



Hunter Water – 2024 compliance report

Report to the Minister

March 2025

Water >>



Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Tribunal Members

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The Independent Pricing and Regulatory Tribunal

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Summary

We have prepared this report for the Minister for Water (Minister) on Hunter Water Corporation's (Hunter Water) compliance with the Hunter Water operating licence 2022-2027 (licence) over the 2023-24 compliance period (i.e. from 1 November 2023 to 31 October 2024).

IPART is responsible for monitoring Hunter Water's compliance with its licence and reporting our findings to the Minister.¹ We primarily do this through annual audits of Hunter Water's compliance with its licence.^a We engaged Bligh Tanner Pty Ltd (Bligh Tanner) to complete the 2024 audit.

Hunter Water demonstrated a high level of compliance with its licence over the compliance period. Hunter Water was forthcoming and cooperative throughout the audit process, demonstrating a strong culture of commitment to compliance to deliver safe and reliable water services.

Hunter Water demonstrated substantial improvements to its document management obligations to address previous shortcomings and non-compliances. This was evident in Hunter Water's compliance against its obligation to implement its Quality Management System (QMS).

We make 5 recommendations to address the audit findings

The 2024 audit considered Hunter Water's compliance with 25 licence clauses. Hunter Water self-reported a non-compliance against one of the clauses.^b We tested Hunter Water's compliance with the other 24 clauses and assessed Hunter Water as compliant with 17 of those clauses. Three audited clauses were assigned a "no requirement" grade as the obligations were not triggered during the compliance period.^c

We assigned Hunter Water a non-compliant (non-material) grade against 2 clauses related to implementation of its Asset Management System (AMS) and its reporting obligations under its Reporting Manual². We make the following recommendations for Hunter Water to rectify the non-compliances:

- **2024-4-21(2):** By 30 June 2025, consider the process for deferring the requirements under the Asset Management System in exceptional circumstances and in consultation with the relevant stakeholders. Options that could be considered include update of the relevant documentation to specify who has approval authority to defer requirements, or clarification of the relevant business process to be used for management of planned deviation from approved procedure or process (also known as temporary change). This could fit within the non-conformance report process, the change management process or be a standalone process.

^a Our reports to the Minister on Hunter Water's compliance with its licence over the 2022-2027 licence term are published on our [website](#).

^b We consider Hunter Water was non-materially non-compliant with the relevant obligation.

^c The compliance grades are in Appendix B.

- **2024-5-21(2):** By 30 June 2025, review existing business processes for assigning work priorities following reservoir inspections and if necessary, undertake training of the staff involved in these processes to ensure that reservoir defects are prioritised appropriately and addressed in a timely manner.

We also assigned Hunter Water compliant (minor shortcomings) grades for 3 clauses related to implementation of its Drinking Water Quality Management System (DWQMS), Recycled Water Quality Management System (RWQMS) and the water continuity standard.^d We make the following recommendations for Hunter Water to rectify the minor shortcomings:

- **2024-1-15(3):** By 30 June 2025, ensure that all identified responsibilities under the DWQMS have an owner.
- **2024-2-16(3):** By 31 December 2025, review all recycled water end user agreements for currency and suitability, and where required update the agreements.
- **2024-3-17(1):** By 30 June 2025, update the query used to extract the water continuity standard data to ensure that the known number of customers impacted is accurately reported and compliance with the standard can be demonstrated.

We also identified 11 opportunities for improvement (OFI) throughout the audit. The purpose of identifying these OFIs is to highlight improvement opportunities in Hunter Water's systems and business processes where current operations may not align with industry best practice. However, we note that there is no requirement for Hunter Water to implement them.

Hunter Water self-reported one non-compliance

In its annual statement of compliance, Hunter Water self-reported a non-compliance against the requirement to comply with reporting obligations set out in its Reporting Manual.^e

Under its Reporting Manual, Hunter Water must submit a quarterly exception report to NSW Health if it does not meet the water quality performance standards under part 3 of its licence.³ Hunter Water identified that it had submitted a quarterly report to NSW Health 5 days late due to human error.^f Hunter Water rectified the issue once it became aware of it, and came into compliance with the obligation in November 2023. Hunter Water has also implemented a new automated computer software system to prevent reoccurrence. We therefore make no recommendation with respect to the non-compliance.

We consider this non-compliance was non-material as the late submission did not cause any service disruption and there was no identified impact to customers.

^d The water continuity standard sets out the minimum requirements for unplanned water interruptions.

^e Clause 39 of the Licence requires Hunter Water to comply with all reporting obligations set out in the Reporting Manual.

^f The report was due to NSW Health on 11 November 2023. Hunter Water submitted the report to NSW Health on 15 November 2023.

Most recommendations from previous years have been completed

We checked Hunter Water's progress in addressing 15 recommendations from previous audits and determined that Hunter Water completed 14 of the recommendations. One recommendation, related to Hunter Water's drinking water supply agreement with MidCoast Council, is ongoing.

The 2021 audit identified that Hunter Water's water supply agreements with Central Coast Council and MidCoast Council were out of date.⁴ We identified that Hunter Water should review and revise both agreements. In our 2023 audit report, we noted that Hunter Water had reviewed and updated its agreement with Central Coast Council.⁵

The 2024 audit found that Hunter Water has significantly progressed its review of the water supply agreement with MidCoast Council. The parties have prepared a draft agreement reflecting the amendments requested by both parties. However, Hunter Water noted that it is waiting for MidCoast Council to sign the amended agreement. We will follow-up on the status of the recommendation at the next audit.

1 Our recommendations and findings

1.1 Hunter Water's audit findings in 2023-24

In 2024, we audited Hunter Water's compliance against 24 clauses of its 2022-2027 operating licence (licence). The full audit scope is set out in Appendix A.^a

Hunter Water was compliant with 17 clauses which impose requirements related to:^b

- maintaining and implementing a water conservation work program that considers the [NSW Water Efficiency Framework](#) (clauses 12(1), 12(2), 12(4) and 12(5))
- developing a drought response plan that considers the strategic context of the [Lower Hunter Water Security Plan](#) (clauses 14(3) and 14(4))
- meeting performance standards Hunter Water in relation to water pressure and dry weather wastewater overflow, and using the best available data to determine if a property has experienced an unplanned water interruption (clauses 17(3), 18(1) and 19(1))
- implementing environmental and quality management systems (clauses 22(2) and 23(2))
- maintaining and complying with memoranda of understanding with NSW Health, NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) and Fire and Rescue NSW (FRNSW) (clauses 32, 33 and 34)
- providing information and services Hunter Water to competitors who provide or seek to provide water services to customers in Hunter Water's area of operations (clauses 35, 36(2) and 37(1)).

Three clauses were assigned a "no requirement" grade as the obligations were not triggered during the compliance period. For the remaining 5 clauses, we assigned Hunter Water non-compliant (non-material) or compliant (minor shortcomings) grades.

We summarise the non-compliances and minor shortcomings and our recommendations for Hunter Water to rectify them in Table 1.1. These recommendations seek to resolve non-compliances and shortcomings with Hunter Water's implementation of its asset management and water quality management systems, and its process for calculating compliance with the water continuity standard.

The auditor identified 11 opportunities for improvement for Hunter Water's consideration. We request that auditors suggest OFIs where current operations may not align with industry or international best practice. The purpose of identifying OFIs is to highlight improvement opportunities identified at the audit. However, we note that there is no requirement for Hunter Water to implement them. The OFIs identified at this audit related to audit observations around performance standards for water quality and implementing management systems. The opportunities for improvement are detailed in the executive summary of the auditor's report in Appendix E.

^a The auditor's report is in Appendix E.

^b We assign 5 compliance grades reflecting a utility's compliance with its licence requirements including compliant, compliant (minor shortcomings), non-compliant (non-material), non-compliant (material) and no requirement. These grades are listed in Appendix B and explained in our [Public Water Utility Audit Guideline](#).

1.2 Annual Statement of Compliance

We have also considered Hunter Water's annual Statement of Compliance (Appendix C) in preparing this report. The Statement of Compliance is an exception-based report, certified by Hunter Water's Managing Director and Chair of the Board of Directors.^c It provides details of any self-identified non-compliances and explains what remedial action Hunter Water has taken, or is taking, to resolve the non-compliances.

Hunter Water reported one non-compliance with clause 39(2) of the licence during the compliance period. The clause requires Hunter Water to comply with any reporting obligations set out in the Reporting Manual⁶, including performance standards for water quality. Section 3.1.2 of the Reporting Manual requires Hunter Water to submit a quarterly report to NSW Health if water quality performance standards are not met.

Hunter Water submitted a quarterly report to NSW Health 5 days late. Hunter Water identified human error as the cause of the non-compliance. We provide more detail in Table 1.1. The late submission did not cause any service disruption and there was no identified impact to customers.


We do not make any recommendations to address this non-compliance as Hunter Water undertook corrective action once it became aware of the delay and subsequently updated its reporting processes to prevent a reoccurrence of the incident. We will consider Hunter Water's compliance against this obligation at a future audit.


1.3 Non-compliances and minor shortcomings identified in the 2023-24 compliance period


Table 1.1 provides details of the non-compliances and minor shortcomings identified in the compliance period.



^c The 2024 Statement of Compliance was signed by the interim Chair of the Board of Directors.

Table 1.1 Non-compliances and minor shortcomings identified in the 2023-24 compliance period

Licence clause	Identified non-compliance or minor shortcoming	Audit grade	Recommendation # ^a
<p>Clause 15(3) Hunter Water must fully implement the Drinking Water Quality Management System and carry out all relevant activities in accordance with the Drinking Water Quality Management System, and to the reasonable satisfaction of NSW Health.</p>	<p>We have assigned Hunter Water a compliant (minor shortcomings) grade for clause 15(3). This agrees with the auditor's findings.</p> <p>Hunter Water has largely implemented its drinking water quality management system. We identified a minor shortcoming against element 1 of the Australian Drinking Water Guidelines. Element 1 of the guidelines sets out the requirements for Hunter Water to demonstrate its commitment to drinking water quality management, including the identification and documentation of all relevant regulatory and formal requirements.</p> <p>The shortcoming identified related to Hunter Water's documentation in assigning responsibility for managing regulatory obligations. The audit identified that Hunter Water's Drinking Water Quality Framework Matrix of Responsibilities contained a gap, where responsibility for the <i>Naegleria fowleri</i> monitoring program was not assigned an 'owner'. Hunter WaterWe consider this was a minor shortcoming as Hunter Water's Drinking Water Quality Assurance Lead continued to monitor the relevant parameters appropriately, in practice, throughout the compliance period.</p> <p>This shortcoming did not impact Hunter Water's ability to supply safe and reliable drinking water, nor did it result in adverse public health outcomes, during the compliance period.</p>	<p> Compliant (minor shortcomings)</p>	<p>2024-1-15(3)^b</p>

Licence clause	Identified non-compliance or minor shortcoming	Audit grade	Recommendation # ^a
<p>Clause 16(3) Hunter Water must fully implement the Recycled Water Quality Management System and carry out all relevant activities in accordance with the Recycled Water Quality Management System, and to the reasonable satisfaction of NSW Health.</p>	<p>We have assigned Hunter Water a compliant (minor shortcomings) grade for clause 16(3). This agrees with the auditor's findings.</p> <p>Hunter Water has largely implemented its recycled water quality management system. We identified one minor shortcoming related to end user awareness and training.</p> <p>The shortcoming identified related to Hunter Water's formal communication with recycled water end users regarding the responsible use of recycled water. Hunter Water has agreements with recycled water end users. However, the audit identified that the agreement with Waratah Golf Club expired in 2020 and despite an extension to 2021, a new agreement is yet to be signed. At the audit, Hunter Water demonstrated that it had arranged for and undertaken site inspections, demonstrating that Hunter Water has continued to engage with end users as expected in the absence of a valid agreement. Further, Hunter Water informed us that it sent Waratah Golf Club a letter indicating that the expired agreement was to remain in force until a revised agreement is entered into.</p> <p>We note that the audit also identified that it had not entered into an agreement with Lake Macquarie City Council (LMCC) during the compliance period. We consider that this shortcoming did not impact public health as LMCC is not yet receiving recycled water. Further, LMCC has been involved in early risk workshops with Hunter Water and will be expected to implement preventative measures prior to Hunter Water supplying recycled water. We anticipate that the relevant agreement will be implemented in response to the recommendation.</p> <p>This shortcoming did not impact Hunter Water's ability to provide safe and reliable recycled water, nor did it result in adverse public health and environmental outcomes, during the compliance period.</p>	 Compliant (minor shortcomings)	2024-2-16(3)

Licence clause	Identified non-compliance or minor shortcoming	Audit grade	Recommendation # ^a
<p>Clause 17(1) Hunter Water must ensure that, in each financial year, at least 9,619 per 10,000 Properties (in respect of which Hunter Water provides a Drinking Water supply Service) receive a Drinking Water supply Service unaffected by an Unplanned Water Interruption (the Water Continuity Standard).</p>	<p>We have assigned Hunter Water a compliant (minor shortcoming) grade for clause 17(1). This agrees with the auditor's findings.</p> <p>Hunter Water correctly reported that it did not breach the water continuity standard during the audit period, but the method used to underpin the assessment was not accurate. We identified a minor shortcoming against Hunter Water's methodology for calculating the water continuity standard.</p> <p>Hunter Water's calculation of the water continuity standard did not include a small number of customers who should have been included in the calculation. We consider this a minor shortcoming, as although the original value provided to IPART was incorrect, upon recalculation Hunter Water confirmed it still met the standard during the compliance period. Further, there was no impact to customers owing to the miscalculation. Hunter Water updated its methodology for calculating the standard and provided the corrected value during the audit.</p> <p>This shortcoming did not impact Hunter Water's ability to provide safe and reliable drinking water, nor did it result in adverse public health and environmental outcomes, during the compliance period.</p>	 <p>Compliant (minor shortcomings)</p>	<p>2024-3-17(1)^b</p>

Licence clause	Identified non-compliance or minor shortcoming	Audit grade	Recommendation # ^a
<p>Clause 21(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System</p>	<p>We have assigned Hunter Water a non-compliant (non-material) grade for clause 21(2). This agrees with the auditor's findings.</p> <p>We identified the following deficiencies which resulted in a non-compliant (non-material) grade:</p> <ul style="list-style-type: none"> Hunter Water did not undertake an annual risk driver review as require under its Enterprise Risk Management (ERM) Framework as referenced in its Asset Management System. We understand that Hunter Water is undertaking a wider review of it risk taxonomy, including risk appetite. Following internal review by the Audit and Risk Committee, Hunter Water considered it appropriate to postpone the risk driver review until after the risk taxonomy work was completed. However, the ERM Framework as referenced in the Asset Management System requires that the 'risk driver review is to be conducted at least annually' and did not specify that the review could be postponed. A reservoir integrity issue was not prioritised for repairs in accordance with the Asset Management System. A 3-month response time was assigned to the issue instead of 14 days, due to human error. Hunter Water demonstrated that the repair work was undertaken within 15 days of issue identification. <p>We consider that these non-compliances are non-material as:</p> <ul style="list-style-type: none"> The postponement of the annual risk driver review from November 2024 to March 2025 does not mean that there is an elevation of risk profile that could affect Hunter Water's ability to manage its assets, and no evidence was sighted during the audit of new risks that had not been assessed. Hunter Water responded to the reservoir integrity issue within 15 days (i.e. one day late). The one-day delay did not result in significant risk associated with Hunter Water's management of its assets. 	 Non-compliant (non-material)	2024-4-21(2) 2024-5-21(2)
<p>Clause 39(2) Hunter Water must comply with all of its reporting obligations set out in the Reporting Manual, including in relation to: ... (b) performance standards for water quality ...</p>	<p>We have assigned Hunter Water a non-compliant (non-material) grade for clause 39(2). This agrees with Hunter Water's statement of compliance.</p> <p>Hunter Water self-reported a non-compliance against its obligation to report water quality performance standards in line with section 3.1.2 of its Reporting Manual. Hunter Water submitted a quarterly exception report to NSW Health 5 days late. Hunter Water identified that the cause of the non-compliance was human error. The person responsible for preparing quarterly exception reports had changed during the reporting period and the task had not been fully handed over. The system used to manage reporting obligations, at that time, required manual changes to responsibilities. Hunter Water undertook the following corrective action once it became aware of the non-compliance:</p> <ul style="list-style-type: none"> informed NSW Health of the delay and submitted the report implemented an automated computer software system to prevent recurrence of the incident. <p>We consider this is a non-material non-compliance as the late submission did not cause any service disruption and there was no identified impact to customers.</p>	 Non-compliant (non-material)	We make no recommendation as Hunter Water already addressed its own finding.

a. The recommendation numbers do not necessarily match the numbers in the auditor's report.
 b. Hunter Water informed us that it has implemented this recommendation prior to finalisation of this audit report.

1.4 Progress against completing previous recommendations

We reviewed Hunter Water's progress against completing 15 previous recommendations to rectify non-compliances or minor shortcomings identified at previous audits. Hunter Water has completed 14 of the 15 recommendations. We have summarised the ongoing recommendation in Table 1.2 below.^j Hunter Water will continue to be compliant with minor shortcomings against this clause until the recommendation is completed. We will audit the ongoing recommendation at the next audit, along with any new recommendations made in response to non-compliances or shortcomings identified at this year's audit.

Table 1.2 Ongoing recommendation to rectify minor shortcoming identified at previous audit

Ongoing recommendation	Reason why recommendation is not complete	Identified non-compliance or minor shortcoming	Licence clause	Audit grade ^a
2021-1: By 31 March 2023, Hunter Water must undertake a review and revise both the MidCoast Council and the Central Coast Council water supply agreements, with particular attention to quality, quantity, maintenance, operations and ownership aspects.	<p>A new agreement with Central Coast Council has been signed and was included in our 2023 Report to the Minister.</p> <p>The agreement with MidCoast Council has been drafted. MidCoast Council have yet to sign the revised agreement. Hunter Water is actively working towards a resolution. We anticipate that Hunter Water will complete this recommendation by 30 June 2025.</p>	<p>Under element 4 of the ADWG, Hunter Water must develop and document monitoring protocols for operational performance of the water supply system.</p> <p>At the 2021 audit, we identified that Hunter Water's agreements with MidCoast Council and Central Coast Council were old (19 years and 15 years respectively). The auditor observed shortcomings related to:</p> <ul style="list-style-type: none"> accuracy for water quality specifications out of date references. 	Clause 15(1) ^b Performance standards for water quality – Drinking Water – consistency with the Australian Drinking Water Guidelines	 COMP (MS)

a. The 'audit grade' reflects the audit grade assigned at a previous audit.

b. This recommendation relates to clause 3.1.1 of the 2017-2022 operating licence.

1.5 Inputs to the audits and our compliance monitoring

The auditor's report, which details all the auditor's findings, is in Appendix E. We also audited some parts of the licence ourselves – our findings are explained in Appendix F.

We also considered the following in our assessment of Hunter Water's compliance:

- An annual statement of compliance (Appendix C). Hunter Water must provide this to us under part 6.1.1 of the Hunter Water 2022-2027 reporting manual.
- Any relevant reports that Hunter Water submits to us on its compliance with its licence as required under the reporting manual.
- Any confidential feedback from stakeholders on Hunter Water's compliance with its licence during the compliance period.

^j Some of the recommendations were completed after the end of the audit period, but prior to the auditor's final report (discussed in section 3 of the auditor's report in Appendix E). We consider those recommendations are closed.

2 Hunter Water's compliance over the licence term

The 2024 audit was the third audit of the 2022-2027 operating licence. Hunter Water has demonstrated a high level of compliance over the term of its licence so far. This chapter summarises the obligations which Hunter Water has received less than full compliance against over the term of the 2022-2027 licence.

We provide a year-on-year comparison of Hunter Water's audit findings that are either non-compliant or have minor shortcomings in Table 2.1. This comparison only includes obligations where we have found Hunter Water to be non-compliant or have minor shortcomings at least once during the licence term. It does not include gradings for obligations where Hunter Water demonstrated full compliance in all the audits over the licence term. This table highlights the areas where rectification efforts have been needed to address the non-compliances or minor shortcomings.

Table 2.1 Comparative record of non-compliant findings for the 2022-2027 licence

Licence clause	Requirement	Compliance grade		
		2022 ^a	2023 ^b	2024
15(3)	Performance standards for water quality – drinking water – implementation			
16(1)	Performance standards for water quality – recycled water – consistent with AGWR and NSW Health requirements			-
16(3)	Performance standards for water quality – recycled water – implementation			
17(1)	Performance standards for service interruptions – water continuity standard	-	-	
21(2)	Organisational systems management – AMS – implementation			
23(2)	Organisational systems management – QMS – implementation	-		
25(1), (3) & (4)	Customer and stakeholder relations – provision of information to Customers and the general public – pamphlets at least annually with bills			-
27(1)	Customer and stakeholder relations – Assistance options for payment difficulties and actions for non-payment – maintain and implement			-
39(2)	Performance monitoring and reporting – reporting as set out in the Reporting Manual			

Audit grades: Compliant; Compliant (minor shortcomings); Non-Compliant (non-material)

Sources: (a) IPART, *Hunter Water's compliance with its operating licence 2022-2023 – Report to the Minister*, June 2023.
 (b) IPART, *Hunter Water's compliance with its operating licence 2023-2024 – Report to the Minister*, March 2024.

Appendices

A 2024 audit scope

2024 operational audit scope Hunter Water Corporation

This document sets out the 2024 operational audit scope for Hunter Water Corporation (Hunter Water).

We undertake annual audits of Hunter Water's compliance with its operating licence 2022-2027 (licence). We report to the Minister for Water on Hunter Water's compliance and the annual audits inform this report.

We have engaged Bligh Consulting Pty Ltd (auditor) to partner with us in delivering the 2024 audit.

Compliance period

The compliance period for the 2024 audit is from 1 November 2023 to 31 October 2024.

Audit scope

Licence clauses to be audited

Table 1 sets out the licence clauses that are included in the 2024 audit scope and identifies which clauses the auditor has checked versus those that we (IPART) have checked.

We do not audit Hunter Water's compliance with all licence clauses annually. We adopt a risk-based audit approach to deciding which licence clauses should be included in the annual audit scopes. This means that we audit 'high risk' clauses more frequently and 'low risk' clauses less frequently but aim to audit all auditable licence clauses at least once over the term of the licence.

Our risk-based approach centres around evaluating the risk that each part of our regulatory function aims to reduce. We evaluate risks by considering the likelihood of harm occurring in the absence of our regulatory controls and the potential consequence of that harm. We then consider how likely it is that a regulated entity will not properly implement a regulatory control. We identify and document historical, current and emerging risks. This allows us to allocate resources proportionately to the risk and complexity of a regulated entity and its behaviours.

Auditing ongoing recommendations from previous audits

Table 2 sets out ongoing audit recommendations from previous audits for Hunter Water to rectify non-compliances. The auditor must review these recommendations to assess Hunter Water's progress in completing them by their due dates.

Input from government agencies

We consult with government agencies that Hunter Water has regulated relationships with under the licence to inform the audit scope. For the 2024 audit, we have received feedback from the Department of Climate Change, Energy, the Environment and Water (DCCEEW), Fire and Rescue NSW (FRNSW), and the Hunter New England Local Health Department (LHD) on behalf of the Chief Health Officer NSW Health about Hunter Water's performance during the compliance period.

Input from Hunter Water's statement of compliance

Hunter Water provides a Statement of Compliance (SC) by 1 September each year. The 2024 SC has informed the audit scope.

The SC is an exception-based report that outlines any non-compliances with the licence during the previous financial year that Hunter Water has self-identified. The financial year is different to the compliance period. The SC also identifies what remedial action Hunter Water has taken to rectify these non-compliances.

The audit process

We conduct audits in accordance with the [Public Water Utility Audit Guideline](#). The 2024 audit process involved:

- receiving and reviewing reports
- undertaking and attending audit interviews with Hunter Water staff
- undertaking field verification to investigate how effectively the requirements of the licence are met in practice.

Table 3 lists the locations that we visited in previous audits that have informed how we have selected sites for visiting in 2024. We select these sites together with the auditor, incorporating feedback from NSW Health. We then liaise with Hunter Water before the field verification visits are scheduled to commence to consider any practical limitations.

Interpreting the audit scope in Table 1

We explain below how to use and interpret the audit scope in Table 1.

Key for interpreting the audit scope in Table 1

Requirement	Meaning
Audit/Internal IPART check	Audit/ check clause in 2024 audit
SC	This clause is not included in the 2024 audit scope. Hunter Water is still required to report any non-compliances against this clause in its Statement of Compliance. This information has input into the final 2024 audit scope.
NR	No requirement for audit.

Guidance for the auditor

Auditors should note any directions in the 'guidance for the auditor' column of Table 1.

This guidance identifies the evidence we generally expect Hunter Water to provide to confirm that it has complied with each clause of the licence. The auditor should assess that Hunter Water has provided this information when determining its compliance with the licence. However, certain conditions could be satisfied by other or different evidence – auditors should always exercise their discretion in assessing whether the evidence establishes compliance with the licence condition.

The guidance for the auditor also includes other information to assist the auditor in determining Hunter Water's compliance with its licence, such as Hunter Water's historical compliance with licence clauses in the audit scope and inputs from other stakeholders.

Operating licence objectives

The operating licence objectives in Table 1 identify the objectives for each licence clause in the audit scope. When assessing Hunter Water's compliance with the licence, the auditor should consider any shortcomings or non-compliances in terms of the risk for Hunter Water to be able to meet these objectives.

Further information on assigning grades and assessing the risks to meet licence objectives is provided in the [Public Water Utility Audit Guideline](#).

Interpretation

In the case of any discrepancies between the licence and the audit scope in Table 1, the licence will prevail.

Table 1 2024 Audit scope for Hunter Water

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
Part 1	Licence Context and authorisation			
1	Objectives of this Licence			
1(1)	This licence aims to: <ul style="list-style-type: none">a. authorise and require Hunter Water, within its Area of Operations, to provide, construct, operate, manage and maintain efficient, co ordinated and commercially viable systems and services for:<ul style="list-style-type: none">i. supplying, in a manner that is resilient, reliable, equitable and sustainable, water that is healthy and high quality;ii. providing sewerage and drainage services that support community health and a sustainable environment;iii. disposing of Wastewater and supporting the sustainable treatment and utilisation of Wastewater; and	NR	Objectives clause – does not require audit.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	<ul style="list-style-type: none"> iv. planning, investing and operating its system in the long-term interests of its Customers, Consumers and community; and (b) set efficient and effective terms and conditions, including quality and performance standards, that Hunter Water must meet when supplying or providing services in a way that: <ul style="list-style-type: none"> i. supports its principal objectives under the State Owned Corporations Act 1989 (NSW) to: <ul style="list-style-type: none"> A. be a successful business; B. have regard to the interests of the community in which it operates; C. comply with principles of ecologically sustainable development; and D. in its operations, exhibit a sense of responsibility towards regional development and decentralisation; and ii. does not prevent or hinder competition. 			
2	Area of Operations			
2(1)	This Licence applies to the Area of Operations specified in Schedule A	NR	Information clause – does not require audit	
2(2)	Hunter Water must publish on its website a map of its Area of Operations. Hunter Water must update the map within 30 days of any change to its Area of Operations.	SC		
3	Term of this Licence			
3	The term of this Licence is 5 years from the Commencement Date. <i>[Note: This Licence starts on 1 July 2022, which means that it will end on 30 June 2027.]</i>	NR	Information clause – does not require audit	
4	Licence amendment			
4(1)	Subject to the Act and clause 4(2), this Licence may be amended by the Governor by notice in the New South Wales Government Gazette. The amendment takes effect on the date the notice is published in the New South Wales Government Gazette, or on such other date specified in the notice.	NR	Information clause – does not require audit	
4(2)	Before notice of an amendment to this Licence is published in the New South Wales Government Gazette, the Minister must give Hunter Water reasonable notice of the proposed amendment to enable it to comply with the amended Licence (if relevant) upon its commencement. <i>[Note: The Customer Contract may be varied in accordance with section 38 of the Act and clause 2.6 of the Customer Contract. Such a variation is not an amendment to this Licence for the purpose of section 14 of the Act.]</i>	NR	Information clause – does not require audit	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives				
5	Non-exclusive Licence							
5	This Licence does not prohibit another person from providing Services in the Area of Operations that are the same as, or similar to, the Services, if the person is lawfully entitled to do so.	NR	Information clause – does not require audit.					
6	Availability of Licence							
6(1)	Hunter Water must make a copy of this Licence available to any person, free of charge: <ul style="list-style-type: none"> (a) on its website; and (b) upon request made through the General Enquiry Process. 	SC						
7	Pricing							
7(1)	Hunter Water must set the level of fees, charges and other amounts payable for its Services in accordance with: <ul style="list-style-type: none"> (a) the terms of this Licence; (b) the Act; and (c) any applicable maximum prices or methodologies for fixing maximum prices determined under the IPART Act. 	SC						
8	End of term review							
8(1)	IPART intends to review this Licence in its final year to investigate: <ul style="list-style-type: none"> (a) whether this Licence is fulfilling its objectives; and (b) any issues which have arisen during the term of this Licence, which may affect the effectiveness of this Licence. <p>(End of Term Review)</p>	NR	Information clause – does not require audit.					
8(2)	To assist IPART with the End of Term Review, Hunter Water must provide IPART with such information as IPART reasonably requires within a reasonable time of any IPART request.	NR	Not relevant for this compliance period.					
9	Notices							
9(1)	Any notice or other communication given under this Licence must be made in writing addressed to the intended recipient at the address shown below or the last address notified by the recipient. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Hunter Water</th> <th style="width: 50%;">IPART</th> </tr> </thead> <tbody> <tr> <td>The Managing Director Hunter Water Corporation 36 Honeysuckle Drive Newcastle West NSW 2302</td> <td>The Chief Executive Officer Independent Pricing and Regulatory Tribunal Level 15, 2-24 Rawson Place Sydney NSW 2000</td> </tr> </tbody> </table>	Hunter Water	IPART	The Managing Director Hunter Water Corporation 36 Honeysuckle Drive Newcastle West NSW 2302	The Chief Executive Officer Independent Pricing and Regulatory Tribunal Level 15, 2-24 Rawson Place Sydney NSW 2000	NR	Information clause – does not require audit.	
Hunter Water	IPART							
The Managing Director Hunter Water Corporation 36 Honeysuckle Drive Newcastle West NSW 2302	The Chief Executive Officer Independent Pricing and Regulatory Tribunal Level 15, 2-24 Rawson Place Sydney NSW 2000							
9(2)	Any requests for approval under the following clauses must be made by Hunter Water's Managing Director: clauses 13(3), 13(5), 14(3), 21(1), 22(1), 23(1), 28(1), 29(5), 31(2), 36(2), 36(3), 36(4) or 36(5).	NR	Information clause – does not require audit.					

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
10	Licence authorisation			
10(1)	This Licence authorises and requires Hunter Water to provide, construct, operate, manage and maintain efficient, co-ordinated and commercially viable systems and services for providing the following Services within its Area of Operations: (a) supplying water; (b) providing sewerage services; and (c) disposing of Wastewater.	NR	Licence authorisation clause – does not require audit	
10(2)	This Licence authorises Hunter Water to do all things necessary or convenient to achieve, and to promote the capability to achieve, the transfer of water between its Area of Operations and the local government area of the Central Coast Council in accordance with the Hunter/Central Coast Pipeline Agreement.	NR	Licence authorisation clause – does not require audit.	
10(3)	This Licence authorises and requires Hunter Water to provide, operate, manage and maintain a drainage service as described in section 13(1)(b) of the Act.	NR	Licence authorisation clause – does not require audit.	
10(4)	This Licence authorises (but does not require) Hunter Water to provide, construct, operate, manage and maintain a drainage service within the Area of Operations in excess of the drainage service it is required to provide, operate, manage and maintain under clause 10(3). For the avoidance of any doubt, this clause authorises (but does not require) Hunter Water to enhance, expand and add capacity to the drainage service described in section 13(1)(b) of the Act.	NR	Licence authorisation clause – does not require audit.	
11	Obligation to make Services available			
11(1)	Hunter Water must ensure that Services (other than drainage Services) are available on request for connection to any Property situated in the Area of Operations for which a connection to the Water Supply System or Sewerage System is available.	SC		
11(2)	Hunter Water must provide Services (other than drainage Services) on request to any licensee under the WIC Act, where that licensee is connected to (or where a connection is available in respect of that licensee to) Hunter Water's Water Supply System or Sewerage System.	SC		
11(3)	Connection to Hunter Water's systems (other than drainage Services) is subject to any lawful and reasonable conditions that Hunter Water may determine to ensure the safe, reliable and financially viable supply of Drinking Water to, and disposal of Wastewater from, Properties.	NR	Information clause – does not require audit.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
Part 2	Water Conservation and water planning			
12	Water conservation			
12(1)	Hunter Water must maintain and implement a water conservation work program in relation to Water Storage and Transmission in accordance with the Water Conservation Strategy.	Audit	<p>During the term of the 2017-2022 operating licence, Hunter Water developed a Water Conservation Strategy and a water conservation work program based on that strategy for upstream of its water treatment plants.</p> <p>Hunter Water must provide evidence that it maintained and implemented this water conservation work program until 30 November 2023, and that all relevant activities were carried out in accordance with the water conservation work program. This requirement expired with the development of the water conservation plan on 1 December 2023. under clause 12(4). We last audited this clause in 2023 and assigned a Compliant grade.</p>	Customer, Consumer, Environment, Community
12(2)	Hunter Water must also: (a) maintain a water conservation work program for Water Treatment and Transmission consistent with the Current Economic Method; and (b) implement water conservation measures for Water Treatment and Transmission that have been assessed as economic under the Current Economic Method.	Audit	<p>The 2017-2022 operating licence required an economic approach for assessing water conservation projects downstream of the water treatment plants.</p> <p>Hunter Water must provide evidence that, until 30 November 2023, it maintained and implemented its water conservation work program for Water Treatment and Transmission consistent with the Current Economic Method and implemented water conservation measures for Water Treatment and Transmission that have been assessed as economic under the Current Economic Method. This requirement expired with the development of the water conservation plan on 1 December 2023. under clause 12(4).</p> <p>We last audited this clause in 2023 and assigned a Compliant grade.</p>	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
12(3)	<p>Clauses 12(1) and 12(2) apply until a 5-year Water Conservation Plan is developed and submitted to DPE and IPART under clause 12(4).</p> <p><i>[Note: Hunter Water's water conservation work program for Water Storage and Transmission, Water Treatment and Transmission and water conservation measures will be replaced with a new 5-year Water Conservation Plan once the Water Efficiency Framework being developed by the NSW Government is introduced (see clause 12(4).]</i></p>	NR	Information clause – does not require audit but the auditor should but auditor should note this when auditing clauses 12(2) and 12(3).	
12(4)	<p>Within 12 months of publication of the Water Efficiency Framework being developed by the NSW Government (or such later date approved by IPART in writing), Hunter Water must develop, and submit to DPE and IPART, a water conservation plan for the following 5 years (the 5-year Water Conservation Plan).</p>	Internal IPART check	<p>IPART has sought confirmation from DCCEEW about whether DCCEEW received Hunter Water's water conservation plan by 1 December 2023. DCCEEW has replaced the previous DPE.</p> <p>DCCEEW has confirmed that Hunter Water did submit the 5-year Water Conservation Plan by the due date.</p>	
12(5)	<p>The 5-year Water Conservation Plan must:</p> <ul style="list-style-type: none"> (a) include any water conservation work programs for Water Storage and Transmission and for Water Treatment and Transmission; (b) cover water efficiency (including customer behaviour programs), leakage and recycled water; (c) be consistent with the Water Efficiency Framework; (d) consider the strategic context provided by the Lower Hunter Water Security Plan; (e) include details of proposed programs and projects over the life of the plan; (f) where practical, assess programs and projects against the Current Economic Method; and (g) be consistent with any written guidance that the Minister provides to Hunter Water. 	Audit	<p>Hunter Water must provide a copy of its 5-year Water Conservation Plan.</p> <p>The auditor should consider if the 5-year Water Conservation Plan meets the requirements of clauses 12(5)(a) to (g) during the compliance period.</p> <p>The auditor is not required to consider the adequacy of this plan.</p> <p>This is the first audit of this clause in the operating licence term.</p>	Customer, Consumer, Environment, Community
12(6)	<p>Each year, by the anniversary of the date referred to in clause 12(4) (or such later date approved by IPART in writing), Hunter Water must:</p> <ul style="list-style-type: none"> (a) review and update the 5-year Water Conservation Plan. In reviewing the 5-year Water Conservation Plan, Hunter Water must: <ul style="list-style-type: none"> (i) review the activities carried out under the plan over the past year; (ii) assess its progress towards meeting the overall objectives of the plan; and (iii) update the plan to ensure its objectives and the requirements of clause 12(5) are still being met; and (b) submit to DPE and IPART: <ul style="list-style-type: none"> (i) a copy of the updated 5-year Water Conservation Plan; 	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(ii) the outcomes of the annual review and update of the 5-year Water Conservation Plan, including an explanation of any changes made to the plan. <i>[Note: Hunter Water may submit the updated 5-year Water Conservation Plan required under clause 12(6)(b)(i) and the information required under clause 12(6)(b)(ii) together as one document or as separate documents.]</i>			
12(7)	Hunter Water must implement the 5-year Water Conservation Plan in accordance with the timeframes specified in the 5-year Water Conservation Plan. <i>[Note: This clause 12(7) requires Hunter Water to implement the most recent 5-year Water Conservation Plan at all times.]</i>	SC		
13	Current Economic Method			
13(1)	Hunter Water must make: (a) a copy of the Current Economic Method; and (b) a plain English summary of the Current Economic Method, available free of charge: (c) to any person upon request made through the General Enquiry Process; and (d) on Hunter Water's website.	SC		
13(2)	Hunter Water must update the economic level of water conservation using the Current Economic Method for the purposes of clause 12(2) annually by 30 September of each year.	SC		
13(3)	Hunter Water may, with the Minister's written approval, update the Current Economic Method from time to time.	Internal IPART Check (if triggered)	<p>Hunter Water must provide evidence that if it made updates to the Current Economic Method during the compliance period, that it first obtained the Minister's written approval.</p> <p>If no changes were made to the Current Economic Method during the compliance period, this clause is not triggered.</p> <p>IPART has sought confirmation from DCCEW if the Minister approved any changes to the Current Economic Method during the compliance period.</p> <p>DCCEW has confirmed that the Minister did not receive any requests from Hunter Water to update the Current Economic Method during the compliance period.</p>	Customer, Consumer, Community
13(4)	The Minister may, at any time during the term of this Licence, in writing, direct Hunter Water to revise the Current Economic Method in any way the Minister requires.	NR	Information clause – does not require audit but auditor should note this when auditing clause 13(5).	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	<i>[Note: The Minister may request IPART to undertake a review of the Current Economic Method during the term of this Licence. Such review may precede a direction given under clause 13(4).]</i>			
13(5)	Hunter Water must submit to the Minister the Current Economic Method revised in accordance with the written direction within: (a) the timeframe specified in the direction or, if no timeframe is specified, 30 days of receipt of that direction; or (b) any other timeframe agreed by the Minister.	Internal IPART Check (if triggered)	<p>Hunter Water must provide evidence that it updated the Current Economic Method in accordance with any written direction from the Minister within the timeframe specified in the direction or within 30 days of receiving the direction (or any other timeframe agreed by the Minister).</p> <p>If there was no Ministerial direction to revise the Current Economic Method during the compliance period, this clause is not triggered.</p> <p>IPART has sought confirmation from DCCEEW if the Minister made any directions to Hunter Water to change the Current Economic Method during the compliance period.</p> <p>DCCEEW has confirmed that the Minister did not make any directions to Hunter Water to change the Current Economic Method during the compliance period.</p>	Customer, Consumer, Community
13(6)	If the Minister approves the revised Current Economic Method, he or she will give written notice of the approval to Hunter Water.	NR	Information clause – does not require audit but auditor should note this when auditing clause 13(5).	
13(7)	Hunter Water must update the information referred to in clause 13(1) to reflect any variations made to the Current Economic Method or to the plain English summary within 60 days of the variations taking effect.	Internal IPART Check (if triggered)	<p>Hunter Water must provide evidence that it updated the information in clause 13(1) to reflect any variations made to the Current Economic Method on Hunter Water's website within 60 days of the change coming into effect.</p> <p>If no changes were made to the Current Economic Method during the compliance period, this clause is not triggered.</p>	Customer, Consumer, Community
14	Water planning			
14(1)	Hunter Water must calculate the System Yield either: (a) in accordance with the memorandum of understanding with DPE referred to in clause 33; or	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(b) if no such memorandum of understanding is in effect, in accordance with a reasonable methodology that Hunter Water considers suitable.			
14(2)	Hunter Water must undertake long term water planning consistent with its memorandum of understanding with DPE referred to in clause 33.	SC		
14(3)	By 1 December 2023 (or another date approved by the Minister in writing) Hunter Water must develop, and submit to the Minister, a drought response plan.	Audit	Fixed deadline requirement (only required to be audited in year of deadline).	
14(4)	The drought response plan referred to in clause 14(3) must: (a) address any written guidance that the Minister provides to Hunter Water; (b) consider the strategic context provided by the Lower Hunter Water Security Plan; and (c) be consistent with Hunter Water's memorandum of understanding with DPE referred to in clause 33.	Audit	This is the first audit of this clause in the operating licence term.	
14(5)	Hunter Water must deliver its actions as specified in the drought response plan referred to in clause 14(3).	SC		
Part 3	Performance standards for water quality			
15	Drinking Water			
15(1)	Hunter Water must maintain a Management System that is consistent with the Australian Drinking Water Guidelines and any additional health-based requirements relating to drinking water that NSW Health reasonably specifies, in writing (the Drinking Water Quality Management System).	SC	We last audited this clause in 2023 and assigned a Compliant grade. This clause does not require audit this year but the auditor is to check Hunter Water's progress with completing previous recommendation 2021-1 by its due date (see Table 3).	
15(2)	In the event of inconsistency between the requirements specified by NSW Health in accordance with clause 15(1) and the Australian Drinking Water Guidelines, the requirements specified by NSW Health prevail.	NR	Information clause – does not require audit but auditor should note this when auditing clause 15(1).	
15(3)	Hunter Water must fully implement the Drinking Water Quality Management System and carry out all relevant activities in accordance with the Drinking Water Quality Management System, and to the reasonable satisfaction of NSW Health. <i>[Note: Hunter Water is to apply the Drinking Water Quality Management System to the Drinking Water system under its control, having regard to the entire Drinking Water supply system – from water catchment to the Consumer.]</i>	Audit	Hunter Water must provide Health evidence that it fully implemented its Drinking Water Quality Management System (DWQMS) throughout the compliance period and that all relevant activities and operational practices were carried out in accordance with its DWQMS.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>Hunter Water must provide evidence to show that NSW Health was satisfied with Hunter Water's implementation of the DWQMS during the compliance period.</p> <p>We last audited this clause in 2023 and assigned a Compliant (minor shortcomings) grade.</p> <p>Auditor to check Hunter Water's progress with completing the following recommendations by their due dates (see Table 3):</p> <ul style="list-style-type: none"> • 2023-5-15(3) • 2023-6-15(3) • 2023-7-15(3) • 2023-8-15(3) <p>IPART has sought comment from NSW Health on Hunter Water's performance against this clause.</p> <p>NSW Health has:</p> <ul style="list-style-type: none"> • provided feedback on performance • recommended the auditor provide progress update on key actions • suggested sites to visit. 	
16	Recycled Water			
16(1)	Hunter Water must maintain a Management System that is consistent with the Australian Guidelines for Water Recycling and any additional health-based requirements relating to water recycling that NSW Health reasonably specifies, in writing (the Recycled Water Quality Management System).	SC		
16(2)	In the event of inconsistency between the requirements specified by NSW Health in accordance with clause 16(1) and the Australian Guidelines for Water Recycling, the requirements specified by NSW Health prevail.	NR	Information clause – does not require audit.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
16(3)	Hunter Water must fully implement the Recycled Water Quality Management System and carry out all relevant activities in accordance with the Recycled Water Quality Management System, and to the reasonable satisfaction of NSW Health.	Audit	<p>Hunter Water must provide evidence that it fully implemented its Recycled Water Quality Management System (RWQMS) throughout the compliance period and that all relevant activities and operational practices were carried out in accordance with its RWQMS.</p> <p>Hunter Water must provide evidence to show that NSW Health was satisfied with Hunter Water's implementation of the RWQMS during the compliance period.</p> <p>We last audited this clause in 2023 and assigned a Compliant (minor shortcomings) grade.</p> <p>Auditor to check Hunter Water's progress with completing the following recommendations by their due dates (see Table 3):</p> <ul style="list-style-type: none"> • 2023-1-16(3) • 2023-2-16(3) • 2023-9-16(3) • 2023-10-16(3). <p>IPART has sought comment from NSW Health on Hunter Water's performance against this clause.</p> <p>NSW Health has:</p> <ul style="list-style-type: none"> • provided feedback on performance • recommended the auditor provide progress update on key actions • suggested sites to visit. 	Health, Environment

