Support and Improvement, Seqwater	<div>DocuSigned by: <i>Duncan Middleton</i> 59211B5BC47C4BD...</div>

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	2 of 43

Contents

- 1. Executive summary 4
- 2. Introduction 6
 - 2.1. Purpose..... 6
 - 2.2. Plan overview 8
- 3. Implementation of the DWQMP 9
 - 3.1. Approval conditions 10
 - 3.2. Risk assessment..... 12
 - 3.3. Operational monitoring 12
 - 3.4. Verification monitoring 19
- 4. Improvement plan 26
- 5. Drinking water quality incidents..... 28
- 6. Audit of the Plans 36
 - 6.1. Regular audits..... 36
 - 6.2. Audits – water treatment and SEQ Water Grid operations 37
- 7. Regular review of the DWQMP 39
 - 7.1. Review of and improvements to the drinking water quality management system..... 39
- 8. Glossary 41
- 9. Enclosures..... 43

Tables

- Table 1 – Regulated conditions and implemented compliance 7
- Table 2 – Approval conditions, as per Information Notice dated 30 May 2024, and compliance 10
- Table 3 – Preventive barriers in water treatment..... 14
- Table 4 – Preventive measures in the SEQ Water Grid..... 17
- Table 5 – WTP verification monitoring summary 20
- Table 6 – SEQ Water Grid verification monitoring summary 24
- Table 7 – Summary of incidents and events at Seqwater’s treatment operations and SEQ Water Grid 29
- Table 8 – Summary of the findings of the DWQMP regular audit and their corrective actions..... 36

Figures

- Figure 1 – WTP exceedances over different reporting periods..... 23
- Figure 2 – SEQ Water Grid exceedances over different reporting periods 24

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	3 of 43

1. Executive summary

The Queensland Bulk Water Supply Authority trading as Seqwater (SPID 507) is responsible for South East Queensland’s bulk water supply system. This includes catchments, raw water storages, water treatment plants (**WTP**) and bulk transport infrastructure along with several small reticulation systems supplying recreation parks.

Seqwater’s Drinking Water Service Annual Report (**report**) outlines the activities for the management of water quality risk and issues. The report covers the period from 1 July 2024 to 30 June 2025 (**reporting period**), during which Seqwater was required to comply with the approval conditions of its Drinking Water Quality Management Plan (**DWQMP**).

Seqwater’s water quality operational and verification monitoring programs have occurred in accordance with the criteria documented in the approved DWQMP. Operational monitoring includes real-time continuous monitoring through process instrumentation and operator sampling and testing designed to assess the performance of preventive measures and triggering short-term and long-term corrective actions. Verification monitoring involves a sampling and analytical testing program. Sampling and some on-site analyses are undertaken by Seqwater, with the majority of analytical testing undertaken by an external National Association of Testing Authorities (**NATA**) accredited laboratory on behalf of Seqwater. Verification monitoring during the reporting period included 36,490 tests of treated water at individual WTPs, and 62,902 drinking water tests throughout the SEQ Water Grid.

Seqwater also completed catchment and source water risk characterisation and monitoring activities, including catchment surveys and utilisation of in-situ passive sampler technology to detect micropollutants. These activities help identify changes to the source water risk profile and support Seqwater operations by enabling informed decisions about daily operations, water security and supply planning.

Seqwater was compliant with the microbiological health requirements in the *Public Health Regulation 2018* during the 2024-2025 reporting period for all its water treatment operations and SEQ Water Grid zones. WTP and Water Grid verification testing against the water quality criteria in the DWQMP resulted in one isolated sample result above the *Australian Drinking Water Guidelines 2011* (**ADWG**) health guideline value. An elevated level of total trihalomethanes (**THM**) was detected at Capalaba WTP, following significant amounts of rain leading to increased natural organic matter concentrations in Leslie Harrison Dam.

Ten results from the routine verification monitoring program were above the ADWG aesthetic guideline values during the reporting period:

- two elevated hardness results for Beaudesert WTP due to an increase in source water hardness levels in combination with the limited water softening ability of the WTP. Future connection of the Beaudesert supply zone to the SEQ Water Grid via the South West Pipeline (**SWP**) will reduce the risk of elevated hardness in this supply zone,
- two elevated hardness results for Linville WTP that were related to the regeneration process of the softener and will be mitigated by improved automation,
- two elevated Total Dissolved Solids (**TDS**) results, two elevated chloride results and one elevated hardness result for treated water from Mt Crosby WTPs following a significant rainfall event leading to increased natural mineral concentrations in the source water (Mid-Brisbane River), and
- One elevated turbidity result for reticulated water from Moogerah Dam WTP due to sediment stirred up inside the treated water reservoir while drinking water was being supplied from a water carting truck.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	4 of 43

There were 13 reportable events and non-compliances during the reporting period that were reported to Water Supply Regulation (**WSR** or **Regulator**):

- one ADWG health exceedance,
- two detections of parameters with no guideline value,
- four occasions where sampling or analysis was not completed in accordance with the verification monitoring program,
- and six events relating to operational situations which had the potential to impact public health and/or continuity of supply.

Seqwater's management of these events was compliant with its DWQMP, with the exception of three events due to late verbal or written notification.

Other drinking water quality management system improvement activities completed during the reporting period include:

- 16 water supply system risk assessment reviews,
- 18 Hazard Analysis Critical Control Point (**HACCP**) team meetings,
- 32 internal audits of WTPs and Water Grid sites,
- an external third-party AS NZS/ISO 22000:2018 Food Safety Management Systems (**ISO 22000**) recertification audit,
- a regular audit of the DWQMP, a legislative requirement, and
- a regular review of the DWQMP, a legislative requirement.

These meetings, reviews and audits are part of a schedule that covers all Seqwater's WTPs and Water Grid sites. Findings were used to improve the drinking water quality management system. Long-term improvement initiatives identified through these assessments and reviews have been captured in a consolidated Drinking Water Quality Improvement Plan (**DWQIP**). Key improvements that were successfully delivered are:

- the installation of a UV disinfection system at Lowood WTP as an additional barrier for pathogen removal, and
- the development of the Mid-Brisbane River Water Quality Event Response Procedure, which provided guidance to Water Quality staff and other stakeholders on managing dirty water events in the Mid-Brisbane River.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	5 of 43

2. Introduction

This is the 2024-2025 Drinking Water Service Annual Report for Seqwater, a registered service provider with identification (**SPID**) number SP507. Seqwater operates raw water storage, bulk treatment and transport assets from Noosa to the Gold Coast region and across to the base of the Great Dividing Range. Seqwater is responsible for managing 32 operational WTPs, one desalination plant, 26 dams and 48 weirs. Not all this infrastructure is related to the supply of drinking water, as some of the dams and weirs are used for irrigation schemes. Seqwater has 11 WTPs and a desalination plant connected to the SEQ Water Grid, 17 WTPs (including the offline Banksia Beach WTP) directly connected to SEQ Water Service Providers (**WSP**) and five recreational WTPs (including the rechlorination-only Wivenhoe Dam WTP) operated solely for Seqwater’s recreational sites and supporting assets. Only those WTPs and SEQ Water Grid components operated for the supply of drinking water are included in the Seqwater DWQMP and this report.

Seqwater is operating under an approved DWQMP to ensure consistent supply of safe, high quality drinking water to protect public health. This is achieved through proactive identification and minimisation of public health-related risks associated with drinking water.

This Drinking Water Service Annual Report includes:

- the activities undertaken to operate our drinking water service during the financial year
- drinking water quality summary
- summary of our performance implementing our approved DWQMP.

This report is submitted to WSR as part of fulfilling our regulatory requirement under the *Water Supply (Safety and Reliability) Act 2008* (Qld) (**Act**). It is publicly available to our customers and the South East Queensland community through our website (www.seqwater.com.au/corporate-publications), or for inspection upon request at Seqwater’s Head Office during office hours on business days.

2.1. Purpose

This Drinking Water Service Annual Report has been prepared in accordance with section 142 of the Act (refer to Table 1). The purpose of this Drinking Water Service Annual Report is to provide the Regulator with information on the overall performance of the DWQMP for the reporting period 1 July 2024 to 30 June 2025. This report also provides transparency on the quality and safety of bulk drinking water supplied to our customers and communities.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	6 of 43

Table 1 – Regulated conditions and implemented compliance

Drinking Water Service Annual Report Condition	Seqwater Compliance
<p>Section 142 Drinking water service annual reports</p> <p>This section applies for each financial year after a financial year in which a relevant service provider's drinking water quality management plan has been approved.</p> <p>The provider must, unless the provider has a reasonable excuse—</p> <ul style="list-style-type: none"> • prepare a report (a drinking water service annual report) for the financial year complying with this section and, if section 142C(2) applies to the provider, that subsection; and • give the regulator a copy of the report within 120 business days after the financial year ends. 	<p>The current report is required to be submitted to the Regulator within 120 business days after the 2024-2025 financial year ends.</p> <p>This report has been prepared in accordance with the <i>Guideline for the preparation, review and audit of drinking water quality management plans</i> (Version 3, 1 October 2022), and to report on the approval conditions of the DWQMP.</p> <p>Section 142C(2) is not applicable.</p>
<p>Section 142(3) The report must state or include all of the following—</p>	<p>This report provides an update on the implementation of the DWQMP in accordance with the approval conditions and the above regulatory guidance.</p>
a) the information required under the latest report requirement given to the provider;	Refer to the next page of this report for the relevant conditions from the latest Report Requirement Notice.
b) the actions the provider took to implement the plan;	Refer to Section 3 of this report.
c) the outcome of any review of the plan in the financial year and how the provider has addressed matters raised in the review;	Refer to Section 7 of this report for details of the regular review of the DWQMP that was undertaken in the reporting period.
d) if a drinking water quality management plan audit report has been prepared for the financial year—a summary of its findings and any recommendations;	Refer to Section 6.1 of this report for details of the regular audit of the DWQMP that was undertaken during the reporting period.
e) details of any information the provider gave the regulator under sections 102 and 102A in the financial year;	Refer to Section 5 of this report for details of incident/event reporting during the reporting period.
f) details of the provider's compliance with water quality criteria for drinking water;	Refer to Sections 3 and 5 of this report. Enclosure 1a provides the 2024-2025 Water Quality Data Report. This report also includes aesthetic criteria.
g) if the provider supplies drinking water to customers—details of any complaints to the provider about the provider's drinking water service.	Not applicable. Seqwater is a bulk water provider. As per the <i>Guideline for the preparation, review and audit of drinking water quality management plans</i> (Version 3, 1 October 2022) bulk water providers who do not provide water directly to customers do not have to include this section in their Drinking Water Service Annual Report.
h) if the provider has reviewed a customer service standard during the financial year—the outcome of the review and how the provider has addressed matters raised in the review.	Not applicable. Under s 114(1) of the Act, Seqwater is not required to have a customer service standard because it has a service contract in place with each of its customers (WSPs, as above) in the form of a bulk water supply agreement made under s 360G of the <i>Water Act 2000</i> (Qld).

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	7 of 43

Drinking Water Service Annual Report Condition	Seqwater Compliance
Report Requirement Notice for Queensland Bulk Water Supply Authority t/as Seqwater, 507, dated 27/06/2024	
Condition 5.1.2 The DWS annual report must include information about compliance with the approved DWQMP as detailed in section 142(3) of the Act and any information included in the Guideline for the preparation, review and audit of drinking water quality management plans.	Refer to the previous page of this report for information about compliance with the approved DWQMP according to section 142(3) of the Act. This report has been prepared in accordance with the requirements outlined in the <i>Guideline for the preparation, review and audit of drinking water quality management plans</i> (2022).
Condition 5.1.3 The DWS annual report must provide details of the drinking water quality incidents and events reported to the regulator during the relevant financial year, including any open ongoing incidents, physical and cyber security threats to the drinking water service that occurred in the operation of the drinking water service.	Refer to Section 5 of this report for details of incident/event reporting during the reporting period.

2.2. Plan overview

Seqwater must comply with the DWQMP approved by the Regulator and developed under the Act. The DWQMP forms part of the corporate drinking water quality management system Seqwater has implemented to include drinking water assets and activities captured by the Act. The Seqwater water quality management system has been developed to be consistent with the *Guideline for the preparation, review and audit of drinking water quality management plans* (2022) issued under the Act, as well as the Framework for the Management of Drinking Water Quality within the ADWG. Accordingly, Seqwater adopts the multi-barrier approach for drinking water quality management.

Seqwater currently has responsibilities across all these barriers, which include:

- Catchments
- Storages and dams
- Water treatment, including disinfection
- Supply systems (SEQ Water Grid)
- Distribution systems in recreation areas.

The DWQMP encompasses the drinking water quality management activities of Seqwater for all drinking water treatment plants and the bulk water supply systems managed by Seqwater. Accordingly, the plan applies to barriers from selective abstraction of the raw water to the management of bulk water supply assets and small distribution networks in Seqwater's recreation areas.

The final barriers in the reticulated distribution system are predominantly managed by downstream WSPs who provide distribution and connections with consumers in all systems except for Seqwater's recreation areas.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	8 of 43

3. Implementation of the DWQMP

The version of Seqwater’s DWQMP that was current during the reporting period was submitted to the Regulator on 19 February 2024 and approved under Information Notice for the Decision dated 30 May 2024 (**Information Notice**) for the amended DWQMP. Seqwater’s compliance with the conditions in the Information Notice for its approved DWQMP is detailed in Section 3.1 of this report.

Minor amendments to the DWQMP were made in accordance with section 99A of the Act. The DWQMP amendments included various changes and additions to the DWQMP, associated site-based HACCP Plans, and procedures identified in the DWQMP review. The risk assessment reviews completed during the reporting period are detailed in Section 3.2 of this report. The outcomes of these review activities were shared with relevant Seqwater staff via the 18 HACCP team meetings that were held during the reporting period. Changes to the DWQMP and site-based HACCP Plans are detailed in Enclosure 4.

Seqwater maintains an operational monitoring program which supports the multiple-barrier approach to effectively manage drinking water quality as described in Section 3.3. This includes monitoring of key operational parameters by online instrumentation that feed into Supervisory Control and Data Acquisition (**SCADA**) systems as well as the operational monitoring performed by water treatment plant operators and internal process laboratories. Operator and process laboratory monitoring is used to verify the operation of the plant and the accuracy of online instrumentation. There have been no significant revisions to the operational monitoring program during the reporting period.

Seqwater’s verification monitoring program covers a wide range of parameters determined using a risk-based approach. These are detailed in the DWQMP. The results of Seqwater’s verification monitoring during the reporting period are described in Section 3.4 of this report. A detailed data report in the format prescribed by the Regulator is provided in Enclosure 1a. Analysis of verification samples was undertaken primarily by an external NATA-accredited laboratory. Seqwater undertakes sampling and specific analyses to support operations and to inform verification monitoring, underpinned by a laboratory quality management system based on AS ISO/IEC 17025:2018 General requirements for the competence of testing and calibration laboratories (**ISO 17025**). These analyses include on-site field tests and parameters analysed at Seqwater Process Laboratories, such as Taste and Odour compounds. In addition, the Seqwater verification monitoring program includes sampling and analysis of micropollutants at the cutting edge of modern monitoring. These analyses are undertaken by specialist laboratories that have implemented rigorous quality systems, based on ISO 17025. All verification monitoring results are recorded in Seqwater’s Laboratory Information Management System (**LIMS**). Seqwater reviews the verification monitoring program on a half-yearly basis.

Seqwater maintains onboarding and training programs that ensures awareness of the DWQMP throughout the business. A vast range of documented procedures is available to all team members and kept up to date through a rigorous controlled document management process.

Seqwater continues to improve its drinking water quality management system. Actions in the risk management improvement program, known as the Drinking Water Quality Improvement Plan, were implemented during the reporting period as described in Section 4 of this report. The DWQIP changes made during the reporting period are provided in Enclosure 3 of this report.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	9 of 43

3.1. Approval conditions

As outlined in the previous section, the Regulator provided formal approval of Seqwater's amended DWQMP on 30 May 2024 under an Information Notice given pursuant to section 99(1)(b) of the Act. A summary of the approval conditions and Seqwater's compliance with these conditions is detailed in Table 2.

Table 2 – Approval conditions, as per Information Notice dated 30 May 2024, and compliance

#	Condition	Compliance
7.2	If, due to Seqwater's verification or other monitoring activity, which includes a research program or another entity's monitoring activity, Seqwater become aware of an incident ¹ in its drinking water service, Seqwater must, unless it has a reasonable excuse, immediately notify the regulator of the circumstances and follow up that initial notification by giving the regulator written notice in the approved form, as soon as practicable.	<p>Compliant.</p> <p>There was one exceedance of an ADWG health guideline value as identified through the verification monitoring program (further detailed in Section 3.4.4) and notified in accordance with Condition 7.2.</p>
7.3	When Seqwater becomes aware of an event ² in its drinking water service, Seqwater must, unless it has a reasonable excuse, immediately (without reasonable delay) notify the regulator of the circumstances and follow up that initial notification by giving written notice in the approved form, as soon as practicable (within 24 hours).	<p>Seqwater has actively reported the following events (further detailed in Section 5):</p> <ul style="list-style-type: none"> Six events relating to operational situations which had the potential to impact on public health and/or continuity of supply. Two detections of parameters with no guideline value. Four situations involving water quality testing not being undertaken according to its verification monitoring program. One of these events was discovered after the reporting period and will be detailed in the 2025-2026 Drinking Water Service Annual Report. <p>Notification to the Regulator was mostly compliant, with the exception of:</p> <ul style="list-style-type: none"> one event that was reported a day late due to internal miscommunication, one event that was reported 1.5 months late due to misunderstanding of the reporting requirement, and one event for which written notice was submitted a day late due to internal miscommunication. <p>In accordance with the DWQMP for situations when WTPs were offline and no water was available for sampling, a total of eight samples were not taken (further detailed in Section 3.4.3).</p>

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	10 of 43

#	Condition	Compliance
7.4	Seqwater must give the regulator an investigation report, using the approved notice form, as soon as practicable (i.e., within 5 business days after completing the investigation). This notice must identify the cause of the incident ¹ or event ² and include the outcomes of the investigation, the actions taken to remedy the incident or event and any actions proposed to prevent or minimise the likelihood of a recurrence of the incident or event.	Compliant.
7.5	Seqwater may seek the regulator's formal acknowledgement for research activities, by submitting the Research Project Notification form to the regulator. Where Seqwater is operating under a research activity that has been formally acknowledged by the regulator, detections of parameters arising from this research activity must be reported as detailed in the regulator's formal acknowledgement.	Compliant.
7.6	The next regular review of the approved DWQMP, to ensure the DWQMP remains accurate and relevant to the drinking water service provided, must be conducted by 1 July 2025 and at the intervals specified in section 8 of this notice to align with the Seqwater HACCP Audits & Risk Assessments Schedule for each financial year. This review must be conducted in accordance with the regulatory guidelines made by the regulator for conducting a regular review of a DWQMP.	Compliant. Review of the DWQMP was completed on 30 June 2025 (further detailed in Section 7).
7.7	The next audit of the approved DWQMP must be conducted by 1 March 2025 and at the intervals specified in section 8 of this notice . This audit must be conducted in accordance with section 108 of the Act and the regulatory guidelines made by the regulator for undertaking an audit of a DWQMP and preparing audit reports.	Compliant. The regular audit of the DWQMP was conducted from 17 to 21 February 2025 (further detailed in Section 6.1).
7.8	The State of Queensland accepts no liability for any financial outlay Seqwater incurs by implementing and complying with the approved DWQMP and the conditions of the plan.	No applicable claims / actions.

¹ 'an incident' is the detection of Escherichia coli (*E. coli*), an ADWG parameter or radioactivity that does not comply with the water quality criteria or a pathogen, i.e. a disease-causing microorganism (e.g. bacteria, viruses and protozoa).

² 'an event' is anything that has happened or is likely to imminently happen in Seqwater's drinking water service, which cannot be managed under the approved DWQMP and/or which may adversely impact public health. An event includes, but not limited to:

- the detection of a parameter that has an aesthetic guideline value, but used as an indicator or a surrogate of other hazards (for example, turbidity), or
- the detection of a parameter that has no guideline value in ADWG, which may adversely impact public health (for example, chlorate),
- failure to undertake the water quality testing described in the DWQMP or missing data, for example, laboratory errors, where rescheduling cannot demonstrate the required frequency,
- an operational situation, which requires a response to ensure safety and continuity of supply and which is not managed by an operational procedure and/or detailed in the DWQMP.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	11 of 43

3.2. Risk assessment

Assessment of Seqwater's water treatment operations and the SEQ Water Grid, along with 16 risk assessment reviews, were completed during the reporting period. There are 34 water supply schemes listed in section 5.1 of the Information Notice for the approved DWQMP, including 32 water treatment plants, the Gold Coast Desalination Plant and the SEQ Water Grid (Supply System).