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
Part 4	Performance standards for service interruptions			
17	Water Continuity Standard			
17(1)	Hunter Water must ensure that, in each financial year, at least 9,619 per 10,000 Properties (in respect of which Hunter Water provides a Drinking Water supply Service) receive a Drinking Water supply Service unaffected by an Unplanned Water Interruption (the Water Continuity Standard).	Audit	Hunter Water must provide evidence that in the previous financial year (not necessarily same as the compliance period), it provided at least 9,619 out of every 10,000 properties a drinking water supply services that was unaffected by an Unplanned water interruption (defined in this clause 17). This is the first audit of this clause in the operating licence term.	Customer, Consumer, Community
17(2)	A Property is taken to have experienced an unplanned water interruption where, in relation to a Property: (a) the supply of Drinking Water at the first cold water tap of the Property is interrupted without the Customer or Consumer having received prior notice of that interruption from Hunter Water; and (b) it takes more than 5 continuous hours for normal supply of Drinking Water to be restored to the Property, (Unplanned Water Interruption).	NR	Information clause – does not require audit but auditor should note this when auditing clause 17.	
17(3)	Hunter Water must use the best available data (taking account of water pressure data, where available) to determine whether a Property has experienced an Unplanned Water Interruption.	Audit	Hunter Water must demonstrate that when determining whether a Property has experienced an Unplanned Water Interruption, it has used and analysed the most accurate and representative data available. This is the first audit of this clause in the operating licence term.	Customer, Consumer, Community
17(4)	A Property that experiences an Unplanned Water Interruption caused by a Third Party or a power failure is taken not to have experienced an Unplanned Water Interruption for the purposes of this clause 17.	NR	Information clause – does not require audit but auditor should note this when auditing clause 17.	
17(5)	For the purpose of the Water Continuity Standard: (a) each separately billed part of a Multiple Occupancy Property is to be counted as a separate Property; and <i>[Note: For example, a complex of 5 townhouses where each townhouse receives a separate Bill from Hunter Water is to be counted as 5 separate Properties. However, a block of 5 flats that only receives one Bill from Hunter Water is to be counted as a single Property.]</i>	NR	Information clause – does not require audit but auditor should note this when auditing clause 17.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(b) each separate instance, in a financial year, of a single Property experiencing an Unplanned Water Interruption is to be counted as a separate Property that has experienced an Unplanned Water Interruption.			
18	Water Pressure Standard			
18(1)	Hunter Water must ensure that, in each financial year, at least 9,817 Properties per 10,000 Properties (in respect of which Hunter Water provides a Drinking Water supply Service) receive a Drinking Water supply Service that is not affected by a Water Pressure Failure, (the Water Pressure Standard).	Audit	Hunter Water must provide evidence that in the previous financial year (not necessarily same as the compliance period), it provided at least 9,817 out of every 10,000 properties a drinking water supply services that was unaffected by a Water Pressure Failure (defined in this clause 18). This is the first audit of this clause in the operating licence term.	Customer, Consumer, Community, Health
18(2)	A Property is taken to have experienced a Water Pressure Failure when: (a) a person notifies Hunter Water that the Property has experienced a Water Pressure Failure and Hunter Water confirms that the Property has experienced a Water Pressure Failure; or (b) Hunter Water identifies that the Property has experienced a Water Pressure Failure (including through its data collection systems and hydraulic analysis).	NR	Information clause – does not require audit but auditor should note this when auditing clause 18.	
18(3)	A Property is not taken to have experienced a Water Pressure Failure if that Water Pressure Failure occurred only because of: (a) a Planned Water Interruption or Unplanned Water Interruption; (b) water usage by authorised fire authorities in the case of a fire; or (c) a short term or temporary operational problem (such as a main break), including where caused by a Third Party, which is remedied within 4 days of its commencement.	NR	Information clause – does not require audit but auditor should note this when auditing clause 18.	
18(4)	For the purpose of the Water Pressure Standard, each separately billed part of a Multiple Occupancy Property is to be counted as a separate Property. <i>[Note: For example, a complex of 5 townhouses where each townhouse receives a separate Bill from Hunter Water is to be counted as 5 separate Properties. However, a block of 5 flats that only receives one Bill from Hunter Water is to be counted as a single Property.]</i>	NR	Information clause – does not require audit but auditor should note this when auditing clause 18.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
19	Dry Weather Wastewater Overflow Standard			
19(1)	Hunter Water must ensure that, in each financial year, at least: (a) 9,800 Properties per 10,000 Properties (in respect of which Hunter Water provides a sewerage service but excluding Public Properties) receive a sewerage service unaffected by an Uncontrolled Wastewater Overflow; and (b) 9,998 Properties per 10,000 Properties (in respect of which Hunter Water provides a sewerage service but excluding Public Properties) receive a sewerage service affected by fewer than 3 Uncontrolled Wastewater Overflows, (the Dry Weather Wastewater Overflow Standard).	Audit	Hunter Water must provide evidence that in the previous financial year (not necessarily same as the compliance period), it provided at least 9,800 out of every 10,000 private properties a sewerage service unaffected by an Uncontrolled Wastewater Overflow (defined in this clause 19). This is the first audit of this clause in the operating licence term.	Customer, Consumer, Community, Health
19(2)	A Property is taken to have experienced an Uncontrolled Wastewater Overflow when: (a) a person notifies Hunter Water that a Property has experienced a Wastewater Overflow, where Hunter Water later confirms that the Wastewater Overflow is an Uncontrolled Wastewater Overflow; or (b) Hunter Water's systems identify that a Property has experienced an Uncontrolled Wastewater Overflow.	NR	Information clause – does not require audit but auditor should note this when auditing clause 19.	
19(3)	For the purpose of the Dry Weather Wastewater Overflow Standard: (a) each Multiple Occupancy Property is considered to be one Property. <i>[Note: For example, a complex of 5 townhouses where each townhouse receives a separate Bill from Hunter Water is to be counted as a single Property.]</i> (b) for the purpose of clause 19(1)(a), each separate instance, in a financial year, of a single Property experiencing an Uncontrolled Wastewater Overflow is to be counted as a separate Property that has experienced, in that financial year, an Uncontrolled Wastewater Overflow; and (c) for the purpose of clause 19(1)(b), each Property that experiences 3 or more Uncontrolled Wastewater Overflows in a financial year is to be counted once only as a Property that has experienced 3 or more Uncontrolled Wastewater Overflows in that financial year.	NR	Information clause – does not require audit but auditor should note this when auditing clause 19.	
20	Interpretation of standards			
20	In the case of any ambiguity in the interpretation or application of the Water Continuity Standard, the Water Pressure Standard or the Dry Weather Wastewater Overflow Standard, IPART's interpretation or assessment of the standard or clause will prevail.	NR	Information clause – does not require audit but auditor should note this when auditing clauses 17, 18 and 19.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
Part 5	Organisational systems management			
21	Asset management system			
21(1)	Hunter Water must maintain a Management System in relation to Hunter Water's Assets that is consistent with the <i>Australian Standard AS ISO 55001:2014 Asset management - Management systems - Requirements</i> , or other standard approved by IPART in writing, (the Asset Management System).	SC		
21(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.	Audit	<p>Hunter Water must provide evidence that it fully implemented its AMS throughout the compliance period.</p> <p>The auditor should consider if Hunter Water conducted all relevant activities and operational practices during the compliance period in accordance with the AMS. This includes all of Hunter Water's activities that rely on or interact with the AMS (e.g. maintenance, risk management, training, etc.).</p> <p>We last audited this clause in 2023 and assigned a Compliant (minor shortcomings) grade.</p> <p>Auditor to check Hunter Water's progress with completing the following recommendations by their due dates (see Table 3):</p> <ul style="list-style-type: none"> • 2023-3-21(2) • 2023-11-21(2) • 2023-12-21(2) • 2023-13-21(2) 	Customer, Consumer, Community, Health, Environment
22	Environmental Management System			
22(1)	Hunter Water must maintain a Management System for managing its environmental responsibilities and the environmental impacts of its services and activities that is consistent with the <i>Australian/New Zealand Standard AS/NZS ISO 14001:2016 Environmental management systems - Requirements</i> with guidance for use, or other standard approved by IPART in writing, (the Environmental Management System).	SC		
22(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Environmental Management System.	Audit	<p>Hunter Water must provide evidence that it fully implemented its EMS throughout the compliance period.</p>	Environment

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>The auditor should consider if Hunter Water conducted all relevant activities and operational practices during the compliance period in accordance with the EMS with the objective of managing and minimising wastewater overflows, addressing climate change and its impacts and meeting Hunter Water's environmental obligations.</p> <p>This is the first audit of this clause in the operating licence term.</p>	
23	Quality Management System			
23(1)	Hunter Water must at all times maintain a Management System for delivering quality services and outcomes to meet customers' expectations and regulatory requirements that is consistent with the <i>Australian/New Zealand Standard AS/NZS ISO 9001:2016 Quality management systems – Requirements</i> , or other standard as approved by IPART in writing, (the Quality Management System).	SC		
23(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.	Audit	<p>If Hunter Water does not carry out activities in accordance with an adequate Quality Management System, it can result in ineffective or inconsistent implementation of processes across different business units within Hunter Water leading to increased operational cost and decreased quality of product and services to customers/consumers.</p> <p>We last audited this clause in 2023 and assigned a Non-Compliant (non-material) grade.</p> <p>Auditor to check Hunter Water's progress with completing Recommendation 2023-4-23(2) by its due dates (see Table 3).</p>	Customer, consumer, Health, environment

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
Part 6	Customer and stakeholder relations			
24	Customer Contract			
24(1)	The Customer Contract sets out the rights and obligations of Customers and Hunter Water in relation to the Services provided in accordance with this Licence, except to the extent that the terms and conditions of a contract for the provision of water supply or sewerage services, or both of them, have been specifically agreed to by Hunter Water and a Customer. The Customer Contract is set out in Schedule B of this Licence.	NR	Information clause – does not require audit	
24(2)	Hunter Water must make a copy of the Customer Contract available to any person, free of charge: (a) on its website; and (b) upon request made through the General Enquiry Process.	SC		
24(3)	If the Customer Contract is varied, Hunter Water must make a copy of the varied Customer Contract available in accordance with clause 24(2) from the date the variation takes effect.	SC		
25	Provision of information to customers and the general public			
25(1)	Hunter Water must prepare one or more communications that: (a) provide a brief explanation of the Customer Contract; (b) summarise the key rights and obligations of Customers under the Customer Contract; (c) refer to the types of account relief available for Customers experiencing payment difficulties; (d) outline the rights of Customers to claim a rebate and the conditions that apply to those rights; (e) contain information about how to contact Hunter Water by telephone, email or post, including the General Enquiry Process (or any replacement of it); and (f) contain information regarding the ability of a Customer to enter into agreements with Hunter Water separate to the Customer Contract for the provision of Services by Hunter Water to the Customer.	SC		
25(2)	Hunter Water must update the communication or communications to reflect any variations made to the Customer Contract or the information within 60 days of the variations taking effect.	SC		
25(3)	Hunter Water must provide the communication or communications and any updates, free of charge: (a) on its website; (b) to all residential Customers, at least annually with their Bills via the method chosen by the Customer to receive their Bill; and (c) to any person upon request made through the General Enquiry Process.	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
25(4)	Hunter Water must publish on its website and advertise at least annually in a manner that Hunter Water is satisfied is likely to come to the attention of, and be accessible to, members of the public without being limited to digital platforms, information as to: <ul style="list-style-type: none"> (a) the types of account relief available for Customers experiencing payment difficulties; and (b) rights of Customers to claim rebates and the conditions that apply to those rights. 	SC		
26	Customers			
26(1)	Hunter Water's obligations under the following clauses of the Customer Contract are extended to Consumers as though the Consumers were parties to the Customer Contract: <ul style="list-style-type: none"> (a) Clause 2.2 – Who is covered by this contract? (b) Clause 2.4 – When does this Customer Contract commence? (c) Clause 2.5 – When does this Customer Contract end? (d) Clause 2.6 – Variation of this Customer Contract (e) Clause 6 – What can I do if I am unable to pay my bill? (f) Clause 7.2(8) and (9) – Notice of restriction or disconnection for non-payment – when Hunter Water will not restrict or disconnect services (g) Clause 12.3 – Forms of redress (h) Clause 12.4 – Claim for damages (i) Clause 13 – What can I do if I'm unhappy with the services provided by Hunter Water? (j) Clause 15 – Consultation, Information and Privacy. 	NR	Information clause – does not require audit.	
27	Assistance Options for Payment Difficulties and Actions for Non-Payment			
27(1)	Hunter Water must maintain and fully implement: <ul style="list-style-type: none"> (a) a payment difficulty policy that assists residential Customers experiencing payment difficulties to better manage their current and future Bills; (b) procedures relating to a payment plan for residential Customers who are responsible for paying their Bills and who are, in Hunter Water's reasonable opinion, experiencing payment difficulties; (c) procedures for identifying the circumstances under which Hunter Water may disconnect or restrict a supply of water to a Customer's Property; and (d) provisions for self-identification, identification by community welfare organisations and identification by Hunter Water of residential Customers experiencing payment difficulties, (Assistance Options for Payment Difficulties and Actions for Non-Payment)	SC	We last audited this clause in 2022 and assigned a Compliant (minor shortcomings) grade. This clause does not require audit this year but the auditor is to check Hunter Water's progress with completing Recommendation 2022/5.3.1-1 (see Table 3). Hunter Water will remain assessed as Compliant (minor shortcomings) with this clause until the recommendations are completed.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
27(2)	Hunter Water must provide information about the Assistance Options for Payment Difficulties and Actions for Non-Payment free of charge: <ul style="list-style-type: none"> (a) on its website; (b) to all residential Customers, at least annually with their Bills via the same method chosen by the Customer to receive their Bill; (c) to residential Customers experiencing payment difficulties by the next business day from when Hunter Water first documents or records that the Customer has self-identified, or has been identified by Hunter Water or a community welfare organisation, as experiencing payment difficulties, consistent with the provisions referred to in clause 27(1)(d); and (d) to any other person upon request made through the General Enquiry Process. 	SC		
27(3)	Hunter Water must update the information referred to in clause 27(2) to reflect any variations made to the Assistance Options for Payment Difficulties and Actions for Non-Payment or the information within 60 days of the variations taking effect.	SC	<p>Audit if triggered by changes to the Assistance Options for Payment Difficulties and Actions for Non-Payment.</p> <p>Hunter Water must provide evidence that it updated the information in clause 27(2) to reflect any variations made to the Assistance Options for Payment Difficulties and Actions for Non-Payment or the information within 60 days of the changes coming into effect.</p> <p>Updated information about Assistance Options for Payment Difficulties and Actions for Non-Payment can be provided with Customer Bills in the next billing cycle after the 60 day period.</p>	Customer, Consumer, Community
27(4)	Updated information about Assistance Options for Payment Difficulties and Actions for Non-Payment provided with Customer Bills can be provided in the next billing cycle after the 60 day period.	NR	Information clause – does not require audit but auditor should note this when auditing clause 27(3).	
28	Family violence policy			
28(1)	Hunter Water must develop and implement a family violence policy by 1 July 2025 (or another date approved by IPART in writing).	SC		
28(2)	The family violence policy must, at a minimum, provide for: <ul style="list-style-type: none"> (a) the protection of private and confidential information; (b) access to payment difficulty programs; (c) processes that minimise the reliance on individuals to disclose their family violence; and (d) processes for referrals to specialist services. 	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
28(3)	Hunter Water must provide information about the family violence policy free of charge: (a) on its website; (b) to all residential Customers, at least annually with their Bills via the same method chosen by the Customer to receive their Bill; and (c) to any other person upon request made through the General Enquiry Process.	SC		
28(4)	Hunter Water must update the information referred to in clause 28(3) to reflect any variations made to the family violence policy or the information within 60 days of the variations taking effect.	SC	Audit if triggered by changes to the family violence policy. Hunter Water must provide evidence that it updated the information in clause 28(4) to reflect any variations made to the family violence policy within 60 days of the changes coming into effect. Updated information about the family violence policy can be provided with Customer Bills in the next billing cycle after the 60 day period.	Customer, Consumer, Community
28(5)	Updated information about the family violence policy provided with Customer Bills can be provided in the next billing cycle after the 60 day period.	NR	Information clause – does not require audit.	
29	Customer, consumer and community consultation			
29(1)	Hunter Water must undertake Customer, Consumer and community consultation at regular intervals that is meaningful, relevant, representative, proportionate, objective, clearly communicated and accurate to: (a) understand Customer, Consumer and community needs, interests and preferences, and willingness to pay for service levels; (b) understand how its systems and processes can better support more effective, direct relationships with Consumers including residential tenants; (c) obtain advice and perspectives on the Customer Contract; and (d) obtain advice on such other key issues related to Hunter Water's planning and operations under this Licence which impact on Customers, Consumers and the community in Hunter Water's Area of Operations.	SC		
29(2)	Hunter Water must: (a) By 1 July 2023 (or another date approved by IPART in writing), develop and fully implement a procedure for consulting with its Customers, Consumers and the community at regular intervals in relation to the provision of its Services that meets the objectives of clause 29(1) (the Community Consultation Procedure); and	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(b) On and from the date referred to in clause 29(2)(a), carry out all ongoing Customer, Consumer and community consultation activities in accordance with the Community Consultation Procedure.			
29(3)	Until the Community Consultation Procedure has been implemented in accordance with clause 29(2)(a), Hunter Water must maintain and regularly consult with its Customers through its customer advisory group in accordance with clause 5.4 of the 2017-2022 Licence.	NR	This clause expired on 1 July 2023 with the implementation of the Community Consultation procedure.	
29(4)	Hunter Water must by the date referred to in clause 29(2)(a) make a clear summary of its Community Consultation Procedure available free of charge: (a) on its website; and (b) upon request made through the General Enquiry Process.	SC		
29(5)	Hunter Water must undertake a review of the Community Consultation Procedure to assess its effectiveness, including obtaining feedback from Customers, Consumers and the community. Hunter Water must report to IPART on the completed review of the Community Consultation Procedure and its outcomes by 30 June 2026 (or by another date approved by IPART in writing).	SC	Fixed deadline requirement (only required to be audited in year of deadline).	
30	Internal Complaints Handling Procedure			
30(1)	Hunter Water must maintain a procedure for receiving, responding to and resolving Complaints. The procedure must be consistent with the <i>Australian/New Zealand Standard AS/NZS 10002:2022 – Guidelines for complaint management in organizations</i> (the Internal Complaints Handling Procedure).	SC		
30(2)	Hunter Water must fully implement the Internal Complaints Handling Procedure and carry out all relevant activities in accordance with the Internal Complaints Handling Procedure.	SC		
30(3)	Hunter Water must provide information about internal Complaints handling free of charge: (a) on its website; (b) to all residential Customers, at least annually with their Bills via the same method chosen by the Customer to receive their Bill; and (c) to any other person upon request made through the General Enquiry Process. The information must explain how to make a Complaint and how Hunter Water will receive, respond to and resolve Complaints.	SC		
30(4)	Hunter Water must update the information referred to in clause 30(3) to reflect any variations made to the Internal Complaints Handling Procedure or the information within 60 days of the variations taking effect.	SC	Audit if triggered by changes to the internal Complaints Handling Procedure.	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>Hunter Water must provide evidence that it updated the information in clause 30(4) to reflect any variations made to the Internal Complaints Handling Procedure within 60 days of the changes coming into effect.</p> <p>Updated information about the Internal Complaints Handling Procedure can be provided with Customer Bills in the next billing cycle after the 60 day period.</p>	
30(5)	Updated information about internal Complaints handling provided with Customer Bills can be provided in the next billing cycle after the 60 day period.	NR	Information clause – does not require audit but auditor should note this when auditing clause 30(4).	
31	External dispute resolution scheme			
31(1)	Hunter Water must be a member of the Energy and Water Ombudsman NSW to facilitate the resolution of disputes between Hunter Water and its Customers or Consumers.	SC		
31(2)	<p>Hunter Water may be a member of an alternative external dispute resolution scheme if approved by IPART in writing. The alternative external dispute resolution scheme must:</p> <ul style="list-style-type: none"> (a) be approved by the Minister and published in the NSW Government Gazette; (b) provide an independent dispute resolution service; (c) be free for Customers and Consumers; and (d) be consistent with the Commonwealth Benchmarks for Industry-based Customer Dispute Resolution. 	SC		
31(3)	<p>If IPART approves an alternative external dispute resolution scheme under clause 31(2), Hunter Water must publish the notice required under section 38(1) of the Act to vary the Customer Contract within 30 days (noting that any variation of the Customer Contract is subject to approval by the Governor).</p> <p><i>[Note: Section 38 of the Act makes provision for the amendment of the Customer Contract and the manner in which Hunter Water must notify members of the public of variations to the Customer Contract.]</i></p>	SC		
31(4)	<p>Hunter Water must:</p> <ul style="list-style-type: none"> (a) prepare a communication that: <ul style="list-style-type: none"> (i) (ii) lists the dispute resolution services provided by the external dispute resolution scheme, including any right to have a Complaint or dispute referred to the external dispute resolution scheme; and (iii) explains how a Consumer can contact the external dispute resolution scheme; and 	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(b) provide a copy of that communication, free of charge: (i) on its website; (ii) to all residential Customers, at least annually with their Bills via the same method chosen by the Customer to receive their Bill; and (iii) to any other person upon request made through the General Enquiry Process.			
31(5)	Hunter Water must update the communication referred to in clause 31(4) to reflect any variations made to the information within 60 days of the variations taking effect.	SC	<p>Audit if triggered by changes to the information in clause 31(4).</p> <p>Hunter Water must provide evidence that it updated the information in clause 30(4) to reflect any variations made to the Internal Complaints Handling Procedure within 60 days of the changes coming into effect.</p> <p>Updated information about the External Dispute Resolution Scheme can be provided with Customer Bills in the next billing cycle after the 60 day period.</p>	Customer, Consumer, Community
31(6)	Updated information provided with Customer Bills can be provided in the next billing cycle after the 60 day period.	NR	Information clause – does not require audit	
Part 7	Stakeholder cooperation			
32	Memorandum of understanding with NSW Health			
32(1)	<p>Hunter Water must:</p> <p>(a) use its best endeavours to maintain; and (b) comply with, a memorandum of understanding with NSW Health.</p> <p><i>[Note: Clause 32 does not limit the persons with whom Hunter Water may enter into a memorandum of understanding.]</i></p>	Audit	<p>Hunter Water must provide evidence that:</p> <p>(1) it maintained a MoU with NSW Health for the entire compliance period (2) if it did not maintain a MoU with NSW Health for the entire compliance period, it used its best endeavours to do so (3) it complied with the MoU throughout the compliance period and all relevant activities were carried out in accordance with the MoU.</p> <p>Hunter Water may demonstrate that it made best endeavours to maintain the MoU by providing evidence that it:</p> <ul style="list-style-type: none"> actively and constructively participated in negotiations to maintain the MoU 	Community

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
			<ul style="list-style-type: none"> acted reasonably and honestly and did not hinder or prevent the maintenance of a MoU. <p>Hunter Water is not obliged to act against its own commercial interests or to agree to act in a way that would cause it to breach a law or licence condition. Auditors should take into account the surrounding circumstances when making an assessment (e.g. delays on the part of NSW Health and any other relevant factors that impact Hunter Water's ability to establish a MoU).</p> <p>This is the first audit of this clause in the operating licence term.</p> <p>IPART has sought comment from NSW Health on Hunter Water's performance against this clause.</p> <p>NSW Health has stated that it maintains an effective and open relationship with Hunter Water. The MoU was reviewed and signed by both parties within the compliance period.</p>	
32(2)	The purpose of the memorandum of understanding with NSW Health is to form the basis for co-operative relationships between the parties. In particular, the purpose is to recognise the role of NSW Health in providing advice to the NSW Government in relation to Drinking Water quality standards and the supply of water that is safe to drink.	NR	Information clause – does not require audit but auditor should note this when auditing clause 32(1).	
33	Memorandum of understanding with Department of Planning and Environment			
33(1)	Hunter Water must: <ul style="list-style-type: none"> (a) use its best endeavours to maintain; and (b) comply with, a memorandum of understanding (which may be referred to as a roles and responsibilities protocol) with DPE in relation to: <ul style="list-style-type: none"> (c) the roles and responsibilities for DPE and Hunter Water in respect of the review and implementation of the Lower Hunter Water Security Plan; and (d) the calculation and reporting of System Yield. 	Audit	Hunter Water must provide evidence that: <ul style="list-style-type: none"> (1) it maintained a MoU with DCCEEW for the entire compliance period (2) if it did not maintain a MoU with DPE for the entire compliance period, it used its best endeavours to do so (3) it complied with the MoU throughout the compliance period and all relevant activities were carried out in accordance with the MoU. 	Community

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	<i>[Note: Clause 33 does not limit the persons with whom Hunter Water may enter into a memorandum of understanding or a roles and responsibilities protocol.]</i>		<p>Hunter Water may demonstrate that it made best endeavours to maintain the MoU by providing evidence that it:</p> <ul style="list-style-type: none"> actively and constructively participated in negotiations to maintain the MoU acted reasonably and honestly and did not hinder or prevent the maintenance of a MoU. <p>Hunter Water is not obliged to act against its own commercial interests or to agree to act in a way that would cause it to breach a law or licence condition. Auditors should take into account the surrounding circumstances when making an assessment (e.g. delays on the part of DPE and any other relevant factors that impact Hunter Water's ability to establish a MoU).</p> <p>This is the first audit of this clause in the operating licence term.</p> <p>IPART has sought comment from DCCEEW on Hunter Water's performance against this clause.</p> <p>DCCEEW has stated that it has no compliance concerns.</p>	
33(2)	The purpose of the memorandum of understanding with DPE is to form the basis for a co-operative relationship between the parties. In particular, the purpose is to recognise the role of DPE in assessing options to address water supply security in the lower Hunter region.	NR	Information clause – does not require audit but auditor should note this when auditing clause 33(1).	
33(3)	By 1 December 2022 (or another date approved by the Minister in writing), Hunter Water must use its best endeavours to agree with DPE amendments to the memorandum of understanding to specify: (a) how Hunter Water should address integrated water cycle management in Hunter Water's long-term planning; and (b) any other matters agreed by the parties.	NR	Fixed deadline requirement (only required to be audited in year of deadline). Completed.	
34	Memorandum of understanding with Fire and Rescue NSW			
34(1)	Hunter Water must: (a) use its best endeavours to maintain; and	Audit	Hunter Water must provide evidence that:	Community

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	<p>(b) comply with, a memorandum of understanding with FRNSW. <i>[Note: Clause 34 does not limit the persons with whom Hunter Water may enter into a memorandum of understanding.]</i></p>		<p>(1) it maintained a MoU with FRNSW for the entire compliance period (2) if it did not maintain a MoU with FRNSW for the entire compliance period, it used its best endeavours to do so (3) it complied with the MoU throughout the compliance period and all relevant activities were carried out in accordance with the MoU.</p> <p>Hunter Water may demonstrate that it made best endeavours to maintain the MoU by providing evidence that it:</p> <ul style="list-style-type: none"> actively and constructively participated in negotiations to maintain the MoU acted reasonably and honestly and did not hinder or prevent the maintenance of a MoU. <p>Hunter Water is not obliged to act against its own commercial interests or to agree to act in a way that would cause it to breach a law or licence condition. Auditors should take into account the surrounding circumstances when making an assessment (e.g. delays on the part of FRNSW and any other relevant factors that impact Hunter Water's ability to establish a MoU).</p> <p>This is the first audit of this clause in the operating licence term.</p> <p>IPART has sought comment from FRNSW on Hunter Water's performance against this clause.</p> <p>FRNSW considers that Hunter Water has met its licence obligations in relation to compliance with an MOU with FRNSW.</p>	
34(2)	<p>The purpose of the memorandum of understanding with FRNSW is to form the basis for co-operative relationships between the parties. In particular, the purpose is to:</p> <p>(a) develop the roles and responsibilities of the parties as they relate to each other;</p>	NR	<p>Information clause – does not require audit but auditor should note this when auditing clause 34(1).</p>	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(b) identify the needs of, and constraints on, the parties as they relate to each other; and (c) identify and develop strategies for the efficient and effective provision of firefighting water consistent with the goals of each party.			
34(3)	The memorandum of understanding with FRNSW must require the maintenance of a working group and must provide that: (a) the working group must include representatives from Hunter Water and FRNSW and may include representatives from other organisations such as the NSW Rural Fire Service; and (b) the working group must consider the following matters (at a minimum): (i) information sharing arrangements between Hunter Water and FRNSW; (ii) agreed timelines and a format for Hunter Water to provide a report to FRNSW detailing the network performance with regard to availability of water for firefighting (taking into account the minimum available flow and pressure in localised areas of the network); (iii) arrangements for Hunter Water to consult with FRNSW in the design of new assets and planning of system maintenance, where planning indicates that minimum available flow and pressure may unduly affect firefighting in the network section under consideration; and (iv) other matters as agreed by both Hunter Water and FRNSW.	SC	IPART has sought comment from FRNSW on Hunter Water's performance against this clause. FRNSW considers that Hunter Water has met its licence obligations in relation to compliance with an MOU with FRNSW.	
Part 8 Information and services for competitors				
35 Negotiations with WIC Act licensees and potential competitors				
35	Hunter Water must negotiate the provision of Services to WIC Act licensees and Potential Competitors in Good Faith.	Audit	Hunter Water must provide evidence that it undertook any negotiations with competitors for its services in the compliance period in 'good faith'. Hunter Water is not expected to make concessions during negotiations or to reach agreement on the terms that are to be included in an agreement with a competitor. Hunter Water may act in good faith but still fail to reach agreement. Auditors may consider evidence: <ul style="list-style-type: none"> that Hunter Water has mechanisms in place for potential competitors to request provision of services (via the website or directly through email or similar) 	Competition, Community

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
			<ul style="list-style-type: none"> • of processes in place to receive requests and to negotiate provision of services • that Hunter Water has processes in place to review applications for its services from potential competitors • of any communications between Hunter Water and the WIC Act licensee or potential competitor • of complaints or allegations made to IPART by potential competitors or WIC Act licensees. Where this has occurred, the auditor (or IPART) could seek additional information about the events surrounding those allegations. <p>Auditors should consider Hunter Water's conduct as a whole and the circumstances of the negotiation. Any one of the above listed evidence on its own would not necessarily be taken as conclusive that Hunter Water has acted in bad faith.</p> <p>DCCEEW wrote to IPART and asked the auditor carefully consider the evidence provided to demonstrate compliance with this clause.</p> <p>We last audited this clause in 2023 and assigned a Compliant grade.</p>	
36	Publications of servicing information			
36(1)	<p>Hunter Water must, by the dates specified in this clause 36, publish on its website at least 10 years of servicing information for each major Water Supply System and Sewerage System. The servicing information for each major Water Supply System and Sewerage System must, at a minimum, include information on:</p> <ul style="list-style-type: none"> (a) current and projected demand; (b) current and projected capacity constraints; (c) indicative costs of alleviating or deferring capacity constraints; (d) locations where further investigation is needed; and 	NR	<p>Information clause – does not require audit. (Information about the requirements related to the obligations in the remaining sub-clauses). Auditor should note this when auditing clause 36.</p>	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
	(e) key sources of information used to develop the servicing information where those sources are publicly available, (the Servicing Information).			
36(2)	Hunter Water must by 30 September 2024 (or another date approved by IPART in writing) publish on its website the Servicing Information for each major Water Supply System and Sewerage System that it has available by that date that is in a form suitable for publication.	Audit	Fixed deadline requirement (only required to be audited in year of deadline).	
36(3)	Hunter Water must publish all Servicing Information for each major Water Supply System and Sewerage System by 30 June 2025 (or another date approved by IPART in writing).	SC	Fixed deadline requirement (only required to be audited in year of deadline).	
36(4)	Hunter Water must review, update and publish the Servicing Information for each major Water Supply System and Sewerage System at least once between: (a) the date that is 12 months after the initial publication of the Servicing Information for that major Water Supply System or Sewerage System under clause 36(2); and (b) 30 June 2027 (or another date approved by IPART in writing)	SC	Fixed deadline requirement (only required to be audited in year of deadline).	
36(5)	Hunter Water is not required to comply with clauses 36(1) to 36(4) in relation to a particular major Water Supply System or Sewerage System to the extent approved by IPART in writing. Hunter Water may apply to IPART for approval under this clause only where there are critical infrastructure security concerns in relation to a particular major Water Supply System or Sewerage System.	NR	Information clause – does not require audit but auditor should note this when auditing clause 36.	
37	Code of conduct			
37(1)	Hunter Water must use its best endeavours to cooperate with each WIC Act licensee to establish a code of conduct required by a WIC Act licence where Hunter Water has received a written request from the WIC Act licensee to establish such a code.	Audit	<p>Hunter Water must provide evidence that it used reasonable/ its best endeavours to cooperate with each WIC Act licensee that sought to establish a code of conduct required by a WIC Act licence during the compliance period. Hunter Water must provide evidence of the requests received from the WIC Act licensees during the compliance period, seeking to establish the code of conduct.</p> <p>Auditors need to undertake a factual assessment of Hunter Water's conduct in any negotiations to establish a code of conduct.</p> <ul style="list-style-type: none"> Hunter Water should: 	Customer, Consumer, Community, Competition

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
			<ul style="list-style-type: none"> - actively and constructively participate in negotiations to progress establishment of the code of conduct in a timely manner - act reasonably and honestly and not hinder or prevent the establishment of the code of conduct - pursue the establishment of the code of conduct diligently • Hunter Water is not obliged to act against its own commercial interests or to agree to a code of conduct that would cause it to breach a law or licence condition. • Best endeavours does not require the code of conduct to actually be established, what matters for compliance is Hunter Water's conduct in attempting to establish the code. • Auditors should take into account the surrounding circumstances when making an assessment (e.g. delays on the part on the WIC Act licensee and any other relevant factors that impact Hunter Water's ability to establish a code of conduct). <p>This is the first audit of this clause in this operating licence term. We audited an equivalent clause under the previous 2017-2022 operating licence, and compliance with this clause until 31 October 2022, during the 2022 audit and assigned a Compliant grade.</p>	
37(2)	Where the Minister administering the WIC Act has established a code of conduct under clause 46 of the WIC Regulation, Hunter Water will be taken to have satisfied its obligation under clause 37(1) by applying the code of conduct to the relevant licensee under the WIC Act.	NR	Information clause – does not require audit but auditor should note this when auditing clause 37(1).	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
Part 9	Performance monitoring and reporting			
38	Operational audits			
38(1)	Hunter Water must cooperate with any audit undertaken by IPART or an Auditor of Hunter Water's compliance with any of the following: (a) this Licence (including the Customer Contract); (b) the Reporting Manual; and (c) any matters required by the Minister in writing. (Operational Audit).	SC		
38(2)	For the purpose of any Operational Audit or verifying a report on an Operational Audit, Hunter Water must, within a reasonable period of receiving a request from IPART or an Auditor, provide IPART or the Auditor with all the information in Hunter Water's possession, custody or control that is necessary to conduct the Operational Audit, including any information that is reasonably requested by IPART or the Auditor.	SC		
38(3)	Subject to clause 38(4), for the purposes of any Operational Audit or verifying a report on an Operational Audit, Hunter Water must permit IPART or the Auditor to: (a) access any works, premises or offices occupied by Hunter Water; (b) carry out inspections, measurements and tests on, or in relation to, any such works, premises or offices; (c) take onto any such premises or offices, any person or equipment necessary for the purposes of performing the Operational Audit or verifying any report on the Operational Audit; (d) inspect and make copies of, and take extracts from, any documents and records of Hunter Water that are maintained in relation to the performance of Hunter Water's obligations under this Licence (including obligations under the Reporting Manual); and (e) discuss matters relevant to the Operational Audit or any report on the Operational Audit with Hunter Water, including Hunter Water's Personnel	SC		
38(4)	The activities in clause 38(3) may be carried out remotely: (a) with IPART's approval; or (b) where state or federal government restrictions prohibit access to any works, premises or offices occupied by Hunter Water or limit the movement of IPART, the Auditor or Hunter Water's Personnel.	NR	Information clause – does not require audit.	
39	Reporting			
39(1)	IPART has the function of determining Hunter Water's reporting and auditing obligations and publishing these obligations in a reporting manual (the Reporting Manual).	NR	Information clause – does not require audit.	

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
39(2)	Hunter Water must comply with all of its reporting obligations set out in the Reporting Manual, including in relation to: (a) water conservation and planning; (b) performance standards for water quality; (c) performance standards for service interruptions; (d) organisational systems management; (e) customer and stakeholder relations; (f) information and services for competitors; and (g) performance monitoring and reporting, including; (i) IPART performance indicators; and (ii) the National Water Initiative Performance Indicators.	SC	Hunter Water self-reported a non-compliance with clause 39(2)(b) in their annual statement of compliance. A quarterly report to NSW Health was required to be submitted on 11 November 2023, however, the report was not submitted until five days later, on 15 November 2023.	
39(3)	Hunter Water must maintain sufficient record systems to enable Hunter Water to report accurately in accordance with clause 39(2).	SC		
39(4)	In the case of any disagreement between IPART and Hunter Water regarding the interpretation or application of any requirements of the Reporting Manual, IPART's interpretation or assessment of the application of the requirements will prevail.	NR	Information clause – does not require audit	
40	Provision of information for performance monitoring			
40(1)	Hunter Water must provide IPART or an Auditor with information relating to the performance of any of Hunter Water's obligations under clause 39 (including providing IPART with physical or electronic access to the records required to be kept under clause 39) within a reasonable period of time from Hunter Water receiving a request from IPART or an Auditor for that information.	SC		
40(2)	Hunter Water must provide IPART such information as is reasonably required to enable IPART to conduct any review or investigation of Hunter Water's obligations under this Licence within a reasonable time of Hunter Water receiving a request from IPART for that information.	SC		
40(3)	If Hunter Water engages any person (including a subsidiary) to undertake any activities on its behalf, it must take all reasonable steps to ensure that, if required by IPART or an Auditor, any such persons provide information and do the things specified in clause 38 and clause 39 as if that person were Hunter Water.	SC		
40(4)	If IPART or an Auditor requests information from Hunter Water that is confidential, the information must be provided to IPART, subject to IPART or the Auditor entering into reasonable arrangements with Hunter Water to ensure that the information remains confidential.	SC		

Licence clause	Operating Licence obligation	2024 audit requirement	Guidance for the auditor	Operating Licence objectives
40(5)	Hunter Water must provide NSW Health with information relating to water quality in the manner and form specified by NSW Health within a reasonable time of receiving NSW Health's request.	SC		

Source: IPART, Hunter Water Operational Audit 2022 - Report to the Minister – Compliance Report, June 2023.

Table 2 Recommendations / outstanding items from previous audits

Recommendation number	Operational issue (licence reference where applicable)	IPART's recommendation to the Minister	Audit findings (Status will be reported by Hunter Water in audit recommendations update on 30 June 2024 ^a)	Guidance for 2024 audit
2023-1-16(3)	Recycled water clause 16(3)	By 30 June 2024, engage with the farmer to ensure that the end user requirements identified in the signed contract are implemented.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-2-16(3)	Recycled water clause 16(3)	By 30 June 2024, ensure specific end user requirements are included in audit templates so that the relevant requirement is clearly identified prior to going on site, and the end user compliance can be appropriately assessed.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-3-21(2)	Asset management system clause 21(2)	By 30 June 2024, identify and implement feasible alternative methods (e.g. use of a drone) for reservoir inspection where access is not available, to ensure asset integrity is not compromised potentially impacting on drinking water quality and public health.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-4-23(2)	Quality management system clause 23(2)	Overdue documents (and documents coming up for review) should be rated for priority, for example as very high, high or low, by 30 June 2024, and those assessed as the highest priority are to be prioritised for review. A schedule for review is to be provided to IPART by 30 June 2024, with the timeframe to complete identified, and the review schedule implemented.	New recommendation from the 2023 operational audit.	Audit to check for completion (This recommendation replaces recommendations 2022/3.1.2-2, 2022/3.2.1-1 and 2022/4.1.2-2 from the 2022 audit which were not completed but do not require re-audit.)
2023-5-15(3)	Drinking water clause 15(3)	Ensure, by 30 June 2024 that "Potential Contamination Threat" and "Reservoir Integrity Failure" are updated in Protecht System so that when such incidents are input, they immediately require an email and phone call notification to NSW Health.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-6-15(3)	Drinking water clause 15(3)	Prior to 30 June 2024 engage with NSW Health to seek clarification as to whether it is appropriate to incorporate a 1 NTU turbidity COP at the point of disinfection, and if so, whether the 5 NTU turbidity reporting limit is required. If considered appropriate, implement the new COP as soon as practicable.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-7-15(3)	Drinking water clause 15(3)	By 30 June 2024, review the CCP table and explicitly incorporate the Chlorine Contact time (CT) as a critical limit to match the alarm in SCADA.	New recommendation from the 2023 operational audit.	Audit to check for completion

Recommendation number	Operational issue (licence reference where applicable)	IPART's recommendation to the Minister	Audit findings (Status will be reported by Hunter Water in audit recommendations update on 30 June 2024^a)	Guidance for 2024 audit
2023-8-15(3)	Drinking water clause 15(3)	By 30 June 2024 discuss the suitability of a variable shut down limit for the Dungog WTP (and any other similar system) in the NSW Health Liaison Committee meeting, and implement any change recommended.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-9-16(3)	Recycled water clause 16(3)	By 30 June 2024 implement a process or procedure such that water quality samples that are nominated to be collected and analysed at a frequency of less than daily but were missed are made up on the next workday after the day on which they would otherwise be taken.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-10-16(3)	Recycled water clause 16(3)	By 30 June 2024 align Figure 7-1 and Table 7-1 in Man-3077 HW Morpeth RWTP – Chisholm Scheme RWMP, and ensure SCADA matches these limits.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-11-21(2)	Asset management system clause 21(2)	By 30 June 2024, include details of contractors used and an organisational chart detailing the relationship on internal and external resources for the "resourcing structure" of the AMS.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-12-21(2)	Asset management system clause 21(2)	By 30 June 2024, include a plan or schedule on how safety critical devices will be identified and managed with identified safety critical items coded as safety critical in Ellipse for the asset base outlined in the AMS scope.	New recommendation from the 2023 operational audit.	Audit to check for completion
2023-13-21(2)	Asset management system clause 21(2)	By 30 June 2024, include a "root cause workshop" in the incident investigation process for determining the root cause of an asset failure.	New recommendation from the 2023 operational audit.	Audit to check for completion
2022/5.3.1-1	Assistance options for payment difficulties and actions for non-payment clause 27(1)	By 30 September 2023, Hunter Water must ensure its key policies and standards for payment assistance and actions for non-payment are reviewed, approved and signed in line with its document review schedule.	Ongoing At the time of the 2023 operational audit, the auditor found that the Standard for Non-Payment Collections and the Customer Support Policy - Supporting customers who may be experiencing vulnerability - was reviewed in September 2022, with the next scheduled review date superseding this date. The policy had not been signed and it was not published on the Hunter Water website.	Auditor to check for completion.