The findings from the recent risk assessment reviews are consistent with those reported in the 2023-2024 Drinking Water Service Annual Report. The main risks identified did not significantly change, and in most cases pathogens are the predominant limiting hazard. From these recent reviews, significant risks and improvements to reduce those risks to acceptable levels were identified. Multiple sites have identified opportunities for:

- increased source water and raw water quality information collation to aid in decision-making to optimise source selection of raw water to the WTP
- process assessment and optimisation of alternative coagulants to optimise flocculation and settling performance, particularly during dirty water events
- improved system monitoring and control around filter performance and supernatant management to optimise filter performance and reduce filter breakthrough probability
- improved asset maintenance activities through the implementation of improved work tracking and delivery mechanisms
- improved disinfection, secondary disinfection and network monitoring of disinfectant residuals
- improved reporting and trending of data through improvements in data management solutions
- improved water treatment chemical management through revised contracts and receipting processes

In some cases, the residual (mitigated) risks have been further reduced by capital upgrades to assets as part of the regular asset management process. Improvements identified through incident management processes include protection from lightning strikes and power interruptions on control systems. Improvements identified through the risk assessment review process include SCADA upgrades, process instrumentation, and interlocks between these instruments and plant operation. These improvements have reduced the risk of non-compliant water leaving WTPs.

Any WTPs and SEQ Water Grid sites requiring (further) process automation or SCADA upgrades have been included in the forward program schedule. Seqwater is continuing to monitor progress in these areas through its capital works and renewals programs and the implementation of its Monitoring and Control Systems Asset Class Plan.

Seqwater reviews and improves the established Pre-requisite Programs (**PRP**) and operational Pre-requisite Programs (**oPRP**) every three years, or more frequently if required. This approach is consistent with the requirements of ISO 22000 to which Seqwater has maintained its certification (See Section 6.2.2 for more details). The latest improvements to these Programs were made outside the reporting period.

3.3. Operational monitoring

3.3.1. Water treatment plant operational monitoring

Operational monitoring of water treatment includes real-time monitoring through process instrumentation, operator grab sample tests and observations, and analytical laboratory testing by Seqwater's process laboratories.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	12 of 43

Operational monitoring programs for each WTP are designed to assess the performance of preventive measures identified for particular hazardous events and to prompt requirements for corrective actions.

Following the recommendations in the ADWG with regards to the reliance on operational monitoring, the site-specific HACCP Plans generally specify online monitoring as Critical Limit monitoring. Most Critical Limit exceedances lead to immediate automatic shutdown of the relevant treatment process(es) to ensure water safety. This allows for verification of the online instrument, further analysis and resolution of the problem before safely resuming production. Operations teams report exceedances to the Drinking Water Quality team within a specified timeframe through dedicated risk management software.

The main preventive measures are well-established across all WTPs, with Critical Control Points (**CCP**) monitored by online instrumentation, which is clearly identified in the process flow diagrams in each site-based HACCP Plan. Where possible, multiple levels of alarms for each online instrument through the SCADA system provide early warning of process control issues and early intervention by Operations staff. Additionally, some alarm set points are interlocked to shut down the WTP before Critical Limits are exceeded.

The HACCP Plan Wall Chart procedures document the Action Limits, Critical Limits and key corrective actions, including clear instructions for Operations staff and their supervisors on when the process is to be rated down or shut down, as well as reporting requirements. Across Seqwater’s treatment operations, the operational monitoring system has worked successfully throughout the year with many improvements implemented.

Internal auditing (Section 6.2.1) reviews the effectiveness of operational monitoring, online water quality instruments, alarm set points and compliance with the CCP procedures. The main preventive measures typical of most WTPs are listed in Table 3 with an update of the status of the preventive measure and operational monitoring.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	13 of 43

Table 3 – Preventive barriers in water treatment

Preventive Measure	Related Hazardous Events	Operational Monitoring	Status
Coagulation	Raw water exceeds treatment capability Coagulant dosing failures Low alkalinity Poor pH control Poor or excessive mixing Incorrect dose rates Inadequate coagulation aids	Dose water pH Chemical dosing alarms Observation checks of flocculation and sedimentation	Instrumentation for dosed water pH, including alarms, is established at all sites using aluminium sulfate as the coagulant and where pH regulation of the dosed water is in place. Additionally, the instrumentation and SCADA upgrade provides settled water turbidity analysers and alarms across all Seqwater's sites that have a clarification or Dissolved Air Flotation process. Operator grab sample monitoring has been compliant with the WTP's HACCP Plan which documents operational monitoring.
Filtration	Raw water exceeds treatment capability Coagulation failure Solids carryover Poor backwashing Filtration breakthrough	Online turbidity for each cell/filter outlet SCADA tools such as head loss, runtime / production For membrane filtration sites - Pressure Decay Test	Instrumentation is in place for monitoring individual filters for filtered water turbidity at all relevant sites. All sites have alarms that automatically dial-out to the on-call operator's mobile phone. Most sites have interlocks in place to stop operation or activate filter backwash. There is a program of control system upgrades to implement this functionality across all sites where it is achievable. Online instrumentation and operator grab sample monitoring has been compliant with the WTP's HACCP Plan which documents operational monitoring.
Disinfection (by Ultraviolet irradiation (UV))	High flowrate – low contact time Low flowrate – not enough turbulence to distribute the dose Low UVT – unable to adequately penetrate microorganisms	Online UV intensity and flows UV Dose Ultraviolet Transmittance (UVT)	UV disinfection is typically implemented at sites that require pathogen treatment beyond what is achievable by 'conventional treatment'. These sites include Kilcoy, Capalaba, Beaudesert, and Boonah-Kalbar WTPs. It is also implemented at smaller sites, such as Dayboro, Kenilworth and Linville WTPs where it forms an efficient primary pathogen treatment process. UV disinfection was implemented at Lowood WTP, completing a Risk Treatment item, during the reporting period. UV disinfection has worked effectively at these sites without significant issues/excursions.
Disinfection (by chlorination)	Chlorine dosing failures	Online free chlorine after dosing and after contact time	All sites have online instrumentation monitoring free chlorine, pH and flow in the dosed filtered water and treated water. Alarms dial-out to the on-call operator's mobile

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	14 of 43

Preventive Measure	Related Hazardous Events	Operational Monitoring	Status
	Incorrect dose rates Poor pH control High flows – low contact time Low reservoir levels Contamination to reservoir Filter breakthrough causing shielding	Online pH and turbidity after contact time Reservoir levels and flows Chemical dosing alarms	<p>phone. At most sites, interlocks are also implemented that stop the WTP process. There is a program of control system upgrades to implement this functionality across all sites where it is achievable.</p> <p>Online instrumentation and operator grab sample monitoring has been compliant with the WTP's HACCP Plan which documents operational monitoring.</p>
Fluoridation	Overdosing fluoridation chemical	Online fluoride monitoring pre and post on-site reservoir Operator fluoride monitoring – concentration by lab testing Operator monitoring – daily calculated fluoride dose using product weights and flow meter data. Chemical dosing alarms	<p>The fluoride dosing monitoring arrangements are fully established and documented. Operator testing and checks of the online monitoring system are performed at least daily.</p> <p>Queensland Health periodically audits fluoridation of the water supply at all Seqwater sites with fluoridation systems.</p>
Reticulation (recreation sites)	Ingress or infiltration Corrosion and deterioration of assets	Observation Chlorine residual monitoring Demand monitoring (plant operation hours and reservoir levels) Vermin proofing inspections on reservoirs	<p>Reticulation systems are monitored by operational staff to ensure there is no ingress from vermin or through loss of positive pressure. System leaks are identified by these inspections and the draw on the plant's capacity. Scheduled maintenance inspections and condition assessments are also conducted.</p> <p>Chlorine testing on recreation park taps is undertaken and supported by verification monitoring at the same sample sites.</p>

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	15 of 43

3.3.2. SEQ Water Grid operational monitoring

In the DWQMP, operational monitoring includes the planned sequence of measurements and observations to assess and confirm the performance of preventive measures identified for particular hazardous events. Measurements of operational parameters indicate the effectiveness of processes. As part of the ADWG Framework, ISO 22000 and HACCP standards, these operational measures have been identified and summarised within the Supply System HACCP Plan as CCPs and oPRPs.

The preventive measures are well established within Seqwater, with CCPs monitored by online instrumentation throughout the SEQ Water Grid. Network control room staff can react to the exceedances when notified through the SCADA system. Alarming is programmed into the SCADA system at three different incident levels, each defining the severity of the exceedance. Each incident level has a documented contingency and escalation procedure for staff to follow.

Internal auditing and compliance spot checks monitor the oPRPs. The principal preventive measures are listed in Table 4. The most common limiting hazard identified is pathogens. Unacceptable risks requiring further treatment are listed in the improvement plan (Section 4) of this report.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	16 of 43

Table 4 – Preventive measures in the SEQ Water Grid

Preventive Measure	Related Hazardous Events	Operational Monitoring	Status
Water quality considerations as part of the Monthly Operating Supply Schedule (MOSS) & routine meetings with WSPs (Regional Operational Managers Meeting). Includes drought operating modes.	Non-compliant water supplied to the SEQ Water Grid by Bulk Water Suppliers Deterioration of water quality in service reservoirs due to variable water ages	This is issued monthly to the Drinking Water Quality team for review and to provide feedback on any foreseen issues arising from different source waters.	This formalised process continues as the MOSS at Seqwater. Water quality issues are raised if there are concerns of any localised issues and the MOSS is amended accordingly (e.g. in case Mt Crosby WTPs experience elevated levels of geosmin and 2-methylisoborneol in raw water).
Maintain disinfection residual	Non-drinking water or organic matter entering service reservoir or pipeline Contamination to reservoirs by access by third party Contamination to reservoir by vermin entry	Chlorine, pH and temperature parameters are measured online at all Key Interface Points which are representative of each water zone. These signals are transferred and alarmed at the network control room. Control room escalation and corrective action procedures are audited routinely. Training is delivered for new control room staff.	Established SCADA systems and Critical Limit alarm levels notify the network control room of low chlorine residual. Escalation procedures covering different severities of alarms are well established and are followed by control room staff. Corrective actions are documented in a procedure and are followed by control room staff and SEQ Water Grid operations management. A documented procedure on maintaining chlorine residual is used by operational staff.
Service Reservoir Inspection Program	Ingress of non-drinking water to reservoirs Vermin entry to reservoir Corrosion and deterioration of assets	Service reservoir inspections are carried out quarterly using a checklist and photo evidence process. These records are audited routinely to identify any deficiencies. These inspections are supplemented by annual external inspections using Unmanned Aerial Vehicles (UAV), and three-yearly internal inspections using submersible Remote Operated Vehicles (ROV) combined with specialist software to inspect and track deterioration.	This process and water quality focused culture is well-established within the business. Any issues identified are raised and corrected through the Seqwater maintenance system and for larger improvements via the renewals process within the capital improvement program.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	17 of 43

Preventive Measure	Related Hazardous Events	Operational Monitoring	Status
Mains Hygiene Procedure	Stagnation of reservoirs and pipelines Commissioning new assets and pipelines Maintenance and operational changes to the SEQ Water Grid	This procedure provides the formal process to prevent contamination of pipelines and reservoirs during maintenance activities. It also covers disinfection of assets before returning to service. On-site compliance checks are routinely carried out to identify any deficiencies.	This process and water quality focused culture is now well established within Seqwater. Training is delivered during the induction of new field staff.
Locked and alarmed hatches on reservoirs	Contamination to reservoirs by access of third party	All reservoirs' hatches are locked, and alarm systems notify the network control room of any unauthorised access to reservoirs. Closed Circuit TV cameras are also in place at some reservoir sites. Security guards routinely patrol the reservoir sites.	The alarming of reservoirs is tested routinely with network control room staff well versed in the procedures to follow if a security breach occurs. Access to these reservoirs is managed by Seqwater's works access and permit to work procedures.
Maintaining Positive Pressure	Ingress of non-potable water or organic matter to pipelines	Pressure and flow are monitored online at locations throughout the SEQ Water Grid. These locations are alarmed and notify the network control room of any low-pressure situations.	The network control room staff are well versed in the procedures to follow if low pressure occurs within the SEQ Water Grid. Planned and unplanned pipeline isolations are managed by the Disinfection of Water Mains Procedure.
Optimisation of re-chlorination through automated control systems Maintain or treat to lower Dissolved Organic Carbon / Bromide Levels	Formation of disinfection by-products	Most chemical dosing facilities are comprehensively equipped with system redundancies including dual online instruments, Uninterruptable Power Supply, multiple chemical dosing pumps, back-up telemetries with multi-barrier alarming to the network control room.	Control systems are well established and have a proven historical track record in providing accurate and timely information. The network control room has comprehensive documentation to assist in the control of these systems and are well versed in the procedures to operate these stations efficiently and effectively.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	18 of 43

3.4. Verification monitoring

The results of Seqwater’s verification monitoring during the 2024-2025 reporting period are summarised below. The detailed data report at Enclosure 1a is in the format prescribed by the Regulator. This program includes:

- scheme component (e.g. reticulation, source water)
- parameter
- unit of measure
- total number of samples collected (number of analyses)
- number of samples that did not meet the water quality criteria
- minimum concentration or count
- maximum concentration or count
- average (arithmetic mean) concentration or count.

The analysis results from SEQ Water Grid sampling points that were offline at the time of sampling were excluded from the data report as these may not be representative of the quality of the water provided to the WSPs. For completeness, these omitted analysis results are presented separately in Enclosure 1b.

For all parameters tested more than once a year, the frequency of sampling has been distributed evenly throughout the year (weekly, monthly, quarterly or six-monthly).

3.4.1. Analysis of Micropollutants using Passive Samplers

The sampling and analysis of micropollutants using a passive sampler methodology began in July 2014 for catchment sites where the sampling devices could be deployed. This alternative monitoring technique informs risk over a greater period of time and picks up short spikes or low levels of contaminants that grab sampling may miss. The micropollutants analysed included pesticides, pharmaceuticals, personal care products and, since Summer 2025, per- and polyfluoroalkyl substance (**PFAS**) chemicals. This analysis is undertaken by a specialist laboratory under a rigorous internal quality system.

The passive sampler reports for sampling conducted during the 2024-2025 reporting period are provided at Enclosure 2a and 2b. There were no exceedances of the ADWG values observed during the reporting period for these chemicals using passive sampling methodologies. Some parameters have been detected at trace levels, but this has generally been two orders of magnitude below the guideline values.

3.4.2. Compliance with DWQMP and Key Performance Indicators

Drinking water quality compliance is determined in accordance with the *Public Health Regulation 2018 (PHR)* for microbiological parameters and per the ADWG for health and aesthetic parameters (see sub-sections below for brief descriptions of these methods). During the 2024-2025 reporting period, Seqwater was compliant for all its water treatment operations and SEQ Water Grid zones for all parameters.

For corporate Key Performance Indicator reporting, the water quality results from routine monitoring in each supply zone are assessed over a rolling 12-month period against the water quality criteria, with the final report being issued in June each year. A supply zone is defined as a WTP and, if relevant, the connected downstream components of the SEQ Water Grid.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	19 of 43

3.4.2.1. Microbiological compliance

A supply zone is compliant if at least 98% of routinely monitored samples do not exceed the water quality criteria, namely *E. coli* (as per section 52 of the PHR).

3.4.2.2. Health related compliance

For parameters sampled eight or more times during the year, the 95th percentile result of each health-related parameter is used for assessment against the water quality criteria, being the health guideline values in the ADWG as per section 52 of the PHR. For parameters sampled less than eight times per year, the maximum result is used for assessment against the water quality criteria. If the 95th percentile (or maximum, if sampled less than eight times) value is greater than the water quality criteria, then the whole zone is deemed non-compliant.

3.4.2.3. Aesthetic compliance

The average of each parameter is assessed against the water quality criteria (aesthetic guideline values from the ADWG) only if there are impacts to downstream users. If any value is greater than the water quality criteria, then the whole zone is deemed non-compliant.

3.4.3. Water treatment plant verification monitoring

Verification monitoring occurred in accordance with Seqwater's Water Quality Verification Monitoring Plan. This was primarily undertaken by the NATA-accredited (ISO 17025) contracted Laboratory Service Provider at Seqwater's raw water, treated water and recreation sites distribution system sample points, covering more than 70 different parameters at various frequencies. On-site field testing and monitoring, for example on free and total chlorine and pH, supports operations. This testing also forms part of the verification monitoring program and is undertaken by Seqwater in accordance with its laboratory quality management system, based on ISO 17025. The verification program provides the necessary information to validate the preventive approach to water quality management is effective.

A summary of verification monitoring of WTP treated water for the reporting period is provided in Table 5. The statistics from the verification monitoring results for all parameters for raw water and treated water at each operational site are provided within Enclosure 1a. The recreational plants show a larger number of analyses performed as these sites include reticulation system monitoring in WTP test count.

Table 5 – WTP verification monitoring summary

Name of Scheme Component	Number of Analyses Performed	Number of Individual ADWG Health Exceedances	Number of Individual ADWG Aesthetic Exceedances
Amity Point WTP	800	0	0
Beaudesert WTP	1156	0	2
Banksia Beach WTP	0	0	0
Boonah-Kalbar WTP	969	0	0
Canungra WTP	981	0	0
Capalaba WTP	1132	1	0

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	20 of 43

Name of Scheme Component	Number of Analyses Performed	Number of Individual ADWG Health Exceedances	Number of Individual ADWG Aesthetic Exceedances
Dayboro WTP	815	0	0
Dunwich WTP	811	0	0
Esk WTP	889	0	0
Ewen Maddock WTP	928	0	0
Gold Coast Desalination Plant	1501	0	0
Hinze Dam WTP	1233	0	0
Image Flat WTP	2000	0	0
Jimna WTP	932	0	0
Kenilworth WTP	762	0	0
Kilcoy WTP	1011	0	0
Kirkleagh WTP	1232	0	0
Kooralbyn WTP	1004	0	0
Landers Shute WTP	928	0	0
Linville WTP	1796	0	2
Lowood WTP	1107	0	0
Maroon Dam WTP	1265	0	0
Molendinar WTP	936	0	0
Moogerah Dam WTP	1265	0	1
Mt Crosby East Bank and West Bank WTPs	2341	0	5
Mudgeeraba WTP	936	0	0
Noosa WTP	1451	0	0
North Pine WTP	1081	0	0
North Stradbroke Island WTP	876	0	0
Point Lookout WTP	800	0	0
Rathdowney WTP	996	0	0
Somerset Dam WTP	831	0	0
Wivenhoe Dam WTP	1725	0	0
Total	36490	1	10

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	21 of 43

During the reporting period, there were four occasions where sampling and analysis were not completed in accordance with the verification monitoring program (detailed in Section 5 of this report). Additionally, in accordance with the DWQMP for situations when WTPs are offline and no water is available for sampling, a total of eight samples were not taken at Noosa WTP when the plant was offline for the construction of a new treated water reservoir roof.

3.4.4. Analysis of the water treatment plant verification monitoring data

Through an assessment of the water quality data from the verification program, it was found that all WTPs were compliant against the ADWG health guideline values for drinking water. One individual health exceedance was recorded during the reporting period, as well as ten aesthetic exceedances.

Overall, the count of ADWG health-related exceedances over the past few years has remained at a relatively constant low level. There has been an increase in the number of aesthetic exceedances since 2021-2022 primarily due to increased treated water hardness levels at Linville WTP (2022) and Beaudesert WTP (2023, 2024) (Figure 1).

The one health guideline exceedance in verification monitoring was caused by an elevated THM level in the treated water from Capalaba WTP (0.26 mg/L, 15 November 2024, ADWG health guideline value: 0.25 mg/L). This result was obtained following significant rainfall leading to increased natural organic matter concentrations in Leslie Harrison Dam, the source water for Capalaba WTP. Further exceedances were prevented through targeted WTP process optimisation.