Recommendation number	Operational issue (licence reference where applicable)	IPART's recommendation to the Minister	Audit findings (Status will be reported by Hunter Water in audit recommendations update on 30 June 2024 ^a)	Guidance for 2024 audit
2021-1	Drinking water clause 3.1.1 (2017-2022 licence) Equivalent to drinking water clause 15(1) of the 2022-2027 licence.	By 31 March 2023, Hunter Water must undertake a review and revise both the MidCoast Council and the Central Coast Council water supply agreements, with particular attention to quality, quantity, maintenance, operations and ownership aspects.	Ongoing At the time of the 2023 operational audit, the auditor found that the MidCoast Council agreement review had progressed, however the deed of variation that focus on water quality reporting had not yet been created. Hunter Water noted that the current agreement was still valid, legal and ongoing. (The Central Coast Council agreement had been reviewed, and a new Operations and Maintenance Manual was signed by both parties in January 2024. We consider this component of the recommendation is complete.)	Auditor to check for completion.

a Hunter Water is required to provide a report on progress by 30 June 2024.

Note: Licence references are to the Hunter Water Operating Licence 2022-2027 unless otherwise stated.

Source: IPART, Hunter Water Operational Audit 2023 – Report to the Minister, March 2024.






Table 3 Previous field verification locations for Hunter Water's audits

Audit year	Location	Facility
2023	Dungog water treatment plant	Water treatment plant
	Dungog Recycled Water Plant	Recycled water treatment plant
	Morpeth Recycled Water Plant	Recycled water treatment plant
	Medowie Reservoir	Reservoir
	Hydrant repair at Lorn.	Hydrant repair
2022	Tomago and Ferodale	Grahamstown dam and water treatment plant
	North Lambton	North Lambton 1 Reservoir and chlorinator
	Merewether	Merewether 2 high level tank (decommissioned reservoir)
	Branxton	Branxton wastewater treatment works
	Gateshead	Water main construction
2021	Gresford and Lemon Tree Passage water treatment plants	Water treatment plant
	Edgeworth, Cessnock and Kurri Kurri recycled water schemes	Recycled water scheme
2020	Farley recycled water scheme	Wastewater treatment plant Recycled water treatment plant Gillieston Heights recycled water network
	Tomago sandbeds	Borefield
	Tomago	Grahamstown water treatment plant
	George Schroder pumping station	Schroder PAC dosing facility
	Anna Bay	Water treatment plant
	Nelson Bay	Water treatment plant
	2019	Morpeth
Chisholm		Recycled water network in urban development
Chisholm		Chisholm No. 2 re-chlorination facility
Adamstown Heights		No. 1 & No. 2 reservoirs
Fern Bay		Chemical dosing facility for sewerage network (an environmental improvement site)
2018	North Lambton	Maintenance depot Reservoir
	Lambton	Observed planned maintenance activity (faulty valve replacement works)
	Morpeth	Wastewater treatment works (including recycled water)
	Dungog	Water treatment plant
2017	Kurri Kurri	Wastewater Treatment Plant
	Gresford	Water Treatment Plant and Water Pump Station
	North Lambton	Maintenance Depot and Planned Maintenance repair
	Wallsend	Water Pump Station

2016	Elermore Vale	Reservoir
	Tomago Sandbeds	Borefields
	Lemon Tree Passage	Water Treatment Plant
	Karuah	Wastewater Treatment Plant and the reuse enterprise
	Boulder Bay	Wastewater Treatment Plant
2015	Edgeworth	Wastewater Treatment works
	KIWS (Kooragang Industrial Water Scheme), incl. Mayfield West plant	Advanced Water Treatment Plant (recycled water)
	Grahamstown	Spillway
	Grahamstown	Water Treatment Plant
	Campvale	Pumping station
2014	Chichester	Dam
	Dungog	Water Treatment Plant
	Clarence	Sewage Treatment Plant
	Boags Hill	Inlet
	Seaham	Weir
2013	Branxton	Recycled Water Treatment Plant
	Grahamstown	Water treatment plant
2012	Port Stephens	Lemon Tree Passage Water Treatment Plant
	Grahamstown	Dam
	Campvale	Pumping station
	Between Newcastle and Port Stephens	Tomago Sandbeds
	Karuah	Sewage Treatment Plant
2011	Dungog	Water Treatment Plant
	Grahamstown	Water Treatment Plant
	n/a	Service reservoirs and storages
	n/a	Work sites – mains replacement and burst mains repair

B Compliance grades

Table B.1 Current compliance grades

Compliance grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Compliant (minor shortcomings)	Sufficient evidence is available to confirm that the requirements have been met apart from minor shortcomings which to date have not compromised the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (non-material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is not available to confirm the requirements have been met and the deficiency does adversely impact the ability of the utility to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There is no requirement for the utility to meet this criterion within the audit period.

Source: IPART, [Public Water Utility Audit Guideline](#), July 2023, p 28.

C Hunter Water's Statement of Compliance



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29 August 2024

Our Ref: BCAR24-8-02/2

The Chief Executive Officer
Independent Pricing and Regulatory Tribunal of NSW
Level 15, 2-24 Rawson Place
SYDNEY NSW 2000

Email: compliance@ipart.nsw.gov.au

Dear Mr Nicholls

**Statement of Compliance for 2023-24
Submitted by Hunter Water Corporation (Hunter Water)**

Hunter Water reports as follows:

1. This statement documents compliance during 2023-24, with all obligations to which Hunter Water is subject by virtue of its Operating Licence.
2. This report has been prepared by Hunter Water Corporation with all due care and skill, including to ensure that all information provided is true and correct, in full knowledge of conditions to which Hunter Water Corporation is subject under the *Hunter Water Act 1991*.
3. Schedule A provides information on all obligations with which Hunter Water did not comply during 2023-24.
4. Other than the information provided in Schedule A, Hunter Water Corporation has complied with all conditions to which it is subjected to.
5. This compliance report has been approved by the Chief Executive Officer (or equivalent) and the Chair of the Board of Directors of Hunter Water Corporation/Duly authorised Board Member of Hunter Water Corporation.

DATE: 29.08.2024

DATE: 29.08.2024

Signed:

Signed:

Name: Darren Cleary

Name: Geoff Crowe

Designation: **Managing Director**

Designation: **Interim Board Chair**

Schedule A – Non-compliances

Table #	Licence Clause Breached	Description
1	<p>Clause 39 - Reporting</p> <p><i>(1) IPART has the function of determining Hunter Water's reporting and auditing obligations in the reporting manual</i></p> <p><i>(2) Hunter Water must comply with all its reporting obligations set out in the reporting manual</i></p>	<p>Section 3.1.2 of the reporting manual requires Hunter Water to submit a quarterly exception report to NSW Health if the performance standards for water quality are not met.</p> <p>A quarterly report to NSW Health was required to be submitted on 11 November 2023, however, the report was not submitted until five days later, on 15 November 2023.</p> <p>The root cause of this non-compliance was human performance issue culminating in a communication failure - the responsible person for preparing the exception report retired from Hunter Water during the reporting period and the task had not been fully handed over.</p> <p>The system used to manage reporting obligations requires changes to responsible personnel to be communicated and manual adjustments to be undertaken in such circumstances, however, this communication did not occur in a timely manner.</p> <p>When it became apparent that the reporting deadline had been missed, corrective action was immediately taken to submit the report and an apology to NSW Health was made. To prevent a recurrence of this incident, a new automated computer software system has been implemented.</p> <p>The belated submission of the relevant report did not cause any service disruption and there was no identified impact to customers.</p>

D Audit process

We apply our [Compliance and Enforcement Policy](#) in developing the annual audit scopes. The policy explains our risk-based regulatory model. Under the policy, we can:

- focus on allocating resources to areas of higher risk
- increase our efficiency in undertaking audits
- tailor our enforcement response.⁷

Our risk-based approach centres around evaluating the risk that each part of our regulatory function aims to reduce. We evaluate risks by considering the likelihood of harm occurring in the absence of our regulatory controls and the potential consequence of that harm. We then consider how likely it is that a regulated entity will not properly implement a regulatory control.

We identify and document historical, current and emerging risks. This allows us to allocate resources proportionately to the risk and complexity of a regulated entity and its behaviours.

The audit process involves receiving and reviewing reports, undertaking and attending audit interviews with Hunter Water staff and undertaking field verification to investigate if the requirements of the licence are met in practice.

D.1 2024 audit scope

We do not audit all licence clauses annually. Instead we adopt a risk-based approach to scoping the audits, which means we audit 'high risk' clauses more frequently and 'low risk' clauses less frequently. We conduct audits in accordance with our Public Water Utility Audit Guideline.⁸

The audit scope for Hunter Water's 2024 audit included obligations on:

- Licence context (Part 2) – requirements on water conservation, Current Economic Method, and water planning.
- Performance standards for water quality (Part 3) – requirements on drinking water and recycled water.
- Performance standards for service interruptions (Part 4) – requirements on system performance standards.
- Performance standards for organisational systems management (Part 5) – requirements on asset management, environmental and quality management.
- Performance standards for stakeholder cooperation (Part 7) – having and maintaining memoranda of understanding (MoU) with relevant agencies
- Information and services for competitors (Part 8) – requirements on negotiating and establishing a code of conduct with potential competitors.

We did not audit clauses from Part 1 (Licence Authorisation), Part 6 (Customers and Consumers) and Part 9 (Performance monitoring and reporting) of the Licence this year.

The audit scope is included in Appendix A.

We also consulted with NSW Health, Fire and Rescue NSW (FRNSW) and NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) to determine the scope of the audit. We received submissions from all 3 stakeholders.

- DCCEEW and the Minister for Water suggested that the audit check Hunter Water's compliance with its obligation to negotiate with *Water Industry Competition Act 2006* (WIC Act) licensees and potential competitors in good faith.
- NSW Health suggested that the audit:
 - check Hunter Water's progress on updating its recycled water risk assessments following updates to its risk taxonomy, risk appetite statements and the ERM Framework
 - review actions from the latest liaison meetings that looked at data used to validate absence of cross-connections within the drinking water and recycled water networks
 - consider activities at Grahamstown Dam and either the Edgeworth or Cessnock recycled water treatment plants.
- FRNSW noted that:
 - In its view, Hunter Water has met its obligation in relation to compliance with an MoU with FRNSW.
 - Hunter Water has provided pressure and flow performance data for all hydrants in its network. Hunter Water has continued a fire flow improvement program to improve the performance of areas of their network with low fire flows, where this is economically feasible. FRNSW has been consulted in prioritising upgrade works.
 - Hunter Water participated in a joint consultation with FRNSW on the pressure reduction program to ensure network reliability and review of infrastructure in bushfire-prone land.

D.2 2024 audit plan

We engaged Bligh Tanner Pty Ltd to undertake the 2024 Hunter Water audit.

We held a project start-up meeting with the auditor on 29 July 2024 to agree on the project milestones, audit timing, and outline our expectations. We participated in the audit inception meeting with Hunter Water and the auditor on the first day of the audit interviews, on 19 November 2024. At this meeting, we agreed on expectations and protocols for the conduct of the audit. All parties adhered to the agreed protocols throughout the audit.

We required the auditor to undertake the following tasks:

1. Review stakeholder submissions.
2. Prepare an information request (questionnaire) setting out all the requirements for information and evidence, at least four weeks prior to the commencement of audit interviews (for this audit, the auditor issued the questionnaire before the audit interviews commence).
3. Review reports and documents provided by Hunter Water in response to the questionnaire.
4. Conduct interviews with Hunter Water staff as appropriate.
5. Conduct field verification to assess the implementation of Hunter Water's systems and procedures.

6. Assess the level of compliance (in line with our compliance grades) Hunter Water achieved for each of the identified Licence obligations, and provide supporting evidence for this assessment.
7. Assess and report on progress by Hunter Water in addressing any comments made by the relevant Minister and/or our recommendations from previous audits, providing supporting evidence for these assessments.
8. Verify the calculation of performance indicators associated with requirements of the relevant licence and assess trends in performance arising from these indicators.
9. Provide summary of audit findings and a draft audit report to us and address comments from Hunter Water and us regarding draft audit findings.
10. Prepare and submit a final report outlining audit findings (the report is in Appendix E).

The auditor adopted a methodology consistent with IPART's *Public Water Utility Audit Guideline* (July 2023). This guideline defines IPART's requirements for an audit to ensure that it is conducted in accordance with an established and recognised audit protocol. The auditor can make recommendations or suggest opportunities for improvement under the guideline. The auditor undertook the audit in accordance with the principles of auditing as outlined in *AS/NZS ISO 19011:2019 Guidelines for auditing management systems*.

Where we support an auditor's recommendation, we make a recommendation based on the auditor's recommendation. Our recommendations are summarised in the Executive Summary of this report.

Where the auditor suggests opportunities for improvement, Hunter Water can decide whether to implement these suggestions. This approach aims to balance improved performance with the investment required to achieve it (i.e. we want Hunter Water to first consider the pricing implications and value for money of continued improvement). Therefore, while we encourage Hunter Water to consider the auditor's suggestions, we do not follow these up. The auditor's suggested opportunities for improvement are included in the auditor's report in Appendix E.

The auditor conducted audit interviews from 19 November 2024 to 21 November 2024. On 20 November 2024 the auditor also undertook a site visit to the following locations:

- Seaham Weir including flood gates, fishway, water extraction
- Balickera Canal
- Balickera pump station
- Grahamstown Dam
- Grahamstown Water Treatment Plant
- Elermore Vale Reservoir
- Edgeworth Wastewater Treatment Works
- Edgeworth Recycled Water Scheme.

The auditor assessed Hunter Water's compliance with the relevant requirements of the Licence per the compliance grades outlined in Appendix B.

E Auditor's report



BLIGH TANNER

Hunter Water License Audit 2024

IPART

Date: 28 February 2025

DOCUMENT	Hunter Water License Audit 2024		
JOB NUMBER	2023.0363C		
LEAD AUDITOR	Dr Michael Lawrence		
LEAD AUDITOR	Sean Hinton		
CLIENT	IPART		
VERSION	AUTHOR	REVIEW	DATE
Draft	M Lawrence, S Hinton	S Hinton, M Lawrence	02/12/2024
Draft V.2	M Lawrence, S Hinton	S Hinton, M Lawrence	02/12/2024
V.3	M Lawrence, S Hinton	S Hinton, M Lawrence	17/12/2024
V.4	M Lawrence, S Hinton	S Hinton, M Lawrence	3/02/2025
V.5	M Lawrence, S Hinton	S Hinton, M Lawrence	28/02/2025

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EXECUTIVE SUMMARY

Operational Audit

Bligh Tanner was engaged by the Independent Pricing and Regulatory Tribunal (IPART) to audit Hunter Water's compliance with its license conditions. The audit was conducted in November 2024, and this report outlines the audit outcomes.

The scope of the audit was determined by IPART (License conditions to be audited) and is a risk-based assessment of compliance. In addition to the compliance with the license conditions, there is a requirement for the auditor to audit and report on the progress to address previously identified recommendations.

The audit has identified that Hunter Water has mature systems that are well developed and typically well implemented. Throughout the audit the auditees were open, providing detailed information of their procedures and practices, and demonstrated a high level of understanding of the impact that their actions have on other aspects of the business. The integration of management systems is at a high level.

Further, it is clear that the Executive Team are well informed of performance across licenced areas and have a high level of understanding of the key risks to the business. This is demonstrated through the relevant reporting requirements, and this results in decision making that is consistent with the intent of the various management systems audited. It is also apparent that the organisational values are embedded throughout Hunter Water.

As with the previous year's audit, also conducted by Bligh Tanner, we specifically note that Hunter Water and all auditees were highly cooperative throughout the audit, and demonstrated a high level of knowledge, and dedication to their roles. They approached the audit positively, and indicated they treated the audit as an opportunity to improve.

The audit has identified that Hunter Water is generally compliant with the license conditions audited. In some cases, the audit has identified that there were aspects of particular license clauses where the evidence either did not demonstrate full compliance resulting in a Compliant – Minor Shortcoming grading, or there were Non-compliances that were assessed as non-material. A summary of each of these findings are presented below.

Finally, during the audit, there were observations made where the auditors have identified potential alternatives to the current practices. In these cases, opportunities for improvement have been identified and are presented for consideration in this report.

Non-Compliant Non-Material Findings

The following table identifies the non-compliant (non-material) findings and provides the recommendation.

Reference Number	License Clause	Audit Question	Auditor interpretation
License Obligation: 21(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.			
2024-1-21(2)	21(2)	Provide any specific asset related Risk Management processes underway during the audit period	<p>The Annual Risk Driver Review for 2024 was delayed due to Hunter Water's transition to their new Risk Taxonomy. This is a technical nonconformance with Hunter Water's Enterprise Risk Management Standard, section 4.3, in which it states that "The risk driver review is to be conducted at least annually..." and "Additional reviews can be initiated if material changes in the drivers are detected or at the instruction of the Executive risk owner, Audit & Risk Committee or Board".</p> <p>Recommendation 2024-1-21(2): By 30 June 2025, consider the process for deferring the requirements under the management system in exceptional circumstances and in consultation with the relevant stakeholders. Options that could be considered include update of the relevant documentation to specify who has approval authority to defer requirements, or clarification of the relevant business process to be used for management of planned deviation from approved procedure or process (also known as temporary change). This could fit within the NCR process, the change management process or be a standalone process.</p>
2024-2-21(2)	21(2)	Provide asset maintenance registers (<i>specific records will be requested</i>)	<p>A Reservoir Inspection at Arcadia Vale Reservoir on 3 June 2024 identified a fault in vermin proofing mesh. The inspector filled in his iAuditor report, reported to Field Supervisor (First Responders) same day. The job was logged in the Asset Operations Maintenance System (AOMS) and a work order was promptly raised for rectification and assigned as a priority 6 (3 month response time). An email was also sent to internal stakeholders including photographs. The Guideline - AOMS Priority Matrix states that 'maintenance required on an asset, e.g. Reservoirs' should be assigned as a priority 4 (14-day response time). Although the work was completed 15 days after the fault was identified, this was outside of the 14-day requirement. This is identified as a non-compliance (non-material) with Hunter Water's Asset Management System.</p> <p>Recommendation 2024-2-21(2): By 30 June 2025, review existing business processes for assigning work priorities following reservoir inspections and if necessary, undertake training of the staff involved in these processes to ensure that reservoir defects are prioritised appropriately and addressed in a timely manner.</p>

Compliant Minor Shortcoming Findings

The following table identifies the Compliant (Minor Shortcoming) findings and provides the recommendation.

Reference Number	License Clause	Audit Question	Auditor interpretation
License Obligation: 15(3) Hunter Water must fully implement the Drinking Water Quality Management System and carry out all relevant activities in accordance with the Drinking Water Quality Management System, and to the reasonable satisfaction of NSW Health.			
2024-3-15(3)	15(3)	Provide the overarching map/matrix of responsibilities relating to drinking water	<p>It was identified that the Drinking Water Quality Framework Matrix of Responsibilities contained a gap, whereby a responsibility had been included without an 'owner' (specifically: <i>Naegleria fowleri</i> monitoring program meets requirements).</p> <p>It is noted that Hunter Water had already completed this action in November 2024 and the finding can be closed out, however the finding and recommendation have been retained as a point in time record of the audit findings covering the audit period.</p> <p>Recommendation 2024-3-15(3): By 30 June 2025, ensure that all identified responsibilities under the DWQMS have an owner</p>
License Obligation: 16(3) Hunter Water must fully implement the Recycled Water Quality Management System and carry out all relevant activities in accordance with the Recycled Water Quality Management System, and to the reasonable satisfaction of NSW Health.			
2024-4-16(3)	16(3)	<p>Provide evidence of engagement with stakeholders for the use of recycled water.</p> <p>Identify when and how customers are made aware of the allowable uses for recycled water and provide examples.</p> <p>Identify the requirements for end users for safe use of recycled water.</p>	<p>The end user agreement for Waratah Golf Club was originally signed in 2017 but has since expired. Hunter Water has managed this by "rolling over" the agreement. For example, a letter to the Waratah Golf Club from 2021 indicated they are required to comply with the previous agreement, while also stating that new agreements were being prepared.</p> <p>As of 2024, there are draft recycled water agreements being progressed through legal review. It is considered necessary to have effective agreements in place with all customers so that any public health and environmental risks can be managed through the entire process, and the relevant responsibilities are clear.</p> <p>Recommendation 2024-4-16(3): By 31 December 2025, review all recycled water end user agreements for currency and suitability, and where required, update the agreements.</p>
License Obligation: 17(1) Hunter Water must ensure that, in each financial year, at least 9,619 per 10,000 Properties (in respect of which Hunter Water provides a Drinking Water supply Service) receive a Drinking Water supply Service unaffected by an Unplanned Water Interruption (the Water Continuity Standard).			
2024-5-17(1)	17(1)	Provide evidence of all unplanned outages in the past financial year, and where these have occurred demonstrate how you have calculated the number of affected properties (including multiple occupancy properties). Subsequently, identify how you reach the final	<p>The performance against the licence requirement is assessed by running a query against the AOMS database where the data related to outages is documented. Following the outage, an initial count of the number of impacted properties is determined through use of the Geographic Information System where the identified valves are closed and the break simulated. This results in an accurate determination of the number of impacted properties per outage.</p> <p>Subsequently, this outcome is cross referenced against customer complaints related to loss of supply as a validation. In cases where there are other properties outside of the initially identified zones that are impacted, this delays the finalisation of that report while the extent of the outage is investigated.</p>

Reference Number	License Clause	Audit Question	Auditor interpretation
		value for comparison with the standard.	<p>During the audit it was identified that there were properties that were not captured in the query as the investigation had not closed within the query timeframe. Several examples were identified where the number of customers impacted was not counted in the value provided (AOMS job numbers 708114 identified 92 customers that had a >5 hour outage (not originally counted), and 710021 - 14 customers impacted for 5 hours (also not originally counted). On re-evaluation, it was demonstrated that the Water Continuity Standard was met – i.e. Hunter Water was compliant with the license clause. However, as the query that is used to demonstrate compliance was not accurate, this is a minor shortcoming.</p> <p>Recommendation 2024-5-17(1): By 30 June 2025 update the query used to extract the Water Continuity Standard data to ensure that the known number of customers impacted is accurately reported, and compliance with the standard can be demonstrated. <i>Note: the recommendation has already been implemented in Nov 2024.</i></p>

Opportunities for improvement

During the audit, the auditors have identified the following items for consideration by Hunter Water. These opportunities for improvement are suggestions rather than requirements. They are included in this summary for ease of location of the items.

Reference Number	License Clause	Opportunity Identified
		License Obligation: 15(3) Hunter Water must fully implement the Drinking Water Quality Management System and carry out all relevant activities in accordance with the Drinking Water Quality Management System, and to the reasonable satisfaction of NSW Health.
		Opportunity for Improvement 15-1 In line with the program of work already underway, remove duplication of alarming at Anna Bay WTP (and any other WTPs that may have similar issues) during the implementation of the Critical Control Point (CCP) Function Block.
		Opportunity for Improvement 15-2 The Gresford CCP Limit Table specifies limits for both continuous (online) monitoring as well as periodic tests, i.e. grab samples. The frequency of membrane integrity testing could also be specified in the CCP limit table.
		Opportunity for Improvement 15-3 It was noted that the process described in the 'User Guide – Verification of Monitoring Compliance and Review of Water Quality Data' is relatively complex. Consider whether there is a means to streamline the verification of monitoring compliance process using automated functionality in EnviroSys, Business Intelligence, or other system.
		Opportunity for Improvement 15-4 Consider revisiting discussions with NSW Health on whether a free chlorine primary disinfection contact time (CT) of 15mg.min/L is appropriate under all circumstances. The Chlorine Validation Protocol provides CT requirements greater than 15mg.min/L in circumstances where pH is elevated and temperature is low, which may or may not be applicable to some of Hunter Water's drinking water schemes.
		License Obligation: 16(3) Hunter Water must fully implement the Recycled Water Quality Management System and carry out all relevant activities in accordance with the Recycled Water Quality Management System, and to the reasonable satisfaction of NSW Health.
		Opportunity for Improvement 16-1 Review the validation of secondary treatment to assess whether pathogen reduction is achieved if the process is impacted. If appropriate, consider whether other indicators such as ammonia or maximum aeration should be used as control points to improve the resilience of the overall pathogen reduction at relevant plants. This is considered to be more important for higher risk end users such as the proposed Lake Macquarie sporting field irrigation scheme that is in development.

Reference Number	License Clause	Opportunity Identified
License Obligation: 21(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.		
Opportunity for Improvement 21-1 For clarity it would be useful to explain how stakeholder requirements / expectations were determined (page 8 of the SAMP).		
Opportunity for Improvement 21-2 Consider whether the Asset Class Plan - Reservoirs adequately addresses water quality considerations. As an example, the ERM Risk Assessment in Appendix E suggests that vermin access to a reservoir is a low risk and controlled by bi-monthly inspections, water quality testing and dosing.		
Opportunity for Improvement 21-3 Update written direction/work instruction around use of drones for Reservoir Inspections to consider time of day/time of year, to ensure that all key aspects being inspected can be clearly viewed by the Drone Operator. It was noted that during the November 2024 IPART Operational Audit that the vermin mesh could not be clearly seen due to the contrast between the bright sunlight and the shaded area underneath the overhanging roof where the vermin proofing mesh was.		
Opportunity for Improvement 21-4 Once the Drinking Water Reservoir Risk Assessment has been completed, use the findings to develop a Plan (or amend existing documentation) that defines the methodology (e.g. human vs drone inspection) and frequency of Reservoir inspections based on the risk.		
License Obligation: 22(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Environmental Management System.		
Opportunity for Improvement 22-1 Identify the relevant areas of overlap between National Parks and Hunter Water. Take actions to formalise engagement with this key stakeholder. This may also be relevant to the drinking water clause.		
License Obligation: 23(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.		
Opportunity for Improvement 23-1 Define and justify acceptable targets for document review based on document criticality (e.g. % of document reviews completed by due date) and report on these targets quarterly to the Risk and Assurance EMT.		

Recommendations Yet to be Completed

There was one recommendation from a previous audit which remained open, as summarised below.

Reference Number	Recommendation	Status	Overall finding	Recommendation
2021-1	By 31 March 2023, Hunter Water must undertake a review and revise both the MidCoast Council and the Central Coast Council water supply agreements, with particular attention to quality, quantity, maintenance, operations and ownership aspects.	Hunter Water have not yet had a response from MidCoast Council on the revised Agreement provided on DATE. Hunter Water is actively working toward resolution and expect this to be closed prior to our next IPART update (30 June 2025).	Compliant – Minor Shortcoming (ongoing)	Confirm status of this action at the next audit.

Audit Statement

This audit report is a true and accurate reflection of the findings of the audit, and the opinions of the auditors; the audit outcomes are based on the review of sufficient information for the auditors to make an informed decision for each criteria.

However, as is the case for any audit, only a small proportion of all possible information was assessed. As such, components of the audit may have been assessed differently had different information been reviewed.

A handwritten signature in blue ink, consisting of the letters 'SH' followed by a long horizontal flourish.

Sean Hinton

A handwritten signature in blue ink, written in a cursive style that reads 'Michael Lawrence'.

Michael Lawrence



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APPENDICES

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GLOSSARY

TERM	DEFINITION
ACF	Asset Creation Framework
ADWG	Australian Drinking Water Guidelines
AGWR	Australian Guidelines for Water Recycling
ALS	Australian Laboratory Services
AMP	Asset Management Plan
AMS	Asset Management System
AOMS	Asset Operations Maintenance System
BCO	Business Compliance Officer
BCP	Business Continuity Plan
BOD	Biochemical Oxygen Demand
CCP	Critical Control Point
CEMP	Corporate Emergency Management Plan
CHAIR	Construction Hazard Assessment and Implication Review
CoNEXA	A WIC Act licensee
COP	Critical Operation Point
CT	Concentration x Time (a measure of disinfection)
CWT	Clear Water Tank
DALY	Disability Adjusted Life Years
DAT	Design Assurance Testing
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPE	Department of Planning and Environment (now DCCEEW)
DSMS	Dam Safety Management System
DW	Drinking Water
DWQ	Drinking Water Quality
DWQA	Drinking Water Quality Assurance
DWQIP	Drinking Water Quality Improvement Plan

TERM	DEFINITION
DWQMS	Drinking Water Quality Management System
EM	Executive Manager
EMP	Environmental Management Plan
EMS	Environmental Management System
EMT	Executive Management Team
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ERM	Enterprise Risk Management
FRNSW	Fire and Rescue NSW
GHG	Greenhouse Gas
GIS	Geographic Information System
GW	Groundwater
HACCP	Hazard Analysis Critical Control Point
HBT	Health Based Targets
HW / HWC	Hunter Water / Hunter Water Corporation
IMS	Integrated Management System
ISO	International Organization for Standardization
IPART	Independent Pricing and Regulatory Tribunal
LHWSP	Lower Hunter Water Security Plan
MEAP	Marine Environment Assessment Program
MOU	Memorandum of Understanding
MS	Microsoft ©
MWTO	Manager Water Treatment Operations
NATA	National Association of Testing Authorities
NCR	Non-Conformance Report
NEMP	National Environmental Management Plan
NGER	National Greenhouse and Energy Reporting Scheme
NPR	National Performance Report
NSW	New South Wales

TERM	DEFINITION
NTU	Nephelometric Turbidity Unit
OCU	Odour Control Unit
OFI	Opportunity for Improvement
PAC	Powdered Activated Carbon
PDP	Project Development Plan
PFAS	Per- and poly- fluoroalkyl substances
PHU	Public Health Unit
PIRMP	Pollution Incident Response Management Plan
PNO	Private Network Operator
PRPs	Pollution Reduction Programs
QC	Quality Control
QMS	Quality Management System
RA	Risk Assessment
RACI	Responsible, Accountable, Consulted, Informed (<i>responsibility assignment method</i>)
RCA	Root Cause Analysis
RFS	Rural Fire Service
RIVO	A software platform used by Hunter Water
RW	Recycled Water
RWMP	Recycled Water Management Plan (equivalent to the license requirement for a Recycled Water Quality Management System)
RWQMP	Recycled Water Quality Management Plan (Veolia documents)
RWTP	Recycled Water Treatment Plant
SAMP	Strategic Asset Management Plan
SCADA	Supervisory Control and Data Acquisition
SW	Surface Water
UVT	Ultraviolet Transmittance
WHS	Work Health and Safety
WIC Act	<i>Water Industry Competition Act 2006</i>
WQC	Water Quality Committee
WSAA	Water Services Association of Australia

TERM	DEFINITION
WTP	Water Treatment Plant
WWPS	Wastewater Pump Station
WWTW	Wastewater Treatment Works

PREVIOUS AUDIT RECOMMENDATIONS

Section Findings

Previous audit findings are required to be reviewed in following audits. The following recommendations were assessed for completion during the audit interviews.

2023-1-16(3)

By 30 June 2024, engage with the farmer to ensure that the end user requirements identified in the signed contract are implemented.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation / OFI
Provide evidence of completion	Evidence located in Independent Pricing and Regulatory Tribunal (IPART) Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\2023-1-16(3) Recommendation Dungog Farmer Follow-up on Operating License Requirements - Irrigating RW Cooreei-Pty-Ltd inspection June 2024	The issue was in relation to the requirement to have a buffer zone within 25-30m of public access areas such as roads when irrigating recycled water. One of the photos from an inspection appeared to show irrigation taking place up to the fence line near the main entrance to the site. Hunter Water wrote to the farmer requesting this issue be addressed and a subsequent site inspection was also undertaken. This site visit enabled the farmer to explain the irrigation system was in fact mobile and was simply pulled out to areas where required. The buffer zone would now be implemented by not extending the irrigation pipeline within the 30m zone.	The farmer has been made aware of the buffer zone, and they no longer irrigate within 30m of the fence line. Further spot audits have been scheduled by Hunter Water to be conducted in future.	Compliant	Close

2023-2-16(3)

By 30 June 2024, ensure specific end user requirements are included in audit templates so that the relevant requirement is clearly identified prior to going on site, and the end user compliance can be appropriately assessed.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide example templates for end users - demonstrate for Dungog and for Edgeworth	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\2023-2-16(3) Site inspection template	Hunter Water has developed new templates on the Safety Culture platform. The evidence shows screen shots of the template. The user must answer questions asking if they have reviewed the onsite control requirements prior to inspection. The template sets out the onsite controls and has a section on agriculture controls.	Templates for inspections were developed. The inspection template was reviewed and found to be user friendly and prompts the need to check end user requirements prior to site visits.	Compliant	Close

2023-3-21(2)

By 30 June 2024, identify and implement feasible alternative methods (e.g. use of a drone) for reservoir inspection where access is not available, to ensure asset integrity is not compromised potentially impacting on drinking water quality and public health.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management\A. 2023 Recommendations\2023-3-21(2) Memo - File note - Use of drones for Reservoir Water Quality Inspection Program	No additional commentary provided.	Elernmore Vale Reservoir drone inspection was witnessed, and the inspection report was completed in front of the auditor. Opportunities for further improvements noted against Clause 15.	Compliant	Close

2023-4-23(2)

Overdue documents (and documents coming up for review) should be rated for priority, for example as very high, high or low, by 30 June 2024, and those assessed as the highest priority are to be prioritised for review. A schedule for review is to be provided to IPART by 30 June 2024, with the timeframe to complete identified, and the review schedule implemented.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: Hunter Water\Questionnaire\Evidence - Clause 23 Quality Management System	No additional commentary provided.	Hunter Water has rated all documents for criticality - High, Medium, Low. This was provided to IPART on 30 June along with dates for document review completion. Approval workflows are generated in MS Teams. The Managing Director signs off on all Policies and external documents. Work in progress to have staged deadlines for different reviewers to ensure final approval deadline is met.	Compliant	Close

2023-5-15(3)

Ensure, by 30 June 2024 that "Potential Contamination Threat" and "Reservoir Integrity Failure" are updated in Protecht System so that when such incidents are input, they immediately require an email and phone call notification to NSW Health.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water\Z. Recommendations	Protecht now provides guidance on reporting protocol for Water quality incident through selecting the following event types: potential contamination threat -> reservoir integrity failure (see screenshot). This outcome "Event of potential public health significance", according to Criteria for Notification to NSW Health triggers an email and a phone notification to NSW Health .	Protecht Action Report (1105860) shows this recommendation raised in the Protecht system for action, and notes made 24/04/2024 to state that Protecht had been updated in accordance with the recommendation. Screenshot images were also provided to show the outcome of selecting "Potential Contamination Event" and "Reservoir Integrity Failure".	Compliant	Close

2023-6-15(3)

Prior to 30 June 2024 engage with NSW Health to seek clarification as to whether it is appropriate to incorporate a 1 NTU turbidity Critical Operation Point (COP) at the point of disinfection, and if so, whether the 5 NTU turbidity reporting limit is required. If considered appropriate, implement the new COP as soon as practicable.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water\Z. Recommendations	<p>NSW Health first engaged during March 2024 liaison meeting on this recommendation. Implementation meeting held with NSW Health on 2nd October to extend implementation to all Hunter Water treatment plants rather than just Dungog. The discussed implementation of the turbidity COP was agreed upon as:</p> <ul style="list-style-type: none"> - Plants with filtration where the turbidity COP would be introduced are Dungog and Grahamstown Water Treatment Plants (WTPs). The turbidity limit at point of disinfection could be a COP since there will be a Critical Control Point (CCP) at the filtration barrier upstream already. - Gresford WTP has a filtered water CCP at the point of disinfection already and so an additional COP for turbidity at the point of disinfection has not been proposed. Lemon Tree Passage WTP has existing filtered water turbidity CCPs very close to the point of disinfection and so an additional COP for turbidity at the point of disinfection has not been proposed. - For plants without filtration (Nelson Bay & Anna Bay), where disinfection is the only barrier, Hunter Water proposes to change the existing raw water turbidity COP into a CCP and the Clear Water Tank outlet turbidity CCP into a COP. Turbidity monitoring at raw water inlet is more critical as it has the potential to compromise disinfection through pathogen shielding. <p>NSW Health were overall satisfied with the proposed changes and concepts, however, more detail will be provided for plants where there are no changes required. NSW Health understand that plant design and size are the driver for the variable proposed COP location at each plant. Actual target values for any new/modified monitoring points were not intended to be discussed and detailed values will be provided to NSW Health to seek satisfaction. Any changes to the existing or new CCP Critical limits will constitute a significant change.</p>	Sighted evidence of this recommendation being discussed at the March 2024 Health Liaison as well as October 2024 'IPART recommendations Discussion with NSW Health'. Hunter Water's proposed approach across all WTPs is logical and reasonable and has been agreed with NSW Health.	Compliant	Close

2023-7-15(3)

By 30 June 2024, review the CCP table and explicitly incorporate the Chlorine Contact time (CT) as a critical limit to match the alarm in SCADA

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation / OFI
Provide evidence of completion	Evidence located in IPART Sig-box location: Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water\Z. Recommendations	Hunter Water has previously workshopped disinfection CCP with NSW Health in 2018-19. Disinfection CCP is monitored at the Clear Water Tank (CWT) outlet and Ct online calculation relies on multiple instruments. Preference is to keep the arrangement the same and while the online Ct calculation has operated reliably, there is potential for outages such as a lightning strike on the CWT flowmeter. Current approach has added conservative measure as the Critical Limit is set at worst operating conditions with the Ct alarm set at 15 min.mg/L as a back-up. NSW Health have expressed that a lot of water utilities use chlorine residual as the CCP Critical Limit, e.g. Sydney Water, rather than the online calculation for Ct. NSW Health suggest to clarify the wording in our documentation to satisfy this IPART recommendation. HW2016-1069 3.006 Basis for Critical Limits at Drinking Water CCPs document has been reviewed, updated and approved, and scheduled for publishing in October 2024.	If this is the position of Hunter Water and agreed upon with NSW Health, then this recommendation can be closed. In the auditor's opinion there are operational benefits with adopting real time Ct as a critical limit (e.g. chlorine critical limit can potentially be set lower, frequency of shutdowns can be reduced) however if there are valid concerns with operationalising this approach then it is appropriate to maintain the existing limits.	Compliant	Close

2023-8-15(3)

By 30 June 2024 discuss the suitability of a variable shut down limit for the Dungog WTP (and any other similar system) in the NSW Health Liaison Committee meeting, and implement any change recommended.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation / OFI
Provide evidence of completion	Evidence located in IPART Sig-box location: Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water\Z. Recommendations	During March 2024 liaison meeting Drinking Water Quality Assurance (DWQA) Lead and Manager Water Treatment Operations (MWTO) presented resolution of this recommendation: HW2006-1448/67/3.001 and HW2006-1448/67/3.002. The new CCP Supervisory Control and Data Acquisition (SCADA) function block is being rolled out across all plants (currently only installed at Anna Bay WTP). In the new CCP Function Block, changes can only be made to alert, action and shutdown setpoints for CCPs and COPs by Hunter Water CCP users group. The filtered water turbidity shutdown setpoint will no longer be operator adjustable between 0.15 Nephelometric Turbidity Units (NTU) to 0.3 NTU. It is expected to be implemented at Dungog WTP in 2025. No objections or suggestions were received from NSW Health to this solution.	Sighted evidence of discussions at March 2024 liaison meeting. Change is being implemented as agreed with NSW Health.	Compliant	Close

2023-9-16(3)

By 30 June 2024 implement a process or procedure such that water quality samples that are nominated to be collected and analysed at a frequency of less than daily but were missed are made up on the next workday after the day on which they would otherwise be taken

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide details of how this was addressed	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\2023-9-16(3) North 1 - Mar 13 2024 - Toolbox North 2 - Mar 19 2024 - Toolbox South 2 - Mar 15 2024 - Toolbox South 1 - Apr 03 2024 - Toolbox MAN-3073 HW Dungog WWTW RWQMP MAN-12356 HW Morpeth RWTP - Chisholm Scheme RWQMP	Veolia has updated the Recycled Water Quality Management Plan (RWQMPs) to include the following: "When an internal sample is unable to be taken on a nominated day, it will be taken on the next working day that an operator is onsite." The operators have also been trained in this update as part of their fortnightly toolboxes.	The change is suitable to address the finding.	Compliant	Close

2023-10-16(3)

By 30 June 2024 align Figure 7-1 and Table 7-1 in Man-3077 HW Morpeth RWTP – Chisholm Scheme RWMP, and ensure SCADA matches these limits.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation / OFI
Provide updated manual, and provide screen shots of SCADA limits (date stamped please)	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\2023-10-16(3) MAN-12356 HW Morpeth RWTP - Chisholm Scheme RWQMP Morpeth RWTP CCP Alarms Date Stamped	Veolia has updated the paragraph above Figure 7-1 in the RWQMP to include the following: "Note that the values for UV dose, UV Transmittance and Free Chlorine Ct and the consecutive time requirement for each CCP are more conservative than those displayed above in Table 7-1. This is an operational decision to ensure early warnings are provided in time for action to be taken." The decision was made not to update the SCADA limits shown in Figure 7-1.	Hunter Water and Veolia have considered the audit finding and have determined that it is acceptable to have operating limits inside the regulated critical limits to prevent exceedances of critical limits. While this results in some inconsistency in the levels that operators are required to react compared to the critical limits, this should provide a factor of safety.	Compliant	Close

2023-11-21(2)

By 30 June 2024, include details of contractors used and an organisational chart detailing the relationship on internal and external resources for the "resourcing structure" of the AMS.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management\A.2023 Recommendations File note - AMS resource structure review June 2024 AMS Resourcing Structure - From SAMP redraft 191124	No additional commentary provided.	Org chart/resourcing structure sighted. New draft Strategic Asset Management Plan sighted - Table 4 includes the external resources, including who is responsible for resource management, controls, and how their performance is monitored.	Compliant	Close

2023-12-21(2)

By 30 June 2024, include a plan or schedule on how safety critical devices will be identified and managed with identified safety critical items coded as safety critical in Ellipse for the asset base outlined in the AMS scope.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management\A.2023 Recommendations	No additional commentary provided.	The document titled "File note - IPART audit action - categorising safety critical items in Ellipse" - outlines the process of considering how this can practically be achieved. The recommended approach in the document is to use models/rules to assign safety critical items. This document is considered to be the 'Plan' referred to in the audit recommendation. Asset Class Plans Review Cycle is 5 yearly. This will be the point at which assessments will be made. The Safety Critical assets will be completed within 2 years.	Compliant	Close

2023-13-21(2)

By 30 June 2024, include a "root cause workshop" in the incident investigation process for determining the root cause of an asset failure.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 23 Quality Management System File: HW2013-421 22.001 Standard - Management of hazards, incidents and non-conformances Report - Final RCA Report - Newcastle West 1 WWPS Odour Control File note - Newcastle West 1 WWPS OCU Failure RCA Map	No additional commentary provided.	Sighted the October 2024 version of the Standard - Management of hazards, incidents and non-conformances. Confirmed Root Cause Analysis now included under section 7.3. The level of detail to which the Root Cause Analysis (RCA) is undertaken is proportionate to the severity of the incident, which is appropriate. An example RCA was provided in the follow up audit evidence - 'Report - Final RCA Report - Newcastle West 1 WWPS Odour Control'.	Compliant	Close

2022/5.3.1-1

By 30 September 2023, Hunter Water must ensure its key policies and standards for payment assistance and actions for non-payment are reviewed, approved and signed in line with its document review schedule.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide the current policies and standards, and identify the review schedule that applies to these documents.	Evidence was uploaded into IPART Sig box under Hunter Water\ On site evidence requests>2022_5.3.1-1	Policy – Billing Policy – Debt Recovery and Hardship Policy – Redress Rebates Claim for Damages	The policies were approved, reviewed and signed by the Managing Director on the 22/11/2024 and provided to the audit team following the on site interviews. As at 16/12/2024, the policies are also available on the Hunter Water website.	Compliant	Close

2021-1

By 31 March 2023, Hunter Water must undertake a review and revise both the MidCoast Council and the Central Coast Council water supply agreements, with particular attention to quality, quantity, maintenance, operations and ownership aspects.

Question/ Request for Evidence	Hunter Water Audit Evidence Reference	Hunter Water Comments	Auditor Notes	Overall finding	Recommendation
Provide evidence of completion	Evidence located in IPART Sig-box location: Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water\Z. Recommendations	Hunter Water has engaged a legal firm to prepare a new draft of the Hunter Water MidCoast water sharing agreement. The draft will be a refinement only and based on the current agreement and agreed amendments outlined in a letter between Hunter Water and MidCoast dated 12 August 2024 (see supporting documents). Progress has stalled as Hunter Water has not yet had a response from MidCoast Council.	There is evidence that Hunter Water is actively working toward resolution and they have advised that they expect this to be closed prior to the next IPART update (30 June 2025)	Compliant – Minor Shortcoming	Confirm status of action at the next audit.

AUDIT OUTCOMES

The auditable license obligations are detailed below.

Clause 12 Water Conservation

12(1)

Hunter Water must maintain and implement a water conservation work program in relation to Water Storage and Transmission in accordance with the Water Conservation Strategy.

Grading assigned



Hunter Water was compliant during the audit period because there is a Water Conservation Plan - Dec 2023. The plan identifies the strategies for sourcing raw water, and these were implemented.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Identify what was occurring between 5 Nov 2023 and 30 Nov 2023 for the water conservation strategy, and how these activities integrate with the commencement of the water conservation plan.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 12 Water Conservation" Report titled: "5 year Water Conservation Plan - Dec 2023"	Hunter Water's Water Conservation Strategy is an ongoing program. Section 2.2 in our 5-year water conservation plan - December 2023 outlined our works program in this area. We are also currently drafting the 5-year water conservation plan - December 2024) which will document the water conservation activities undertaken during the 23/24 financial year. This report is due for submission to IPART on 1 December 2024.	The water conservation plan is a 5 year forward looking document that is updated annually. There are clear interactions between the water conservation strategy and the water conservation plan. During the audit the water sourcing strategy was identified as a mechanism for best managing water supplies. The leakage program discussed in the following audit sub-criteria is also applied to the raw water assets through the asset management plan.	C

12(2)

Hunter Water must also:

- (a) maintain a water conservation work program for Water Treatment and Transmission consistent with the Current Economic Method; and
- (b) implement water conservation measures for Water Treatment and Transmission that have been assessed as economic under the Current Economic Method.



Hunter Water was compliant during the audit period because works that may be undertaken are assessed against the current economic method, and only those measures that are economic are implemented. This includes leak identification and repair, where the relative cost / benefit is related to total water storage at the time. (Leak repair becomes more economic in drought conditions).

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Demonstrate what activities that were assessed as economic were still being implemented between 5th and 30th Nov.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 12 Water Conservation" Report titled: "5 year Water Conservation Plan - Dec 2023"</p>	<p>Hunter Water's Water Conservation Strategy is an ongoing program. Section 3 in our 5 Year Water Conservation Plan - December 2023 outlines our works program for the year 2023-24 financial year. We are also currently drafting the 5-year water conservation plan - December 2024 which will document the water conservation activities undertaken during the 23/24 financial year. This report is due for submission to IPART on 1 December 2024.</p>	<p>The activities that are considered are assessed against the levelised cost of water. The audit considered aspects of the leakage program. At present the leakage program is economic, with repairs demonstrably at a lower cost than the cost of the water lost. The leak detection and repair program can also be increased as drought measures come into place and the cost of water increases.</p> <p>There are also programs of pressure management (modelling and developing water supply zones) that is increasingly supported by flow management to identify and detect leaks. The monitoring and modelling program is aiming for near complete coverage, will start refining zones as information becomes complete.</p>	<p>C</p>

12(5)

The 5-year Water Conservation Plan must:

- (a) include any water conservation work programs for Water Storage and Transmission and for Water Treatment and Transmission;
- (b) cover water efficiency (including customer behaviour programs), leakage and recycled water;
- (c) be consistent with the Water Efficiency Framework;
- (d) consider the strategic context provided by the Lower Hunter Water Security Plan;
- (e) include details of proposed programs and projects over the life of the plan;
- (f) where practical, assess programs and projects against the Current Economic Method; and
- (g) be consistent with any written guidance that the Minister provides to Hunter Water.

Grading assigned



Hunter Water was compliant with this clause during the audit period because the plan identifies specific actions against each of the lettered items a-f in the license clause. There was no written guidance provided by the Minister and therefore no obligation under letter g.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Provide the water conservation plan, and specifically identify the areas of the plan that you believe meet the requirements of parts a to g of the licence clause.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 12 Water Conservation" Report titled: "5 year Water Conservation Plan - Dec 2023"	A copy of the 5 Year Water Conservation Plan - Dec 23 has been provided. The plan covers our performance for the 2022-23 financial year in addition to our proposed works for the next 5 financial years. Below is a list indicating where the following items are addressed in the 5 Year Water Conservation Plan - Dec 23: (a) include any water conservation work programs for Water Storage and Transmission (Section 2.2) and for Water Treatment and Transmission (Section 3) (b) cover water efficiency (including customer behaviour programs), leakage and recycled water (Section 2.3 for 2022-23 works and Section 3 for 5 year plan) (c) be consistent with the Water Efficiency Framework; (Section 3) (d) consider the strategic context provided by the Lower Hunter Water Security Plan; (Section 1.6) (e) include details of proposed programs and projects over the life of the plan; (Section 3.2) (f) where practical, assess programs and projects against the	Sections 2.2 and 2.3 of the Water Conservation Plan outlines the strategies for addressing the requirements under the obligation. This includes proactively contacting customers about potential leaks. The Smart Water Choices program is implemented with information on the website https://www.hunterwater.com.au/our-water/water-supply/smart-water-choices . As above the Smart Water Choices website encourages behaviour change. Leakage identification and rectification is demonstrated to be economically viable until the economic level of leakage is met. At this stage leakage detection and rectification is viable, and implemented. Section 2.3.4 of the water conservation plan details the use of recycled water. The plan considered the 2022 amendments to the Water Efficiency Framework and is considered by the auditor to be consistent in intent.	C

		Current Economic Method; and (Table 3.1) (g) be consistent with any written guidance that the Minister provides to Hunter Water. (NA)	Levelised costs are used consistently with the Economic Level of Water Conservation. https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Other-Reports/Other-Reports/Economic-level-of-water-conservation-methodology-summary.pdf It was identified that there was no additional guidance provided by the Minister.	
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Clause 14 Water Planning

14(3)

By 1 December 2023 (or another date approved by the Minister in writing) Hunter Water must develop, and submit to the Minister, a drought response plan.

Grading assigned



Hunter Water was compliant during the audit period because a Drought Response Plan was completed on 30/10/2023 and approved by the Minister on 8/11/2023, ahead of the required date.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Provide evidence that a Drought Response plan was submitted to the Minister by the relevant date.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 14 Water Planning Files with pre-fix of 14-3	Drought Response Plan was submitted prior to the required date. Minister signed for Approval for public release on 8th November 23	The Drought Response Plan was developed, finalised on the 30/10/2024 and submitted to the Minister for approval with the briefing authorising the release of the document signed on 8/11/23 ahead of the required deadline.	C

14(4)

The drought response plan referred to in clause 14(3) must:

- (a) address any written guidance that the Minister provides to Hunter Water;
- (b) consider the strategic context provided by the Lower Hunter Water Security Plan; and
- (c) be consistent with Hunter Water’s memorandum of understanding with DPE referred to in clause 33.



Hunter Water was compliant during the audit period because the Drought Response Plan was developed with input from the Department of Climate Change, Energy, the Environment and Water (DCCEEW, the former DPE) ensuring its consistency with the Memorandum of Understanding (MOU), and is placed in context of the Lower Hunter Water Security Plan. The Minister did not provide any written guidance to Hunter Water with respect to this obligation.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Identify whether there was any specific guidance provided to Hunter Water under 14(4)(a) Demonstrate how the plan considers the strategic context 14(4)(b) Demonstrate the interlinkages between the plan and the memorandum of understanding with DPE	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 14 Water Planning Files with pre-fix of 14-4	The Drought Response plan directly references and includes strategic context as per the Lower Hunter Water Security Plan (LHWSP), it talks to supply projects which aim to increase drought resilience. The Drought Response Plan had a high level of collaboration and cooperation with DCCEEW including document reviews and face to face meetings	There are direct references to the Lower Hunter Water Security Plan in the drought response plan e.g. p5. This for example acknowledges the community expectation of 100L/person/day, but that the current system would not be able to meet this level of service in a severe drought. The drought response plan has a graduated response with triggers from 70% down to <30%. The modelling that is done for the drought response plan also models the scenarios that are contemplated in the LHWSP. DCCEEW has been involved in the development of the Drought Response Plan. The outcomes of the plan are consistent with the intent of the MOU.	C

Clause 15 Drinking Water

15(3)

Hunter Water must fully implement the Drinking Water Quality Management System and carry out all relevant activities in accordance with the Drinking Water Quality Management System, and to the reasonable satisfaction of NSW Health.

Grading assigned



Hunter Water was compliant during the audit period because it implemented the Drinking Water Quality Management System (DWQMS) and carried out its relevant activities in accordance with the System and to the satisfaction of NSW Health.

We identified a minor shortcoming which was due to a specific task-based responsibility being identified under the DWQMS, and included in the matrix of responsibilities, but at the time of the audit it had not been assigned an owner. The risk of the inconsistency was deemed to be low, and not material, as the overarching management system elements all had an assigned owner. Accordingly, this was graded as a compliant – minor shortcoming, rather than a non-compliance.

Recommendation: 2024-3-15(3)

By 30 June 2025, ensure that all identified responsibilities under the DWQMS have an owner.

Opportunity for Improvement 15-1

In line with the program of work already underway, remove duplication of alarming at Anna Bay WTP (and any other WTPs that may have similar issues) during the implementation of the CCP Function Block.

Opportunity for Improvement 15-2

The Gresford CCP Limit Table specifies limits for both continuous (online) monitoring as well as periodic tests, i.e. grab samples. The frequency of membrane integrity testing could also be specified in the CCP limit table.

Opportunity for Improvement 15-3

It was noted that the process described in the 'User Guide – Verification of Monitoring Compliance and Review of Water Quality Data' is relatively complex. Consider whether there is a means to streamline the verification of monitoring compliance process using automated functionality in EnviroSys, Business Intelligence, or other system.

Opportunity for Improvement 15-4

Consider revisiting discussions with NSW Health on whether a free chlorine primary disinfection contact time (CT) of 15mg.min/L is appropriate under all circumstances. The Chlorine Validation Protocol provides CT requirements greater than 15mg.min/L in circumstances where pH is elevated and temperature is low, which may or may not be applicable to some of Hunter Water's drinking water schemes.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Provide detailed information for the Grahamstown Gresford and Anna Bay drinking water systems - provide WTP SCADA data for the week of 3 -10 April 2024, and 3-10 May 2024 to demonstrate the continued compliance with the CCPs. If the plant(s) was not online at this time, provide data for a timeframe where the plant was operational.</p> <p>Provide a list of all notifications made to NSW Health (e.g. incidents/ non-compliant water supplied).</p> <p>Provide the linked documents identified in the DWQMS related to the identified elements for the audit (e.g. where there is a hyperlink to internal Hunter Water documents that are not accessible externally, or the hyperlinks to the Hunter Water website do not link directly to the relevant information e.g. the Drinking Water (DW) Policy).</p> <p>For the following Element by element questions, much of this base information may be contained in the DWQMS itself, and if so, provide evidence that the information is updated and implemented.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "A."</p> <p>IPART Gresford CCP 2024</p> <p>IPART Anna Bay CCP 2024</p> <p>IPART Grahamstown CCP 24</p> <p>HW2006-1448 41 15.003 Report - Quarterly to NSW Health - Drinking Water and Recycled Water Quality Exceptions Oct - Dec 2023</p> <p>HW2006-1448 41 15.006 Report - Quarterly to NSW Health - Drinking Water and Recycled Water Quality Exceptions Jan - March 2024</p> <p>HW2006-1448 41 15.008 Report - Quarterly to NSW Health - Drinking Water and Recycled Water Quality Exceptions April to June 2024</p> <p>HW2006-2968 41 44.001 Policy Drinking Water Quality</p> <p>HW2015-1303 9.001 Hunter Water Drinking Water Quality Management System Manual</p> <p>HW2006-2906 2 6.006 Plan - Water Quality Monitoring Plan</p> <p>HW2014-778 15 2.002 Plan - Drinking Water Quality Management Plan Veolia</p> <p>HW2015-1444 5.015 File note - DWQMS Manual Update Process Report 2024</p>	<p>Requested plant performance data attached as evidence.</p> <p>Water quality exception reports made to NSW Health attached as evidence.</p> <p>Hunter Water's DWQMS is implemented in accordance with the Australian Drinking Water Guidelines (ADWG) Framework for Management of Drinking Water Quality (the twelve elements) including continual review and improvement. The DWQMS manual is provided in the evidence along with key documents including the drinking water quality policy, treatment operations DWQMP and water quality monitoring plan.</p> <p>The DWQMS Manual was reviewed during the audit period (August 2024) and summary report of changes is provided in the evidence.</p> <p>For element specific discussion and documents please refer to relevant responses in the questionnaire and refer to the DWQMS Manual.</p>	<p><u>Gresford WTP:</u></p> <p>Filtered water turbidity spike (to ~1.8NTU) from approximately 6:00am on 5/04/2024 lasting until approximately 9:00am. There is a note on the SCADA trace commenting "analyser maintenance" immediately before the spike occurs. Aside from the single turbidity spike, all Gresford CCP SCADA trends were within the critical limits over the two weeks sampled.</p> <p>The Gresford CCP Limit Table specifies limits for both continuous (online) monitoring as well as periodic tests, i.e. grab samples. The frequency of membrane integrity testing could also be specified in the CCP limit table.</p> <p><u>Anna Bay WTP:</u></p> <ul style="list-style-type: none"> - alarm levels on CWT chlorine trace do not align with CCP alert or critical limits. This was queried and it was reported that there are different alarms set between local SCADA and Head Office SCADA to cover all of the different thresholds, and that the upcoming deployment of the CCP Function block will resolve this issue. - a drop in chlorine on 9/04/2024 at around 9:45am is associated with a note on the SCADA trace commenting "flush", however it is noted that the timing correlates with no clear water flow, and the chlorine recovers before flow next recommences. - significant 'noise' on treated water turbidity trend. Several comments in SCADA, many relating to flushing the lines/cleaning cells. 	<p>C</p>


Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p><u>Grahamstown WTP:</u></p> <p>All filter SCADA limits align with CCP limits.</p> <p>Filter 1 - No CCP breaches - spike at 10:30am on 8 May 2024 occurred at time of no flow.</p> <p>Filters 2,7,8,9,12,14,15 - No CCP breaches.</p> <p>Filter 3 - No CCP breaches - spike at 13:15 on 3 April 2024 occurred at time of no flow.</p> <p>Filter 4 - No CCP breaches - spike at 14:40 on 7 May 2024 was due to "analyser flush and clean" as per SCADA comment.</p> <p>Filter 5 - not online for periods under review.</p> <p>Filter 6 - No CCP breaches - spike at 11:30 on 3 April 2024 occurred at time of no flow.</p> <p>Filter 10 - No CCP breaches - spike at 13:57 on 7 May 2024 was due to "analyser flush and clean" as per SCADA comment.</p> <p>Filter 11 - No CCP breaches - spike at 10:00 on 3 April 2024 was due to "analyser maintenance" as per SCADA comment.</p> <p>Filter 13 - need to check spike on 3 April approx 10:30am - no flow. Spike at 13:17 on 8 April 2024 was due to "sample pump hose repair" as per SCADA comment.</p> <p>Filter 16 - No CCP breaches - spike at 10:30 on 3 April 2024 occurred at time of no flow.</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p>CWT out Chlorine - no CCP breaches; though analyser reading dropped out when no flow for ~6 hours on 9 May 2024.</p> <p>CWT Out pH - SCADA limits differ significantly from CCP limits, but pH very tightly controlled, no CCP breaches.</p> <p>Mains chlorine - SCADA limits differ significantly from CCP limits. No CCP breaches.</p>	
<p>Element 1</p> <p>Provide evidence of the DW Policy's endorsement by senior executives</p> <p>Provide evidence of the DW Policy's publication & means of communication to staff</p> <p>Describe the process of identifying, managing and reviewing regulatory requirements, and provide evidence (if this has been reviewed within the audit period).</p> <p>Provide an example Position Description which demonstrates legal and formal requirements / responsibilities relating to drinking water</p> <p>Provide the overarching map/matrix of responsibilities relating to drinking water</p> <p>Provide evidence of any stakeholder engagement</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "1."</p> <p>HW2006-2968 41 44.001 Policy - Drinking Water</p> <p>Teams evidence DW Quality Policy</p> <p>HW2015-1303 32.003 DWQMS Quarterly Update 2023 Q4</p> <p>HW2015-1303/32.004 Email - eNews 30 January 2024 - Drinking Water and Recycle Water Policy updates</p> <p>Protecht Compliance Entry</p> <p>Position Description - Group Manager Operations</p> <p>HW2006-2906 18 3.001 Register - Drinking Water Quality Framework Matrix of Responsibilities</p> <p>HW2006-1448/67/2.014 Minutes - Hunter Water - NSW Health Liaison Committee Meeting - Dec 2023</p>	<p>Drinking Water Quality Policy was updated in October 2023 and was endorsed and signed by the Managing Director after being reviewed internally and endorsed by Group Manager Compliance and Management Systems and Acting Executive Manager Business Services and Assurance. However, as neither Group Manager nor Acting Executive Manager are still with the business, their approval workflows do not show in the supplied Teams workflow screenshot.</p> <p>Drinking Water Quality Policy is published on Hunter Water's website and it is available on the intranet page for Drinking Water Quality Management System. When the Drinking Water Quality Policy was updated, an internal email with a quarterly DWQMS update was circulated, which was also followed up with an internal newsletter "" eNews"" distributed to all staff. The email requested that relevant stakeholders are also to be informed of the Drinking Water Quality Update and to display the updated policy in their depots.</p> <p>Protecht hosts a module called Compliance Obligations, with a service provider (Lexis Nexus) identifying a range of legal and regulatory requirements of note. The Compliance Attestations register within Protecht tracks and manages requirements and obligations across the business, including reminders and approval workflows. An example of a water quality requirement as per Hunter Water's Operating License is the Quarterly Water</p>	<p>There is clear evidence of the Drinking Water Quality Policy being reviewed, updated, and circulated to staff for awareness.</p> <p>Position Descriptions for Hunter Water Group Manager Operations, and Veolia Water Treatment Operator were provided.</p> <p>Group Manager Operations includes the Role Purpose: "The Group Manager Operations is responsible for the real time 'catchment to tap' and 'collection to reuse' operations necessary to enable safe, compliant, effective and efficient water and wastewater service delivery for Hunter Water's customers" and Function: "Take primary accountability for the safe and efficient operational performance and compliance (including Work Health and Safety (WHS), public health guidelines, Australian Drinking Water Guidelines and Australian Guidelines for Water Recycling, Operating Licence, Water Management Licences, Environmental Legislation and any other relevant requirements) for all of Hunter Water's product supply assets."</p> <p>Veolia - WTP Operator includes the function "Work within the requirements of the</p>	<p>C-MS</p>





Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
activities that occurred within the audit period	<p>HW2006-1448 67 3.013 Minutes - Hunter Water - NSW Health Liaison Committee Meeting - March 2024</p> <p>HW2006-1448 67 4.013 Minutes - Hunter Water - NSW Health Liaison Committee Meeting - June 2024</p>	<p>Quality Exception report sent to NSW Health, which is managed via Protecht - see attached evidence.</p> <p>Position description for Group Manager Operations is attached, which outlines legal and formal requirements and responsibilities relating to drinking water.</p> <p>Drinking Water Quality Framework Matrix of Responsibilities identifies relevant team members who contribute across different elements of DWQMS and their responsibilities, as per position descriptions. Revised version awaiting publishing.</p> <p>Key stakeholders for drinking water quality have been identified and summarised in the DWQMS manual including references to contact details and basis of relationship. For NSW Health engagement, please refer to the quarterly liaison meeting minutes.</p>	<p>Australian Drinking Water Guidelines (ADWG) and Veolia's Drinking Water Management Plans (DWMP)".</p> <p>There is clear evidence of a commitment to drinking water quality management at Hunter Water.</p> <p>It was identified that the Drinking Water Quality Framework Matrix of Responsibilities contained a gap, whereby a responsibility had been included without an 'owner' (specifically: <i>Naegleria fowleri</i> monitoring program meets requirements). Hunter Water advised consideration is being given to development of an internal Responsible, Accountable, Consulted, Informed (RACI) matrix in addition to the existing responsibilities matrix.</p> <p>Recommendation 2024-3-15(3): By 30 June 2025, ensure that all identified responsibilities under the DWQMS have an owner.</p> <p>It is noted that Hunter Water had already completed this action at the time of finalisation of this audit report (as per evidence provided in December 2024), however the finding and recommendation have been retained as a point in time record of the audit findings.</p>	
<p>Element 2</p> <p>Provide the list of members including position titles on the Water Quality Committee</p> <p>Provide evidence of understanding of the source waters, with commentary on the level of catchment</p>	<p>'Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "2."</p> <p>HW2015-1343 23.002 Statement - Terms of Reference for Water Quality Committee - CURRENT</p>	<p>Terms of Reference for Water Quality Committee provides a table of attendee titles and roles in section 8. Attendance.</p> <p>Water supply system overviews are provided in Section 2 of the DWQMS manual. Health Based Target (HBT) gap analysis of all Hunter Water's drinking water catchments was carried out in 2022-2023 which helped identify and confirm catchment categorisation</p>	<p>Monthly Water Quality Committee meeting records for April and September 2024 showed attendance as required (75% of attendees to make a quorum).</p> <p>DWQMS Flow diagram checklist was sighted, in the auditor's view this is an excellent means of ensuring a thorough review. Examples of completed records for</p>	C










Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>protection and justification for the categorisation</p> <p>Provide evidence of the process followed to review/update system information including flow diagrams</p> <p>Provide evidence of hazard identification, including providing detail of the most recent review of the hazard ID and risk assessment (e.g. provide the most current risk registers for each scheme to be audited, and any water quality/system summaries that were prepared for the risk review).</p> <p>Provide evidence that the monitoring program is intended to capture any changes in hazards that may impact the quality of the product.</p> <p>Identify whether any emerging hazards have been identified, and if not, whether there is a process to do so.</p>	<p>HW2015-1343/26/4.031 Report - HBT Technical note v5 (1Sep23)</p> <p>HW2021-71/343/1.001 HBT assessment draft scope of works</p> <p>HW2015-1444/8.001 Checklist - DWQMS Flow Diagram</p> <p>HW2015-705/4/2.001 Form - Checklist - DWQMS Flow Diagram - Nelson Bay WTP</p> <p>HW2015-705/4/3.001 Form - Checklist - DWQMS Flow Diagram - Anna Bay WTP</p> <p>HW2015-1303/6.002 Catchment to Tap Water Quality</p> <p>HW2015-1343 30 1.008 Grahamstown WTP Risk Assessment Register</p> <p>HW2015-1365 1.006 Gresford WTP Risk Assessment Register</p> <p>HW2015-1365 1.005 Anna and Nelson Bay WTP Risk Assessment Register</p> <p>HW2015-1365 17.014 Report - Grahamstown Drinking Water Quality Risk Assessment Background Paper</p> <p>HW2015-1343 32 5.004 Consultant Report - Anna Bay and Nelson Bay Drinking Water Quality RA Background Paper v2</p> <p>HW2015-1365 11 3.001 Report - Gresford and Lemon Tree Passage Drinking Water Quality Risk Assessment Background_V1.0</p>	<p>and potential treatment shortfalls, as outlined in the Technical Note attached as evidence. The HBT categorisation of the Tomaree catchment is currently uncertain and further work is underway to finalise the categorisation. A scope of works has been drafted and will be updated (as required) based on the outcomes of the recent water quality risk assessment.</p> <p>As per DWQMS Manual Element 2, a Checklist - DWQMS Flow Diagram is used to support the creation and modification of Drinking Water Quality Management System flow diagrams and flow diagrams for Water Treatment Plants and catchment to tap diagrams relevant to the DWQMS. Triggers for reviews include 5-yearly risk assessments and any changes within the catchment to tap boundary of a system. References to the existing diagrams are provided in this checklist. Recently completed diagram checklists included in evidence.</p> <p>Identification and analysis of water quality risks is broken up into three distinct barriers - catchments, water treatment plants and distribution network. At the completion of the process within each barrier, risks that have not been controlled to acceptable levels are handed over to the subsequent barrier for further assessment. This enables a multi barrier approach to be fully implemented and risks to be addressed as close as possible to their source. System risk updates are conducted at least once every 5 years in accordance with the Hunter Water and NSW Health Memorandum of Understanding. Hunter Water's Catchment to Tap Risk Assessment Guideline contains guidance for conducting risk updates as well as triggers for review. Latest risk registers and respective briefing papers for Grahamstown, Anna Bay and Gresford systems attached as evidence.</p> <p>As part of the hazard screening during the risk assessment review process, water quality data and the water quality monitoring program is reviewed to identify any gaps in current monitoring in the system,</p>	<p>Nelson's Bay and Anna Bay, through which no changes were required to the existing flow diagrams.</p> <p>In light of updated ADWG guidance in 2022, Health Based Target assessments were undertaken by Hunter Water and peer reviewed by a third party. These are ongoing as evidenced by the Tomaree catchment HBT assessment - DESP service request. Completed HBT assessments have been incorporated into Risk Assessment background papers (e.g. HW2015-1365 17.014 Report - Grahamstown Drinking Water Quality Risk Assessment Background Paper). HBT assessments for Anna Bay and Nelson Bay are still underway. It was noted that there is high uncertainty implicit in this work. Once HBT assessment is completed and knowledge gaps are addressed, Hunter Water will move into an out-of-cycle risk assessment, as per internal Risk Assessment Guideline. Hunter Water, in consultation with NSW Health, will determine whether to review high uncertainty catchment hazards or the whole risk assessment.</p> <p>The Steps in the table on page 8 of the 'Guideline - Catchment to Tap Risk Assessment for Drinking Water Quality' were examined during the audit. Confirmed Anna Bay / Nelsons Bay risk assessments being undertaken in accordance with the calendar.</p> <p>Sighted Grahamstown, Gresford and Anna Bay risk registers. Anna Bay is currently being updated with final comments back to the consultants being prepared.</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>looking at detection frequency and any ADWG exceedances. Hazard sources, pathways and barriers are reviewed and mapped out into hazard pathway diagrams (bow-ties). Where appropriate, emerging risks are carried over to the risk assessment workshop.</p>	<p>Risk workshop attendees - verified Anna Bay 2024 risk workshop - comprehensive list of stakeholders from within Hunter Water as well as externals.</p> <p>An example of system understanding was discussed relating to per- and poly-fluoroalkyl substances (PFAS) in the Tomago borefield. Due to varying PFAS levels in different bores there is now an Operating Strategy in place, developed in consultation with NSW Health which describes the permitted periods in which bores can be used, and in what arrangement to ensure PFAS levels in raw water are acceptable.</p>	
<p>Element 3 Demonstrate how preventive measures are related to the management of specific hazards and hazardous events and how this relates to the residual risk for those hazards and hazardous events.</p> <p>Identify how additional or alternate preventive measures are evaluated and linked into improvement plans.</p> <p>Identify the methodology for identifying critical control points and demonstrate how the target criteria and critical limits are suitable to mitigate the identified hazards.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "3."</p> <p>HW2015-1303 6.002 Guideline - Catchment to Tap Risk Assessment for Drinking Water Quality Guideline</p> <p>HW2015-1343 30 1.008 Grahamstown WTP Risk Assessment Register</p> <p>HW2015-1365 1.006 Gresford WTP Risk Assessment Register</p> <p>HW2015-1365 1.005 Anna Bay WTP Risk Assessment Register</p> <p>HW2016-1069 3.006 Register - Basis for Critical Limits at Drinking Water CCPs</p> <p>HW2015-1444 3.001 Establishing and reviewing CCPs procedure</p>	<p>Risk registers for each water supply system contain the hazards, hazardous events and preventative measures among other details. The risk of each hazardous event is assessed without controls (inherent risk) and with controls/preventative measures (controlled/residual risk), and certainty. Hazards and preventative measures relevant to CCP's are also documented in the CCP Limit Tables. The alignment of the risk assessment process with the ADWG including those requirements for preventative measures (identifying existing, alternatives, documenting) are outlined in the catchment to tap risk assessment guideline.</p> <p>Alternative or additional preventative measures are evaluated as part of the risk assessment process and documented in risk summary reports as recommendations, the improvement plan and/or risk treatment plan (out of appetite risks) once the required action and resourcing is confirmed. HW2015-1443 10 13.002 File note - Item 3.5 - Drinking Water Quality Improvement Plan - Oct 2022 provided in the evidence demonstrates an update on the Drinking Water Quality</p>	<p>Specific examples of preventative measures were selected at random by the auditor:</p> <p>Grahamstown Filter Contingency Plan was sighted. This plan was prepared to identify how water demands could continue to be met while the Stage 2 filters were being refurbished. The document considers a range of options and provides a preferred/recommended option.</p> <p>'Hygiene Guidelines when Working between Veolia Hunter Wastewater and Water Facilities' was sighted. This document includes key controls and considerations to minimise cross contamination risks e.g. scheduling water related works earlier in the day prior to wastewater works, separate clothing, disinfection of tools etc.</p> <p>SCADA setpoints only able to be adjusted by Hunter Water - CCP critical limits and shutdown limits are hardcoded. Actions</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>HW2015-1443 10 13.002 File note - Item 3.5 - Drinking Water Quality Improvement Plan - Oct 2022</p> <p>HW2014-778 15 2.001 Plan - Veolia CCP Exceedance Response</p>	<p>Improvement Plan progress and development of improvement actions.</p> <p>New CCPs are established in consultation with NSW Health as part of the risk assessment process and done in accordance with the ADWG CCP Decision Making Tree (Figure A 1.2 of the ADWG). There is a procedure in place for establishing and reviewing CCPs. CCP Limit Tables including target and critical limit criteria are agreed with NSW Health. The basis of critical limit criteria is documented and communicated with NSW Health - please see attached. CCP Limit tables and SCADA contain operational control details including target set points, alarm settings and shutdowns. The process for response to the operational controls is covered in the CCP Exceedance Response Plan.</p> <p>For further information, Hunter Water's approach to preventative measures for drinking water quality management is outlined in Element 3 DWQMS manual and DWQMP.</p>	<p>and alerts are variable. CCP Function Block will standardise this.</p> <p>Grahamstown WTP filter backwash triggers - the Operator confirmed that backwashes were triggered on time, turbidity and head loss/pressure.</p> <p>Rechlorination sites have dual chlorine analysers, with one controlling the dosing and the other available as a verification instrument. This was sighted at Elmore Vale.</p> <p>The in-progress installation of UV Disinfection at Grahamstown WTP is evidence of Hunter Water evaluating the need for, and implementing, additional preventative measures in response to increased system understanding.</p> <p>The 'Consequential Alarms Suppression project' has reduced alarm numbers and thereby lowering the risk of 'alarm fatigue'. Still, around 800 alarms are received by the Control Room per day.</p> <p>The current Critical Control Point procedures were displayed on the wall at the Grahamstown WTP on the day of the site audit.</p>  <p>SH Photo 1 20/11</p> <p>There are differing levels of alarms in place for Critical Control Points and Critical Operational Points at the Anna Bay and</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p>Grahamstown Water Treatment Plants between local SCADA and 'Head Office' SCADA. It is noted that between the two SCADA systems, all CCP/COP alarms are in place, however in the auditor's opinion the current situation is possibly confusing and not ideal. Implementation of the new CCP Function Block for alarms should resolve this issue and reduce the risk of alarm fatigue.</p> <p>Opportunity for Improvement 15-1:</p> <p>In line with the program of work already underway, remove duplication of alarming at Anna Bay WTP (and any other WTPs that may have similar issues) during the implementation of the CCP Function Block.</p>	
<p>Element 4</p> <p>Identify the operational monitoring that is required to ensure that processes are effective.</p> <p>Provide relevant procedures to support operations</p> <p>Clearly identify the levels of key parameters where corrective actions are to be implemented, and any documentation that demonstrates that the procedures and actions were in fact implemented. For example, that exceedances of key limits were rapidly communicated as per procedures.</p> <p>Identify the required frequency for internal and external water quality instrument calibrations</p>	<p>Evidence located in IPART Sig-box location: ""Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "4."</p> <p>HW2006-2906 2 6.006 Water Quality Monitoring Plan</p> <p>HW2014-778 15 2.002 Plan - Drinking Water Quality Management Plan Veolia</p> <p>HW2014-778 23 1.053 Procedure - PN111 - Drinking Water Standards</p> <p>HW2014-778/15/2.007 Register – Gresford WTP CCP Limit Table</p> <p>HW2014-778/15/2.004 Register – Anna Bay WTP CCP Limit Table</p> <p>HW2014-778/15/2.006 Register – Grahamstown WTP CCP Limit Table</p>	<p>Operational monitoring protocols are in place across Hunter Water's Water Supply Systems. Operational monitoring protocols for key performance parameters are documented in the Water Quality Monitoring Plan (currently being updated out-of-cycle to reflect revised monitoring scope), WTP manuals and CCP Limit Tables. Operational monitoring requirements are in place for Water Treatment Operations and Maintenance Contract. For example, Practice Note 111 (PN111) for drinking water standards specifies the type of monitoring and water quality parameter. Monitoring undertaken at each WTP includes online continuous for key parameters, manual grab samples, laboratory analysis, and instrument calibrations among other forms of monitoring. Standard operating procedures are documented in plant manuals.</p> <p>The Criteria for Notification to NSW Health defines the levels of key parameters which require notification to NSW Health. A procedure for Notification of Water Quality Events of Potential Public is followed when relevant criteria are met - note the revised procedure is</p>	<p>CCP monitoring data - audit of records as noted earlier.</p> <p>Discussed Protecht incident# 1102302 – where microcystis was detected at Grahamstown Dam. Weekly monitoring is undertaken at 3 locations within the Dam, and at the plant inlet. On 4/03/2024 a sample analysed with results returned on 5/03/2024. The result was 2000 cells/mL which triggered the medium alert in the 'Guideline - Blue Green Algae Contingency Plan'. Response actions included an alert to NSW Health, an increase in frequency of monitoring, check operation of treatment plant and confirming CT was being met. After the microcystis event, MIB was detected in the water though the algal cell count was low. Powdered Activated Carbon (PAC) dosing was employed as a response action. Action to "update the BGA Contingency Plan" arose, as the triggers for</p>	C

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<p>(e.g. those used for implementing CCPs).</p>	<p>HW2014-1563/3/1.006 User Manual - Anna Bay WTP Operating Manual - Veolia</p> <p>HW2014-1563/3/1.005 User Manual - Gresford WTP Operating Manual - Veolia</p> <p>HW2014-1563/3/1.001 User Manual - Grahamstown WTP Operating Manual - Veolia</p> <p>HW2014-778 15 2.001 Plan - Veolia CCP Exceedance Response</p> <p>HW2006-2906 4 6.008 Criteria for Notification to NSW Health</p> <p>HW2006-2906 4 6.023 Procedure to notify NSW Health of events with potential public health impact.</p> <p>Protecht Incident Management_1102302</p> <p>HW2006-1448/68/4.004 Example of incident response email from NSW Health</p> <p>HW2014-778 15 2.001 Plan - CCP Exceedance Response Plan</p>	<p>currently awaiting publishing. Exceedance of CCP critical limits requires notification to NSW Health. The specific critical limits and associated corrective actions are documented in the relevant CCP Limit Table and exceedance response plan. Operational alarms are programmed into SCADA for all key online water quality instruments including alarms at critical limits. SCADA alarms are actioned by Hunter Water's Control Centre which operates 24/7. Example of a WQ exceedance attached as evidence, including communications and follow up actions.</p> <p>A calibration program is in place for monitoring equipment. Veolia's Computerised Maintenance Management System (CMMS) is used for WTP instrument calibrations, maintenance planning and recording asset condition. Bench instruments in the laboratory are calibrated and serviced each year by an external provider. Online instruments are calibrated, validated and verified internally by Veolia at various frequencies depending on the instrument. All CCP instruments (except individual filter turbidity), are verified daily against a bench top instrument (calibrated as above). CCPs have calibration/validation frequencies as follows:</p> <p>CWT out chlorine - monthly</p> <p>CWT out pH - monthly</p> <p>CWT out fluoride - 6 monthly</p> <p>WTP manuals attached for reference. Plant spreadsheets are updated to routinely to include instrument calibration results.</p>	<p>PAC dosing were previously at >10ng/L MIB in treated water, however customer taste and odour complaints were being received at lower levels.</p> <p>Operating Manuals were sighted for Anna Bay, Gresford, Grahamstown. Examples of operational tasks were discussed during the Grahamstown WTP site visit, for example it was confirmed that jar tests are undertaken monthly and work orders are generated to prompt this. The jar testing apparatus was sighted in the plant laboratory.</p> <p>Calibration of online instruments was sighted at Grahamstown WTP, specifically the Hach turbidity analysers and benchtop Hach TU5200 which all had calibration stickers showing a date of 19/11/2024. All standard and buffer solutions sighted were within expiry dates as shown in photographs.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>SH Photo 2 20/11</p> </div> <div style="text-align: center;">  <p>SH Photo 3 20/11</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>SH Photo 4 20/11</p> </div> <div style="text-align: center;">  <p>SH Photo 5 20/11</p> </div> </div>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			 <p>SH Photo 6 20/11</p>  <p>SH Photo 7 20/11</p>  <p>SH Photo 8 20/11</p>  <p>SH Photo 9 20/11</p>  <p>SH Photo 10 20/11</p>  <p>SH Photo 11 20/11</p>  <p>SH Photo 12 20/11</p>  <p>SH Photo 13 20/11</p>  <p>SH Photo 14 20/11</p> <p>Reservoir inspections - example reports were provided (Report - Elermore Vale 1 &</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p>2 Reservoir, Report - Arcadia Vale Reservoir 3-6-24). Inspections are logged in iAuditor, and key drinking water safety issues are specifically called out in the inspection template (e.g. vermin proofing, overhanging vegetation etc).</p> <p>Instrument calibrations - weekly calibration records for Elermore Vale chlorine analysers were requested for a four week period in January 2024. Records were provided for the 9th, 15th, 22nd and 31st January.</p> <p>Opportunity for Improvement 15-2:</p> <p>The Gresford CCP Limit Table specifies limits for both continuous (online) monitoring as well as periodic tests, i.e. grab samples. The frequency of membrane integrity testing could also be specified in the CCP limit table.</p>	
<p>Element 5</p> <p>Identify the verification monitoring that was intended to be undertaken and provide evidence that all samples were in fact collected and analysed (or provide justification as to why samples were missed).</p> <p>Provide the drinking water quality monitoring plans for the Grahamstown Gresford and Anna Bay Systems.</p> <p>Identify the process for evaluating results to ensure they comply with the drinking water criteria, and how (and what) actions are triggered for</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "5."</p> <p>HW2006-2906 2 6.006 Water Quality Monitoring Plan</p> <p>Sample collection:</p> <p>CS1332-05 1 1.017 HW Schedule December 2023</p> <p>CS1332-05 1 4.344 Weekly Unreceived Collected 2-8 Dec 2024</p> <p>CS1332-05 1 4.349 Weekly Unreceived Collected 9-15 Dec 2024</p>	<p>A Water Quality Monitoring Plan provides further detail including requirements such as analyte, location and frequency to be sampled for verification of the drinking water quality supplied to consumers. Hunter Water's Laboratory Services provider is Australian Laboratory Services (ALS). A schedule of works is maintained for the provision of laboratory services, an example schedule of works is provided for the Network Operations sampling. ALS Monthly Sampling Schedule is prepared by ALS and submitted to Hunter Water prior to next month. ALS will notify Hunter Water of any unreceived samples address via daily, weekly and monthly reports and emails at: 'Unreceivedsamples@hunterwater.com.au', which samples couldn't be collected with reasons listed and where further action is triggered by Hunter Water if required - see example ALS notification in the evidence. A process is in place for monitoring</p>	<p>The Water Quality Monitoring Plan was audited against the data stored in Hunter Water's EnviroSys platform. Lemon Tree Passage - WQ Monitoring Plan requires 6 microbial samples per fortnight. Confirmed 42 sample results available for a 3-month period which equates to 6.4 per fortnight.</p> <p>ALS is required to provide notifications for missed samples and multiple examples of these were provided.</p> <p>The General & Technical Requirements – Laboratory Services document includes Section 2.7.2 Service Standard Adjustment. Section 2.7.2 describes which services are subject to Service Standard adjustments and this includes drinking water verification monitoring (see 2.g. in</p>	C

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<p>results that are out of specification.</p> <p>Identify how customer complaints are recorded and the process whereby complaints are investigated and actioned.</p> <p>Where any actions were taken for non-compliant results, identify those actions. (If there are a large number, these can be grouped, and further questions may be asked during audit interviews).</p>	<p>CS1332-05 1 4.354 Weekly Unreceived Collected 16-22 Dec 2024</p> <p>CS1332-05 1 4.357 Weekly Unreceived Collected 23-29 Dec 2024</p> <p>CS1332-07 2 18.002 ALS Monthly Report CS1332 - December 2023</p> <p>HW2022-511/3/2.002 Register - Licence Verification Monitoring Compliance QA Reporting Log</p> <p>HW2022-511 3 2.001 Guideline - Verification of Monitoring Compliance and Review of Water Quality Data User Guide - CURRENT</p> <p>EXCEEDANCE NOTIFICATION for ALS Workorder WN2315462 Sample Date 01-16-24</p> <p>Customer complaints:</p> <p>HW2015-1469/7/4.001 Standard - Customer Complaints Handling</p> <p>HW2010-95 2 12.010 Guideline - Water Quality Health Complaint</p> <p>HW2010-1986 8.023 Procedure - Water Quality Exception Reporting</p> <p>HW2006-2906 4 6.023 Procedure to notify NSW Health of events with potential public health impact</p> <p>HW2014-778 15 2.001 Plan - Veolia CCP Exceedance Response</p> <p>For further information, Hunter Water's approach to verification of drinking water quality is outlined in Element 5 DWQMS manual and DWQMP.</p>	<p>collection of samples for routine network verification monitoring - see reporting log in the evidence.</p> <p>Hunter Water's standard approach for managing non-compliant water quality results is documented in 'Verification of Monitoring Compliance and Review of Water Quality Data User Guide'. Microbial water quality non-conformances are managed according to Hunter Water's procedures for water quality exceptions. Notifications of exceedance of ADWG guidelines (physical, chemical and microbial) are undertaken in line with the procedure 'Criteria for notification to NSW Health'. Appropriate corrective actions are undertaken upon identification of water quality non-conformance. For the laboratory analysis, ALS follow a process where samples with non-compliant results are notified to Hunter Water's drinking water exceedance address DrinkingWaterExceedance@hunterwater.com.au where further action is triggered if required - see example in the evidence. ALS commences reanalysis of these samples with non-compliances and compares the reanalysis results with the initial results against criteria for accepting reanalysis results for final reporting purposes. At Water Treatment Plants, the supervisory and management personnel are responsible for ensuring control over the processes and any deviations are reported appropriately, including water quality results and CCP breaches.</p> <p>Customer complaints are actioned as per standard operating procedures – see attached guidelines. Complaints are recorded in Hunter Water's corporate Assets Operations Maintenance System (AOMS), with more complex cases being managed under a dedicated Complaint Management System Velocity - please refer to the Standard for Customer Complaints Handling for additional information. Health complaints are now also logged in Protecht for investigation and follow-up action, to determine whether water quality issues are a likely cause. A summary of customer complaint information is reported on a monthly basis</p>	<p>Section 2.7.2). Service standard adjustments may be applied by Hunter Water for collection of network verification samples, as described in Table 7 in the General & Technical Requirements – Laboratory Services. Further to the SSA mechanism, the Lab Services Contract also has a KPI framework which will be used to influence whether contract extensions are granted (see Table 6). Item 5 in the KPI Framework (Improve Quality of outputs) includes a KPI for delivery of licence sample collection, testing and reporting of results.</p> <p>Pesticides are monitored both routine (limited number of pesticides) and event-based (expanded suite). If there are detects in the event-based monitoring, these are added to the routine ongoing monitoring.</p> <p>The User Guide – Verification of Monitoring Compliance and Review of Water Quality Data was discussed, and in the auditor's opinion the process that the procedure deals with could be streamlined.</p> <p>Opportunity for Improvement 15-3:</p> <p>It was noted that the process described in the 'User Guide – Verification of Monitoring Compliance and Review of Water Quality Data' is relatively complex. Consider whether there is a means to streamline the verification of monitoring compliance process using automated functionality in EnviroSys, Business Intelligence, or other system.</p>	