A total of ten aesthetic guideline exceedances in verification monitoring were detected during the reporting period:

- Two aesthetic guideline exceedances attributed to elevated hardness results in the treated water from Beaudesert WTP (250 mg/L on 15 August 2024, 260 mg/L on 25 September 2024; ADWG aesthetic guideline value: 200 mg/L). These results were due to an increase in source water hardness levels in combination with the limited water softening ability of the WTP. Connecting the Beaudesert supply zone to the newly constructed SWP will reduce the instances of increased hardness and improve water security for Beaudesert. This is planned to occur during 2025-2026 financial year.
- Two aesthetic guideline exceedances attributed to elevated hardness results in the treated water from Linville WTP (320 mg/L on 20 November 2024, 250 mg/L on 14 May 2025; ADWG aesthetic guideline value: 200 mg/L). Both results were related to the regeneration process of the softener and will be mitigated by improved automation of regeneration, which is a project underway.
- Five aesthetic guideline exceedances attributed to elevated TDS, chloride and hardness results in the treated water from Mt Crosby WTPs, sampled from Camerons Hill Reservoirs 1 and 2 on 20 November 2024. The results were obtained following a significant rainfall event leading to increased natural mineral concentrations in the Mid-Brisbane River, the source for Mt Crosby WTPs. The relevant TDS results were 700 mg/L and 730 mg/L (ADWG aesthetic guideline value: 600 mg/L), the relevant chloride results were 270 mg/L and 300 mg/L (ADWG aesthetic guideline value: 250 mg/L), and the relevant hardness result was 250 mg/L (ADWG aesthetic guideline value: 200 mg/L).
- One aesthetic guideline exceedance attributed to an elevated turbidity result in the reticulated (treated) water from Moogerah Dam WTP (9.0 NTU on 7 May 2025; ADWG aesthetic guideline value: 5 NTU). This result was due to a stir-up of sediment inside the treated water reservoir while the WTP was being supplied with drinking water from a water carting truck.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	22 of 43

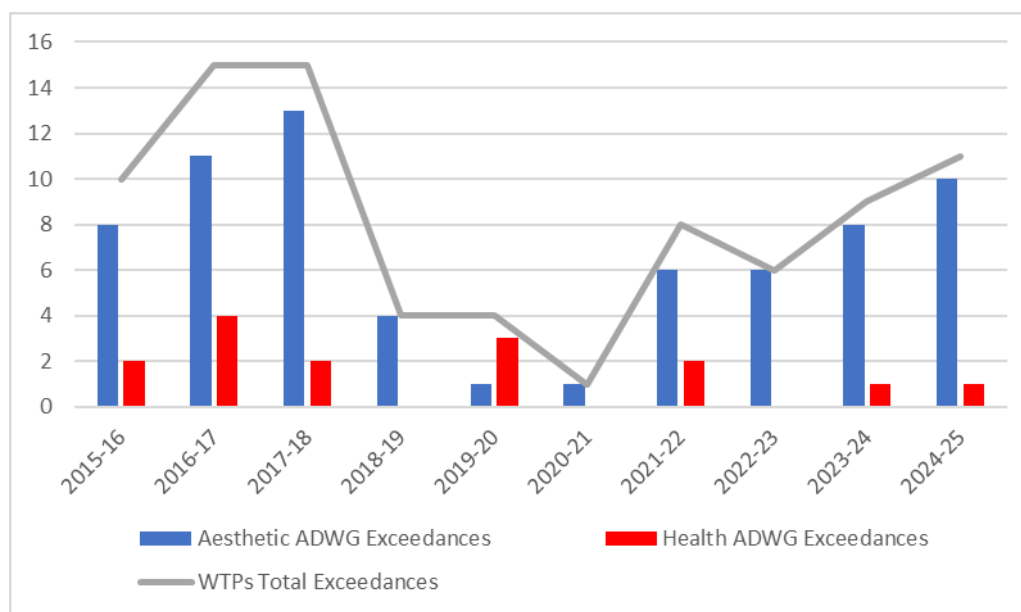


Figure 1 – WTP exceedances over different reporting periods

Seqwater continues to seek and implement improvements for its treatment processes and preventive measures. With regards to continually improving water quality (for example, in accordance with Element 12 of the Framework for Management of Drinking Water Quality), these exceedances are considered in risk assessments and subsequent risk assessment reviews. Where the mitigation of a risk has been determined to be inadequate, including for aesthetic parameters, an improvement action is recorded in the Drinking Water Quality Improvement Plan. A version of the DWQIP that focuses only on unacceptable health risks can be found in Enclosure 3. Subsequent processes ensure that improvement actions are addressed appropriately. This currently includes treatment plant upgrades, improved instrumentation, early intervention by Operations and Engineering staff through changes in process control and improvements in sampling practices and the third-party NATA-accredited laboratory performance.

3.4.5. SEQ Water Grid verification monitoring

Verification monitoring occurred in accordance with the Supply System Water Quality Monitoring Plan. Sampling and on-site field tests were undertaken by Seqwater's Scientific Services team and laboratory testing was undertaken by a contracted NATA-accredited laboratory service provider. This covered more than 30 different parameters with weekly and monthly sampling frequency scheduled in eight different zones. The verification program provides the necessary information to validate the preventative approach to water quality management is working effectively.

The SEQ Water Grid has been assessed as compliant for all eight zones for microbiological, health and aesthetic compliance during the reporting period. A summary of verification monitoring of SEQ Water Grid (bulk) water for the reporting period is provided in Table 6.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	23 of 43

Table 6 – SEQ Water Grid verification monitoring summary

Name of scheme component	Number of Analyses Performed	Number of Individual ADWG Health Exceedances	Number of Individual ADWG Aesthetic Exceedances
Brisbane	24766	0	0
Eastern Pipeline Interconnector	784	0	0
Gold Coast and Network Integration Pipeline	3374	0	0
Logan	5250	0	0
Northern Pipeline Interconnector	11823	0	0
Redland	5009	0	0
Southern Regional Pipeline	11896	0	0
Total	62902	0	0

3.4.6. Analysis of the SEQ Water Grid verification monitoring data

There were no ADWG health or aesthetic exceedances for the SEQ Water Grid during the reporting period, consistent with the low numbers of exceedances for each category since 2014-2015 reporting period (Figure 2). The overall trend supports the continued successful operation of the SEQ Water Grid to provide safe and high-quality drinking water.

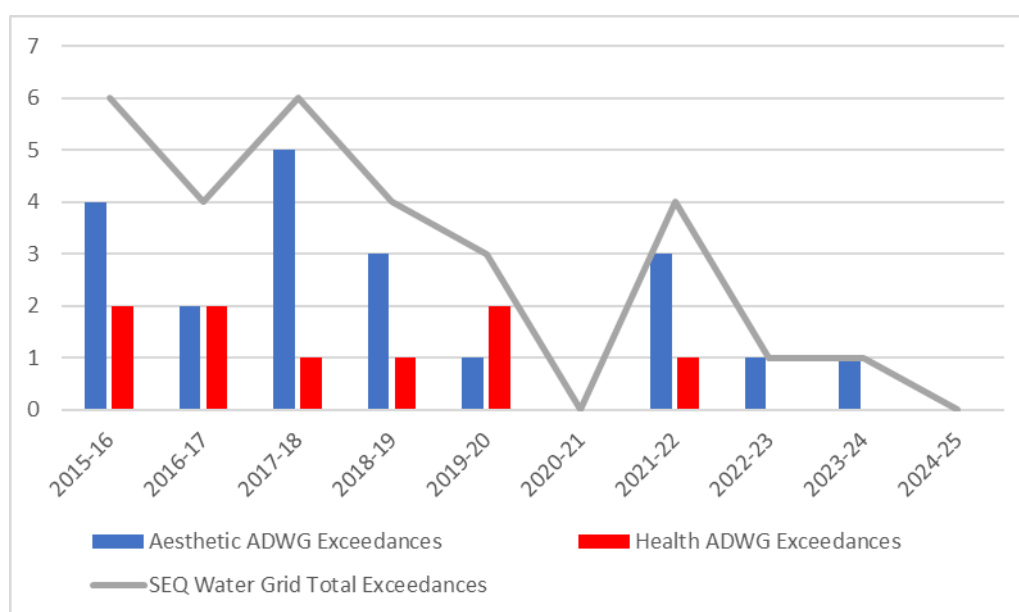


Figure 2 – SEQ Water Grid exceedances over different reporting periods

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	24 of 43

The low number of exceedances across the SEQ Water Grid since 2014-2015 is supported by good operating practice. Improved source water conditions also contributed to a strong performance in some of the previous reporting periods, although significant challenges for water treatment and distribution are occasionally experienced due to increased heavy rain events, such as those experienced during the current reporting period.

Heavy rainfall in the Wivenhoe Dam / Mid-Brisbane River catchment led to a spike in Taste & Odour compounds in treated water feeding into the Brisbane, Ipswich, Logan and Redland supply zones at the end of December 2024. Seqwater has since significantly increased the frequency of Taste & Odour compound monitoring at treatment facilities along the Mid-Brisbane River. Additionally, Taste & Odour results at all monitored locations are now available on the Seqwater website (www.seqwater.com.au/taste-and-odour).

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	25 of 43

4. Improvement plan

Improvements continue in accordance with the DWQIP. The progress made during the reporting period to reduce health-related risks and improve the reliable provision of safe drinking water is tabled in Enclosure 3 of this report. Any improvements which are yet to be implemented are reassessed and prioritised through the internal audit and risk assessment review schedule. Asset-related improvements are assessed via the capital program prioritisation process. The changes to the DWQMP identified in risk assessment reviews, HACCP team meetings and the investigation of incidents, reflect the significant progress Seqwater has made in improving its drinking water quality management system. The details of these changes are provided in the Register of Changes to DWQMP, HACCP Plans and Procedures at Enclosure 4. A summary of significant water quality improvements delivered in the reporting period and taken from the DWQIP or from other sources like the Renewals Program, is listed below.