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		<p>to the water quality committee and quarterly at the liaison meetings.</p> <p>Water quality exceedances are managed via Protecht incident module and a log of incidents is provided as evidence. Incident Management Matrix is a supporting procedure that provides guidance on parameters, associated trigger values and follow up actions. Water Quality exception procedure outlines the processes to manage operational and verification monitoring exceedances. A notification of relevant non-compliance results and an explanation is provided to NSW Health either immediately via phone call and e-mail or through the quarterly exception reports, depending on type of water quality incident.</p>		
<p>Element 6</p> <p>Provide the incident and emergency response protocols.</p> <p>Detail the communication processes used to ensure that public health can be protected in the event of non-compliant recycled water quality.</p> <p>Provide evidence of how any incidents that occurred within the audit period were managed (e.g. incident logs, external comms and reporting, debrief/root cause analysis reports)</p> <p>If an incident/emergency management exercise was undertaken within the audit period, provide the scenario (questions may be asked about this during the audit interviews)</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "6."</p> <p>'HW2007-900 27 19.009 Plan - Corporate Emergency Management Plan</p> <p>HW2006-2906 4 6.008 Guideline - Criteria for Notification to NSW Health</p> <p>HW2010-95 2 12.010 Guideline - Water Quality Health Complaint</p> <p>HW2022-1294.011 Emergency Communications Message Templates_2023</p> <p>HW2007-900/27/10.001 Guideline – INCIDENT COMMUNICATION PROTOCOL</p> <p>HW2007-900/27/33.001 : Plan - Emergency Communications Plan</p> <p>HW2022-116 12 2.015 Report - 2023 Emergency Exercise Report</p>	<p>A Corporate Emergency Management Plan (CEMP) is maintained. It covers all of Hunter Water's area of operations, including a drinking water quality section. It determines what constitutes an emergency or major incident, includes key contact lists and provides guidance to respond and assist in the effective control of incidents and emergencies, including the development of a Communications Coordination Team.</p> <p>The CEMP contains references to relevant templates and checklists etc that may be required to manage incidents. Section 15 provides general communication and notification guidelines including checklists and templates. Messaging templates are also developed have been developed in line with the Environmental Management Plan's (EMP's) Incident Categorisation Guide and referenced by the communications and engagement team when drafting an initial public statement during an incident. This includes a range of incident types including water outages, public health complaints and boil water alerts. Formal records or reporting notifications are recorded in the Protecht system. Protecht's Incident Management module also sends out notification to relevant team members once an incident is logged in the system. Emergency</p>	<p>The Dudley <i>E. coli</i> incident of 5 December 2023 was discussed. ALS notified Hunter Water by phone and email. Protecht 1075245 - <i>E. coli</i> at Dudley. Procedure was to initially assess the incident. Questions asked at that stage include - Where in the network was it? Where is the water coming from?</p> <p>HW requested resampling, and requested inspection of nearest reservoir. Job number 706774. Review previous inspection results. Dedicated TRIM folder to maintain incident records. Comprehensive update given to NSW Health (same day, firstly a call then a follow up email) including a map and list of actions. Dudley Reservoir was isolated as a precaution. Customer complaints checked. Next email to NSWH on 7th - clear resample results next day. Resample next week before it can be closed out - 15th December.</p> <p>A rechlorination CCP breach at the Belmont North 2 Chlorinator at 3:30am on 30</p>	<p>C</p>

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if there is relevance to drinking water safety/quality)."	<p>Refer to Element 1 for water quality exception reports.</p> <p>For further information, Hunter Water's approach to drinking water quality emergency and incident management is outlined in Element 6 of the DWQMS manual and DWQMP.</p>	<p>Communications Plan details a range of communications material that needs to be developed to ensure consistent, relevant and timely messages to the right audiences through the right channels - it is currently under review to incorporate information from the latest emergency exercise.</p> <p>Emergency exercise ""Operational Inferno"" was undertaken in November 2023. The simulation scenario was based on a substantial bushfire incident behind Hunter Region Botanic Gardens triggering a range of impacts to our network including but not limited to disruption, asset losses and water quality concerns, including simulating loss of Lemon Tree Passage Water Treatment Plant and damage to the Tomago Depot infrastructure. 2023 Emergency Exercise Report is attached as evidence.</p>	<p>August 2024 was discussed. A system generated email was sighted (from SCADA Reports) at the exact moment that the rechlorinator entered an alarm state. Later on the same day, the System Controller emailed the group 'Chlorinator Critical Residual Alarm Recipients' to summarise the details of the exceedance and explain that the event was not a reflection of water supplied to customers, but rather the result of a forced valve closure due to a mains break resulting in a small volume of higher chlorine water sitting in the pipe at the analyser location. This was later pushed into the reservoir where it mixed with the contents of the Reservoir and diluted/buffered to normal levels.</p> <p>The evidence provided demonstrates a robust incident management framework that is working well in practice.</p>	
<p>Element 7</p> <p>Provide evidence that operators have appropriate skills.</p> <p>Provide evidence of how Hunter Water ensures contractors have the appropriate skills</p> <p>Provide the Training Needs Matrix</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "7."</p> <p>HW2013-215/11 PN102 CS0341 Treatment Operations Contract Practice Note</p> <p>Veolia Water Quality - Identify & Control Introduced Risks</p> <p>Treatment Operations Contract Report for April 2024</p> <p>CS1332-06/8/8.001 ALS Training Matrix</p> <p>CS1332-06/5/2.001 Register of Audits by HWC - ALS Lab Contract CS1332</p>	<p>All staff and contractors are required to complete the Drinking Water Quality Training and Awareness Program. Water treatment plants are owned by Hunter Water but operated by an external Treatment Operations contractor Veolia. This is managed via a Treatment Operations Contract. Practice Note 102 outlines operator competency to ensure that plant operators are competent to perform their duties, including safety and emergency procedures, fluoridation certificate and chemical awareness training. WTP operators are required to undertake formal and informal, on the job, training, including completion of Water Industry Operations Certificates II and III. Progress of staff training is reported monthly to Hunter Water via a Treatment Operations Contract report and in accordance with the contract. Veolia conducts drinking water quality awareness training as part of general water treatment plant inductions</p>	<p>The DWQ Training and Awareness program runs through the ADWG 12 elements, case studies, and practical examples of hazards. There is an exam at the end, and a certain score required to pass. Escalation to management if staff do not complete the training. It is currently a one-off requirement, but Hunter Water are looking at bringing it in 3-yearly.</p> <p>Veolia's Training Register was sighted, which includes job requirements as well as Hunter Water's DWQ training module for multiple positions, and all Operators are required to hold a Cert III / IV in Water Operations.</p> <p>Water Hygiene guidance (10. PRO-10414 HW - Hygiene Guidelines when Working</p>	C

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	CS1332-06/5/3.084 Report - ALS Drinking Water Network Sampling - Audit Report by HWC - Final	<p>completed by all workers. Veolia also shares water hygiene and water quality risk management guidance to contractors and a copy of Hunter Water's drinking water policy to post in their worker sign on areas.</p> <p>The ALS laboratory contract documentation specifically outlines Hunter Water's requirements for ALS to obtain and maintain National Association of Testing Authorities (NATA) accreditation, and Workplace Health Safety (WHS), Quality Management System (QMS) and Environmental Management System (EMS) certifications under which ALS is required to provide these services to Hunter Water. Under the umbrella of ALS' accreditation and certifications, ALS staff have suitable technical backgrounds and qualifications for a given task under the contract. ALS then develops Training Matrix and provides its staff with the necessary initial and ongoing training and support to impart them appropriate skills in order to complete the contract obligations. ALS undertakes knowledge audits and assessment of Quality Control (QC) results (if applicable). Both Hunter Water and ALS conduct regular audits/review of ALS' plans and procedure and work collaboratively as per the contract clause 11 "Performance Management" to deliver good outcome for Hunter Water and its customers.</p>	<p>between Waste Water and Water Treatment Facilities) was also sighted as a specific example of an operational procedure that also provides an element of water quality awareness training.</p> <p>Effective processes are in place to manage training and awareness in drinking water risk management.</p>	
<p>Element 8</p> <p>Provide any specific examples of how community feedback influences future planning</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "8."</p> <p>Miromaaliko Baato Our Corporate Strategy Full Version</p> <p>IPART 2025-2030 Pricing Proposal Engagement Plan</p>	<p>Hunter Water's corporate strategy Miromaaliko Baato lays the foundation for embedding community consultation as a core component in our operations and our decision-making processes. During the pricing proposal development, almost 9,000 people helped shape our services, and prices, over two years of engagement. Attached 2025-2030 Pricing Proposal Engagement Plan set out a five-stage process, including a deliberative process whereby we convened a representative community panel of everyday customers to deliberate, trade off and make recommendations for investments, and principles for delivery, across a range of topics that previous stages</p>	<p>Clear evidence of community involvement in long term water planning.</p>	C

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		<p>of engagement found were the community's highest priority. We explained to the Community Panel how our costs for providing water services are increasing and impacts on customer bills. All stages of engagement informed the development of our Customer Outcomes that form the foundation of our proposal and seek to deliver on what our customers and community have told us they value.</p>		
<p>Element 9</p> <p>Demonstrate how the critical limits for all schemes have been validated</p> <p>Provide evidence of progress against any revalidation work that has occurred within the audit period.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "9."</p> <p>HW2016-1069 3.006 Basis for Critical Limits at Drinking Water CCPs</p> <p>HW2017-836/1.002 - Minutes from meeting re revised disinfection CCP on 23rd January 2019.</p> <p>Please refer to Element 4 for relevant CCP tables.</p>	<p>Hunter Water's existing CCP's have been established based on the ADWG, USEPA guidance in consultation with NSW Health. The CCP tables include a reference to a register referred to as the 'Basis for Critical Limits at CCPs' which documents pertinent details. The CCP Limit Tables for each system include a disinfection CCP as well as other CCPs agreed with NSW Health. The CCP tables demonstrate the required details including the monitoring such as on-line continuous, operator grab samples and laboratory analysis. The disinfection CCP critical limit is based on ADWG Information Sheet 1.2 Overview of Disinfection.</p> <p>The methodology for estimating Ct and the revised critical limit for disinfection was developed in consultation with NSW Health. The critical limit is in terms of the chlorine contact time to the first customer where Ct to the first customer (calculated using variables such as chlorine, flow and CWT level data etc) must not be less than 15 min.mg/L. This calculation is automated and alarmed in SCADA. There are also limits and alarms on CWT free chlorine, CWT pH and filter outlet turbidity to ensure disinfection is not compromised. NATA accredited laboratory analysis is also performed on a number of analytes at the CWT outlet including chlorine and E. Coli. The disinfection CCP was established in consultation with NSW Health and included consideration of pH, turbidity etc.</p> <p>Further validation of the veracity of CCPs is also undertaken as required as part of internal and external audits, including confirmation of consistency of critical</p>	<p>The audit evidence provided was comprehensive. Discussions during audit interviews were focused around the value used as the critical limit for chlorine CT.</p> <p>Opportunity for Improvement 15-4:</p> <p>Consider revisiting discussions with NSW Health on whether a free chlorine primary disinfection contact time (CT) of 15mg.min/L is appropriate under all circumstances. The Chlorine Validation Protocol provides CT requirements greater than 15mg.min/L in circumstances where pH is elevated and temperature is low, which may or may not be applicable to some of Hunter Water's drinking water schemes.</p>	<p>C</p>

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		limit settings. As required, monthly results are reviewed at the water quality committee meetings and actions identified where further analysis / validation is required. There has been no revalidation work within the audit period.		
<p>Element 10</p> <p>Provide the monthly Treatment Operations Contract Report for April 2024, and:</p> <ul style="list-style-type: none"> - Catchment Report for May 2024 - DWQIP Progress Report for July 2024 - Water Network Operations Report for December 2023 	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "10."</p> <p>HW2006-1417 38 5.001 Report - Network Report WQC December 2023</p> <p>HW2006-1448 67 4.005 Report - Drinking Water Quality Improvement Plan June 2024</p> <p>HW2006-1417 38 10.006 Catchments May 2024</p> <p>Monthly Treatment Operations Contract Report CS0341 - April 2024</p>	<p>No additional commentary provided.</p>	<p>Clear evidence of robust reporting mechanisms in place, between Veolia and Hunter Water, internally at Hunter Water, and from Hunter Water to its external stakeholders.</p>	C
<p>Element 11</p> <p>Demonstrate the process for long term evaluation of results.</p> <p>Provide evidence of internal audits and the implementation of internal audit outcomes.</p> <p>Provide evidence that any outstanding items from previous audits are also identified and tracked for implementation.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p> <p>Evidence file names labelled with pre-fix of "11."</p> <p>Compliance and Performance Report 2023-24</p> <p>Monthly Result Summary Report September 2024</p> <p>HW2006-1417 38 10.007 Minutes - June 2024 Water Quality Committee</p> <p>HW2006-1448 67 4.007 Presentation - Water Network Update - JUN2024</p>	<p>Long term trends are analysed as part of the risk assessment process and reviewed more regularly through Water Quality Committee, NSW Health Liaison meeting and by relevant teams (eg operations) as part of their normal business functions. A summary of water quality data analysis from catchment to tap can be found in the risk assessment documentation and reports provided to the Water Quality Committee and NSW Health Liaison Meeting. More regular evaluation of long term water quality results is also demonstrated in the water quality report published on the website which reports performance over 12 months, and operational performance results reported to the water quality committee and NSW Health. These include but not limited to customer feedback/dicoloured water complaints, long term evaluation of various key issues</p>	<p>Additional to the documented evidence provided, the auditor was shown an example of an 'internal' audit of the Anna Bay and Nelson Bay WTPs by an external consultant to inform the upcoming drinking water risk assessments (HW2015-1343 32 5.003 Report - HWC2407 Anna-Nelson Bay Audit Report v1). The audit scope was Elements 2-7 of the ADWG framework.</p> <p>An opportunity for improvement was made during the audit regarding the Nelson's Bay WTP bypass valve. Progress of implementing this action was sighted in the Protecht system (action number 1045107 - training had been provided,</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>HW2006-1448 67 4.002 Presentation - Water Treatment Update - Health Liaison - June 2024</p> <p>HW2015-1365 17.014 Report - Grahamstown Drinking Water Quality Risk Assessment Background Paper</p> <p>HW2015-1343 32 5.004 Consultant Report - Anna Bay and Nelson Bay Drinking Water Quality RA Background Paper v2</p> <p>HW2015-1365 11 3.001 Report - Gresford and Lemon Tree Passage Drinking Water Quality Risk Assessment Background_V1.0</p> <p>HW2013-421/11.003 Procedure - 2LOD Integrated Management System Audits</p> <p>Protecht audit findings summary</p>	<p>such as filtration performance, disinfection performance, PFAS concentrations.</p> <p>Internal audit programs are implemented as part of Hunter Water's Integrated Management System. Hunter Water ensures effective implementation and maintenance of the internal audit schedule via the Second Line of Defence (2LOD) audit scheduling process that is developed and approved annually in accordance with 'Procedure – 2LOD Integrated Management System Audits'. Internal audits are used to review the implementation and effectiveness of the systems within the Integrated Management System (IMS), including the Drinking Water Quality Management System and requirements of the Australian Drinking Water Guidelines (ADWG). Hunter Water's DWQMS is also audited during 5-yearly risk assessment reviews.</p> <p>Under the Treatment Operations Contract, Veolia is required to establish and implement a DWQMS assessed by an independent DWQMS qualified auditor against the requirements of the ADWG Framework for Management of Drinking Water Quality. Hunter Water's Treatment Operations team also undertakes procedure-based site inspection audits of the Water Treatment Plants. Under the Laboratory Services Contract, ALS is required to establish and maintain NATA accreditation during the contract Term. Hunter Water also undertakes monthly audits of ALS's laboratory sampling and testing procedures. ALS also regularly undertakes its own audits.</p> <p>DWQMS audit findings are recorded and tracked for implementation in Protecht, see evidence attached.</p>	<p>valve was labelled, and locks were being sourced).</p> <p>Internal audit and review processes are well managed.</p>	
<p>Element 12</p> <p>Demonstrate how senior executives are informed as to key requirements and implementation of the DWQMS.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 15 Drinking Water</p>	<p>Senior executives are updated on the DWQMS through a number of reporting processes such as:</p> <ul style="list-style-type: none"> Annual compliance and performance reporting which requires executive endorsement 	<p>Water Quality Committee meeting minutes (June 2024) shows evidence of discussions on long term performance, and emerging issues, e.g. low level PFAS detections across verification monitoring</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Provide evidence such as routine reporting of implementation and performance.</p> <p>Provide evidence of reviews of the DWQMS and subcomponents in accordance with stated timeframes.</p> <p>Identify when each DWQMS was last updated including when the risk assessment was last reviewed, taking into account more recent water quality information.</p> <p>Provide the DWQMP Improvements Master List and provide evidence of its implementation.</p>	<p>Evidence file names labelled with pre-fix of "12."</p> <p>Compliance and Performance Report 2023-24</p> <p>HW2015-1343 30 3.015 File note - Grahamstown 2023 5-yearly risk assessment summary</p> <p>HW2006-2906 10 2.005 Drinking Water Quality Improvement Plan</p> <p>HW2006-1417 38 10.007 Minutes - June 2024 Water Quality Committee</p> <p>HW2006-2906 8 33.014 Register - Drinking Water Quality Risk Assessment Calendar - CURRENT</p> <p>HW2015-1444 5.015 File note - DWQMS Manual Update Process Report 2024</p> <p>HW2006-1448 67 4.005 Report - Drinking Water Quality Improvement Plan June 2024</p> <p>HW2015-1443 10 13.002 File note - Item 3.5 - Drinking Water Quality Improvement Plan - Oct 2022</p> <p>HW2013-1447 3 37.001 Presentation - Reporting on a Page - to quarterly EMT Audit and risk</p> <p>HW2015-1343 30 3.015 File note - Grahamstown 2023 5-yearly risk assessment summary</p> <p>Refer to Element 1 for NSW Health Liaison Meeting minutes</p>	<ul style="list-style-type: none"> • Progress reporting against the strategic objective to maintain safe drinking water, such as risk assessment • Review of policies and other key documents requiring executive approval. The Drinking Water Quality Policy is required to be approved by the Managing Director. • Updates provided to the NSW Health liaison meeting which includes the EM for Service Delivery. • Communication to EMT on results from audits including the IPART Operating Licence Audit and International Organization for Standardization (ISO) standard audits. The status of IPART audit recommendations requires executive endorsement and Management Director sign off. • An annual Integrated Management System Review Meeting with the Executive Management Team (EMT) is held to review all aspects of the individual systems of the IMS (i.e.; AS/NZS 4801; ISO 14001; ISO 9001). • Significant change notification process • Veolia also maintain a procedure outlining responsibilities within their organisation for reporting to their Board and Executive Management Team. <p>During the audit period, the DWQMS Manual was reviewed as per attached change report. Anna Bay and Nelson Bay risk assessment 5-yearly review was also scheduled and carried out in September as per Risk Assessment Calendar, including water quality data review and catchment categorisation discussion and we are currently awaiting the draft output paper and risk register for review and comments. Various DWQMS documentation was reviewed and updated within due dates. Grahamstown water supply system was reviewed in December 2023. Annual corporate risk driver review that normally takes place around September-November is taking place from November 2024-March 2025 due to the transition to the new risk</p>	<p>points, 12 month rolling microbiological and disinfectant performance, as well as audit recommendations and regulatory matters.</p> <p>Improvement Program Action 333 - undertake pesticide usage survey. Confirmed work had been completed by an external consultant, and the report was sighted.</p> <p>There is clear evidence of senior executive review, and a robust process of identifying, tracking and implementing system improvements.</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>taxonomy. Attached summary of 2023 Grahamstown risk assessment review was used to communicate main changes to the relevant committees. The Audit and Risk Committee expressed a preference for the annual risk review for 2024 to be completed using the new risk taxonomy and in the interim, emerging risks and any risks that change rating will continue to be reported at each Committee meeting.</p> <p>Improvement actions are maintained in a corporate Drinking Water Quality Improvement Plan (DWQIP) register. The DWQIP includes actions identified from various sources, including risk assessments and ad-hoc investigations. Actions are assigned to the relevant resource and tracked against the agreed due date. Actions are discussed at the Water Quality Committee prior to inclusion on the Drinking Water Quality Improvement Plan. An updated DWQIP report is presented at each quarterly NSW Health liaison meeting.</p>		

Clause 16 Recycled Water

16(3)

Hunter Water must fully implement the Recycled Water Quality Management System and carry out all relevant activities in accordance with the Recycled Water Quality Management System, and to the reasonable satisfaction of NSW Health.

Hunter Water was compliant during the audit period because it implemented the Recycled Water Quality Management System and carried out its relevant activities in accordance with the System.

Grading assigned



A minor shortcoming was identified as the end user agreements with one particular customer had expired 4 years ago. This customer has been sent a letter indicating that the previous agreement is to remain in force which provides a lower level of assurance than a current legal agreement as is the intent of Element 1 of the Australian Guidelines for Water Recycling. This is considered a minor shortcoming as there was sufficient evidence to demonstrate that there is nonetheless regular and appropriate engagement with the customer. Based on the fact that the old agreement has been recognised as remaining in force in place despite its expiry, the risk is deemed to be low, and is therefore graded as a minor shortcoming rather than a non-compliance.

Recommendation: 2024-4-16(3)

By 31 Dec 2025: review all end user agreements for currency and suitability, and where required, update the agreements.

Opportunity for Improvement 16-1

Review the validation of secondary treatment to assess whether pathogen reduction is achieved if the process is impacted. If appropriate, consider whether other indicators such as ammonia or maximum aeration should be used as control points to improve the resilience of the overall pathogen reduction at relevant plants. This is considered to be more important for higher risk end users such as the proposed Lake Macquarie sporting field irrigation scheme that is in development.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Provide detailed information for the Edgeworth recycled water system - provide SCADA data for week ending 17 February 2024, and week ending 11 May 2024 to demonstrate the continued compliance with the CCPs. If the plant was not online at this time, provide data for a timeframe where the plant was operational.</p> <p>Provide evidence that NSW Health was satisfied with the implementation of the RWQMS. Provide a list of all notifications made to NSW Health (e.g. incidents/ non-compliant water supplied).</p> <p>Provide the linked documents identified in the RWQMS related to the identified elements for the audit (e.g. where there is a hyperlink to internal Hunter Water documents that are not accessible externally, or the hyperlinks to the Hunter Water website do not link directly to the relevant information e.g. the RW Policy).</p> <p>For the following Element by element questions, much of this base information may be contained in the RWQMS itself, and if so, provide evidence that the information is updated and implemented.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\16(3)</p> <p>Drinking Water and Recycled Water Quality Exceptions - July to September 2023</p> <p>Drinking Water and Recycled Water Quality Exceptions - October to December 2023</p> <p>Drinking Water and Recycled Water Quality Exceptions Jan to Mar 2024</p> <p>Drinking Water and Recycled Water Quality Exceptions April to June 2024</p> <p>Cessnock Golf Club Recommencement of Recycled Water Supply</p> <p>Edgeworth WWTW SCADA CCP data</p> <p>Edgeworth WWTW ALS UVT data</p> <p>CCP Graphs Week Ending 17 February 2024</p> <p>CCP Graphs Week Ending 11 May 2024</p> <p>CCP Breaches</p> <p>MAN-3074-8 HW - Edgeworth WWTW RWQMP</p>	<p>SCADA data provided for week ending 17 February 2024 and week ending 11 May 2024. Data is separated by each respective day. The ALS Ultraviolet Transmittance (UVT) data is provided in a separate spreadsheet.</p> <p>No CCP breaches occurred during the audit period.</p> <p>Within the audit period, as evidence, NSW Health provided their satisfaction for the implementation of the RWQMS as part of the Cessnock Golf Club supply activities.</p> <p>Notifications to NSW Health are listed in the Quarterly exception report.</p> <p>Hunter Water's RWQMS is implemented in accordance with the Australian Guidelines for Water Recycling (AGWR) Framework for Management of Recycled Water Quality (the twelve elements) including continual review and improvement. The Corporate RWQMP is provided in the evidence along with key documents including the Recycled Water Quality Policy and wastewater operations documentation.</p> <p>For element specific discussion and documents please refer to relevant responses in the questionnaire.</p>	<p>The performance was assessed and there were no breaches of the CCP during the audit period. While on site, SCADA was interrogated to identify whether recycled water had been produced when the UV system was not operational. Initially, one day of SCADA data was reviewed with UV intensity overlaid with the valve positioning and flow through each UV unit. This clearly showed that the UV was online when recycled water was produced. This SCADA trace was then expanded to cover 2-week time periods, and the most recent 3 months of data were audited, demonstrating compliance at all times.</p>	<p>C</p>

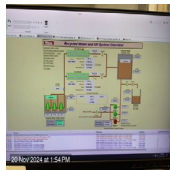
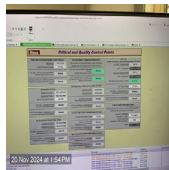
Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Element 1 Provide the recycled water policy for Hunter Water. Demonstrate how Hunter Water defines responsible use of recycled water in the RWMS and ensures this occurs in practice Provide evidence of engagement with stakeholders for the use of recycled water Identify when and how customers are made aware of the allowable uses for recycled water, and provide examples.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 1</p> <p>Hunter Water Recycled Water Policy</p> <p>Recycled Water eNews 23 July 2024</p> <p>Corporate Recycled Water Quality Management Plan</p> <p>Edgeworth WWTW Recycled Water Quality Management Plan</p> <p>Recycled water_for residents fact sheet</p> <p>Reminder key messages RW owner occupiers and tenant</p> <p>POL-02 - Water Quality Policy</p> <p>Agreement for the supply of recycled water - Waratah Golf Club.</p> <p>Waratah Golf Club RW Customer Contract Extension Letter October 2021</p> <p>Example of TRIM WGC RW Customer Correspondence 2024</p>	<p>Hunter Water have a Recycled Water Policy approved by the Managing Director September 2023, following internal review and endorsement. The policy is published on Hunter Water's website and is available on the recycled water intranet page. Staff were notified of the Recycled Water Intranet Site in the enews article July 2024.</p> <p>Hunter Water has identified a number of agencies and stakeholders with responsibilities and expertise in the protection of public and environmental health relevant to recycled water.</p> <p>Key agencies, the roles and responsibilities and obligations of the main parties involved in recycled water management are detailed within the Corporate and scheme specific RWQMP.</p> <p>The Corporate RWQMP provides details on generic partnerships for recycled water, while the scheme specific RWQMP has customer specific details Stakeholders include internal Hunter Water departments as well as external agencies such as NSW Health and the recycled water customer(s).</p> <p>The Corporate RWQMP and scheme specific RWQMPs provide details of team members involved in the management of recycled water quality.</p> <p>Directly relevant regulatory and formal requirements are detailed within the recycled water quality management plans</p> <p>We communicate these requirements via the intranet and internet along with others forms detailed in the RWQMP</p> <p>Agencies are engaged in a number of ways including being involved in risk assessment workshops and attending meetings.</p> <p>We engage recycled water customers via a number of avenues as detailed in the RWQMP. Key contacts and communication channels are recorded on a Recycled Water Quality Management Spreadsheet, kept as a TRIM file in Hunter Water Content Manager (excerpt provided). Corresponding emails and letters relevant to each customer are all kept in TRIM</p>	<p>The policy was published in September 2023 and includes the appropriate references to public and environmental health.</p> <p>The Recycled Water Management Plans (RWMPs) (Corporate, Hunter Water site RWMP and Veolia Site RWMP) all include reference to the key stakeholders as recommended in the AGWR. It is noted that the engagement from Veolia with customers is as advised, or as required under the interruption notice.</p> <p>Engagement with stakeholders to ensure that they understand the appropriate end uses is included generically in the corporate RWMP, and site-specific plans include the relevant requirements for specific users. The 2017 Agreement with Waratah Golf Club included the expected end user requirements but expired in 2020. A letter, extending the prior agreement was provided in 2021, and this specifically indicated that new agreements were being developed. This has not yet occurred. The letter extending an expired agreement is no longer considered effective. Hunter Water identified that the Waratah Golf Club was not the only end user with an expired agreement.</p> <p>The license clause requires full compliance with the AGWR via implementation of the RWMP. A formal agreement with end users is expected under Element 1 (responsible use of recycled water, formal requirements) and reinforced in Element 7 (end user awareness, involvement and training). The RWMP states that there are End user agreements in place (S7.1) however these agreements are outdated and there has been no action to update the expired agreements despite the 2021 letter indicating this was the case.</p> <p>There are a number of emails to Waratah Golf Club demonstrating that there was an annual</p>	<p>C-MS</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>(screenshot of TRIM file locations provided). The recycled water quality management plans detail the intended and non-intended use for each scheme. End use requirements for customers are outlined in Agreement for the Supply of Recycled Water. Residential recycled water customers are provided information as they connect to services and are sent information on recycled water use annually, to capture any change in tenancy etc.</p> <p>Veolia is committed to managing its water supply effectively to provide high-quality recycled water that consistently meets its contractual requirements. This commitment is communicated through Veolia's Water Quality Policy which is available on Veolia's IBMS. Veolia will not notify end users unless advised or as part of HWC PN203 Recycled Water Interruption Notification.</p>	<p>inspection being arranged in August 2024 and that signs were inspected in September 2024 and had been seen to have been installed. Therefore, the end user engagement is occurring and is appropriate. For this reason, the grading is assessed as compliant, minor shortcomings. There is currently no agreement in place with Lake Macquarie Council, but in this case recycled water is not yet provided. Lake Macquarie Council has been involved in preparatory risk workshops and will be implementing preventive measures prior to recycled water being supplied.</p> <p>Recommendation 2024-4-16(3): By 31 December 2025: review all end user agreements for currency and suitability, and where required, update the agreements.</p>	
<p>Element 2 Identify the intended uses for recycled water for Edgeworth recycled water (identify where information is in the plans). Provide evidence of understanding of the source, with commentary on the types of trade waste or other high risk components for each system. Provide evidence of hazard identification, including providing detail of the most recent review of the hazard ID and risk assessment (e.g. provide the most current risk registers for each scheme to be audited). Provide evidence that the monitoring program is intended to capture any changes in</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 2</p> <p>'Corporate Recycled Water Quality Management Plan - see Element 1 Edgeworth WWTW Recycled Water Quality Management Plan - see Element 1</p> <p>Edgeworth WWTW recycled water risk assessment March 2024 Edgeworth WWTW Recycled Water Risk Assessment Workshop Briefing Paper March 2024 Edgeworth WWTW Recycled Water Risk Assessment Workshop Output Paper March 2024 Edgeworth WWTW water quality risk assessment presentation March 2024</p>	<p>The source of recycled water is typically effluent from the Wastewater Treatment Works. The recycled water quality management plans detail the source water for each scheme. The briefing papers and RWQMP discuss trade waste inputs.</p> <p>Pertinent information has been assembled for each recycled water scheme; detailed within the recycled water quality management plans and provided in risk assessment documentation.</p> <p>The recycled water quality management plans also detail the team involved in the risk assessment process including internal staff and external stakeholders</p> <p>Flow diagrams have been created for all schemes and are reviewed as part of the risk assessment workshop. The flow diagram is kept within the RWQMP.</p> <p>The hazard identification and risk workshops were</p>	<p>The most recent risk briefing document and risk assessment were provided and are appropriate. The risk briefing document includes the non-chlorinated golf course irrigation (and chlorinated sporting field irrigation for which an additional chlorination CCP was discussed).</p> <p>The risk assessment breaks down the relative contributions from trade waste customers. While there is no discussion of the impact of specific potential contaminants that may be present, it was identified in interviews, and in discussions with the plant operator that there are no high risk or high strength trade waste customers that have significant impact on the plant operation. The trade waste standard complements the RWMP in that the Hunter Water trade waste standard requires specific contaminants of concern such as PFAS are required to be below the laboratory limit of detection. Therefore the overall approach is appropriate.</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>hazards that may impact the quality of the product. Identify whether any emerging hazards have been identified, and if not, whether there is a process to do so.</p>	<p>Recycled water risk assessment process guideline</p> <p>TEM-3149 HW - Cessnock WWTW Weekly Duties</p> <p>TEM-3151 HW - Edgeworth WWTW Weekly Duties</p> <p>TEM-2883 HW Cessnock WWTW Sampling Calendar 2024</p> <p>TEM-2878 HW Edgeworth WWTW Sampling Calendar 2024</p> <p>TEM-2910 HW Cessnock WWTW Sampling Guide Sheet</p> <p>TEM-2914 HW Edgeworth WWTW Sampling Guide Sheet</p> <p>01_Edgeworth WWTW RWQLT</p> <p>02_Cessnock WWTW RWQLT</p> <p>TEM-2801 HW Internal Incident Notification Process</p> <p>MAN-2799 HW Incident and Emergency Management Manual</p>	<p>facilitated by an independent consultant and attended by the relevant stakeholders as detailed within the recycled water quality management plans. Workshop attendance records are within the summary report.</p> <p>The risk assessment methodology is documented within management plan and briefing paper. The briefing papers review recycled water quality data to inform the risk assessment. Hunter Water have developed a Risk Assessment Procedure. The risk assessment process is based on the AGWR and the Hunter Water corporate Enterprise Risk Management Process.</p> <p>The risk assessment approach identified potential hazardous events and hazards, this is captured within the risk assessment sheets (Excel based)</p> <p>Risk areas were identified and prioritised based on mitigated risk levels and actions were prioritised.</p> <p>Long term recycled water quality data is reviewed monthly as part of the contract meetings with Veolia as a means to capture changes in quality over time.</p> <p>The Weekly Duties for each Wastewater Treatment Works (WWTW) provides a task list for the operators to carry out operational monitoring. This includes SCADA reviews and onsite lab analysis. Alongside onsite analysis, analysis is conducted by an external NATA accredited Laboratory (ALS). In addition to the recycled water monitoring, this includes monitoring of various stages through the wastewater treatment process, from the raw water to the final biosolids product. This data provides a holistic view of the plant and how different characteristics of plant flows such as the nutrient, metals and pesticide levels are changing over time. In the case of any exceedances identified by external testing, ALS send out</p>	<p>During the interview, Hunter Water were asked about what monitoring of long term impacts on soil is undertaken and it was confirmed that the Golf Club takes responsibility for monitoring SAR and managing long term soil impacts.</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>exceedance notifications to advise of analyte exceedances against specified targets. Long term evaluation of results and risk assessments are conducted for each WWTW plant. These evaluations are conducted for the overall plant flows as well as specific evaluations for recycled water and biosolids production. Load tracking spreadsheets are maintained for each WWTW and consider the load and concentration limits of specific pollutants based on the Environmental Protection Authority (EPA) licence for that WWTW. Monthly biosolids grading is performed on all continuous WWTWs to ensure that all plants are meeting the required Contaminant Grade to be accepted for reuse. Specific recycled water quality parameters are tracked for each relevant plant. These trends contain data over the last 10 years and help to identify seasonal changes and emerging hazards.</p> <p>Veolia's treatment plant operators are responsible for providing notifications to key Veolia staff as directed by the Internal Incident Notification Process (TEM-2801) and the Veolia Incident and Emergency Management Manual (MAN-2799). The IEMM can be accessed via Veolia Portal, and via Google Drive. In the case of identifying an emerging hazard, an early warning or incident report is sent to Hunter Water. These are maintained in an incident report register and is a supplementary record of all incidents reported to Hunter Water. All communication will be in line with the requirements specified in PN110 Recycled Water Standards and PN203 Recycled Water Interruption Notification.</p>		
<p>Element 3 Demonstrate how preventive measures are related to the management of specific hazards and hazardous events and how this relates to the residual risk for those hazards</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 3</p> <p>'Corporate Recycled Water Quality</p>	<p>During the risk assessment workshops, preventative measures were noted and discussed. Preventative measures are outlined in the scheme specific risk assessment and RWQMP.</p> <p>Hazards for the scheme have been identified, documented and reviewed as part of the risk</p>	<p>This is documented in the risk assessment from March 2023. There is a section 7.11.2 that refers to continuous improvement - the overall improvement plan was provided and is suitable. CCPs were discussed in the risk workshops. The Hunter Water Standard for establishment and</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>and hazardous events (this may be included in the risk register?).</p> <p>Identify how additional or alternate preventive measures are evaluated and linked into improvement plans.</p> <p>Identify the methodology for identifying critical control points and demonstrate how the target criteria and critical limits are suitable to mitigate the identified hazards.</p>	<p>Management Plan - see Element 1 Edgeworth WWTW Recycled Water Quality Management Plan - see Element 1</p> <p>Establishment and Review of Recycled Water CCPs</p> <p>Hunter Water Corporation - notification of proposed significant change - Cessnock Recycled Water LMCC Consultant brief</p>	<p>assessment for each Water schemes. Risks were assessed both with and without the identified preventative measure. Possible alternative measures are discussed and noted if required. These preventative measures (controls) were developed and agreed to within workshops to address identified risks with a particular focus on significant risks to reduce them to acceptable level.</p> <p>As part of the workshops, Critical Control Points were determined/reviewed. As per the Establishment and Review of Recycled Water CCP standard and are documented within the recycled water quality management plans along with associated limits.</p> <p>In general, Critical Control Points were identified as process steps that had pathogen log reduction values associated with them.</p> <p>Critical control points have been incorporated into operations through (where practical) SCADA surveillance. These points and associated SCADA warning/alarm levels have been tested and are monitored. This is to ensure there is operational control at the WWTW/ Recycled Water Treatment Plant (RWTP). Operational controls have been developed with Veolia and are listed within the RWQMP. Operational monitoring occurs via SCADA. Veolia have also developed WWTW specific manuals detailing operational monitoring.</p> <p>New CCP's are established in consultation with NSW Health and communicated with IPART (attached evidence)</p> <p>Alternative or additional preventative measures are evaluated as part of the risk assessment process and documented in risk summary reports as recommendations, the improvement plan and/or risk treatment plan (out of appetite risks) once the required action and resourcing is confirmed. LMCC Consultant brief is provided in the evidence demonstrates an update on the development of improvement actions.</p>	<p>review of CCPs (Oct 2023) provides the relevant detail. While this standard post-dates the CCP workshop, the CCPs are consistent with the standard.</p> <div style="display: flex; justify-content: space-around;"> <div> </div> <div> </div> </div> <p>ML Photo 1 20/11 ML Photo 2 20/11</p> <div style="display: flex; justify-content: space-around;"> <div> </div> <div> </div> </div> <p>ML Photo 3 20/11 ML Photo 4 20/11</p> <p>Evidence was also provided for the Cessnock WWTW where upgrades to the treatment process have led to a change in the CCPs in conjunction with NSW Health. This change was communicated with IPART as identified. This process is effective and robust.</p> <p>The process for expanding the Edgeworth scheme to Lake Macquarie was audited and it was identified that there is extensive engagement. This has included a preliminary risk workshop that has identified essential preventive measures that need to be implemented before recycled water will be provided. Lake Macquarie City Council is working to implement these measures, and an additional risk assessment will be conducted prior to supply commencing.</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Element 4 Identify the operational monitoring that is required to ensure that processes are effective. Provide relevant procedures to support operations. Clearly identify the levels of key parameters where corrective actions are to be implemented, and any documentation that demonstrates that the procedures and actions were in fact implemented. For example, that exceedances of key limits were rapidly communicated as per procedures. Identify the required frequency for internal and external water quality instrument calibrations (e.g. those used for implementing CCPs).</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 4 'Corporate Recycled Water Quality Management Plan - Refer to Element 1 Edgeworth WWTW Recycled Water Quality Management Plan - Refer to Element 1 Recycled Water Quality Monitoring and Communication PN110 - Recycled Water Standards TEM-3149 HW - Cessnock WWTW Weekly Duties TEM-3151 HW - Edgeworth WWTW Weekly Duties MAN-2956 HW - Cessnock WWTW Plant Operating Manual MAN-2961 HW - Edgeworth WWTW Plant Operating Manual CCP EPL Alarm Monthly Reports Nov 23-Oct 24 Recycled Water Reports Nov 23-Oct 24 February 2024 Monthly Report Section 11 Incidents February 2024 Monthly Report Section 12 Biosolids and Effluent Reuse May 2024 Monthly Report Section 11 Incidents May 2024 Monthly Report Section 12 Biosolids and Effluent Reuse Veolia Mail - Fwd_ ALS EXCEEDANCE NOTIFICATION - WWT_Edgeworth WWTW (Sample Date_ 11-22-23) Veolia Mail - Fwd_ ALS EXCEEDANCE NOTIFICATION - WWT_Cessnock WWTW (Sample Date_ 05-08-24) WO 1008295823 ST-CES-Flowmeter Verification and Inspection WO 1008295824 ST-CES-Flowmeter Verification and Inspection</p>	<p>Hunter Water have a number of procedures that govern the management of recycled water as detailed in the Corporate Recycled Water Quality Management Plan.</p> <p>Table 4-1 of the recycled water quality management plans contain scheme specific information on operational monitoring.</p> <p>The Recycled Water Quality Monitoring and Communication Standard also details operational correction communication requirements. Veolia and Hunter Water operations contract also specify recycled water requirements, particularly PN110.</p> <p>The Weekly Duties for each WWTW provides a task list for the operators to carry out operational monitoring. This includes SCADA reviews and onsite lab analysis.</p> <p>The Plant Operating Manuals outline how the plants and the equipment should be operated. The manuals also refer to individual equipment vendor supplied manuals which contain more detail on correct operation of each equipment item as well as its maintenance requirements.</p> <p>Veolia carry out daily (SCADA CCP EPL Alarm Reports), weekly (weekly reports) and monthly reporting (monthly Contract Report Sections 11 and 12) of key parameters.</p> <p>External NATA accredited Laboratory (ALS) also send out exceedance notifications to advise of analyte exceedances against specified targets.</p> <p>All devices are calibrated in accordance with the manufacturer's recommendations. Veolia's calibration schedules and record keeping are managed via Veolia's Asset Management System (VAMS), with Work orders created to meet calibration schedules.</p> <p>SCADA change requests are submitted by Veolia to Hunter Water when changes are identified to</p>	<p>The Veolia manuals provided include the relevant details of the operational monitoring and responses required.</p> <p>Veolia plant operational manuals define the operational limits, along with PN110 water quality specification, and the CCPs for aeration and UV dose.</p> <p>Maintenance and calibration of online instruments was demonstrated through the provision of the calibration work orders that were all completed as required. On site the performance of instruments is checked through the weekday site inspection. The approval of the work orders included "sign off" and "complete". This was clarified in that sign off meant that the work order had been undertaken, but the final paperwork was not yet processed. When the paperwork is processed, the work order becomes "complete".</p> <div style="display: flex; justify-content: space-around;">   </div> <p>ML Photo 5 20/11 ML Photo 6 20/11</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	WO 1008296552 ST-CES-Flowmeter Verification and Inspection WO 1008590773 ST-EDG-Turbidity Sensor Calibration WO 1008444094 ST-EDG-UVT Calibration WO 1008295899 ST-EDG-DO Probe Check & Calibration WO 1008295900 ST-EDG-DO Probe Check & Calibration WO 1008295901 ST-EDG-DO Probe Check & Calibration WO 1008295902 ST-EDG-DO Probe Check & Calibration WO 1008295903 ST-EDG-DO Probe Check & Calibration WO 1008295904 ST-EDG-DO Probe Check & Calibration WO 1008295905 ST-EDG-DO Probe Check & Calibration WO 1008295906 ST-EDG-DO Probe Check & Calibration HW - SCADA change register	improve the control of the plants, identification of and response to issues.		
Element 5 Identify the verification monitoring that was intended to be undertaken and provide evidence that all samples were in fact collected and analysed (or provide justification as to why samples were missed). Provide the recycled water quality monitoring plan for Edgeworth and end users. Identify the process for evaluating results to ensure they comply with the recycled water criteria, and how (and what)	'Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 5 Corporate Recycled Water Quality Management Plan - Refer to Element 1 Edgeworth WWTW Recycled Water Quality Management Plan - Refer to Element 1 Recycled Water Quality Monitoring Plan Evidence of customer contacts Fwd Rabbit Control - Stakeholder meeting Re Rabbit Control - Stakeholder meeting Veolia Monthly Contract Exceedence notification and actions screenshot	The individual Recycled Water Quality Management Plans outline the sampling program for the schemes also detailed in the Recycled Water Quality Management Plan. Corrective responses are detailed in Table 4-1 of the recycled water quality management plans. Communication pathways are outlined in the Quality Monitoring and Communication Standard. Hunter Water's Business Compliance Officer's (BCO's) Role is to be the principal contact within Hunter Water for commercial Recycled Water customers. Any complaints are managed by the BCO and would be recorded in the TRIM - Commercial End	Verification monitoring in the Veolia plan for Edgeworth is limited to pH, Biochemical Oxygen Demand (BOD), SS, <i>E. coli</i> and thermotolerant coliforms. Metals are monitored in reuse wells. There were no non-compliant results, and therefore no actions to audit. Customer complaints: The process has been described, but in this audit period, no customer complaints were recorded.	C


Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>actions are triggered for results that are out of specification. Identify how customer complaints are recorded and the process whereby complaints are investigated and actioned. Where any actions were taken for non-compliant results, identify those actions. (If there are a large number, these can be grouped, and further questions may be asked during audit interviews). Provide a evidence of Cessnock, Kurri Kurri and Morpeth verification monitoring undertaken in the audit period (or previous reporting period) that demonstrates compliance with water quality requirements and consistency with the stated monitoring frequencies for those schemes.</p>	<p>TEM-2883 HW - Cessnock WWTW Sampling Calendar 2024 TEM-2878 HW - Edgeworth WWTW Sampling Calendar 2024 TEM-2910 HW Cessnock WWTW Sampling Guide Sheet TEM-2914 HW Edgeworth WWTW Sampling Guide Sheet MAN-2799 HW - Incident and Emergency Management Manual TEM-3033 HW RWQ Notification Veolia Mail - Fwd_ ALS EXCEEDANCE NOTIFICATION - WWT_Edgeworth WWTW (Sample Date_ 11-22-23) Veolia Mail - Fwd_ ALS EXCEEDANCE NOTIFICATION - WWT_Cessnock WWTW (Sample Date_ 05-08-24) Recycled Water Report 20240515 Recycled Water Report 20231129 Cessnock Audit Period Labdata Edgeworth Audit Period Labdata Kurri Kurri Audit Period Labdata Morpeth Audit Period Labdata</p>	<p>Users Correspondence file. Open communication and collaborative problem solving are encouraged. There were no active complaint recorded from recycled water users over the review period that required an investigation. We have included an example of working collaboratively with a nearby land owner to reduce a combined problem if rabbit infestation in the land surrounding the treatment plant. On occasion non-compliant result are provided to Hunter Water in relation to the quality of supply. Where this occurs the Business Compliance Officer contacts the end user in writing (email) and if possible by phone. Hunter Water advises the customer of the type of outage and when the issue is likely to be rectified. Hunter Water then awaits compliant test results and notifies the end user of the ability to recommence supply.</p> <p>Routine recycled water quality monitoring is conducted weekly via a NATA accredited Laboratory to verify that recycled water complies with the specified targets. Sampling calendars are provided and accessible via the Hunter Water / Veolia Portal. This labdata is available in Hunter Water's EnviroSys system. Veolia also carries out weekly reporting to verify the water quality against the recycled water criteria.</p> <p>Where a non-compliant result occurs, the Incident and Emergency Management process is followed.</p> <p>In addition monthly recycled water quality meetings are held in which Veolia provide a review of recycled water quality to discuss as required. Monitor exceedances are listed in the monthly contract report</p>		
<p>Element 6 Provide the incident and emergency response protocols. Detail the communication</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 6</p>	<p>Hunter Water has prepared a Recycled Water Quality Incident Response Procedure outlining notification protocols for external agencies in the event of a recycled water quality incident. This document was</p>	<p>The information provided demonstrates there is a robust process in place if there are non-compliant results with sufficient understanding of the various stakeholders. The Veolia incident</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>processes used to ensure that public health can be protected in the event of non-compliant recycled water quality.</p>	<p>'Notification of Water Quality Events of Potential Public Health Significance to NSW Health Recycled Water Quality Incident Response procedure Corporate Emergency Management Plan MAN-2799 HW - Incident and Emergency Management Manual TEM-2801 HW Internal Incident Notification Process TEM-2802 HW Emergency Contact List CCP EPL Alarm Monthly Reports Nov 23-Oct 24 Recycled Water Weekly Reports Nov 23-Oct 24 February 2024 Monthly Report Section 11 Incidents February 2024 Monthly Report Section 12 Biosolids and Effluent Reuse May 2024 Monthly Report Section 11 Incidents May 2024 Monthly Report Section 12 Biosolids and Effluent Reuse</p>	<p>developed in liaison with NSW Health and works in conjunction with Veolia's incident procedures. Hunter Water has created various other documents to assist with reporting and managing incidents such as the Notification of Water Quality Events of Potential Public Health Significance to NSW Health procedure. A Corporate Emergency Management Plan (CEMP) is maintained. It covers all of Hunter Water's area of operations, including a recycled water quality section. It determines what constitutes an emergency or major incident and provides guidance to respond. The CEMP contains references to relevant templates and checklists etc that may be required to manage incidents. Section 15 provides general communication and notification guidelines including checklists and templates.</p> <p>Veolia's treatment plant operators are responsible for providing notifications to key Veolia staff as directed by the Internal Notification Process (TEM-2801) and Veolia Incident and Emergency Management Manual (MAN-2799). IEMM can be accessed via Veolia Portal, and via Google Drive. Emergency Contact List (TEM-2802) provides an updated contact list of all Veolia / Hunter Water and emergency contact details. Veolia maintain an incident report register, which records any early warnings or incidents and is a supplementary record of all incidents reported to HW All communication will be in line with the requirements specified in PN110 Recycled Water and Shortland WWTW Effluent Standards and PN203 Recycled Water Interruption Notification.</p>	<p>and emergency management manual can trigger notification to Hunter water, after which Hunter Water notifies NSW Health via the relevant procedure and simultaneously escalates through their own EMP as required. The actions were not required to be implemented in the reporting period so were not able to be audited in detail.</p>	
<p>Element 7 Provide evidence that operators have appropriate skills. Identify the requirements</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 7</p>	<p>Veolia's Learning and Development Policy (POL-7) outlines Veolia's commitment to provide training for employees required to deliver out services, partner with relevant stakeholders to provide solutions and</p>	<p>Veolia provided significant information for training of operators for recycled water. Hunter water tracks this through Elsa system. The onsite interviews confirmed that the process for internal</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
for end users for safe use of recycled water.	PRO-159 Training and Competency Procedure STA-153 Skills, Training and Competency Standard TEM-6719 HW Skills and Competency Matrix for Operations Staff POL-7 Learning and Development Policy MAN-3068 HW Waste Water Quality Management Plan South 1 - Jan 12 2023 Toolbox - RWQMP Review South 2 - Jan 19 2023 Toolbox - RWQMP Review South 1 - Mar 06 2024 Toolbox - IEMM Review South 2 - Feb 29 2024 Toolbox - IEMM Review Training Register on Google	collaborate to achieve goals. Training of staff occurs in accordance with the Training and Competency Procedure (PRO-159), to ensure that personnel performing work affecting quality are competent on the basis of appropriate education, skills and experience. Each employee of Veolia, other than operators under EA agreement, has a biannual individual performance assessment that identifies their training requirements based on the requirements of their role and career goals. All new employees are inducted according to the Veolia induction policy, contained in the Skills, Training and Competency Standard (STA-153). All training required for regulatory compliance and operational competency is identified by plant managers, and supervisors and the requirements supplied to the regional HR personnel. The regional HR personnel manages new employee induction, and develops and maintains the employee training matrixes and assists the plant managers and other supervisors in scheduling and delivering training. Online learning is delivered through 'Bridge Learning Management System', with consists of a series of compulsory compliance programs. All Veolia operators at a minimum have to undertake accredited training in Certificate III or equivalent in Water Operations, as specified in Practice Note 102 Operator Competency. Specific skills and competencies are contained in TEM-6719. Fortnightly Toolbox meetings form part of Veolia's management review system, and provide a format for operators to raise (non-urgent) issues with coordinators. Records of fortnightly Toolbox meetings are available on the internal Google Drive.	staff, and for contractors is appropriate to ensure that anyone on site has the appropriate skills for the tasks to be undertaken.	
Element 8 Identify if there has been consultation with the end users regarding the quality of recycled water.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 8	Hunter Water engages with Recycled Water “end users/ customers” throughout the course of their agreement. This engagement includes communication/consultation surrounding the quality of recycled water supplied. Hunter Water manages	The has been good interaction with Waratah Golf Club to ensure that they understand the safe use of recycled water, and the evidence (responses shown to the auditor on screen during the audit)	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Annual statement of Recycled Water Quality supplied to customer</p> <p>Email to customer regarding quality issues</p>	<p>the quality of the Recycled Water to ensure it is safe for its intended purpose.</p> <p>Veolia who is contracted to manage Hunter Waters WWTW's analyses and tests the Recycled Water for each scheme and provides Hunter Water with weekly reports which include any exceedances. These weekly reports are provided in email format to Hunter Waters Treatment Operations, Compliance and Business Customer team.</p> <p>Where exceedances are reported which effect the quality of Recycled Water, the customer is consulted with and Hunter Water determines whether the supply is able to continue or if it needs to cease until the quality issue has been resolved. (Examples of this communication are provided as evidence.)</p> <p>In addition to this Hunter Water provides each end user with an annual statement of Recycled Water supplied prior to conducting its annual Recycled Water site inspection. This information is provided prior to enable informed discussion/consultation with the customer when the inspection is conducted. This enables both Hunter Water and the customer to refer to the data and discuss any quality issues highlighted over the course of the year. (Example supplied in reference to Waratah Golf Club).</p> <p>Hunter Water is also in the process of creating a new recycled water scheme from the Edgeworth WWTW. This new scheme proposes to supply Lake Macquarie City Council with recycled water for sporting fields. Hunter Water has been in consultation with the council regarding all aspects of the recycled water scheme. The council has been involved in risks assessment as shown as evidence in Element 2.</p>	<p>shows that they are responsive to Hunter Water Requests.</p> <p>It was also noted during the year that Hunter Water has engaged closely with Lake Macquarie Council regarding the proposed recycled water scheme. This has included a staged risk assessment. In the first risk assessment, preventive measures were identified, and Council has been working to implement the measures prior to provision of supply. There will be a further risk assessment when the measures have been implemented. This shows excellent engagement.</p> <p>The customers are also provided an annual summary of water quality prior to site inspections, and are informed if water quality does not meet specification. The email to customers regarding quality issues provided in evidence demonstrates two way discussion with the Kurri Golf Club and Kurri TAFE.</p>	
<p>Element 9 Demonstrate how the critical limits for the Edgeworth scheme have been validated.</p>	<p>'Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 1</p>	<p>Details regarding the validation of processes are discussed within the Edgeworth RWQMP. New</p>	<p>New validation is currently planned, with a request for quote to be developed for this work. During the site visit it was identified that in June 2024 there were periods of time where the</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	Edgeworth WWTW Recycled Water Quality Management Plan _ Refer to Element 1	validation sampling is currently occurring at the WWTW to update the data.	<p>ammonia was elevated above normal. On further investigation, it was identified that at the time, the aerators were operating at maximum. The verification samples are all taken on Wednesday mornings, and the maximum aeration had occurred for 5 weeks in a row only on a Tuesday. This showed that there were other parameters that could indicate impacts on treatment process. This observation has led to the suggested opportunity for improvement.</p> <p>Opportunity for Improvement 16-1:</p> <p>Review the validation of secondary treatment to assess whether pathogen reduction is achieved if the process is impacted. If appropriate, consider whether other indicators such as ammonia or maximum aeration should be used as control points to improve the resilience of the overall pathogen reduction at relevant plants. This is prioritised for more important and/or higher risk end users such as the proposed Lake Macquarie sporting field irrigation scheme that is in development.</p>	
<p>Element 11 Demonstrate the process for long term evaluation of results.</p> <p>Provide evidence of internal audits and the implementation of internal audit outcomes.</p> <p>Provide end user audits for each end user RW schemes. Provide evidence that any outstanding items from previous audits are also identified and tracked for implementation.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 11</p> <p>Recycled Water\Element 1\Recycled Water 1st Party Audit Report Eraring Recycled Water 1st Party Audit Report Edgeworth</p> <p>Cessnock Golf Club Site Inspection August 2024</p> <p>NSW Health Liaison Recycled Water Quality Improvement Plan June 2024</p> <p>Proposed arrangements to supply recycled water customer as a result of</p>	<p>Internal audits are scheduled in line with the risk assessment schedule and recorded in the internal audit schedule. During the audit period 2024, audits associated with risk assessments were undertaken on Dora Ck and Edgeworth WWTW recycled water schemes. Hunter Water conducts annual compliance inspections/audits of each Recycled Water scheme. End users/customer are emailed in advance and provided with a copy of the Recycled Water Quality data prior to attending and reminded if there are any outstanding items such as a Cross Connection Flow Test due. Onsite Recycled Water Audit/Inspections are carried out electronically and a PDF report is supplied to the Customer. Inspection actions are tracked by Hunter Water to ensure implementation. Recycled water site inspections have been included</p>	<p>Audits are undertaken both internally and externally, and cover the requirements as stated in the overarching RWMP. This includes end user audits.</p> <p>The long-term operation of the recycled water schemes is tracked and reported in the monthly reports. This process provides a secondary check to ensure that recycled water was fit for purpose.</p> <p>The identification of an error in the UV system where it could not read below 50% was identified in an internal audit and has been rectified. This is part of the purpose of the internal audits, so this does not impact the grading.</p> <p>Long-term trending is appropriate.</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>UVT analyser issues End user audit Waratah Golf Club consultation with customer (email) Waratah-Golf-Club inspection Sept 2024 01_Edgeworth WWTW RWQLT 02_Cessnock WWTW RWQLT Edgeworth WWTW Environmental Audit Edgeworth WWTW Safety Audit Edgeworth WWTW Site Audit Veolia 1001-RW-EDG</p>	<p>for Waratah Golf Club and Cessnock Golf Club. Commentary document and evidence of communication shows progress of actions. These are recorded in the Recycled Water Improvement Plan. Improvement Plan actions are reported to NSW Health at the Quarterly Liaison meeting. The June 2024 NSW Health report have been included showing action closed from previous Kurri Kurri and Cessnock audits.</p> <p>As shown in the Edgeworth internal audit, a non-conformance was noted with the UVT analyser and trends in SCADA. The report also notes the actions that were implemented following the audit to assist in resolving the issue. As evidence, the Veolia report has been included which shows improvements to the process following the audit. and email to NSW Health are also included.</p> <p>Long term evaluation of water quality data and operational performance is collected from SCADA trends, analytical data and other operational records (i.e. incident reports). Operators and technical staff assess treatment performance against CCPs and Environment Protection Licence (EPL) licence requirements, whilst also comparing them against the O&M and Treatment Contract (CS0341) requirements.</p> <p>Each month as part of the Monthly report, the long term trends for the recycled water schemes are included.</p> <p>Veolia conduct Internal audits to support continuous improvement by ensuring that the Management System and the business process are regularly audited in a consistent and systematic manner. Audit reports are stored in the Ad-Hoc Inspections Library section of RIVO. Actions are captured in the Issues Management System on RIVO.</p>	<p>It was also noted that following the September Audit, the RWMP has been updated to a new version.</p>  <p>ML Photo 7 20/11</p>	
<p>Element 12 Demonstrate how senior executives are informed</p>	<p>Evidence located in IPART Sig-box location: "Hunter</p>	<p>A Management System Review Meeting is held with the Hunter Water EMT to report on management</p>	<p>The evidence provided demonstrates how management system performance is tracked and</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>as to key requirements and implementation of the RWQMS. Provide evidence such as routine reporting of implementation and performance. Provide evidence of reviews of the RWMSs and subcomponents in accordance with stated timeframes. Identify when each RWMS was last updated including when the risk assessment was last reviewed, taking into account more recent water quality information. Provide the RWQMP Improvements Master List and provide evidence of its implementation.</p>	<p>Water\Questionnaire\Evidence - Clause 16 Recycled Water\Element 12</p> <p>Risk driver analysis summary - Inability to manage recycled water 2023 Compliance and Performance Report 2023-24</p> <p>Screenshot RWQ management spreadsheet - RWQMP review schedule Presentation - RWQIP Update September 2024 NSW Health Liaison Meeting Dora Creek RW Risk Assessment Workshop Briefing Paper Kurri Kurri RW Risk Assessment Workshop Output Paper NSW Health Liaison Recycled Water Quality Improvement Plan June 2024 Screenshot RWQ Improvement Plan spreadsheet</p> <p>Management Systems Performance Review - EMT Audit and Risk EMT Risk and Assurance Meeting Agenda CMG Meeting 120 - 12 September 2024 230910 Agenda HW-Veolia POPs September 2024</p> <p>MAN-3070 - BMS Live - Change Log</p> <p>MAN-3074 - BMS Live - Change Log</p>	<p>system performance. This meeting is carried out as part of the Quarterly EMT Risk and Audit Forum. Senior management are also involved in the annual corporate risk review, where the risks associated with recycled water are reviewed and updated.</p> <p>Senior executives are updated on the RWQMS through a number of reporting processes such as:</p> <ul style="list-style-type: none"> • Annual compliance and performance reporting which requires executive endorsement • Progress reporting against the strategic objective to manage recycled water approved by executive manager • Review of policies and other key documents requiring executive approval. The Recycled Water Quality Policy is required to be approved by the Managing Director and endorsed by relevant executive. • Updates provided to the NSW Health liaison meeting which includes the Executive Manager for Service Delivery. • Updates provided to the Executive Risk and Assurance Meeting • Communication to EMT on results from audits including the IPART Operating Licence Audit and ISO audits. The status of IPART audit recommendations requires executive endorsement and Management Director sign off. • An annual Integrated Management System Review Meeting with the EMT is held to review all aspects of the individual systems of the IMS (ie; AS/NZS 4801; ISO 14001; ISO 9001). <p>A list of all improvement actions are documented in the Recycled Water Improvement Actions Register. The screenshot shows actions from Cessnock and Kurri Kurri risk assessments and audits. The NSW Health report shows evidence and reporting of implementation</p>	<p>reported to the executive management team. This process includes reporting on compliance, liaison with NSW Health, and any issues that require higher level consideration. Performance of the plants is inherent with this reporting. Veolia is more focussed on the day-to-day operational performance and provide reports demonstrating compliance with the contract and therefore health and environmental requirements.</p>	<p></p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>An annual program has been created for reviews of each of the Recycled Water Quality Risk Assessment and Management Plan. The schedule is contained within the Recycled Water Quality Management Spreadsheet. RWQMP reviews were completed for Dora Ck WWTW (Eraring) and Kurri Kurri WWTW in 2023. A contract has been issued for the completion of Edgeworth WWTW and Dual reticulation RWQMP during 2024/25.</p> <p>Senior management from Veolia are present at fortnightly toolboxes, monthly PoPs and Collaborative Management Group (CMG) meetings. Documents are kept current through Veolia's Integrated Business Management System (BMS) which assigns subject matter experts to manage and update documents. An audit trail of document updates and uploads is provided in the BMS. Review of Veolia's RWQMP's are undertaken three yearly, and / or can be updated to respond to changes to operations, risk register, CCPs or changes to legislation. Updates are conducted in accordance with Veolia's internal IBMS requirements. All required documents are available on the Veolia Portal</p>		

Clause 17 Water Continuity Standard

17(1)

Hunter Water must ensure that, in each financial year, at least 9,619 per 10,000 Properties (in respect of which Hunter Water provides a Drinking Water supply Service) receive a Drinking Water supply Service unaffected by an Unplanned Water Interruption (the Water Continuity Standard).

Grading assigned



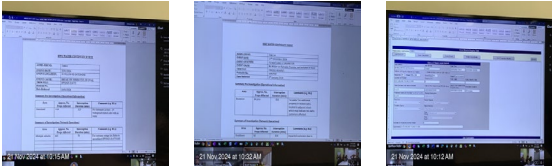
This was assessed as Compliant minor shortcoming as the original value provided to IPART was incorrect due to the method of calculation not including a small number of impacted customers. The methodology has already been updated and the value calculated has been corrected. The corrected value demonstrated that Hunter Water met the water continuity standard during the audit period. Nevertheless, use of an incorrect calculation methodology introduced the risk that the standard may not have been met and not reported appropriately. The risk is deemed to be low as it does not impact on the actual standard of service supplied, only the accuracy of reporting of the standard of service.

Recommendation: 2024-5-17(1)

By 30 June 2025 amend the reporting methodology to ensure that the known number of customers impacted is accurately reported.

It is noted that the Snowflake snapshot methodology has already been amended as of 28 November 2024 to resolve the audit finding.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Provide evidence of all unplanned outages in the past financial year, and where these have occurred demonstrate how you have calculated the number of affected properties (including multiple occupancy properties). Subsequently, identify how you reach the final value for comparison with the standard.	Refer to provided evidence. New version of HW2018-349-003 IPART Reporting and Monitoring Procedure is also work in progress.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 17 Water Continuity Standards 17-1 Uninterrupted Drinking water supply per 10000 customers S2 - UNPLANNED WATER INTERRUPTION GREATER THAN 5 HOURS 2023_24 17-1 Uninterrupted Drinking Water Supply per 10000 customers V2 28.11.2024	The performance against the licence requirement is met by running a query against the AOMS database where the data related to outages is documented. Following the outage, an initial count of the number of impacted properties is determined through use of the Geographic Information System where the identified valves are closed and the break simulated. This results in an accurate determination of the number of impacted properties per outage. Subsequently, this outcome is cross referenced against customer complaints related to loss of supply as a validation. Where there are cases with other properties that are outside of initially identified zones which are impacted, this delays the finalisation of that report while the extent of the outage is investigated. During the audit a shortcoming was identified that there were properties that were not captured in the query as the investigation had not closed within the query timeframe. Several examples were identified where the number of customers impacted was not counted in the value provided (AOMS job numbers 708114 identified 92 customers that had a > 5 hour outage (not originally counted), and 710021 identified 14 customers impacted for 5hours (also not originally counted)). On re-evaluation, it was demonstrated that the Water Continuity Standard was met – i.e. Hunter Water was compliant with the license clause.	C-MS

			<p>However, as the query that is used to demonstrate compliance was not accurate, this is a minor shortcoming.</p>  <p>ML Photo 1 ML Photo 2 ML Photo 3</p> <p>Recommendation 2024-5-17(1): By 30 June 2025 update the query used to extract the relevant data to ensure that the known number of customers impacted is accurately reported, and compliance with the standard can be demonstrated.</p> <p>It is noted that Hunter Water has already implemented the recommendation outside of the audit period, however the finding and recommendation are retained in this report as a record of the audit outcomes.</p>	
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17(3)

Hunter Water must use the best available data (taking account of water pressure data, where available) to determine whether a Property has experienced an Unplanned Water Interruption.



Hunter Water was assessed as compliant during the audit period as the methodology for assessing the number of impacted properties is based on a multi-step process including post assessment of the incident using Geographic Information System (GIS) tools to map the impacted properties. A further crosscheck against customer complaints is used to confirm the outage did not extend beyond the identified zones.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Demonstrate how unplanned interruptions are identified.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 17 Water Continuity Standards 17-3 Unplanned Water Interruption Analysis 17-3 Unplanned Water Interruption Analysis V2 28.11.2024	Refer to provided evidence. New version of HW2018-349-003 IPART Reporting and Monitoring Procedure is also work in progress.	It was identified that the reporting methodology for determining the number of customers impacted by 5-hour outages was robust, in that the closed valves are assessed in the Geographic Information System to determine the number of properties. This is then cross checked with customer complaints.	C

Clause 18 Water Pressure Standard

18(1)

Hunter Water must ensure that, in each financial year, at least 9,817 Properties per 10,000 Properties (in respect of which Hunter Water provides a Drinking Water supply Service) receive a Drinking Water supply Service that is not affected by a Water Pressure Failure, (the Water Pressure Standard).

Grading assigned



Hunter Water was assessed as compliant during the audit period because it demonstrated that 9,965 properties out of 10,000 properties received a drinking water supply service that was not impacted by a water pressure failure.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Provide evidence of all water pressure failures in the past financial year, and where these have occurred demonstrate how you have calculated the number of affected properties (including multiple occupancy properties). Subsequently, identify how you reach the final value for comparison with the standard.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 18 Water Pressure Standards</p> <p>18-1 Water Pressure Failure per 10000 customers Annual Bulk Low Pressure Customers 2023 Low Pressure Complaints in AOMS - FY23_24</p>	<p>Refer to provided evidence. New version of HW2018-349-003 IPART Reporting and Monitoring Procedure is also work in progress.</p>	<p>The evidence provided demonstrates how the number of pressure failures is counted, and how Hunter Water evaluates compliance with this clause. This was considered to be robust.</p>	<p>C</p>

Clause 19 Dry Weather Wastewater Overflow

19(1)

Hunter Water must ensure that, in each financial year, at least:

(a) 9,800 Properties per 10,000 Properties (in respect of which Hunter Water provides a sewerage service but excluding Public Properties) receive a sewerage service unaffected by an Uncontrolled Wastewater Overflow; and

(b) 9,998 Properties per 10,000 Properties (in respect of which Hunter Water provides a sewerage service but excluding Public Properties) receive a sewerage service affected by fewer than 3 Uncontrolled Wastewater Overflows,

(the Dry Weather Wastewater Overflow Standard).

Grading assigned



Hunter Water was assessed as complaint during the audit period because it demonstrated that 9,910 properties out of 10,000 properties received a sewerage service unaffected by an uncontrolled wastewater overflow, and >9,999 properties out of 10,000 properties experienced fewer than three overflows, which met the standard.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Provide evidence of all uncontrolled wastewater overflows in the past financial year, and where these have occurred demonstrate how you have calculated the number of affected properties (including how you counted any multiple occupancy properties). Subsequently, identify how you reach the final value for comparison with the standard. Specifically identify all properties that have had 3 or more uncontrolled wastewater overflows.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 19 Dry Weather Overflows</p> <p>HW2018-349-003 IPART Reporting and Monitoring Procedure Oct 2022 19-1 Uncontrolled Wastewater Overflow per 10000 customers SPS uncontrolled wastewater data - all data</p>	<p>The procedure for the calculations can be found in HW2018-349-003 IPART Reporting and Monitoring Procedure Oct 2022.</p>	<p>The number of uncontrolled overflows is determined based off initial customer reports (noting that other works that are identified by Hunter Water are also recorded in the same way). The calculation provided was checked and found to be consistent with the extraction of the data. The license requirements (both a and b) were met.</p> <p>It was noted that one property had been impacted by 5 overflows. This particular example was interrogated, and it was identified that all occurred within a short period of time, and that the process to prevent recurrence (e.g. arranging for additional works) had been initiated following the original overflow, but as this was the Christmas/ New Year period, the works were not completed in time to prevent further overflows. This series was isolated, demonstrating that the actions are normally sufficient to prevent this from happening as is the license intent.</p>	<p>C</p>

Clause 21 Asset Management System

21(2)

Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.

Hunter Water was non-compliant during the audit period because it did not carry out all relevant activities in accordance with the Asset Management Systems, specifically:

1) The Annual Risk Driver Review for 2024 was postponed until 2025, a decision made for good reasons (transitioning to a new risk taxonomy), but technically becomes a non-compliance with the Asset Management System's requirement for annual reviews; and:

Grading
assigned



2) A reservoir integrity issue was not prioritised for repairs in accordance with the Asset Management System (assigned for a 3-month response time instead of 14 days). The repairs were actually made 15 days after identification.

The non-compliances are deemed non-material, as:

1) The Annual Risk Driver Review is an internal obligation, and its postponement does not in our opinion introduce an added risk; and:

2) The reservoir integrity issue was responded to within 15 days, which in our opinion does not introduce significant additional risk compared with the required timeframe of 14 days

Recommendation: 2024-1-21(2)

By 30 June 2025, consider the process for deferring the requirements of the management system in exceptional circumstances and in consultation with the relevant stakeholders. Options that could be considered include update of the relevant documentation to specify who has approval authority to defer requirements, or clarification of the relevant business process to be used for management of planned deviation from approved procedure or process (also known as temporary change). This could fit within the Non-Conformance Report (NCR) process, the change management process or be a standalone process.

Recommendation: 2024-2-21(2)

By 30 June 2025, review existing processes and if necessary, undertake training to ensure that reservoir defects are prioritised appropriately and addressed in a timely manner.

Opportunity for Improvement 21-1

For clarity it would be useful to explain how stakeholder requirements / expectations were determined (page 8 of the Strategic Asset Management Plan (SAMP)).

Opportunity for Improvement 21-2

Consider whether the Asset Class Plan - Reservoirs adequately addresses water quality considerations. As an example, the Enterprise Risk Management (ERM) Risk Assessment in Appendix E suggests that vermin access to a reservoir is a low risk and controlled by bi-monthly inspections, water quality testing and dosing.

Opportunity for Improvement 21-3

Update written direction/work instruction around use of drones for Reservoir Inspections to consider time of day/time of year, to ensure that all key aspects being inspected can be clearly viewed by the Drone Operator. It was noted that during the November 2024 IPART Operational Audit that the vermin mesh could not be clearly seen due to the contrast between the bright sunlight and the shaded area underneath the overhanging roof where the vermin proofing mesh was.

Opportunity for Improvement 21-4

Once the Drinking Water Reservoir Risk Assessment has been completed, use the findings to develop a Plan (or amend existing documentation) that defines the methodology (e.g. human vs drone inspection) and frequency of Reservoir inspections based on the risk.


Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Please provide the full AMS suite of documentation. In addition to updates against the Recommendations from the 2023 IPART audit, please provide evidence of:</p> <ul style="list-style-type: none"> - progress against any recommendations made in any external third party audit undertaken within the audit period - internal audits of the AMS within the audit period, audit reports, and progress against any recommendations - any design review processes currently 	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "A."</p> <p>Policy - Asset Management 2021</p> <p>SAMP - Version 6</p> <p>2024 ISO Audit Report BV</p> <p>Hunter Water ISO 55001 Certificate July 2023</p>	<p>AMS Policy</p> <p>Hunter Water's Asset Management Policy outlines the approach to managing the physical assets needed to provide services to customers and the community.</p> <p>SAMP</p> <p>The Strategic Asset Management Plan (SAMP) is an overarching document describing how services are to be provided through continual planning, delivery and management of assets. These physical assets include raw water assets, treatment plants, water network assets, wastewater network assets, recycled water assets, stormwater assets, high and low voltage assets, telemetry and operational communication assets. Assets managed under separate frameworks and excluded from the scope of the Asset Management System are: information and communication technology (not involved with telemetry and operational communication), fleet, depots, customer meters and property. There been no major changes in the Asset Management System since the last IPART audit.</p> <p>External audit reports for the AMS</p> <p>Hunter Water successfully completed an ISO 55001:2014 recertification audit of our certified asset management system in May 2024.</p>	<p>The Policy and SAMP are strong guiding documents that underpin Hunter Water's Asset Management System. There is evidence of continual review, e.g. the current (November 2024) draft SAMP update is being prepared.</p> <p>The external ISO 55001 audit report reported no issues/nonconformances.</p> <p>Opportunity for Improvement 21-1:</p> <p>For clarity it would be useful to explain how stakeholder requirements / expectations were determined (page 8 of the SAMP).</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>underway (if applicable)</p> <p>- Asset Management System review by senior management including executives</p> <p>Please provide Asset maintenance registers (specific records will be requested from this register - e.g. specific assets and dates to confirm maintenance was undertaken in accordance with required frequencies)</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "C."</p> <p>Asset Management System Steering Committee - Terms of Reference</p> <p>Minutes - AMS SC Meeting 2024.06.04</p> <p>Minutes - AMS SC Meeting 2024.09.02</p> <p>Enterprise Risk Management Standard Risk Driver Analysis Summary - Critical Assets 2023</p> <p>RE_ 2024 IPART Operational Audit - Scope_ participation and audit questionnaire"</p>	<p>Asset Management Leadership</p> <p>Strong asset management leadership ensures that the asset life cycle activities are prioritised and consistently implemented to ensure the objectives are achieved. Leadership is provided in many ways at Hunter Water, including corporate strategy, decision-making, resource and budget prioritisation and allocation, communication and consultation, and reporting and performance monitoring.</p> <p>Asset Management System Steering Committee</p> <p>The AMS Steering Committee will comprise relevant senior managers and relevant leads from across Hunter Water's Integrated Management System. The AMS Steering Committee will typically include a person with relevant skills and knowledge from Hunter Water's asset life cycle. In order to fulfil its objectives, the AMS Steering Committee will:</p> <ol style="list-style-type: none"> Develop strategic actions for the continuous improvement of the AMS. Ensure the AMS process is effective and appropriately resourced. Review relevant AMS documentation and make recommendations for approval. Ensure adequate internal and external stakeholder review of AMS processes and procedures. <p>Risk Management</p> <p>The enterprise risk management (ERM) framework includes risk appetite statements and are defined for specific business risks associated with elements of the Asset Management System. Asset-related risks are being managed in accordance with the updated ERM. These risks are monitored within the service and regulatory requirements through annual risk reviews. The Risk Driver Analysis Critical Asset Failure – 2023 is provided as an example and email related to the Audit and Risk</p>	<p>Enterprise Risk Management Standard - s4.3 - "Each line item in the corporate risk profile is supported by detailed risk driver analysis examining the causes and sources of the overarching risk." "The risk driver review is to be conducted at least annually, in line with the release of the strategic business plan."</p> <p>The annual risk driver review was postponed from November 2024 to March 2025 as noted in the June 2024 Audit and Risk Committee Meeting minutes (extract provided in email 'RE_ 2024 IPART Operational Audit - Scope_ participation and audit questionnaire'), due to a transition to new Risk Taxonomy. This meant that no annual risk driver review is being undertaken in calendar year 2024. The non-compliance is deemed non-material as the delay of a self-imposed risk review timeframe does not mean that there is an elevation in the risk profile, and no evidence was sighted during the audit of new risks that had not been assessed.</p> <p>Recommendation 2024-1-21(2): By 30 June 2025, consider the process for deferring the requirements under the management system in exceptional circumstances and in consultation with the relevant stakeholders. Options that could be considered include update of the relevant documentation to specify who has approval authority to defer requirements, or clarification of the relevant business process to be used for management of planned deviation from approved procedure or process (also known as temporary change). This could fit within the NCR process, the change management process or be a standalone process.</p>	<p>NCNM</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		Committee meeting minutes covering Item 3.4 - Quarterly Risk Management Update at the 21 June 2024.		
	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "D."</p> <p>Standard - Critical Assets - V4 - September 2024</p> <p>Template - Asset Class Plan - V2 October 2024</p> <p>ACF Gateway Process Overview</p> <p>Miromaliko Baato - Corporate Strategy</p> <p>HWC Growth Plan 2024</p> <p>Strategic Case – Safe and Reliable Water Services</p> <p>Business Case - Investment Plan - Dam Safety - 17 July 2023</p> <p>Asset Management Plan - Low Voltage Electrical Equipment</p> <p>BCP 3 Grahamstown Dam</p> <p>BCP 10 Inland WWTW</p> <p>Committee Paper - Procurement Plan - Arcadia Vale and Morisset Reservoirs</p> <p>Business Case - Arcadia Vale 1 & Morisset 2 Reservoir Refurbishment - Jan 2022 (MIC2022-2-06 2.008)</p> <p>Arcadia Vale & Morisset Reservoir Refurbishment Project - Design Review & Option Selection Workshop_V2</p>	<p>Critical Assets</p> <p>Criticality is the term used for the ranking of Hunter Water assets based on consequences of the loss of an asset's functions including operational, safety or environmental.</p> <p>The criticality ranking shall set decision-making priorities around operational resilience, strategic planning, maintenance strategies and capital spending.</p> <p>Strategic Planning</p> <p>The Miromaliko Baato - Corporate Strategy sets the direction for Hunter Water and identifies the outcomes that will define our success, as well as the measures and targets which will evaluate our progress towards those outcomes. Hunter Water has strategic planning functionality through Strategic Cases using Investment Logic Maps and Investment Plans. The Strategic Cases demonstrate the case for change and associated future investment objectives and benefits. The Strategic Case for Safe and Reliable Water Services and the Dam Safety Investment Plan is provided. The Hunter Water Growth Plan 2024 is also provided and available via our website.</p> <p>Service & Asset Planning</p> <p>Hunter Water implements planning through Service and Asset Planning, where the organisational objectives are assessed and investment programs or projects are identified to implement the outcome. The Service and Asset Planning covers the consideration of growth, regulatory environmental and water quality, along with the asset planning considering asset deterioration or compliance. Example ACPs are provided for Low Voltage Electrical equipment. For clarity on the scale of planning and investment undertaken, the 2025-30 Price</p>	<p>Based on the audit interviews and evidence provided, strategic/corporate and asset planning, and business continuity processes, are robust within Hunter Water.</p> <p>There is still work being done on designating critical assets within the Asset Management System.</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>Submission provides a comprehensive assessment (please refer to Hunter Water website, see https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal. Example Hunter Water Business Continuity Plans (BCP) is provided for both BCP3 Grahamstown Dam and BCP10 Inland WWTW.</p> <p>Investment Decision Making</p> <p>Hunter Water governs and prioritises the capital portfolio through a robust gateway approval process within the Asset Creation Framework (ACF). The asset creation process involves acquiring an asset capable of meeting service requirements at the least long run cost. For Hunter Water, this process commences after the asset planning process has identified an asset solution, and the investment decision-making process (business case) has determined the best way of meeting a current or future service standard at the lowest long run cost. Refer to summaries for the Asset Creation Framework (ACF) and Gateway Approval Process. Our gateway process is a modified version of the NSW Treasury process and has matured over a number of years. Individual investment projects or programs are assessed and reassessed throughout their lifecycle to ensure that, at each gate, the proposed investment remains prudent and is delivered in the most cost-efficient manner. The Management Investment Committee (MIC) is responsible for assessing business cases to ensure appropriate investment decisions. Hunter Water has submitted the forward capital program through the Gateway approval process. Refer to example (Arcadia Vale 1 & Morisset 2 Reservoir Refurbishment) for investment approval business case, including related design review documentation.</p> <p>Please find attached the following documents associated with the Arcadia Vale & Morisset Reservoir Refurbishment Project:</p> <ol style="list-style-type: none"> 1. G2 Business Case 		