Whole of Business:

- Development of the Mid-Brisbane River Water Quality Event Response Procedure, providing guidance to Water Quality staff and other stakeholders on managing dirty water events in the Mid-Brisbane River, using principles and methodologies that can be utilised similarly for other water supply systems.
- Development and implementation of digital chemical receipt forms as part of the Plant Operator Data Management System project.
- Review of the chemical dosing philosophy for Caloundra Street, Gramzow Road and Chambers Flat Water Quality Management Facilities (**WQMF**)
- Inclusion of PFAS chemical monitoring in the WTP Verification Monitoring Program as well as the Catchment and Drinking Water Quality Micro Pollutant Monitoring Program
- Establishment and validation of a process for reservoir inspections and cleaning using submersible ROVs and robotic cleaning systems
- Phase 1 of the Water Quality Online Analyser Maintenance Improvement Project – enhanced the effectiveness of CCP monitoring and strengthened the integrity of analyser data
- Implementation of the enterprise historian system, a business-wide initiative aimed at making online analyser data from all sites available for data-driven risk-based decision making
- Ongoing progress on the Regional Secondary Disinfection Optimisation Project – targeted at improving disinfection residuals in Seqwater chloraminated water supply zones, as a key Water Quality Service Standards project

Northern Region:

- Fluoride system upgrade at Landers Shute WTP, changing from a variable batch strength to variable dose rate system
- Installation of automatic security gates at North Pine WTP
- Raw water main relocation at Kilcoy WTP to facilitate optical fibre installation required for further upgrades of the plant
- Vermin proofing of Biological Activated Carbon (**BAC**) filters at Ewen Maddock WTP
- Installation of a tanker fill point at North Pine WTP to enable free chlorinated water cartage to Dayboro WTP
- Installation of a new Programmable Logic Controller (**PLC**) for the fluoridation plant at Ewen Maddock WTP

Central Region:

- UV disinfection system installed as an additional barrier for pathogen removal at Lowood WTP

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	26 of 43

- Portable centrifuge installed to aid dewatering of sludge at Lowood WTP
- Filter media refurbishment and online analyser upgrades at Mt Crosby East Bank WTP
- Fluoride dosing facility structural repairs to damaged hopper and reinstatement of fluoride dosing at Mt Crosby Holts Hill

Southern Region:

- Connection of the SWP to the clarifier launders of Beaudesert WTP as a fully integrated alternative water supply to the plant
- Replacement of the limestone beds at Dunwich WTP and Amity Point WTP.
- Enhanced cleaning of sand filter media through backwashing and acid soaking at Dunwich WTP
- Installation of additional pipework to achieve improved disinfection at Amity Point WTP
- Removal of the sludge lagoon at North Stradbroke Island WTP
- Replacement of sulfuric acid pumps at Chambers Flat WQMF

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	27 of 43

5. Drinking water quality incidents

Seqwater is required to report drinking water quality incidents and events to the Regulator as per section 7 of the Information Notice for the approved DWQMP dated 30 May 2024 (see Table 2 above). The following section summarises information given to the Regulator detailing:

- Non-compliances with the water quality criteria for drinking water, and the corrective and preventive actions undertaken in response
- Water quality ‘events’ during the reporting period, including corrective and preventive actions
- Comments on the effectiveness of any preventive/control measures.

A summary of incidents and events at Seqwater’s treatment operations and SEQ Water Grid reportable to the Regulator is shown in Table 7. During the reporting period, Seqwater had 13 incidents and events that were considered ‘reportable’. There were no reportable physical or cyber security threats to the drinking water service. One of the reported events involved a failure to undertake sampling in accordance with the verification monitoring program that was discovered and reported to the Regulator after the reporting period and will be detailed in the 2025-2026 Drinking Water Service Annual Report. All incidents and events reported during the reporting period have been closed.

Ex-Tropical Cyclone Alfred significantly impacted Seqwater’s Operations due to widespread power outages and localised flooding. However, it did not result in loss of supply or any reportable drinking water quality incidents. Throughout the event, including the lead-up and aftermath, Seqwater actively managed regular communication updates between WSR, Queensland Health and the WSPs.

Reporting to Water Supply Regulation was completed within the required timeframes, with the exception of three events due to late verbal or written notification (see Section 3.1 for details).

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	28 of 43

Table 7 – Summary of incidents and events at Seqwater's treatment operations and SEQ Water Grid

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
DWI-507-24-11064	Capalaba WTP	9 July 2024	<p>Detection of parameters with no guideline value</p> <p>Routine waste residual (sludge) sampling was undertaken at Capalaba WTP on 20 May 2024, and the analysis results from the contracted NATA-accredited laboratory showed elevated PFAS chemicals in the sludge. To better understand these detections in the sludge, samples were collected from Capalaba WTP raw and treated water on 2 July 2024 and analysed for a suite of PFAS chemicals. Both samples recorded very low positive detections for 3 PFAS chemicals without guideline value, their concentrations in treated water being:</p> <ul style="list-style-type: none"> Perfluorobutane sulfonic acid (PFBS): 0.0006 µg/L Perfluoroheptanoic acid (PFHpA): 0.0003 µg/L Perfluorohexanoic acid (PFHxA): 0.0008 µg/L. <p>The three regulated PFAS chemicals – perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS) and perfluorohexane sulfonic acid (PFHxS) – were detected at levels below 5% of their respective ADWG health guideline values at the time of detection. PFAS health guideline values changed in the reporting period – these results remain below the current (as at the date of this report) health guideline values.</p>	Based on raw and treated water monitoring results, it is known that low PFAS concentrations reflect the typical source water quality for Capalaba WTP. Because of these low levels, the PFAS risk to treated water at Capalaba WTP remains rated as "Low". However, Seqwater has taken precautionary measures to include PFAS chemicals in the seasonal passive source water monitoring (beginning with the Summer 2024-2025 deployment) as well as monthly PFAS monitoring in raw and treated water at Capalaba WTP. The monitoring results will aid in characterising PFAS chemical concentrations in the source water, guide future monitoring needs, and drive water treatment improvements if required.
DWI-507-24-11141	Wivenhoe Dam WTP	2 August 2024	<p>Elevated free chlorine level</p> <p>On 2 August 2024, the recirculation pump for the secondary disinfection process at Wivenhoe Dam WTP began to fail whilst sodium hypochlorite dosing continued to operate. This caused the free chlorine level in the treated water reservoir to rise above the Critical Limit which set off a dial-out alarm to the WTP operator. Upon attending site, the free chlorine level was verified at 6.2 mg/L, and both the recirculation system and reservoir were isolated.</p> <p>The reservoir was partially drained to nearby lagoons whilst drinking water was supplied to site by water carting trucks until the free chlorine level in the reservoir had come down</p>	A new recirculation pump was installed the following week to reinstate the recirculation line, after which secondary disinfection and the pump performance were closely monitored. No performance issues or limit exceedances were observed in the following months. It was concluded that the immediate corrective actions, in combination with ongoing operator and maintenance inspections of the recirculation line and pumping arrangement,

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	29 of 43

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
			<p>to 3.8 mg/L. Flushing and testing was undertaken around the Wivenhoe Office to ensure that free chlorine levels were below the ADWG guideline value in all areas.</p> <p>There is no indication that any visitors or on-site staff consumed the affected drinking water prior to isolation of the reservoir. There are no downstream customers in the Scheme which only supplies to Seqwater recreation areas.</p>	were sufficient to ensure the protection of public health.
DWI-507-24-11249	Heinemann Road Reservoir 1	5 September 2024	<p>Loss of structural integrity</p> <p>During an internal ROV inspection of Heinemann Road Reservoir 1, conducted on 4 September 2024, a hole was identified in the box gutter on the inside of the reservoir roof. Upon receiving the inspection report on 5 September 2024, SCADA trends were observed to verify the free chlorine residuals in Heinemann Road Reservoirs as well as the nearby Mt Cotton Reservoir and Alexandra Hills Reservoirs. All results were within normal range, and monitoring of <i>E. coli</i> and total coliforms showed no detections.</p> <p>Operations and Maintenance staff attended site in the afternoon, and the reservoir was isolated from the network the same evening. It remains isolated until a full roof replacement is completed.</p>	<p>Replacement of the Heinemann Road Reservoir 1 roof is scheduled for 2026. After the roof is replaced, the reservoir will be disinfected and returned to service.</p> <p>Three reservoir inspection programs are currently in use for all Seqwater reservoirs: a 3-monthly external reservoir inspection, a yearly external UAV inspection, and a 3-yearly internal ROV inspection. Robust internal work order and risk management processes are in place to address any findings from these inspections. No further preventive measures are required at this stage.</p>
DWI-507-24-11300	(multiple)	27 September 2024	<p>Detection of parameters with no guideline value</p> <p>Between 10 and 24 September 2024 sampling of 50 source and raw water sites for PFAS was undertaken to further inform PFAS risk characterization. The main (reportable) result was the detection of Perfluorobutanoic acid (PFBA), a PFAS chemical with no guideline value at the time of analysis, in 42 out of the 50 samples taken. Due to the unexpected nature of these results, extensive resampling and retesting by two NATA-accredited laboratories were undertaken to verify the validity of the initial set of results. The second set of results showed:</p> <ul style="list-style-type: none"> No PFBA detects at any location Significant variation between results from different laboratories 	The PFAS risk to treated water at all Seqwater's WTPs remains rated as "Low". However, Seqwater has taken precautionary measures to include PFAS chemicals in the seasonal passive source water monitoring (beginning with the Summer 2024-2025 deployment) as well as monthly PFAS monitoring in raw and treated water at Capalaba WTP, Lowood WTP and Mt Crosby WTPs. The monitoring results will aid in characterising PFAS chemical concentrations in the source water, guide

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	30 of 43

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
			<ul style="list-style-type: none"> Low levels of PFAS chemicals with no guideline value detected: <ul style="list-style-type: none"> Perfluorobutane sulfonic acid (PFBS): 0.0006 µg/L (at Capalaba WTP) Perfluoroheptanoic acid (PFHpA): 0.0008 µg/L (at Capalaba WTP) Perfluorohexanoic acid (PFHxA): 0.002 µg/L (at Capalaba WTP) Perfluorobutane sulfonic acid (PFBS): 0.01 µg/L (at Image Flat WTP) Perfluoroheptane sulfonic acid (PFHpS): 0.003 µg/L (at Kilcoy WTP) Perfluorohexanoic acid (PFHxA): 0.0002 µg/L (at North Stradbroke Island WTP) <p>Additionally, two regulated PFAS chemicals, PFHxS and PFOS, were detected at Capalaba WTP and Ewen Maddock WTP at levels below 10% of their combined ADWG health guideline value at the time. PFAS health guideline values changed in the reporting period – these results remain below the current (as at the date of this report) health guideline values.</p>	changes in monitoring needs, and drive water treatment improvements if required.
DWI-507-24-11485	Capalaba WTP	17 November 2024	<p>Exceedance of ADWG health guideline value for total trihalomethanes</p> <p>Significant rainfall led to increased levels of natural organic matter in Leslie Harrison Dam, the source water for Capalaba WTP. Free chlorination of water containing elevated levels of organic carbon resulted in a peak in trihalomethane concentration. Routine monitoring from samples collected on 12 November 2024 recorded a total THM concentration of 0.24 mg/L. Further samples collected on 15 November 2024 recorded a total THM concentration of 0.26 mg/L, which was in exceedance of the ADWG health guideline value (0.25 g/L).</p> <p>Production from Capalaba WTP was downrated to the safest minimum flow rate while the flow from the SEQ Water Grid into the Redland zone was increased to meet demand. WTP processes such as coagulation and pre-filter chlorination were optimised for THM mitigation, and maximum Powdered Activated Carbon (PAC) dosing was reinstated. Increased communications with Redland City Council (RCC) allowed for regular targeted flushing of the RCC network to reduce disinfection by-product concentrations locally.</p>	Investigation of this incident resulted in a range of activities to improve removal of natural organic matter and to optimise chemical dosing.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	31 of 43