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>2. Design Review & Options Selection Workshop</p> <p>3. Procurement Committee Plan</p> <p>Business Continuity</p> <p>Business Continuity Management is a holistic approach for managing risks related to disruptive events, to ensure Hunter Water can continue to deliver critical services that cannot be managed within our normal capabilities. Hunter Water's first priority is to protect the health, safety and wellbeing of employees, contractors and community members. Business Continuity Management arrangements: • Help to minimise the impact of disruptive events. • Support the effective return to operations. • Enhance capability and organisational resilience."</p>		
	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "E."</p> <p>Fw_ AMS Awareness Training - ELSA</p> <p>Master List of DAT attendees 091024</p> <p>Damstra report for HWC electricians</p> <p>21.1.C07.001 - AM Competencies Model v5.08</p> <p>File note - VP2662 Raymond Terrace WWTW Final Effluent Flow Meter Replacement PDP r1.2_approved 16.04.2024</p> <p>File note - VP2663 Grahamstown WTP Chlorinator Replacement PDP_approved 30.04.2024</p> <p>File Note - Asset Maintenance Summary Edgeworth WWTW</p>	<p>Training, Competency, Communication</p> <p>Evidence of staff compulsory training completed in relation to the Asset Management System. See also list of training completed for Design Assurance Training (DAT) which focuses on competency for Water Services Association of Australia (WSAA) codes. Damstra report provided showing list of electricians working on Hunter Water assets.</p> <p>AMS Competency Framework</p> <p>A review of Asset Management competency requirements within the current ISO 55001 certification identified key opportunities for improvement to how asset management competencies are utilised and developed within the business. In response, Hunter Water has developed its AM Competency Framework (v5.08).</p> <p>Asset Maintenance</p> <p>Hunter Water undertakes maintenance activities to ensure that the availability and performance of assets meet requirements. A range of preventative and predictive maintenance tasks are informed by the</p>	<p>A Reservoir Inspection at Arcadia Vale Reservoir on 3 June 2024 identified a fault in vermin proofing mesh. The inspector filled in his iAuditor report and reported the fault to the Field Supervisor (First Responders) that same day. The job was logged in AOMS and a work order was promptly raised for rectification and assigned (by the Works Scheduler) as a priority 6 (3 month response time). An email was also sent to internal stakeholders including photographs. The Guideline - AOMS Priority Matrix states that 'maintenance required on an asset, e.g. Reservoirs' should be assigned as a priority 4 (14-day response time). Although the work was completed 15 days after the fault was identified, this was outside of the 14-day requirement. This is identified as a non-compliance (non-material) with Hunter Water's Asset Management System.</p> <p>The 'Asset Class Plan - Reservoirs' appears to suggest that 'unsealed roof or hatches allowing vermin into the reservoir' is a Low or Insignificant risk, not associated with any health consequence, and controlled by bi-monthly inspections, sampling and dosing. This does not align with industry best practice, as there have been</p>	<p>NCNM</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>MSE60A - ST-EDG Equipment Register 20241010</p> <p>Edgeworth PM Schedule</p> <p>HW2012-1042 31 149.006 Report - Paxton WWTW (ST-PAX) Treatment Plant Maintenance Audit 30112023</p> <p>HW2020-771 1 3.001 Business Case - G2 Edgeworth WWTW Blower replacement</p> <p>HW2020-771 1 3.003 Framework - Edgeworth WWTW Blower Replacement - NPV Analysis - BC</p> <p>HW2020-771 1 3.005 Framework - Edgeworth Blower Replacement NPV 03052024 - blower selection</p> <p>Business Case - WWTW Diffuser Replacement and Tank Remediation Program</p> <p>IPART OL Audit 2024 - EMM workflow Asset Management"</p>	<p>maintenance strategies identified from failure modes outlined in asset class plans. These tasks are undertaken on mechanical, electrical and civil assets. The maintenance work management process aims to improve maintenance effectiveness through structured planning and execution. Refer to example maintenance audit reports.</p> <p>Asset Renewals</p> <p>Asset Renewals are prioritised in accordance with condition assessment programs, engineering standards, asset creation framework, and the enterprise risk management framework process which prioritises these investment decisions. The Management Investment Committee (MIC) is responsible for assessing business cases to ensure appropriate investment decisions. Refer to example business cases (Edgeworth WWTW Blower Replacement and WWTW Diffuser Replacements).</p> <p>Treatment Operations Renewals</p> <p>Treatment Operations Renewals are prioritised as risks are identified and treated, and as condition deteriorates in non-linear trends.</p> <p>Under the Treatment Operations Contract, Veolia submit a minor capital works Project Development Plan (PDP) to Hunter Water for renewals, which is then assessed by internal stakeholders and prioritised using the following risk-based approach;</p> <ul style="list-style-type: none"> Step 1 – PDPs are initially risk assessed by Veolia (from A to E). Each PDP includes Veolia’s inherent, controlled and post-project risk assessments. Step 2 – Hunter Water prioritises PDPs based on risk and available capital funding, converting to Hunter Water’s risk heat map as required. Hunter Water review all PDPs with respect to Veolia A-E rankings, associated risk levels (High, Medium, Low) and determine if each project is either Non-Discretionary (ND), Recommended (R), or Discretionary (D). 	<p>numerous international instances of vermin access to drinking water reservoirs causing disease outbreak.</p> <p>A drone inspection of the Elermore Vale Reservoir was included as part of the audit, which is a great recent initiative of Hunter Water’s. There were minor issues noted with visibility of vermin mesh due to the contrast between the bright sunlight and the shaded roof overhang. Hunter Water is also working through a process of determining the level to which the drone inspections will be rolled out, some of which will be informed by the reservoir risk assessment that is currently underway.</p>  <p>SH Photo 15 20/11</p> <p>Recommendation 2024-2-21(2): By 30 June 2025, review existing business processes for assigning work priorities following reservoir inspections and if necessary, undertake training of staff involved in these processes to ensure that reservoir defects are prioritised appropriately and addressed in a timely manner.</p> <p>Opportunity for Improvement 21-2:</p> <p>Consider whether the Asset Class Plan - Reservoirs adequately addresses water quality considerations. As an example, the ERM Risk Assessment in Appendix E suggests that vermin access to a reservoir is a low risk and controlled by bi-monthly inspections, water quality testing and dosing.</p> <p>Opportunity for Improvement 21-3:</p> <p>Update written direction/work instruction around use of drones for Reservoir Inspections to consider time of day/time of year, to ensure that all key aspects being</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<ul style="list-style-type: none"> Step 3 - Prioritised PDPs are approved and implemented. PDPs are provided as examples. 	<p>inspected can be clearly viewed by the Drone Operator. It was noted that during the November 2024 IPART Operational Audit that the vermin mesh could not be clearly seen due to the contrast between the bright sunlight and the shaded area underneath the overhanging roof where the vermin proofing mesh was.</p> <p>Opportunity for Improvement 21-4:</p> <p>Once the Drinking Water Reservoir Risk Assessment has been completed, use the findings to develop a Plan (or amend existing documentation) that defines the methodology (e.g. human vs drone inspection) and frequency of Reservoir inspections based on the risk.</p>	
	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "F."</p> <p>Standards are available via Hunter Water website.</p> <p>Standard – Management of Technical Change</p> <p>Technical change request - sodium hypochlorite containment leak detection pit ST-EDG</p> <p>Technical Change Request - Balickera 1 WPS pump permissive on screen differential level</p> <p>Technical change request - Nelson Bay 9 WWPS</p> <p>Technical Change Request- VP2802 Dungog WTP CO2 Coriolis Flowmeter Replacement</p>	<p>Design & Construction Standards</p> <p>Our standard technical specifications (STS), standard drawings and design manuals define our default technical requirements for a variety of materials and classes of work associated with the construction and maintenance of our water and sewer systems. These are all available from the Hunter Water website.</p> <p>Management of Technical Change</p> <p>This standard applies to all changes to plant, plant control software, production and management systems, operating and maintenance procedures, and operating conditions including temporary changes. The standard provides a description of what constitutes a technical change and what process should be followed to manage the level of risk identified with a particular change. Procedures and supporting forms relating to specific work groups or teams shall be guided by this standard. Examples are provided.</p> <p>In addition, Hunter Water utilises Proci change management methodology. An example change management plan is provided for HBT implementation for drinking water quality management.</p> <p>Network Procedures</p>	<p>The evidence provided was comprehensive.</p> <p>Asset Deficiency Register with Veolia – this register records discussions relating to issues that impact Veolia’s ability to meet their licence, and proposes upgrades.</p> <p>Project Development Plans / Business Cases are prepared to initiate upgrade works on assets.</p> <p>The Project Development Plan for Contract CS0341 Minor Capital Works - Grahamstown Chlorine was reviewed. A Service Technician had advised Veolia that parts for the existing chlorination system were no longer available. Veolia advised Hunter Water of the issue and the risk that it potentially would cause in future (i.e. failure of the chlorination system and an inability to repair it). Veolia's Minor Works team completed the PDP and submitted it to Hunter Water for approval. In these instances, Hunter Water either resolves the issue internally or varies the contract for Veolia to undertake the works.</p> <p>There is a “Management of Technical Change” process which deals with instances requiring a deviation from Hunter Water design standards. To begin this process, there is an online form which sends automated emails to the approver. Access to the form is via Hunter Water’s</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>WI 003 – Working on Sewer Rising Mains and Recycled Water Mains</p> <p>WI 011 – Working on Reservoirs and High Level Tanks</p> <p>CS0341 Treatment Operations Contract - Schedules - some exclusions</p> <p>MCR CS0341 - August 2024</p> <p>Changes Since Draft Report - August 2024</p> <p>MCR CS0341 - August 2024 - Attachments A and B</p> <p>MCR CS0341 - August 2024 - Attachments C and D</p>	<p>Work instructions 003 and 011 are provided as examples.</p> <p>Treatment Operations Contract</p> <p>Various practice notes (Schedule 7) are included within the contract to ensure levels of service. Penalties exist within contract related to nominated service levels and KPIs (CS0341, part D). Monthly meetings used to monitor performance against service standards and contract KPIs. Contract CS0341 ends 30 June 2024. The August 2024 monthly report is provided."</p>	<p>Intranet>Digital Service Desk>Business Processes>Technical Change Process. This was a recent improvement, and interviewed staff spoke positively of the efficiency in the new approach.</p>	
	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "G."</p> <p>State of the Assets Report 2023_September Compliance-and-Performance-Report-2023-24</p> <p>BPR June 2024</p> <p>Asset Solutions Monthly Operations Report_July 2024</p> <p>Template - National Performance Report 2023-24</p> <p>HWC Operating Licence Performance Dashboard 23-24</p> <p>Treatment Plant Condition Assessment Dashboard</p>	<p>State of the Assets Report</p> <p>A State of the Assets Report is an annual status report which provides a snapshot of Hunter Water's asset capability and performance. The report outlines that Hunter Water has managed increased risks during a prolonged period of wet weather, in addition the business has performed well at meeting customer expectations and regulatory requirements. Hunter Water is continuing to improve its asset management, through reassessment of asset investment plans, update of the critical asset management plans and an increase in asset condition assessments.</p> <p>Monitoring and Review</p> <p>Hunter Water has multiple parameters that are designed to monitor asset management performance. Performance is centred around the continuity of service for the water network, and the absence of environmental incidents due to breaks or overflows for the wastewater network. Hunter Water performance is monitored through the various reporting functions in each group. Implementation of the asset management system is</p>	<p>In the auditor's opinion, the State of the Assets Business Intelligence report and the clarity and transparency of climate change risk is excellent.</p> <p>Internal performance reporting is clear and effective.</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Water Leaks and Rising mains Dashboard</p> <p>WWPS Dashboards – Overview</p> <p>File note - Outcomes of Tomago 1 WPS FMECA</p> <p>Report - Aurecon HWC Dam Safety 2LoD Assurance Report FINAL</p> <p>Presentation - Reporting on a Page - Management Systems Performance Review -Consolidated 060524"</p>	<p>monitored through the Compliance and Performance Report, Business Performance Report, Risk Driver Analysis Summaries, System Performance Dashboards (E.g. Operating Licence, Assets), Internal Audits, Asset Management Steering Committee, National Performance Reporting, WSAA AMCV benchmarking report, Management System Reviews. Specific indicators for public viewing are listed on the Hunter Water internet site and included in the annual reports. The operational and maintenance activities for water and wastewater treatment assets are outsourced to Veolia and reporting on monthly.</p> <p>Tomago 1 WPS FMECA</p> <p>A business case was approved by the MIC to upgrade Tomago WPS (Water Pump Station) in October 2023 that generated a matters arising to undertake a Failure Modes Effects Criticality Analysis (FMECA) for Tomago 1 WPS to validate risks and specific failure modes to support justification of the business case. FMECA is a method used in reliability engineering to identify potential failures within individual assets, the likelihood they would be detected, assess their impacts, and assign them a consequence using risk analysis tools – in this case the ERM Risk Consequence Table.</p> <p>Example internal audit - DSMS</p> <p>The Dam Safety Management System (DSMS) is used as the primary means of ensuring, so far as is reasonably practicable, that the safety of persons and property is not put at risk from the dams. The DSMS provides a comprehensive and integrated system for the management of all aspects of foreseeable risks in relation to the failure of a dam that addresses all aspects of the life cycle of the dam, including the design, construction, operation, maintenance and decommissioning of the dams. An example DSMS audit report is provided.</p> <p>Management System Review</p>		

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>The 6 May 2023 quarterly risk assurance review meeting includes a section communicating the status of the IMS and its management systems.</p>		
	<p>Evidence located in IPART Sig-box location: ""Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of ""H.""</p> <p>SR00175_PEP4_NACA_Civil Mech_Reservoirs - Beca & Jacobs - HW Approval 20240704</p> <p>Reservoir Inspection Schedule 19-Sep-24</p> <p>AMS Improvement Plan - Working Copy</p> <p>o24 Case Study - SHAH - Hunter Water</p>	<p>Example Condition Assessment Program</p> <p>Hunter Water and the Design and Engineering Services Partnership (DESP) are progressing through conducting a Condition Assessment (CA) program of assets located at over 700 sites across the Hunter Water network. Condition assessments are undertaken based on criticality, risk & maintenance events and in accordance with IPWEA practice note 7 (1 to 5 rating scale). Over 500 sites have been inspected in previous phases of this project. Phase 4 will focus on condition assessment of reservoirs and their associated assets for Civil and Mechanical review.</p> <p>AMS Improvement Plan</p> <p>The AMS Improvement has been developed and structured around the ISO 55001 standard clauses to address identified needs of the asset management system. The improvement plan may encompass a wide range of issues and/or required actions from across the asset lifecycle. Improvement plan initiatives can include short-term or long-term improvements and include objectives, actions to be taken, accountability, timelines and reporting. They should be communicated throughout the organisation and to the community, regulators and other agencies as required. Implementation of improvement initiatives will often have significant budgetary implications and therefore may require detailed cost-benefit analysis, investment planning, business case development and careful prioritisation in accord with the outcomes of risk assessment. Implementation of initiatives should be monitored to confirm that improvements have been made and are effective.</p> <p>Hunter Water Staff Participation in professional forums</p>	<p>The new Management of Technical Change process is an example of an AMS Improvement which was followed through to completion.</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		Example provided from the audit period (e.g. OzWater).		
Any specific asset related Risk Management processes underway during the audit period, for example the Grahamstown Dam safety assessment	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 21 Asset Management</p> <p>Files labelled with prefix of "B."</p> <p>User Manual - Dams Safety Management System Manual_Approved Version</p> <p>Consultant Report - 60680791_DAMS-RPT-001_A Grahamstown Dam Risk Assessment (Rev 0)</p> <p>Consultant Report - 60680791_Grahamstown Dam Risk Assessment Appendices (Rev 0)</p> <p>Consultant Report - 60680791_Grahamstown Dam Safety Review - Rev1 - Final</p> <p>Business Case - Investment Plan - Dam Safety - 17 July 2023</p> <p>File note - Investment Plan Addendum - Dam Safety</p>	<p>DSMS</p> <p>The Dam Safety Management System (DSMS) is used as the primary means of ensuring, so far as is reasonably practicable, that the safety of persons and property is not put at risk from the dams. The DSMS provides a comprehensive and integrated system for the management of all aspects of foreseeable risks in relation to the failure of a dam that addresses all aspects of the life cycle of the dam, including the design, construction, operation, maintenance and decommissioning of the dams.</p> <p>Grahamstown Risk Assessment</p> <p>The Grahamstown Dam Comprehensive Risk Assessment was finalised in June 2024, meeting the risk reporting requirements stipulated in the Dams Safety Regulation 2019 and the "Societal and Individual Risk Rating" methodology. The assessment indicates that risks associated with Grahamstown Dam are above the Safety Threshold and must be reduced so far as is reasonably practicable.</p> <p>Grahamstown Dam Safety Review</p> <p>The Grahamstown Dam Safety Review was undertaken in conjunction with the Risk Assessment to help inform failure mode and the assignment of probabilities. Safety Reviews are required to be completed for declared dams on a 15-yearly basis.</p>	<p>Grahamstown Dam Risk Assessment was reviewed and is a good example of a change in risk assumptions/drivers leading to a change in Hunter Water treatment. Hunter Water has adopted a reduced operating level in Grahamstown Dam in order to reduce the consequence of failure, with a further reduction once the Belmont Desalination Plant planning approval is granted. Permanent mitigation works are expected to take 10-15 years due to the likely scope and complexity of the solution. Regulators have been engaged and Hunter Water believes they are satisfied with the current approach as long as communication is maintained (Dam Safety Engineer).</p> <p>Daily routine dam inspections involve looking for signs of leakage, seepage, and recording pressures. Data is collated fortnightly, presented at 6 weekly Dams Committee meetings. Annual inspections are performed by Engineering partners/contractors, who also perform more comprehensive 5 yearly inspections. Based on the inspection results, there is a 5 yearly risk review and 15 yearly safety review.</p> <p>Dam safety reports - filename will include whether photos are included - these are generally requested once per week, but inspector can include photos for anything if needed. Reviewed an example Chichester Dam inspection report from 18 November 2024 on the screen.</p> <p>Chichester leakage is tracked on a spreadsheet, which was sighted.</p> <p>Reviewed Dams Management Committee report September 2024</p> <p>Confirmed Chichester Dam daily inspection reports saved in the records management system for every day of May 2024.</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p>Earthquake notifications - email received by System Controller email group. Controller enters the data into the Earthquake Monitoring spreadsheet. Calculations convert the distance and magnitude of the quake into a local 'intensity'. The spreadsheet formula determines whether an immediate inspection or next day inspection is required.</p> <p>Reviewed earthquake on 9 October 2024 at Chichester, spreadsheet indicated 'next day inspection required'. Reviewed inspection report which confirmed next day inspection (filename included post-quake 2.9).</p>	

Clause 22 Environmental Management System

22(2)

Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Environmental Management System.

Grading assigned



Hunter Water was compliant during the audit period because the Environmental Management System was externally audited for recertification, demonstrating the system was compliant. Further all relevant audited activities that were implemented during the audit period were identified to be compliant with the system.

Opportunity for Improvement 22-1

Identify the relevant areas of overlap between National Parks and Hunter Water. Take actions to formalise engagement with this key stakeholder. This is also relevant to the drinking water clause.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Provide the full EMS documentation, and specifically for the Edgeworth wastewater treatment works and recycled water scheme, Grahamstown and Lemon Tree WTPs. Provide any third party certification of the EMS demonstrating it meets the requirements of the standard.	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-1</p> <p>Key EMS documentation has been included where it has some relevance to the sites specifically mentioned (Edgeworth WWTW, Grahamstown WTP, Lemon Tree WTP):</p> <ul style="list-style-type: none"> -HW2012-738 6.034 Plan - EP0128 Environmental Management Plan 2021 - 2024 - HW2012-738 2.004 Procedure - EP0048 - Environment Compliance and Performance Reporting - HW2012-73823.009_EF0108 - Treatment Operations Environmental Inspection Checklist - HW2013-830 20 7.006 Report - Risk Driver Analysis Summary - Non-compliance with environmental legislation - Sept 2023 - HW2013-830207.005 Controlled Document - Corporate Risk Assessment - Non compliance with Environmental Legislation - 2023 - HW2012-738 4 15.031 Plan - EP0138 - Water Network Pollution Response Plan - HW2012-738 4 15.016 Plan - EP0099 - Lake 	<p>There are over 100 documents which form part of the Environmental Management System. A copy of the IMS document register summarised to show the EMS documents has been provided as part of the audit evidence. Any documentation not specifically included in the evidence but are requested by the auditors will be made available upon request.</p> <p>Hunter Water's most recent third party certification is provided and the audit report from the most recent certification surveillance audit held in May 2024.</p>	<p>The key document is the EMP 2012-2024 (but there are many documents that are part of the EMS). Hunter Water has 17 different Environmental Protection Licences covering its activities, and prepares annual returns for each of the plants. As the EPA license structure has an incentive for system that changes costs for licences depending on risks, this encourages the development and implementation of alternative options to business as usual. This includes regional biosolids management, biodiversity offsets and considering carbon trading. Hunter Water has identified that dry weather overflows pose the biggest risk. Of the 1000 dry weather overflows per year, 40 are reportable and up to 2 per year may pose a major risk to the environment. Hazchem was previously the greatest risk. There have been 2 times where the EPA has issued cautions or warnings. In January 2024, a dry weather overflow resulted in EPA issuing a warning to Hunter Water.</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Macquarie Sewerage System PIRMP - HW2012-738 3 2.003 Procedure - EP0056 Environmental Incident Notification and Reporting - HW2012-738 2.001 Register - ER0014 Compliance Obligations Register - IMS Document Register - Environmental Document List</p>		<p>The warning arose because sensors had been placed on emergency relief structures to identify overflows, however, as these are web interfaced, they are not as reliable as SCADA. The sensor was not set up correctly, and this resulted in an overflow.</p> <p>May 2024 -Wet weather event: There was a transfer between catchments through a rising main that had some risks. The alarm for the main was switched off, and this rising main was overflowing for a number of days prior to identification of the overflow. Drinking water main breaks can trigger environmental incidents, which is a positive finding in the auditors view.</p> <p>The types of endangered species that are commonly dealt with include koalas, micro bats, orchids. These are incorporated into Geographic Information System layers. Biodiversity stewardship sites are in place and other sites have been assessed for consideration. Each project includes a review of environmental factors assessment.</p> <p>Reporting scorecard to sustainability committee quarterly demonstrates that the EMP is closely tracked, and actions are implemented. Hunter Water is currently reviewing the risk assessments for the EMP and actions not completed from the previous EMP will be considered for further action.</p> <p>The EMS was recently recertified in July 2023.</p> <p>It was noted during site visits that there are Hunter Water Assets in National Parks, and that the responsibility for and/or the ability to conduct works around those assets where the other party may be responsible is not completely clear with regard to</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p>maintaining access roads/ fire preparedness etc.</p> <p>Opportunity for Improvement 22-1 Identify the relevant areas of overlap between National Parks and Hunter Water. Take actions to formalise engagement with this key stakeholder. This is also relevant to the drinking water clause.</p>	
<p>Provide the current environmental policy, and identify how the policy is applied in practice.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-2</p> <p>EP0004 - Environment Policy EP0128 - Environmental Management Plan 2021-2024</p>	<p>A copy of the current Environment Policy (EP0004) is provided. All the documentation referred to in the above question allows the policy to be applied. There are also many documents that sit outside the registered EMS documents that demonstrate implementation of the policy. re The principles of PLAN, DO, CHECK, ACT are fundamental to the way that the policy is applied. The objectives and targets are outlined in the EMP which is a cornerstone document for the EMS and the Environment Policy application. The strategic environmental risk review which is reviewed annually is critical to the application of the policy and allows for risk control actions that may sit outside the EMP to be captured and applied each year. There are a large number of strategies, management plans, guidelines and procedures which support the implementation of the policy. Measures are identified in the EMP which are regularly monitored and reported upon either in the monthly Business Performance Report or EMS Quarterly Reporting to the Executive Team. In addition reports go to the Board and various sub-committees of the Board and compliance reporting is undertaken where applicable.</p>	<p>Hunter Water has an environmental policy that has been adopted and implemented as evidenced by the Environmental Management Plan 2021-2024 which details a number of actions.</p> <p>The review process through the Business Performance Report and EMS Quarterly reporting ensures suitable oversight and understanding of the implementation of actions at the highest corporate levels.</p>	C
<p>Provide the last Annual Return and Annual System Performance Reports submitted to the EPA and</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-3</p>	<p>Hunter Water is required to submit a summary of performance against each Environment Protection Licence on an annual basis to the NSW Environment Protection Authority (EPA). Procedure</p>	<p>The annual returns were reviewed, and these demonstrate that appropriate parameters are monitored, tracked and reported. There are detailed descriptions of</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
demonstrate how this aligns with the EMS requirements.	ANNUAL RETURN PREPARATION TP - Nov 2021 Copy of HW2006-1442 91.8.003 Data - All WWTW - Pollution Monitoring Summary Report - August 2024 Final AR Package - EPL 1683 - Burwood Beach WWTW - 2023-24 HW2006-1442 51.062 Procedure - Annual Return flow diagram HW2006-1442 61.036 Memo - Annual Returns covering note August 2024 HW2006-1442 86.1.001 Checklist - Annual Return checklist - Lake Macquarie System HW2012-738417.001_Procedure EP0115- Annual Load Based Licensing Return Overflow Data rules v6 Submitted EPA Annual Return - Licence No 358 - Boulder Bay WWTW - 1 July 2023 to 30 June 2024 Submitted EPA Annual Return - Licence No 1771 - Belmont WWTW - 1 July 2023 to 30 June 2024 Veolia Annual return procedure EP0115 - Quality Assurance and Control - EPA Annual Licensing Returns	EP0115 Quality Assurance and Control - EPA Annual Licensing Returns , part of the EMS, ensures Hunter Water complies with all conditions of environmental protection licences (EPL's) and that activities are properly reported within annual returns. This includes steps to validate the following; <ul style="list-style-type: none"> • Whether all activities under the licence are undertaken in a competent and efficient manner. That equipment is adequately maintained. • Whether the concentration and load based data is measured and calculated in accordance with the NSW EPA's Load Calculation Protocol (2009) • Whether the overall performance of each system, against the licence conditions, is adequately monitored so that this may be properly reported within the annual returns. • That timely and accurate annual compliance reporting is undertaken. • That records are kept that transparently document the annual licence reporting process During the year, a number of activities, or inputs to the process, are planned by Hunter Water to ensure that the requirements of the licence are being met, quality assurance. Final outputs, as reported in annual returns are tested and observed to ensure any work defects or in this specific case, non-compliances to the licence, are detected, quality control.	the status of pollution reduction programs and these demonstrate actions are being developed or implemented. The due dates for the majority of these actions are in December 2025 so these cannot be audited for completion until the 2026 License audit.	
Demonstrate how (Scope 1 and 2) greenhouse gas emissions are accounted for, and the specific actions that are being undertaken (focus on Grahamstown WTP and Edgeworth Wastewater treatment works). Demonstrate how the 2005 baseline for these emissions	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-4 Folders collating data sets for Greenhouse Gas (GHG) emissions calculations and reporting; 01 Data 02 Report 03 Guidance 04 QA Check	GHG emissions calculated for National Performance Report (NPR) and National Greenhouse and Energy Reporting Scheme (NGER) - refer to Manual which outlines procedures for collating data for GHG emissions calculations.	It was noted that there are various different methodologies that are used for GHG emission calculations. Hunter Water uses the NGER methodologies including accepting the relevant conversion factors. This has an impact in the assessment of NPR indicators where the methodology in the NPR manual is different. IPART accepts that the use of current factors is	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>was determined. Provide evidence of progress (or otherwise) to the 2030 targets.</p>	<p>05 File Note for Submission 06 NGER Manual 07 NGER Trends Additional supporting Inforamtion: BOM00003_NPR_indicator_review_final_report_v2.4.2 HunterWater_AnnualReport2024_Sustainability9 Sept NGER Improvements project - Operation Control Operational control supplementary guideline Treatment operations and GHG</p>		<p>appropriate, so the methodology used by Hunter Water is considered compliant.</p> <p>Hunter Water has also changed the baseline year from which they compare year on year carbon emissions. This is due to changing definitions over time. The original 2005 baseline has been changed to a 2021 baseline.</p>	
<p>Provide evidence that recycled water for land application considers the long term sustainability of application of recycled water to land (e.g. minimises risk of deep drainage and of damage to soil structure).</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-5 Environmental monitoring at Waratah GC (Edgeworth WWTW) water-recycling-guidelines-full-21 Clarence Town Waste Water Treatment Plant Soil Quality Assessment November 2022 7 Groundwater Report Clarence town WWTW 8 Groundwater Bores Clarence town WWTW</p>	<p>When recycling water, it is essential to protect the health of both the public and the environment, and a risk management approach is the best way to achieve this. Hunter Water uses a risk-based approach to the management of its recycled water schemes which aligns to our corporate enterprise risk management (ERM) framework and this approach satisfies the 2006 Australian Guidelines for Water Recycling AGWR). As outlined in Hunter Water's Corporate Recycled Water Quality Management Plan critical control points are routinely monitored to ensure the supply of recycled water is fit for purpose for both the public and the environment.</p> <p>In managing risks to the environment from recycled water, the aims of the AGWR are to safeguard the welfare of future generations, provide for equity within and between generations, protect biological diversity and maintain essential ecological processes and life-support systems. In place of Disability Adjusted Life Years (DALYS) and health-based targets, environmental guideline values are used; these are guideline values related to impacts on specific endpoints or receptors within the environment. Examples of endpoints include specific grasses, native tree species or soil types in the area where the recycled water is to be used. The process used to assess environmental</p>	<p>Monitoring and management for Hunter Water sites considers impacts on soil and groundwater.</p> <p>In addition to the soil and groundwater, it was indicated that there is also monitoring of other suitable endpoints such as grasses and trees that may be susceptible to the impacts of recycled water. This is appropriate.</p> <p>Or smaller schemes, this becomes a responsibility of the individual end users, for example, Waratah Golf Club. Given these responsibilities are delegated, the requirements related to long term sustainability should be included in the end user agreements.</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
		<p>risks is to first identify water sources, uses, users and routes of exposure. Following this, the recycled water system and water quality data are assessed; hazards are identified, and the overall risk assessed, and finally, routine monitoring of risks is undertaken.</p> <p>For environmental health risks, two major factors influence monitoring requirements – the size of the recycled water scheme and the level of risk being managed. Generally, the larger the recycled water system, the more endpoints are potentially affected, and the greater the extent of monitoring needed. However, monitoring will also be influenced by the level of risk, which depends on the specific recycled water, and the preventive measures used to minimise the risks associated with that system. It is a requirement of the recycled water customer agreement, to use recycled water in a way that protects the environment. Hunter Water will review this requirement during annual site visits (e.g. discuss soil monitoring results), and note any improvements that can be made.</p> <p>Hunter Water perform environmental monitoring at our own sites, Karuah and Clarence Town WWTW. The latest soil monitoring for Clarence Town WWTW shows longer term trends and some commentary around the latest results in respect to data collected previously. Hunter Water also report on Ground water monitoring results for this site with the soil data in the annual return. See attachments. The operator indicated that soil sampling is due to be undertaken at Karuah WWTW and there has been no irrigation for the last 12 months.</p> <p>End users also complete their own environmental soil monitoring, see example at Waratah Golf Course (Edgeworth WWTW)</p>		

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Provide evidence of how wastewater overflows are 1) minimised, and 2) managed.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-6</p> <p>2024-09-24 - EPA Strategic Issues Meeting - Dry Weather Overflow Clean Up HW2012-738 3 2.004 Guideline - EF0057 Reportable Environmental Incidents Fact Sheet - CURRENT HW2012-738 3 2.005 Guideline - EF0058 Frequently Asked Questions - Environmental Incidents - Fact Sheet - CURRENT HW2012-738 3 2.006 Register - ER0059 Environmental reporting contacts register - Network Operations - CURRENT HW2012-738.001 Template - ET0026 - Environmental Incident Report - Updated by Network Ops - CURRENT(2) WW Smart Systems EPA Summary - including CCTV and lining 7 day report EPA Ref 30000</p>	<p>Hunter Water responds to all dry weather overflows so we can, 1) remove the blockage, 2) detect what caused the overflow 3) clean up the area. If the location has had an overflow within the previous year, then Hunter Water undertake CCTV of the asset to understand if there is an ongoing issue with the asset. If the asset is in poor condition or meets other criteria the asset will be rehabilitated through lining to reduce any potential overflows in the future.</p> <p>If the overflow causes actual or potential environmental harm, the civil responder will notify the System Controller who will then notify the wastewater operations team. They will inspect the site and may classify it as an environmental incident which would then result in the authorities to be notified, such as EPA, local council, fire and rescue. Hunter Water will then organise and manage the clean up of the dry weather overflow and monitor the site to ensure it is improving. Hunter Water Smart Systems program aims to leverage emerging technologies and data systems to detect issues /overflows in the detect quickly. These technologies include: IoT sensors, Cloud data platforms, Data science and machine learning</p>	<p>This response is consistent with the evidence provided for License clause 17, and the evidence provided during those interviews was also taken into consideration here. The approach described is appropriate.</p>	<p>C</p>
<p>Demonstrate how monitoring programs have been developed, and how they align to your Environmental Protection License.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-7</p> <p>Map - HW2009-1802 49 24.003 2017-19 Burwood Water Quality Sampling Sites Map - Final Report - Burwood MEAP Integration Report 2017-2019 - Final Report - FINAL Belmont Outfall Benthic Monitoring Report June 2022 Report - Draft State of the Beaches 2023-2024 report - Hunter water</p>	<p>Hunter Water EPL's detail monitoring requirements, Treatment Operations manage this data and publish aspects on the website https://www.hunterwater.com.au/our-water/epa-monitoring/epa-pollution-monitoring. In addition there are Pollution Reduction Programs (PRPs) and additional monitoring that sits outside the specific requirements of the EPLs (e.g. receiving water monitoring and Beachwatch data).</p> <p>EPL's with the 'M' condition clause (section 5) specify the monitoring Hunter Water are required to undertake routinely.</p>	<p>The evidence provided covers a number of routine and investigation studies. These studies include monitoring around discharge locations to identify the species present around the ocean outfall, beach water quality and sediment monitoring.</p> <p>The monitoring data provided is consistent with the expected monitoring frequency with no identified missed samples nor did the data indicate that there were any environmental incidents that should have been reported.</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Report - Farley WWTW GW and SW Monitoring Program Report Q3 2024 EPL1683 Burwood Beach/Shortland WWTW</p>	<p>The 'U' condition clause (section 8) are typically around studies the EPA require Hunter Water to do, usually for a set period of time. Over the years Hunter Water has carried out numerous environment monitoring programs, most of which are WWTW receiving environment programs mandated in EPLs. They were developed jointly by Hunter Water and ecological consultants, in consultation with NSW EPA. The major programs are 5 yearly Marine Environment Assessment Program (MEAP) for Burwood Beach WWTW; and 5-yearly benthic infauna and sediment contaminant assessment for Belmont WWTW. These programs have been modified over time in consultation with NSW EPA to better achieve their various objectives. The Beachwatch monitoring program is another example, which has been continuous at local beaches since the 1990s. In addition, there have been many shorter term environment monitoring programs tailored to specific objectives, such as PRPs attached to EPLs. For example, Farley WWTW Groundwater (GW) and Surface Water (SW) Monitoring Project.</p>	<p>The reports are consistent with the license requirements and demonstrate ongoing efforts to monitor and maintain or reduce environmental impacts.</p>	
<p>Provide the most recent ocean outfall monitoring report as required under EPA licence condition U3.1.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-8 HW2009-1802 49 23.020 Report - Burwood MEAP Integration Report 2017-2019 - Final</p>		<p>The relevant report was provided and was developed consistent with the relevant requirements. The MEAP has demonstrated compliance with relevant environmental measures.</p>	C
<p>Identify how trade waste management integrates into the EMS - specifically related to overall pollutant loads.</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-9 Standard - Trade waste and liquid waste carriers Trade waste Policy Trade waste deed example</p>	<p>Hunter Water identifies environmental aspects of its activities, products and services as defined by EMS. The identification of Environmental Aspects is an ongoing process to determine potential impacts of an organisation's activities on the environment. Risk assessment are completed to identify those environmental aspects that have, or have the potential to have, a significant impact on the environment. Trade waste is a major business activity of Hunter Water and the associated</p>	<p>Hunter Water has a policy and process for Trade waste that prohibits a number of substances from being discharged to sewer. During the audit interviews, PFAS was discussed and it was identified that for the Farley WWTW that there had been an issue that was tracked back to a single point</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Trade waste discharge application Risk factor calculation sheet</p>	<p>environmental aspect is chemical use. Trade Waste Customers are risk assessed by property discharge type/business activity, water usage, trade waste facility type/s and discharge quality data/sample test results and WWTW catchment. Tools used to control substance loads:</p> <ul style="list-style-type: none"> • Trade Waste Policy • Trade Wastewater and Liquid Waste Standards • Trade Waste Deed • Risk factor calculation (risk assessment) • Trade Waste Application (new connection process) <p>The substance loads are controlled by Hunter Water standards, the risk assessment and ultimately the Customer trade waste deed (nominated limits). Hunter Water inspect and sample the Trade Waste Customers (Moderate and Major Risk) anywhere from 3 to 12 times per year to determine whether they are complying with their TW Deed requirements and our TW Standards. Hunter Water visit the Customers outside of those inspection and sample dates to discuss TW compliance and provide written minuted actions for the Customer to work towards within a short timeframe.</p>	<p>source. In that case the customer trade waste agreement was revoked, preventing further contamination. This does leave a legacy issue within the scheme.</p> <p>The entire trade waste application process was provided for audit and is consistent with national best practice for assessment and implementation.</p> <p>The main issue for Hunter Water is selenium which is close to the total load limit and requires vigilance to ensure that the limit is not exceeded.</p>	
<p>Identify how biosolids management is addressed in the EMS, and implemented in practice</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 22 Environmental Management\22(2)-10</p> <p>HW2013-830 20 3.005 Data - Risk Driver Analysis - Inability to Manage Biosolids - 2023 HW2013-830 20 3.006 Memo - Risk Driver Analysis Summary Table - Inability to Manage Biosolids - 2023 HW2023-80 10 27.002 File note - Investment Plan Update for PP25 Submission - Biosolids MCR CS0341 - August 2024_Veolia contractor monthly report</p>	<p>Strategic management of biosolids management is managed by Hunter Water's Strategy and Engagement team. Each year Hunter Water undertakes a strategic review of risk associated with biosolids management. The latest risk assessment and the strategic risk driver analysis from September 2023 is provided in the audit evidence. There are a number of key strategic risks associated with biosolids management that will require substantial future investment. An extensive amount of investigation and strategy work has been undertaken to identify the most effective way to manage these risks into the future. This work is summarised in the August 2024 Investment Plan for Biosolids which is provided in the audit</p>	<p>Biosolids are currently identified as within risk tolerance, but in the future are moving to be out of the current risk appetite. This is due to an increase in population increasing the total volume of biosolids along with the growing awareness of emerging contaminants such as PFAS.</p> <p>Hunter Water's 2024 submission to IPART's pricing review has identified the need to invest in alternative management solutions.</p> <p>Biosolids management is a key activity of Veolia under contract from Hunter Water. Biosolids are tracked appropriately (e.g. as</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Additional evidence provided on request of auditor: Email "Draft variation of Licence 1683 Burwood STP" 28/6/2024.</p>	<p>evidence.</p> <p>Operational management of biosolids is managed under the Treatment Operations contract with Veolia. Veolia has day to day operational control in relation to the way that biosolids are managed at each wastewater treatment plant and the offsite reuse of the resource. Veolia provide detailed monthly contractor reports which provide detailed information on all aspects of operational performance including a section dedicated to biosolids management. The August 2024 Veolia monthly contract report is provided as an example for evidence. See section 12 of the report. As part of the treatment plant contract with Veolia Hunter Water requires that Veolia has a certified EMS in accordance with ISO14001. Veolia EMS documentation is provided in the audit evidence. Hunter Water will periodically audit Veolia documentation and Veolia sites are routinely audited as part of the annual certification audit and surveillance audit process that Hunter Water goes through with Bureau Veritas. Hunter Water has Pollution Incident Response Plans for each Environment Protection Licence which also include provisions for incidents related to biosolids. The Pollution Incident Response Management Plan (PIRMP) for the Lake Macquarie Wastewater EPL is provided in the audit evidence as an example. Compliance with the NSW EPA Biosolids Guidelines is a standard condition on each of the EPL's. Hunter Water's EMS Procedure EP0048 – Environmental Compliance and Performance Reporting includes procedures for how Hunter Water manages compliance reporting including adherence to the requirements of the EPA Biosolids Guidelines and National Pollutant Inventory Reporting.</p>	<p>audited through the associated NPR criteria audit).</p> <p>It has been identified through interview with the environmental team that emerging contaminants such as PFAS are likely to have major implications for biosolids management, but that the lack of clear guidance on the actual limits to be achieved prior to the publication of the PFAS National Environmental Management Plan (NEMP) 3.0 are still uncertain. The of the discussion ongoing engagement with the NSW EPA is considered by the auditor to be critical to determining the appropriate management action once actual guidelines are published.. Nonetheless, the investment pathway has identified potential options and is proposing an investment plan. This is not yet detailed in the Environmental Management Plan as the strategy intrinsically depend on future regulated limits.</p> <p>Sludge management at Burwood Beach WWTW: It has been identified by Hunter Water that they have difficulty meeting the selenium discharge limit, predominantly through the discharge of sludge through the Burwood Beach ocean outfall.</p> <p>HW2023-80/10/27.002 provides some context and indicates that the EPA have been advocating a cessation of sludge discharge and this resulted in the requirement for a pollution reduction program and sludge management plan for Burwood Beach WWTW to be provided by 30 June 2024. This date was met. In the past Hunter Water has used economic rationale for deferring relevant capital investments for sludge management at this</p>	

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
			<p>site and justified this through the compliance with the MEAP.</p> <p>While discharge of sludge to ocean is not best practice, Hunter Water are complying with relevant actions required by the EPA.</p>	

Clause 23 Quality Management System

23(2)

Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.

Grading assigned



Hunter Water was compliant during the audit period because it implemented the Quality Management System and carried out its relevant activities in accordance with the System.

Opportunity for Improvement 23-1

Define and justify acceptable targets for document review based on document criticality (e.g. % of document reviews completed by due date) and report on these targets quarterly to the Risk and Assurance EMT.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Please provide the full QMS suite of documentation.</p> <p>Please provide the latest third party QMS Audit Report as well as a progress update on any recommendations contained therein</p> <p>Please provide the QMS Improvements Register including updates on progress</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 23 Quality Management</p> <p>HW2013-421/12.004 Quality Policy</p> <p>HW2023-421/2.003 Integrated Management Systems Manual</p> <p>HW2013-421/22.004 Standard - Management of Hazards, Incidents and Non-Conformances.</p> <p>ISO Audit Report_Hunter Water BVC_SUR1_May24_Integrated_55kQHS EA</p> <p>WEB-HW-Our-Corporate-Strategy-Final</p> <p>Plan-HW-CS-Strategy_FINAL_Approved</p> <p>Hunter Water Sustainability Strategy 2024</p> <p>Digital_Strategy_On_A_Page--7--1-</p>	<p>The management of Quality is incorporated into the Hunter Water integrated management system and an associated Quality Policy. The key procedures that form part of the Hunter Water Integrated Management System are outlined in HW2023-421/2.003 Integrated Management Systems Manual. Quality is designed into the overall corporate strategy which outlines the strategic objectives of the business for ensuring delivery of high quality, valued and affordable services for all. The corporate strategy is implemented via additional business strategies including customer service, sustainability, digital, community engagement, values, and safety health and wellbeing. The strategic objectives, measures and targets are defined in Hunter Water Strategic Objective Measures and Targets 2024-25 and visualised in Corporate Scorecard 2024-25.</p> <p>Management systems are supported by hundreds of additional document including standards / procedures / work instructions, for assurance of delivery of products and customer services that that meet customer and applicable statutory and regulatory requirements, to facilitate opportunities and enhance</p>	<p>Management review was identified as a non-conformance in the May ISO surveillance audit. "Hunter Water is required to demonstrate addressing all required inputs during Management review". Hunter Water understands that this finding was made on the basis that more visibility was required on how the management team was being informed and determining whether the organisation's Strategic Objectives were being met. The ISO Auditor was concerned about how the Treatment Operations Contract was being routinely and appropriately managed. This was largely due to the strict organisational confidentiality and lack of people in the audit who could speak to contract report. However, Hunter Water is confident that the level of oversight is appropriate, for example every 6 months a paper goes up to the Board, and there are monthly contractor meetings and reports.</p> <p>The Design Risk Assessment was a focus area in the audit interviews, as described under s6.2 of the IMS Manual. The Asset Creation Framework</p>	<p>C</p>

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>Community-and-Engagement-Strategy 3959216803ValuesStrategy_Final_updated acknowledgement(2)</p> <p>31191 Hunter Water Safety Health and wellbeing Strategy</p> <p>Hunter Water Strategic Objectives Measures and Targets 2024-25</p> <p>Corporate Scorecard 2024-25</p> <p>Hunter-Water-Annual-Report-2023</p>	<p>customer satisfaction, to address risk and opportunities associated with its contents and objectives, and ability to demonstrate conformity to specifies QMS requirements. A new system has also been implemented for management and continuous improvement of Quality (Protecht System). Protecht is used to manage business processes including but not limited to incidents, actions, risks, controls, non-conformances, statutory and voluntary obligations and attestations and hazards. The system is designed to provide linkage between records types such as risks and controls, has been built with dashboards to track performance and provide management reports, and to drive continuous improvement across all management systems.</p> <p>Recommendation to include specific requirement for root cause analysis workshop implemented in Standard HW2013-421/22.004 Standard Management of Hazards, Incidents and non-conformances.</p> <p>A copy of the most recent ISO report is attached as requested.</p>	<p>was conceived in around 2011 and has matured since that time. Design is managed through a 2 step CHAIR (Construction Hazard Assessment and Implication) Review process. In the first stage, consideration is given to how construction hazards will be managed (CHAIR1), whereas CHAIR2-3 looks at hazards associated with Operations. This looks specifically at safety hazards.</p> <p>Hunter Water's Corporate Strategy was developed ~12 months ago, meeting a range of external commitments. The recent pricing proposal to IPART involved consultation with ~9000 customers. 6 key outcome areas which will drive actions going forward. Report card will track performance and include customer assessment. Reported to the Board, shared across the organisation. More comprehensive quarterly assessment is undertaken and shared across the business and also to Treasury - will also form the basis of the annual Customer Report.</p> <p>Data collection is still a work in progress, however implementation of the Protecht system is expected to improve the data collection.</p> <p>Document review was discussed at length in light of the previous audit finding, and it was noted that Hunter Water has experienced challenges in meeting internal targets for % of documents reviewed.</p> <p>Opportunity for Improvement 23-1:</p> <p>Define acceptable targets for document review based on priority and report on these quarterly to the Risk and Assurance EMT.</p>	

Clause 32 Memorandum of Understanding with NSW Health

32(1)

Hunter Water must:

(a) use its best endeavours to maintain; and

(b) comply with,

a memorandum of understanding with NSW Health.

Grading assigned



Hunter Water was compliant during the audit period because it maintained and complied with the memorandum of understanding with NSW Health.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Please provide evidence of how the MoU with NSW Health was maintained and monitored for compliance, (including records of quarterly meetings)</p>	<p>Evidence located in IPART Sig-box location: ""Hunter Water\Questionnaire\Evidence - Clause 32 Memorandum of Understanding NSW Health</p> <p>HW2006-1448/67/2.014 Minutes - Hunter Water - NSW Health Liaison Committee Meeting - Dec 2023</p> <p>HW2006-1448 67 3.013 Minutes - Hunter Water - NSW Health Liaison Committee Meeting - March 2024</p> <p>HW2006-1448 67 4.013 Minutes - Hunter Water - NSW Health Liaison Committee Meeting - June 2024"</p>	<p>Hunter Water made best endeavours to maintain and comply with the MoU with NSW Health during the audit period. Quarterly meetings were conducted and were well attended by representatives from both organisations, including Hunter Water's Executive Manager Customer Delivery, Group Manager Operations, Group Manager Water Resilience, Manager Asset Assurance. Any resulting actions were documented in meeting minutes and tracked at subsequent meetings. Quarterly meetings were also used to engage early with NSW Health regarding upcoming significant changes to the DWQMS and to advise indicative timing of upcoming risk review workshops in order to facilitate attendance by NSW Health representative(s).</p>	<p>The auditor sighted and reviewed quarterly meeting minutes for December, March and June. There was evidence of actions being agreed and tracked to completion (e.g. HBT Gap Analysis) as well as evidence of discussions relating to topical industry issues, e.g. PFAS monitoring.</p> <p>We sighted the MoU during the audit interviews and confirmed that the MOU outlines roles of both organisations, in addition to commitments.</p> <p>There was evidence that NSW Health were in attendance at multiple risk workshops (Anna Bay, Nelsons Bay). Planning for the Hazard Analysis Critical Control Point (HACCP) review for the Belmont Desalination Plant included discussions around moving dates to ensure NSW Health could be present. This shows Hunter Water are going above the terms of the MoU in which it states that Health are "invited" to participate in risk reviews.</p> <p>There is clear evidence that Hunter Water is reporting to NSW Health as required.</p> <p>There is clear evidence that Hunter Water is liaising with NSW Health to develop media messaging e.g. PFAS response to SMH article.</p> <p>Based on the documentation provided, there is clear evidence of significant engagement.</p>	<p>C</p>

Clause 33 Memorandum of Understanding with Department of Planning and Environment

33(1)

Hunter Water must:

(a) use its best endeavours to maintain; and

(b) comply with,

a memorandum of understanding (which may be referred to as a roles and responsibilities protocol) with DPE in relation to:

(c) the roles and responsibilities for DPE and Hunter Water in respect of the review and implementation of the Lower Hunter Water Security Plan; and

(d) the calculation and reporting of System Yield.

Grading assigned



Hunter Water was compliant during the audit period because it maintained and complied with the memorandum of understanding with the Department of Climate Change, Energy, the Environment and Water (DCCEEW, formerly DPE).

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Please provide evidence of how the MoU with DCCEEW was maintained and monitored for compliance, or if not in place, how Hunter Water used its best endeavours to establish and/or maintain an MoU with DCCEEW	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 33 Memorandum of Understanding DPE</p> <p>FW Correspondence from Hunter Water LTIP extension of time request</p> <p>LHWSP WG Meeting agenda 6th September</p> <p>Re LHWSP Implementation Committee Meeting 09-2024</p>	<p>In response to this question Hunter Water undertakes the following to meet with the intent of the MoU with the DCCEEW:</p> <ol style="list-style-type: none"> 1. Attend regular Lower Hunter Water Security Plan (LHWSP) working group meetings that are held approximately monthly between Hunter Water and DCCEEW (example of meeting agenda attached). 2. Attend the quarterly LHWSP Implementation Oversight Committee meeting (example of meeting minutes attached and presentations, some of which Hunter Water lead attached). Hunter Water also often writes papers for this forum. 3. One of the requirements of the MoU is the development of the Long Term Integrated Investment Plan. This project is currently developing in consultation with DCCEEW. Attached is a copy of a recent letter from Hunter Water to DCCEEW regarding this project. 	<p>Hunter Water presented a range of documented evidence including:</p> <ul style="list-style-type: none"> - email/letter requesting time extension for finalisation of Hunter Water's Long-term Integrated Investment Plan - meeting minutes for 17 September 2024 - Lower Hunter Water Security Plan Implementation Oversight Committee. - letter/paper regarding the Grahamstown Dam risk assessment and new operating levels, balancing this risk against water security. <p>The Group Manager Water Resilience and Science was interviewed, and holds primary responsibility within Hunter Water for this MoU. He meets regularly (typically monthly) with DCCEEW, which meets the requirements under the MoU. The requirements of the MoU were discussed during the audit interview, including examples of specific obligations, e.g.: Hunter Water produces an Annual Monitoring Report, the Lower Hunter Drought Response Plan. There is clear evidence of a functional working relationship.</p>	C

Clause 34 Memorandum of Understanding with Fire and Rescue NSW

34(1)

Hunter Water must:

(a) use its best endeavours to maintain; and

(b) comply with,

a memorandum of understanding with FRNSW.

**Grading
assigned**



Hunter Water was compliant during the audit period because it maintained and complied with the memorandum of understanding with Fire and Rescue NSW.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Please provide evidence of how the MoU with Fire and Rescue NSW (FRNSW) was maintained and monitored for compliance, or if not in place, how Hunter Water used its best endeavours to establish and/or maintain an MoU with FRNSW	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 32 Memorandum of Understanding with FRNSW</p> <p>34.3.1.001-Agreement - MOU_Executed Version_HWC and Fire Rescue NSW_17 June 2019:HW2016-1478/2.007</p> <p>34.3.1.002- File note - HWC and FRNSW Meeting Agenda 20 October 2023: HW2016-1478/4/9.001</p> <p>34.3.1.003-File note - HWC and FRNSW Minute Meeting 20 October 2023: HW2016-1478/4/9.004</p> <p>34.3.1.004 File note - HWC and FRNSW Meeting Agenda 27 March 2024: HW2016-1478/410.001</p> <p>34.3.1.005- File note - HWC and FRNSW Meeting Agenda 27 march 2024: HW2016-1478/4/10.002</p> <p>34.3.1.006- Placeholder_ Hunter Water and FRNSW - Leadership_Working Group Meeting (18 Oct 2024): HW2016-1478/4/11.001.</p> <p>34.3.2.001-Latest hydrant capacity data provided to FRNSW on 26 March 2024: HW2016-1478.007</p>	<p>Hunter Water has maintained an MoU with FRNSW since June 2019. Hunter Water and FRNSW have maintained the joint working group since its first meeting in August 2019. The most recent meeting was 27 March 2024. This meeting also included a member from NSW Rural Fire Service (RFS). The next working group meeting is scheduled for 18 October 2024.</p> <p>Information sharing between the parties is a key element of achieving the common goal to identify and develop strategies that aim to provide the community with cost effective firefighting water supply.</p> <p>The working group meets approximately every 6 months. Key FRNSW contacts are:</p> <p>Inspector Murray Mackne - Team Leader, Fire Safety Advisory Unit</p> <p>Engineer Matthew Cox - Engineer , Fire Safety Policy Unit. Key contact person for working group (Hunter Water and FRNSW)</p> <p>Brian Smart - Key Local Commander for Newcastle Region</p> <p>Mark Porter - Fire Safety Policy Unit</p>	<p>The auditor sighted and reviewed the executed MoU, and agenda and minutes for the meeting with FRNSW held on 27 March 2024.</p> <p>Evidence of correspondence on matters of mutual interest/concern was presented, e.g. hydrant capacity/hydraulic models, water network investment programming, system pressures, priority sites for firefighting improvements.</p> <p>A recent improvement is bringing the RFS into the meetings (under a standing invitation).</p> <p>The auditor sighted the meeting minutes for October 2024 in which the firefighting improvement program was discussed and updates provided.</p> <p>When queried on what would happen after loss of pressure during a firefighting event – Hunter Water advised that with system controllers monitoring 24/7, they could reconfigure the network e.g. open zone</p>	C

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
	<p>34.3.3.001- Letter Out - FRNSW input into Hunter Water Network Investment Plan - Hunter Water- HW2016-1478/6.002</p> <p>34.3.3.002- Email from FRNSW - FRNSW input into Hunter Water Network Investment Plan on 27 March 2024: HW2016-1478/6.002</p> <p>34.3.3.003- Email from FRNSW providing preferred ranking for Fire Fighting Improvement works on 8 Sep 2023 : HW2016-1478/6.001</p> <p>34.3.4.001-Email notification to FRNSW regarding installation of pressure loggers in Hunter Water network: HW2016-1478/6.003</p> <p>34.3.4.002-List of critical asset information provided to FRNSW by Hunter Water: HW2016-1478/6.004</p> <p>34.3.4.003-Emergency services pack information by FRNSW: HW2016-1478.008</p>	<p>Nathan Everett - Senior Firefighter</p> <p>Key NSW RFS member - Terry Burns</p> <p>RFS is now part of the working group and participates in working group meetings.</p> <p>Hunter Water provides hydrant performance data to FRNSW after Hunter Water completes a hydraulic model update. Latest hydrant capacity data provided to FRNSW on 26 March 2024. Time frame and format for data provision is in agreement with FRNSW.</p> <p>Hunter Water has consulted with and received input from FRNSW on Hunter Water's Fire Fighting Improvement Program.</p> <p>Hunter Water has also consulted with and received input from FRNSW on our Water Capacity Investment Plan, which outlines our program of investment in water network capacity to cater for growth into the future and continue to deliver the fire fighting improvement program to 2030.</p> <p>Hunter Water has responded to a number of other enquiries from FRNSW regarding critical asset information and general email/phone communications regarding operational matters. Hunter Water has also received information from FRNSW on emergency services and tactical fire plans regarding bushfire management. Examples provided.</p>	<p>valves, increase pump station flows, possibly talk to major users to ramp down supply. Hunter Water is looking to work with FRNSW to improve proactive discussions when fires occur so that preparations can be made.</p> <p>In the auditor's opinion there is clear evidence of a well-functioning relationship between Hunter Water and FRNSW, consistent with the MoU's principles and objectives, most notably that <i>"this MoU is to provide the basis for a cooperative relationship between Hunter Water and FRNSW"</i>.</p>	

Clause 35 Negotiations with WIC ACT licensees and potential competitors

35

Hunter Water must negotiate the provision of Services to WIC Act licensees and Potential Competitors in Good Faith.

Grading assigned



Hunter Water was compliant during the audit period because it negotiated with WIC Act licensees and Potential Competitors in Good Faith.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
<p>Please provide any evidence of negotiation with <i>Water Industry Competition Act 2006</i> (WIC Act) licensees that addresses this obligation</p>	<p>Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 35 36 & 37 Information and services for competitors HW2009-1194/20/1.007 (page 3 and 4)</p>	<p>Refer to Page 3 and 4 of HW2009-1194/20/1.007 Provision of Services - Compliance and Performance Report 2023</p>	<p>Hunter Water has two active bulk water WIC Act licensees - Altogether and CoNEXA. Hunter Water is also the retailer of last resort for Solo Water however they don't currently receive services from Hunter Water. CoNEXA has a recycled water scheme along with Altogether Group's Huntlee and Cooranbong schemes.</p> <p>The Compliance and Performance Report provides records of negotiations with Altogether and Koorangang/ CoNEXA. The Altogether Cooranbong Trade Waste agreement has been finalised, and this was sighted (partially executed version). The Huntlee recycled water discharge discussion has not progressed (Hunter Water is awaiting a response from Altogether). Hunter Water advised that part of the reason for the lack of progress is that NSW EPA has indicated that Altogether would need their own EPL for recycled water discharge.</p> <p>CoNEXA is currently looking at an option for recycled water for hydrogen and other opportunities on Koorangang. This proposal would not involve the taking of raw sewage, however Hunter Water is following the Sydney Water model for applications for sewer mining, and the proposal is still being reviewed.</p> <p>The new 'Non-Regulated Business Services Policy' provides a high-level overview of obligations. The 'Standard - Unregulated Business Services' clarifies internally what the types of services might be that are being asked for, and what type of information is appropriate to share. This document clearly sets out Hunter Water's obligations, and defines what is meant by the term "good faith". The standard was approved by Board in May 2024.</p> <p>Hunter Water interacts with WIC Act licensees as part of the demand forecasting process, in a similar way as they would interact with any other large customers.</p> <p>In the auditor's opinion, Hunter Water acts in good faith when negotiating services with WIC Act licensees/potential competitors.</p>	<p>C</p>

Clause 36 Publication of servicing information

36(2)

Hunter Water must by 30 September 2024 (or another date approved by IPART in writing) publish on its website the Servicing Information for each major Water Supply System and Sewerage System that it has available by that date that is in a form suitable for publication.

Grading
assigned



Hunter Water was compliant during the audit period because it published all required information on its website by 30 September 2024.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Please provide evidence that this information was published by the required date	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 35 36 & 37 Information and services for competitors HW2017-1263 15 1.005 Email - HWC to IPART - Publication of servicing information - 1 Oct 2024	This requirement has been met - water and wastewater servicing information was published on Hunter Water's website by 30 September 2024. Servicing information is published on our website here: https://www.hunterwater.com.au/building-and-developing/developers-and-designers/growth-infrastructure/growth-servicing-information Email to IPART advising the publication of servicing information by 30 September 2024 is saved at: HW2017-1263/15/1.005	Confirmed email was sent 1 October 2024 advising that the information had been published on the previous day (30 September 2024) which was the deadline. Confirmed information was available (as of 14/11/2024) on https://www.hunterwater.com.au/building-and-developing/developers-and-designers/growth-infrastructure/growth-servicing-information Confirmed water system information available for all 8 major systems, and wastewater system info for all 19 major wastewater systems (check number) Reviewed Dungog and Chichester Water System Report which provides information on current and future demands, system capacities, and future augmentation projects. In the auditor's opinion, the requirement of this clause is being met.	C

Clause 37 Code of Conduct

37(1)

Hunter Water must use its best endeavours to cooperate with each WIC Act licensee to establish a code of conduct required by a WIC Act licence where Hunter Water has received a written request from the WIC Act licensee to establish such a code.

Grading assigned



Hunter Water was deemed to be compliant during the audit period because in the one instance where an initial request to establish a code of conduct was made, Hunter Water responded appropriately.

Audit Question	Evidence	Hunter Water Response	Auditor interpretation	Grading
Identify if any request has been made in the audit period, and if so provide evidence of how this has been responded to.	Evidence located in IPART Sig-box location: "Hunter Water\Questionnaire\Evidence - Clause 35 36 & 37 Information and services for competitors HW2009-1194/20/1.007 HW2023-1287/10.001 HW2023-1287/10.002	This detail was provided in our pricing proposal: HW2009-1194/20/1.007 Provision of Information and Services - Compliance and Performance Report 2023-24 Our Policy for managing Unregulated Business Services is in the process of being formalised (refer to draft documents: HW2023-1287/10.001 Standard - Unregulated Business Services HW2023-1287/10.002 Policy - Draft Unregulated Business Services Policy "	There had been discussions with CoNEXA regarding establishment of a Code of Conduct, however the parties ultimately decided to formalise arrangements through a contract rather than a Code of Conduct.	C

A1. AUDIT INFORMATION

Public Water Utility Operational Audit

Hunter Water Corporation (Hunter Water) is a Public Water Utility under the *Hunter Water Act 1991*. The Minister approves the license for Hunter Water and the Independent Pricing and Regulatory Tribunal arranges for audits of compliance with the license conditions.

Auditors

Bligh Tanner was engaged for the 2024 Audit. The auditors are listed in the table below:

Auditor	Grade	Scope	Auditor Number
Michael LAWRENCE	Lead Water Quality Management Systems Auditor	Framework for Drinking Water Quality Framework for Recycled Water Quality Management and Use	129230
Sean HINTON	Lead Water Quality Management Systems Auditor	Framework for Drinking Water Quality Framework for Recycled Water Quality Management and Use	133942

Planning

The License clauses to be audited were determined by IPART. IPART also arranged for an initial kick-off meeting where the general requirements for the audit were identified. The minutes for the kick-off meeting are included in Appendix 1.

Following the kick-off meeting, Bligh Tanner prepared a detailed questionnaire that identified the key areas for the 2024 audit. In some cases, such as the various management systems, the questionnaire was developed with consideration of the key components of the management system in question. For example, for clauses 15 and 16 (the Drinking Water Management System and Recycled Water Management System) the questionnaire followed the structure of the Australian Drinking Water Guidelines 6 2011 (September 2022) and the Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006. The questionnaire was provided to IPART for review, and then provided to Hunter Water.

Hunter Water provided both a written response to the questionnaire, as well as providing a suite of documents that were cross referenced against the specific audit questions. Evidence was submitted into the IPART SigBox. Hunter Water then provided a draft audit schedule that was reviewed by Bligh Tanner and finalised to ensure that the relevant auditees were available for interviews as required. The schedule is provided in Appendix 2.

All evidence was subsequently audited in either the original office-based audit of the provided evidence, through interviews with Hunter Water staff, or a combination of both. Where additional evidence that was not originally provided was presented, the evidence has been photographed or added to the Hunter Water Evidence column in the main body of this report. Photographs of evidence are included in Appendix 3.

Site Selection for audits

IPART contacted NSW Health who identified potential locations they recommended for consideration, including the Grahamstown Dam, and the Edgeworth or Cessnock recycled water schemes. Based on the initial review of Hunter Water documentation, Bligh Tanner in conjunction with IPART considered that the primary sites for audit would include the Grahamstown, Anna Bay and Lemon Tree WTW, and the Edgeworth and Cessnock WWTW.

Site visits were conducted on Day 2 of the audit, and the sites audited included the full spectrum of Hunter Water Assets, including:

- + Seaham Weir including flood gates, fishway, water extraction
- + Balickera Canal and
- + Balickera pump station
- + Grahamstown Dam

- + Grahamstown Water Treatment Plant
- + Elmore Vale Reservoir
- + Edgeworth Wastewater Treatment Works
- + Edgeworth Recycled Water Scheme.

The schemes selected were appropriate based on the risk to consumers, and the logistics of auditing plants that were geographically dispersed.

Audit Methodology

Bligh Tanner undertakes its audits in accordance with the principles of auditing as outlined in AS/NZS ISO 19011:2019, which are: integrity, fair presentation, due professional care, confidentiality, independence, evidence-based approach, and risk-based approach.

In conjunction with Hunter Water, an audit schedule was developed based on the license conditions to be audited, availability of staff, and time constraints for the office-based audit component. This audit schedule has been included in Appendix 3.

The audit consisted of an assessment of the written response provided by Hunter Water in conjunction with the evidence provided. During the audit interviews, the auditors asked the auditees to demonstrate and explain how the license conditions (or condition of the specific management system) were met.

The auditors assessed the information provided and assigned a grade to the compliance with the License clause (and sub clause where relevant). Where a License clause refers to a specific management system, the requirements of that system were audited (e.g. the Australian Drinking Water Guideline Elements that were identified as a priority by IPART). As such, License conditions such as 15(3), 16(3), 21(2) and 22(2) are assessed against multiple questions. However, the overall audit grading considers all the evidence across all the elements (or components for the Asset Management, Environmental Management or Quality Management Systems).

Internal quality assurance was undertaken by each auditor reviewing each other's findings before submission of the audit report to IPART.

Audit Sampling

It is never possible to audit all evidence, and sampling is required to ensure that the audit outcome is appropriately informed. In the case of water and wastewater treatment plants, the process was as follows: Veolia and Hunter Water were asked to provide SCADA graphs of Critical Control Point (CCP) performance demonstrating "normal operational". This was also audited on site, with SCADA information audited in detail. As an example, during the site visit to the Edgeworth WWTW, flow and UV records were interrogated to confirm that recycled water was not produced at times when there was insufficient UV dose. Initially, the previous day's data was audited to develop a suitable SCADA graph with the appropriate parameter. The range was then expanded out to a 2-week time period, and then the auditor scrolled backwards for the entire last 2 months of data. This allows for a rapid assessment of the plant performance and confirmed that there had been no issues during the time audited. 2 months represents 1/6th of all available data and is considered representative.






In the case of the Grahamstown WTP, the 2 separate weeks of CCP performance had been audited prior to the site visit (dates chosen by the auditor) and performance was demonstrated to be reliably within critical limits. The auditor focused on verification that the limits set for all CCP and COP related instruments were in alignment with the different thresholds specified in those procedures. Preventative measures identified in the Grahamstown WTP risk assessment were discussed in various levels of detail whilst walking through the treatment plant. Instrument calibrations and management of standard and buffer solutions were another key focus area, with no issues identified.

Gradings

The following Table includes the colour coding and symbology used for rapidly identifying the audit findings.

The IPART symbols are used for the overall grading of the license clause. The colour coding in individual cells of the tables is used to identify the level of compliance with each sub-component of the license clauses (e.g. the 12 ADWG elements for the drinking water management system that overall combine to result in the final audit grading).

In all cases, the overall grading for a License clause is based on the least favourable grading applied to any subcomponent of the clause. A clause is only assessed as compliant where all questions were graded as compliant.

Grade	IPART Symbol	Colour Coding in Report
Compliant		C
Compliant – Minor Shortcoming		C-MS
Non-Compliant Non-material		NCNM
Non-Compliant Material		NCM
No Requirement		NR

A2. AUDIT SCHEDULE

Schedule and Attendance Record - Audit Day 1

Auditor	Licence clause	Operating Licence obligation	HWC Facilitator	Stream	Date	Time Start	Time Finish	Room	Attendees
Day 1 - HW Head Office									
All		Day 1 Opening Meeting & Introductions	Roland / Peta	1&2	19-Nov-24	8:00:00 AM	8:30:00 AM	HW Head Office	<p>IPART & Bligh Tanner Gudny Palsdottir - IPART Nahrain Oshana - IPART Shweta Shrestha - IPART Kelly Kwan - IPART Executive Director Regulation and Governance (via Teams) Michael Lawrence - Bligh Tanner Auditor Sean Hinton - Bligh Tanner Auditor</p> <p>Hunter Water Simon Groves - Manager Asset Assurance Kristi Mandich - Group Manager Business Development Laura Hails - General Counsel & Company Secretary Glen Robinson - Executive Manager Customer delivery Jeniffer Hayes - Executive Manager Finance & Business Performance Karolina Wrobel - Drinking Water Quality Management System Lead Grace Macpherson - Executive Manager Business Services & Assurance Matt Hingston - Executive Manager Customer Services Emma Berry - Executive Manager Strategy & Engagement (via Teams) Darren Cleary - Managing Director (via Teams) Martin Robards - Recycled Water Quality Management System Lead (via Teams) Peta Anderson - Integrated System Lead Roland Bow - Group Manager Compliance and Enforcement</p>
Michael Lawrence	22	Environmental Management System	Roland / Peta	1	19-Nov-24	9:00:00 AM	12:00:00 PM	Tomago	<p>IPART & Bligh Tanner Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART</p> <p>Hunter Water Angus Seberry - Group Manager Environment, Kate Orllich - Senior Environmental Planner, Ashley Sneddon - Manager Water Treatment Operations, Roland Bow - Group Manager Compliance & Management Systems, Peta Anderson - Integrated Systems Lead (session facilitator)</p>
Sean Hinton	21	Asset management system	Simon Groves, Rowan Lonergan	2	19-Nov-24	9:00:00 AM	12:00:00 PM	Grahamstown	<p>IPART & Bligh Tanner Sean Hinton (Bligh Tanner), Gudny Palsdottir</p> <p>Hunter Water Rowan Longergan - Manager Mechanical Engineering, Jarrod Wyn - Manager Civil Engineering, Nathan McKelligott - Acting Manager Electrical Engineering, Daniel Turnbull - Dam Safety Engineer, Simon Groves - Manager Asset Assurance, Charles Blades - System Controller (minutes / observer), Emily Hill - Mechanical Engineer (observer).</p>
All		Day 1 - Lunch	Roland / Peta	1&2	19-Nov-24	12:00:00 PM	12:30:00 PM	GF Lunch Room	
Michael Lawrence	16	Recycled Water	Roland / Peta	1	19-Nov-24	12:30:00 PM	4:00:00 PM	Tomago	<p>IPART & Bligh Tanner Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART</p> <p>Hunter Water & Veolia Martin Robards - RECYCLED WATER QUALITY ASSURANCE LEAD, Sian Parkes - VEOLIA, Scott Collis - VEOLIA, Anna Mollegren - TREATMENT ENGINEER, Nick Jones - BUSINESS COMPLIANCE OFFICER, Roland Bow - GROUP MANAGER COMPLIANCE & MNGT SYSTEMS, Peta Anderson - INTEGRATED SYSTEMS LEAD (Session facilitator)</p>
Sean Hinton	15	Drinking Water	Simon Groves, Rowan Lonergan	2	19-Nov-24	12:30:00 PM	4:00:00 PM	Grahamstown	<p>IPART & Bligh Tanner Sean Hinton - Bligh Tanner, Gudny Palsdottir - IPART</p> <p>Hunter Water & Veolia Karolina Wrobel - DRINKING WATER QUALITY ASSURANCE LEAD, Abigail Morrow - (ACTING) GROUP MANAGER OPERATIONS, Ashley Sneddon - MANAGER WATER TREATMENT OPERATIONS, Georgia Halvorsen - TREATMENT ENGINEER, Rhys Blackmore - MANAGER CATCHMENT OPERATIONS, Dan Slocombe - VEOLIA, Ardie Morris - MANAGER BUSINESS CUSTOMERS, Matthew Butler - NETWORK ENGINEER, Simon Groves - MANAGER ASSET ASSURANCE, Kai Woodham - NETWORK ENGINEER, Charles Blades - SYSTEM CONTROLLER (minutes / observer)</p>

Schedule and Attendance Record - Audit Day 2

Auditor	Licence clause	Operating Licence obligation	HWC Facilitator	Stream	Date	Time Start	Time Finish	Room	Attendees
		Day 2 - Site Visits			20-Nov-24	8:00:00 AM	5:00:00 PM	Site Visits/Paterson	IPART & Bligh Tanner
		Site Visit Stream 1 - Morning: Seaham Weir, Balickera Canal and Balickera Pump Station 7 Solar	Roland / Peta	1	20-Nov-24	8:00:00 AM	12:00:00 PM	Site Visits	Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART Hunter Water Rhys Blackmore - MANAGER CATCHMENT OPERATIONS, Angus Seberry - GROUP MANAGER ENVIRONMENT, Kate Olrich - SENIOR ENVIRONMENTAL PLANNER, Roland Bow - GROUP MANAGER COMPLIANCE & MNGT SYSTEMS, Peta Anderson - INTEGRATED SYSTEMS LEAD (session facilitator)
		Site Visit Stream 1 - Afternoon: Grahamstown Dam (lunch & Dam Safety), Edgeworth WWTP	Simon	2	20-Nov-24	12:30:00 PM	4:00:00 PM	Site Visits	IPART & Bligh Tanner Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART Hunter Water, Veolia & Fire Construction Daniel Turnbull - DAM SAFETY ENGINEER, Martin Robards - RECYCLED WATER QUALITY ASSURANCE LEAD, Simon Groves - MANGER ASSET ASSURANCE, Scott Collis - Veolia, Sian Parkes - Veolia, Tim Park - Veolia, Anna Molergrén - TREATMENT ENGINEER, Charles Blades - SYSTEM CONTROLLER (Observer)
		Site Visit Stream 2 - Morning: Elemore Vale Reservoir Drone Inspection and DoS upgrade	Simon	2	20-Nov-24	8:00:00 AM	12:00:00 PM	Site Visits	IPART & Bligh Tanner Sean Hinton - Bligh Tanner, Gudny Palsdottir - IPART Hunter Water & Veolia & Fire Construction Martin Robards - RECYCLED WATER QUALITY ASSURANCE LEAD, Simon Groves - MANGER ASSET ASSURANCE, Paul Newton - A/C DAMS, CATCHMENT & SURVEILLANCE, Charles Blades - SYSTEM CONTROLLER (Observer), Sean Potter - ASSET SOLUTIONS CONTRACTOR, Matthew Butler - NETWORK ENGINEER, Joel Dormer - Eire Construction.
		Site Visit Stream 2 - Afternoon: Grahamstown Dam (lunch & Dam Safety), Grahamstown PAC Dosing, Grahamstown WTP, Eire Constructions UV Upgrade	Roland / Peta	1	20-Nov-24	12:30:00 PM	4:00:00 PM	Site Visits	IPART & Bligh Tanner: Sean Hinton - Bligh Tanner, Gudny Palsdottir - IPART Hunter Water, Veolia & Fire Construction Dan Turnbull - DAM SAFETY ENGINEER, Karolina Wrobel - DRINKING WATER QUALITY ASSURANCE LEAD, Georgia Halvorsen - TREATMENT ENGINEER, Dan Slocombe - VEOLIA, Roland Bow - GROUP MANAGER COMPLIANCE & MNGT SYSTEMS, Peta Anderson - INTEGRATED SYSTEMS LEAD (facilitator), Samantha Barry - SENIOR PROJECT MANAGER, Ashley Sneddon - MANAGER WATER TREATMENT OPERATIONS, Nicole Barden - Eire Constructions - HSE Rep (safety induction), Tim Peachey - Eire Constructions Electrical Site Supervisor

Schedule and Attendance Record - Audit Day 3

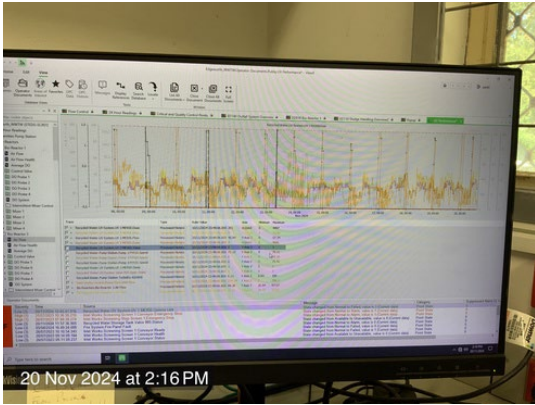
Auditor	Licence clause	Operating Licence obligation	HWC Facilitator	Stream	Date	Time Start	Time Finish	Room	Attendees
Day 3 - HW Head Office									
Michael Lawrence	12	Water conservation	Peta	1	21-Nov-24	8:00:00 AM	9:00:00 AM	Tomago	<p>IPART & Bligh Tanner: Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART</p> <p>Hunter Water: Dean Palmer - NRW Lead, Colin Hancock - Group Manager Water Resilience and Science, Tony McClymont - Program Lead Recycled Water & IWM, John Stanmore - Lead Dist System Water Quality Strategy, Ardie Morris - Manager Business Customers, Peta Anderson - Integrated Systems Lead (session facilitator)</p>
Michael Lawrence	14	Water planning	Simon	1	21-Nov-24	9:00:00 AM	10:00:00 AM	Tomago	<p>IPART & Bligh Tanner: Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART</p> <p>Hunter Water: Colin Hancock - GROUP MANAGER WATER RESILIENCE & SCIENCE, Brendan Berghout - SENIOR WATER RESOURCES ENGINEER, Simon Groves - MANAGER ASSET ASSURANCE (session facilitator)</p>
Michael Lawrence	Part 4	Performance standards for service interruptions	Simon	1	21-Nov-24	10:00:00 AM	11:00:00 AM	Tomago	<p>IPART & Bligh Tanner: Michael Lawrence - Bligh Tanner, Shweta Shrestha - IPART, Nahrain Oshana - IPART</p> <p>Hunter Water: Matthew Buttler - NETWORK ENGINEER, Nathan Hays - MANAGER WASTEWATER NETWORK OPERATIONS, Michael Klages - TEAM LEADER - CMMS, Brett Healey - MANAGER CIVIL MAINTENANCE, Simon Groves - MANAGER ASSET ASSURANCE.</p>
Sean Hinton	Part 7	Stakeholder cooperation	Roland	2	21-Nov-24	8:00:00 AM	9:00:00 AM	Grahamstown	<p>IPART & Bligh Tanner: Sean Hinton - Bligh Tanner, Gudny Palsdottir - IPART</p> <p>Hunter Water: Abigail Morrow - (ACTING) GROUP MANAGER OPERATIONS, Colin Hancock - GROUP MANAGER WATER RESILIENCE & SCIENCE, Kirby Morrison - MANAGER WATER PLANNING.</p>
Sean Hinton	23	Quality Management System	Roland / Peta	2	21-Nov-24	9:00:00 AM	10:00:00 AM	Grahamstown	<p>IPART & Bligh Tanner: Sean Hinton - Bligh Tanner, Gudny Palsdottir - IPART</p> <p>Hunter Water: Bernadette Tisdell - GOVERNANCE & POLICY COORDINATOR, Roland Bow - GROUP MANAGER COMPLIANCE & MNGT SYSTEMS, Peta Anderson - INTEGRATED SYSTEMS LEAD, Declan Claussen - GROUP MANAGER STRATEGY, EXTERNAL AFFAIRS, Carla McEntyre - GROUP MANAGER CUST STRAT, INSIGHTS & EXP, John Reggers - ASSET SYSTEMS COORDINATOR</p>
Sean Hinton	Part 8	Information and services for competitors	Roland / Peta	2	21-Nov-24	10:00:00 AM	11:00:00 AM	Grahamstown	<p>IPART & Bligh Tanner: Sean Hinton - Bligh Tanner, Gudny Palsdottir</p> <p>Hunter Water: Kristi Mandich - GROUP MANAGER BUSINESS DEVELOPMENT, Ardie Morris - MANAGER BUSINESS CUSTOMERS, Rajesh Khadaka - ENGINEER, Briohny Coughlan - LEGAL COUNSEL, Kirby Morrison - MANAGER WATER PLANNING, Tony McClymont - PROGRAM LEAD RECYCLED WATER & IWM, Roland Bow - Group Manager Compliance & Management Systems (session facilitator), Peta Anderson - Integrated Systems Lead (session facilitator)</p>
All	NPR	NPR - Assets - Questions	Roland / Peta	1&2	21-Nov-24	11:00:00 AM	12:00:00 PM	Grahamstown	<p>IPART & Bligh Tanner: Michael Lawrence - Bligh Tanner Shweta Shrestha - IPART, Nahrain Oshana - IPART, Gudny Palsdottir - IPART</p> <p>Hunter Water: Rahul Chhillar - (ACTING) GROUP MANAGER INFO CONTROLS & ENERGY, Andrew Tjiptadi - WATER LOSS PROJECT ENGINEER, Michael Klages - TEAM LEADER - CMMS, Dean Palmer - NRW LEAD, Peta Anderson - INTEGRATED SYSTEMS LEAD (session facilitator)</p>
Day 3 - Lunch									
All	NPR	NPR - ENVT - Questions	Roland / Peta	1&2	21-Nov-24	12:30:00 PM	1:30:00 PM	Grahamstown	<p>IPART & Bligh Tanner: Michael Lawrence - Bligh Tanner Shweta Shrestha - IPART, Nahrain Oshana - IPART, Gudny Palsdottir - IPART</p> <p>Hunter Water: Kate Olrich - Senior Environmental Planner, Angus Seberry - Group Manager Environment, Lachlan King - Manager Wastewater Treatment Operations, Peta Anderson - Integrated Systems Lead (session facilitator)</p>
All	NPR	NPR - Public Health Questions	Roland / Peta	1&2	21-Nov-24	1:30:00 PM	2:00:00 PM	Grahamstown	<p>IPART & Bligh Tanner: Michael Lawrence - Bligh Tanner Shweta Shrestha - IPART, Nahrain Oshana - IPART, Gudny Palsdottir - IPART</p> <p>Hunter Water: Karolina Wrobel - DRINKING WATER QUALITY ASSURANCE LEAD, Matthew Butler - NETWORK ENGINEER, Abigail Morrow - (ACTING) GROUP MANAGER OPERATIONS</p>

Schedule and Attendance Record - Audit Day 3 (continued)

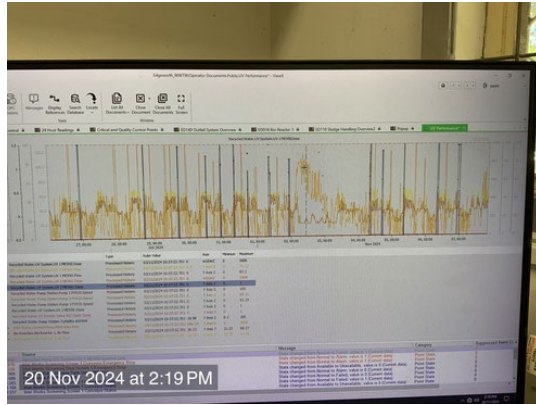
Auditor	Licence clause	Operating Licence obligation	HWC Facilitator	Stream	Date	Time Start	Time Finish	Room	Attendees
		Day 3 - HW Head Office			21-Nov-24	8:00:00 AM	5:00:00 PM	HW Head Office	
All		Auditor Time (Any other questions and prep for close out)	N/A	1&2	21-Nov-24	2:00:00 PM	4:00:00 PM	Grahamstown	
All		Day 3 - Close out meeting	Roland / Peta	1&2	21-Nov-24	4:00:00 PM	5:00:00 PM	Board Room	<p><u>IPART & Bligh Tanner</u> Gudny Palsdottir - IPART Nahrain Oshana - IPART Shweta Shrestha - IPART Michael Lawrence - Bligh Tanner Auditor Sean Hinton - Bligh Tanner Auditor</p> <p><u>Hunter Water</u> Simon Groves - Manager Asset Assurance (via Teams) Kristi Mandich - Group Manager Business Development (via Teams) Glen Robinson - Executive Manager Customer delivery Jeniffer Hayes - Acting Managing Director Karolina Wrobel - Drinking Water Quality Management System Lead Grace Macpherson - Executive Manager Business Services & Assurance Matt Hingston - Executive Manager Customer Services Emma Berry - Executive Manager Strategy & Engagement Martin Robards - Recycled Water Quality Management System Lead (via Teams) Bernadette Tisdell - Governance & Policy Coordinator Angus Seberry - Group Manager Environment Abigail Morrow - (Acting) Group Manager Operations (via Teams) Arde Morris - Manager Business Customers Peta Anderson - Integrated System Lead Roland Bow - Group Manager Compliance and Management Systems</p>

A3.

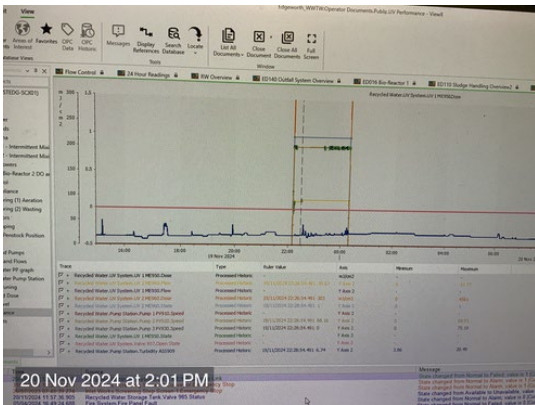
AUDIT PHOTOGRAPHS



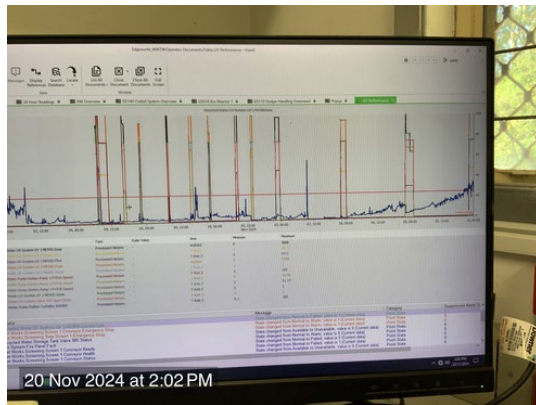
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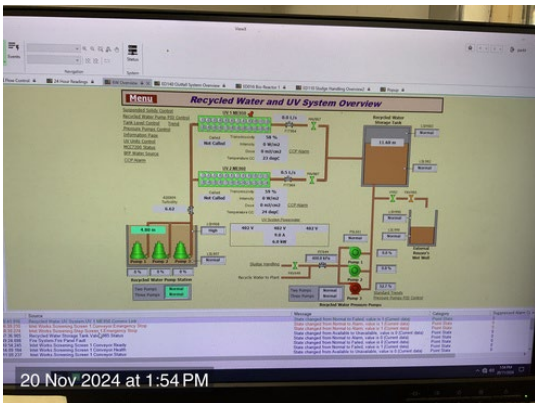
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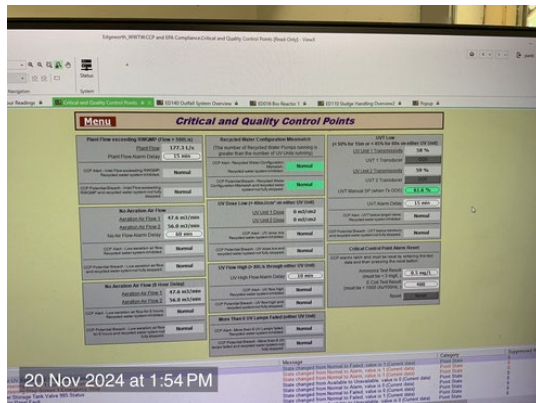
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ML Photo 4 20/11



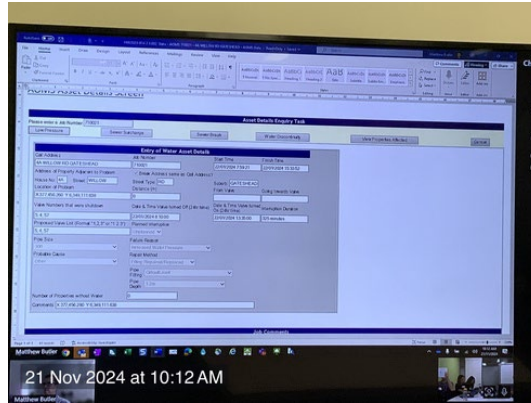
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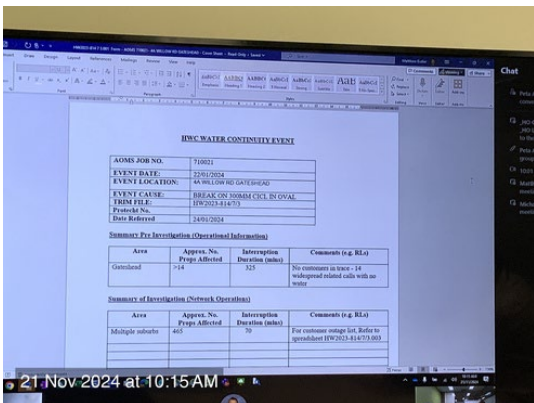
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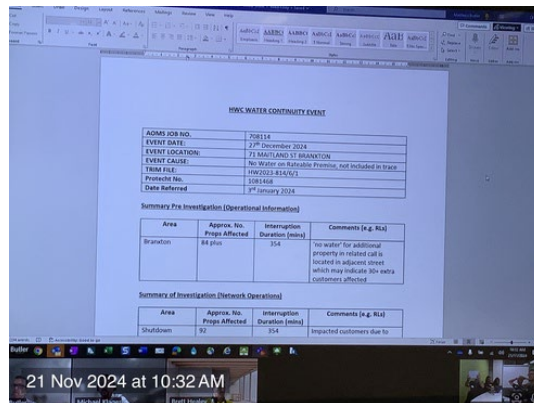
ML Photo 7 20/11



ML Photo 1 21/11



ML Photo 2 21/11



ML Photo 3 21/11



SH Photo 1 20/11



SH Photo 2 20/11



SH Photo 3 20/11



SH Photo 4 20/11



SH Photo 5 20/11



SH Photo 6 20/11



SH Photo 7 20/11



SH Photo 8 20/11



SH Photo 9 20/11



SH Photo 10 20/11



SH Photo 11 20/11



SH Photo 12 20/11



SH Photo 13 20/11



SH Photo 14 20/11



SH Photo 15 20/11

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F IPART's checks for the 2024 audit

Table F.1 Clauses that we checked as part of the 2024 audit

Operating licence clause		Compliance grade
12(4)	Within 12 months of publication of the Water Efficiency Framework being developed by the NSW Government (or such later date approved by IPART in writing), Hunter Water must develop, and submit to DPE ^a and IPART, a water conservation plan for the following 5 years (the 5-year Water Conservation Plan).	
13(3)	Hunter Water may, with the Minister's written approval, update the Current Economic Method from time to time.	
13(5)	Hunter Water must submit to the Minister the Current Economic Method revised in accordance with the written direction within: (a) the timeframe specified in the direction or, if no timeframe is specified, 30 days of receipt of that direction; or (b) any other timeframe agreed by the Minister.	
13(7)	Hunter Water must update the information referred to in clause 13(1) to reflect any variations made to the Current Economic Method or to the plain English summary within 60 days of the variations taking effect.	

Note:  = Compliant  - No requirement

a. DCCEEW replaced the former DPE in January 2024.

¹ *Hunter Water Act 1991*, s18A.

² IPART, *Hunter Water Reporting Manual 2022-2027*, June 2024.

³ IPART, *Hunter Water Reporting Manual 2022-2027*, June 2024, s3.1.2.

⁴ IPART, *Report to the Minister – Hunter Water 2021 operational audit*, March 2022, p 7.

⁵ IPART, *Report to the Minister – Hunter Water 2023 compliance audit*, March 2024, p 15.

⁶ IPART, *Hunter Water Reporting Manual 2022-2027*, June 2024.

⁷ IPART, *Compliance and Enforcement Policy*, December 2017, p 5.

⁸ IPART, *Public Water Utility Audit Guideline*, July 2023.

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