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
DWI-507-24-11507	Wivenhoe Dam WTP	25 November 2024	<p>Failure to undertake sampling in accordance with the verification monitoring program</p> <p>A weekly treated water verification sample from Wivenhoe Dam WTP scheduled for collection on 20 November 2024 could not be taken due to maintenance activities. Due to a failure in the sample rescheduling process, the sample was not rescheduled for collection later in the week. The other sample points in the water supply scheme were collected as per the verification monitoring program, and operational monitoring by the Operations team was also maintained.</p> <p>During the week the sample was missed, the rechlorination facility operated in accordance with its HACCP Plan and with all processes performing as expected. Plant monitoring trends confirmed no indication of out-of-specification processes or changes in treated water quality during this time.</p>	Internal procedures have been updated to ensure that missed samples are identified and actioned.
DWI-507-24-11554	Mt Crosby East Bank WTP	4 December 2024	<p>Temporary change of Critical Limit</p> <p>Heavy rainfall in the Mid-Brisbane River catchment impacted on source water quality for Mt Crosby WTPs. Release rates from Wivenhoe Dam were increased to dilute inflows from impacted catchment areas including Lockyer Creek. On 4 December 2024, the levels of organics present in the raw water started to impact on the performance of Mt Crosby East Bank WTP, specifically the coagulation-flocculation-sedimentation processes. Consequently, the filtered water turbidity increased across most filters to levels up to 0.25 NTU. To prevent WTP shutdowns and potential disruption to stability of the filtration process, the HACCP Critical Limit for filtered water turbidity was temporarily changed to 0.5 NTU for 30 minutes.</p> <p>During the day, both WTPs were downrated to achieve improved filtration performance, and jar testing was conducted to continuously optimise plant performance through organics removal. In the evening, filtration performance had slightly improved across the individual filters. The temporary filtered water turbidity Critical Limits remained in place while raw water conditions continued to be challenging. The WTP returned to its original limits on 10 December 2024. Throughout the event, individual filtered water turbidity</p>	Several pieces of resilience work are being implemented and planned for the WTPs on the Mid-Brisbane River with the aim of improving the robustness of treatment operations under various extreme weather conditions. One of these was the development of the new Mid-Brisbane River Water Quality Event Response Procedure which provides guidance to Water Quality staff and other stakeholders on managing dirty water events in the Mid-Brisbane River. Asset improvement projects are ongoing for long-term infrastructure improvements at Mt Crosby WTPs.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	32 of 43

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
			levels always remained below the original filtered water turbidity Critical Limit of 0.3 NTU, signifying no elevated risk to public health.	
DWI-507-24-11581	Lowood WTP	6 December 2024	<p>Failure to undertake sampling in accordance with the verification monitoring program</p> <p>A weekly treated water verification sample from Lowood WTP, scheduled for collection in the week of 14 August 2023, was not analysed for THMs, as required by the Verification Monitoring Program. The THM analysis was excluded from the sampling task by error due to multiple rescheduling of this task. Seqwater only became aware of this missed analysis event while analysing water quality data for the 2023-2024 Drinking Water Service Annual Report.</p> <p>It was concluded that the risk of high THM levels at the time of the missed analysis was very low considering the time of the year – favourable conditions for water treatment during calm winter weather – and the very low THM levels in the weeks before and after the missed sample.</p>	Since this event took place, several internal improvements have been implemented that decrease the risk of such events occurring. Cancellation and (re)submission of samples can now only be done by senior staff. Additionally, weekly comparisons between samples taken versus samples required have been put in place.
DWI-507-24-11657	Mt Crosby East Bank WTP	18 December 2024	<p>Temporary change of Critical Limit</p> <p>Further heavy rainfall in the Mid-Brisbane River catchment led to an event very similar to an event occurring two weeks prior. For details see incident number DWI-507-24-11554 above.</p> <p>For this event, filtered water turbidity Critical Limits were changed on 18 December 2024, and the WTP returned to its original limits the following day. During the event, individual filtered water turbidity levels always remained below the original filtered water turbidity Critical Limit of 0.3 NTU, signifying no elevated risk to public health.</p>	See incident number DWI-507-24-11554.
DWI-507-24-11781	Dayboro WTP	29 January 2025	<p>UV system communications failure</p> <p>On 28 January 2025, an operator discovered a UV system communications alarm at Dayboro WTP through the SCADA system. Upon investigation, it was noted that the SCADA system was showing the UV lamps as off, while the system continued to run without triggering a duty operator alert. The operator resolved the immediate issue by performing a reset, which restored normal UV system operation.</p>	The UV system at Dayboro WTP is designed to show lamps as offline on SCADA in case of a communications failure. However, the UV unit has a self-contained PLC that shuts the system down on actual lamp failures. This design has been documented by Seqwater control systems engineers, and WTP operators have been made

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	33 of 43

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
			The investigation proved that the UV system communications alarms resulted from a failure of the UV system's Monitoring/Status communication link only rather than a malfunction of the entire UV system. UV treatment had remained operational during the alarm events and there had not been any elevated risk to public health.	aware of it. Regularly provided drinking water quality training ensures sustained awareness.
DWI-507-25-11875	SEQ Water Grid	25 February 2025	Failure to undertake sampling in accordance with the verification monitoring program Following a worldwide supply shortage of field test ('Chemkey') consumables for the analysis of free ammonia, Seqwater had to prioritise the use of these Chemkeys at Water Treatment Plants and Water Quality Management Facilities where ammonia dosing takes place. As a result, a total of 56 free ammonia samples were missed in January 2025 at 44 SEQ Water Grid sample points located in chloraminated zones. Free ammonia sampling was resumed as per the Verification Monitoring Program in February 2025 following the delivery of a new batch of Chemkeys.	As a contingency, new sampling and analysis equipment, using a different technology than Chemkeys, were purchased to provide sufficient flexibility to continue to operate under the existing Verification Monitoring Program in case of future Chemkeys supply problems. All sampling staff have been trained to apply the alternative method.
DWI-507-25-11934	Lowood WTP	12 March 2025	Temporary change of Critical Limit Following the relocation of the pre-reservoir dosing points for lime and chlorine at Lowood WTP, a requirement related to the upgrade of the plant to include a UV Disinfection system, the WTP experienced frequent automatic shutdowns due to high dosed filtered water pH spikes. It was found that the new location of the lime dosing point was very close to the sample offtake for the online pH analyser and the inlet of the reservoir. This resulted in insufficient mixing prior to sampling for online monitoring and consequently in unstable reading of the online pH analyser. Treated water pH monitoring (at the outlet of the treated water reservoir) remained stable, demonstrating effective disinfection. To prevent unnecessary shutdowns that could disrupt important Critical Control Points such as Filtration and threaten continuity of supply, the HACCP Critical Limit for dosed filtered water pH was temporarily changed to pH 8.5. The change was successful in preventing unnecessary shutdowns and achieved stable WTP operation without increasing risk.	The lime dosing point has been moved to a more suitable location, improving lime mixing before the offtake to the online pH analyser. As a result, high pH spikes were no longer detected, which allowed for the restoration of the original dosed filtered water pH limits.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	34 of 43

Incident Number	Scheme / Location	Date Reported	Description of the Event / Incident	Improvements
DWI-507-25-11944	Somerset Dam WTP	18 March 2025	<p>Failure to undertake sampling in accordance with the verification monitoring program</p> <p>A weekly treated water verification sample from Somerset Dam WTP, scheduled for collection in the week of 3 March 2025, was not analysed on conductivity, which was not in line with the Verification Monitoring Program. The conductivity analysis was excluded from the sampling task due to a LIMS configuration error, which informed the sampler that conductivity analysis was not required.</p> <p>As Tropical Cyclone Alfred was about to make landfall in South East Queensland, the decision was made to prioritise personal safety and therefore not to reschedule the task for later in the week. Based on information about the performance of Somerset Dam WTP in the week of 3 March 2025 (e.g. online monitoring data, operational monitoring results, (absence of) reported incidents), it is highly unlikely that treated water conductivity would have been significantly different to any other week.</p>	<p>Learnings were taken from the Labware configuration problem, which will reduce the chance of the problem reoccurring.</p> <p>On the longer term, field sheets will be eliminated altogether in favour of direct entry into Labware using Labware Mobile.</p>

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	35 of 43

6. Audit of the Plans

6.1. Regular audits

Seqwater must audit its DWQMP at the intervals stated in an Information Notice provided under section 99 of the Act. The Information Notice for the approved DWQMP dated 30 May 2024 specifies the next regular audit of the DWQMP is to be completed by 1 March 2025. Further regular audits are required to be completed every five years from that date. Accordingly, the regular audit was undertaken in February 2025, through the engagement of Viridis Consultants Pty Ltd, who are Exemplar Global certified drinking water quality management system auditors. The auditor submitted the audit report to the regulator on 15 April 2025.

The scope of the audit was to:

- Verify the accuracy of monitoring and performance data provided to the regulator under the DWQMP
- Assess compliance with the DWQMP and its conditions
- Assess the relevance of the DWQMP to the drinking water service.

A summary of the auditor's conclusions includes:

- The audit objectives were completed successfully with a very high level of compliance noted
- There was no major non-conformance identified to indicate imminent threat to public health
- Seqwater has consistently demonstrated that the processes and procedures in place maintain safe drinking water
- Several opportunities for improvement (**OFI**) were identified during the audit. Most were related to enhancing documentation and record keeping, minor issues with aligning implementation of new systems and implementation of operational checklists.

A summary of the findings of the DWQMP regular audit and their corrective actions is shown in Table 8.

Table 8 – Summary of the findings of the DWQMP regular audit and their corrective actions

Item	Type	Corrective Action	Status	Responsible
Review the need for maintaining both the OCA platform and Protecht for drinking water quality incident management, and consider a process for closing out incidents in the different systems.	OFI	Discuss options and requirements with Emergency Management team	Completed in March 2025. Both platforms have their own unique features and purposes which justify using both.	Lead Drinking Water Quality
Review the effectiveness of the quarterly work order issued to each WTP to review SCADA set points against HACCP Plan.	OFI	Investigate options to verify SCADA limits against HACCP Plans	Completed in March 2025. Checks already in place at internal audits.	Drinking Water Quality team
Review the implementation of the Management of Water Quality Online Instruments Procedure to ensure the procedure is followed and actions are documented when tolerance levels	OFI	Investigate options to include supervisor verification of completed work orders for online analyser maintenance	Scheduled for March 2026	Maintenance Delivery team

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	36 of 43

Item	Type	Corrective Action	Status	Responsible
between water sample analysis results are exceeded.				
Document the process of monitoring and reviewing Improvement Actions identified in the DWQMP Risk Assessment Register.	OFI	Develop and apply the Water Quality Improvement Program	Scheduled for June 2026	Principal Water Quality
Review Noosa WTP HACCP Plan and HACCP Plan Wall Chart Procedure.	OFI	Correct misalignments regarding automated plant shutdowns in the relevant HACCP documents	Completed in April 2025	Drinking Water Quality Advisor
Assess the reservoir integrity of Heinemann Road Reservoir 3. A slightly loose roof sheet was noted.	OFI	Organise inspection and conduct repairs if required	Completed in April 2025. Inspection concluded that no repairs were required.	Maintenance Delivery team
Review the effectiveness of reservoir operational security checks including frequency.	OFI	Include reservoir hatch alarm checks in scheduled reservoir inspections	Completed in June 2025	Drinking Water Quality team
Review reservoir and WQMF operational checklists to include controlled document/procedure checks for version date and currency.	OFI	Investigate options for a simple controlled document management system for Network sites	Scheduled for June 2026	Network Operations team
Review WQMF operational checklists to include regular calibration reagent and standards checks for expiry.	OFI	Update weekly Site Inspection checklist	Scheduled for March 2026	Maintenance Delivery team

6.2. Audits – water treatment and SEQ Water Grid operations

6.2.1. Internal audits – HACCP and Integrated Management System audits

Internal audits were conducted throughout the year in accordance with Seqwater's HACCP and Integrated Management System audit schedules. The scope of the internal audits includes the relevant site's HACCP Plan, wall chart procedure (incorporating the CCPs), operational monitoring plan, and operator and maintenance records. It includes verification of the HACCP flow diagram and process flow schematics by the HACCP Team Leader and available operational staff from the HACCP team. Internal audits have been conducted at 32 WTPs and SEQ Water Grid sites in the reporting period.

All major and minor non-conformances and opportunities for improvement are delivered through engagement with Operations staff and the use of Seqwater's electronic document and record management systems.

6.2.2. External audits – ISO 22000 audits

Seqwater has integrated the AS NZS/ISO 22000:2018 Food Safety Management Systems standard into the DWQMP. Many of the requirements of the standard are consistent with, or similar to, the elements in the DWQMP,

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	37 of 43

which is based on the ADWG Framework. This standard promotes greater commitment from all parts of the business during DWQMP implementation and ensures the DWQMP becomes part of the Integrated Management System (i.e. the combination of the certified ISO 9001, ISO 14001, ISO 22000 and ISO 4500 systems implemented by Seqwater).

During the reporting period, Seqwater completed a three-yearly recertification audit against ISO 22000 conducted by its contracted third-party independent auditor and achieved recertification. The scope of certification was expanded with inclusion of the Ewen Maddock and Kilcoy WTPs to the existing scope of Seqwater’s DWQMP and its other major operational sites including Mt Crosby East Bank and West Bank, Capalaba, North Stradbroke Island, Molendinar, Mudgeeraba, Landers Shute, North Pine, Noosa, Image Flat, Boonah-Kalbar and Lowood WTPs as well as the SEQ Water Grid (i.e. network control room and all operational sites).

6.2.3. External audits – Regulated Fluoridation Systems audits

Seqwater participates in regulatory fluoride audits every two years. Each WTP that contains a fluoridation plant is checked for compliance with the current *Queensland Water Fluoridation Code of Practice* by the Health Regulator (the respective Public Health Unit). Regulatory fluoride audits have not been conducted in the 2024-2025 reporting period.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	38 of 43

7. Regular review of the DWQMP

Pursuant to section 7.6 of the Information Notice for the approved DWQMP dated 30 May 2024, Seqwater is required to complete the next review of its DWQMP before 1 July 2025. The DWQMP review was conducted by stakeholders relevant to each element of the DWQMP. The elements, or sections of the DWQMP, are based on the 12 Elements of the *Framework for Management of Drinking Water Quality* outlined in the ADWG. Seqwater's site-specific HACCP Plans and appendices to the DWQMP were also subject to review through continuous improvement programs. This included:

- Risk assessments for WTPs and the SEQ Water Grid
- Critical Limits and risk improvements through HACCP team meetings regularly held across all operational sub-regions
- Incident investigations
- Internal site audits to assess the accuracy and implementation of HACCP Plans.

7.1. Review of and improvements to the drinking water quality management system

The review of the DWQMP was completed by Senior Water Quality staff in the Drinking Water Quality team and consisted of a review of the currency of the material.

Major changes of note:

- Section 1 – Significant update to reflect recent updates of Seqwater's Risk Appetite and Enterprise Risks.
- Section 2 – Introduction of Mid-Brisbane River Water Quality Event Response Procedure
- Section 2 – Significant update of the Water Quality Risk Assessment Methodology following the recent update of Seqwater's Enterprise Risk Management Framework and Risk Appetite Statement
- Section 9 – Various updates to research and innovation project names that are currently in progress
- Section 9 – Updates to referenced procedures and other documents regarding engineering design
- Section 12 – Update to reflect change from 3-yearly to yearly DWQMP regular review
- Section 12 – Introduction of the Asset Risk Management Approach (ARMA), the new process for capturing and processing emerging asset risks
- General – Replacement of DRDMW with DLGWV
- General – Acknowledgement of and alignment with ADWG version 4 (June 2025)
- General – Updates of Seqwater position and group names
- General – Several efforts to reduce overlap with existing procedures
- General – Introduction of Protecht replacing Risk Wizard and iAuditor, and of MainPac replacing CIS

The review of the DWQMP was completed on 30 June 2025 and outlined the significant progress Seqwater has made in improving its drinking water quality management system. In accordance with section 107(2) of the Act, Seqwater submitted an application to amend the DWQMP to reflect the changes identified through the review on 11 August 2025 – within 30 business days of its completion. The details of the changes made were provided with the amended DWQMP to WSR in the Register of Changes to DWQMP, HACCP Plans and procedures (see

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	39 of 43

Enclosure 4). Any amendments approved by the Regulator resulting from this review will apply to the 2025-2026 reporting period and are not applicable to this report.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	40 of 43

8. Glossary

Term	Definition
Act	<i>Water Supply (Safety and Reliability) Act 2008 (Qld)</i>
ADWG	<i>Australian Drinking Water Guidelines 2011</i> , National Health and Medical Research Council, Commonwealth Government of Australia, Canberra
CCP	Critical Control Point
DWQIP	Drinking Water Quality Improvement Plan
DWQMP	Drinking Water Quality Management Plan
HACCP	Hazard Analysis Critical Control Point. A food safety management system based on a set of guiding principles, known as HACCP Principles or Codex Alimentarius.
Head Office	Level 8, 117 Brisbane Street Ipswich Queensland 4305
ISO 17025	AS ISO/IEC 17025:2018 General requirements for the competence of testing and calibration laboratories. International standard for laboratory quality.
ISO 22000	AS NZS/ISO 22000:2018 Food Safety Management Systems. International standard for food safety.
LIMS	Laboratory Information Management System
MOSS	Monthly Operating Supply Schedule
NATA	National Association of Testing Authorities
oPRP	Operational Pre-requisite program
PAC	Powdered Activated Carbon
PFAS	Per- and Polyfluoroalkyl Substances, a group of man-made, highly resistant chemicals
PFBA	Perfluorobutanoic Acid, a type of PFAS chemical
PFHxS	Perfluorohexane Sulfonic Acid, a type of PFAS chemical
PFOS	Perfluorooctane Sulfonic Acid, a type of PFAS chemical
PHR	<i>Public Health Regulation 2018 (Qld)</i>
PRP	Pre-requisite program – terminology from ISO22000:2018 (section 8.2) that refers to programs that facilitate the prevention and/or reduction of contaminants (including food safety hazards) in the products, product processing and work environment.
RCC	Redland City Council
Regular audit	An audit conducted in accordance with section 99(2)(c) of the Act.
Regular review	A review conducted in accordance with section 99(2)(b) of the Act.

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	41 of 43

Term	Definition
Regulator	Department of Local Government, Water and Volunteers, Water Supply Regulation (WSR) (i.e., the Director-General of DLGWV) is responsible for regulating water service provider performance and drinking water quality ¹
Report	Drinking Water Service Annual Report
REX	Seqwater's document and electronic records management system
ROV	Remote Operated Vehicle
SCADA	Supervisory Control and Data Acquisition system. Human to Process software interface.
SEQ Water Grid	Bulk water supply network throughout South East Queensland, previously named the Bulk Distribution Network and formerly operated by LinkWater. Also known as Supply System.
Seqwater	Queensland Bulk Water Supply Authority
SPID	Service Provide Identification – issued by Water Supply Regulation
Supply System	Also known as SEQ Water Grid
SWP	South West Pipeline
TDS	Total Dissolved Solids
UAV	Unmanned Aerial Vehicle
UV	Ultraviolet
UVT	Ultraviolet Transmittance
WQMF	Water Quality Management Facility
WSP	Water Service Provider (Urban Utilities, Unitywater, City of Logan, Redland City Council and City of Gold Coast)
WSR	Water Supply Regulation – Department of Local Government, Water and Volunteers (formerly Department of Regional Development, Manufacturing and Water) ¹
WTP	Water Treatment Plant

¹ As part of the machinery-of-government changes, effective 1 November 2024, the Department of Regional Development, Manufacturing and Water was renamed the Department of Local Government, Water and Volunteers

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	42 of 43

9. Enclosures

Enclosure	Name
1a	Verification Monitoring 2024-2025 – Water Quality Data Report (REX ID: D25/234616)
1b	Verification Monitoring 2024-2025 – Water Quality Data from Offline SEQ Water Grid Sampling Points (REX ID: D25/234615)
2a	Catchment and Drinking Water Quality Micro Pollutant Monitoring Program – QAEHS Passive Sampling Winter 2024 Report (REX ID: D25/234612)
2b	Catchment and Drinking Water Quality Micro Pollutant Monitoring Program – QAEHS Passive Sampling Summer 2025 Report (REX ID: D25/234610)
3	Drinking Water Quality Improvement Plan (DWQIP) (REX ID: D25/234608)
4	Register of Changes to DWQMP, HACCP Plans and Procedures - 2024-2025 (REX ID: D25/234607)

Version No.	Document No.	Document Owner:	Approval Date:	Document Approver:	Page:
1	D25/234628	Principal Water Quality	11/12/2025	Manager Technical Support and Improvement	43 of 43