

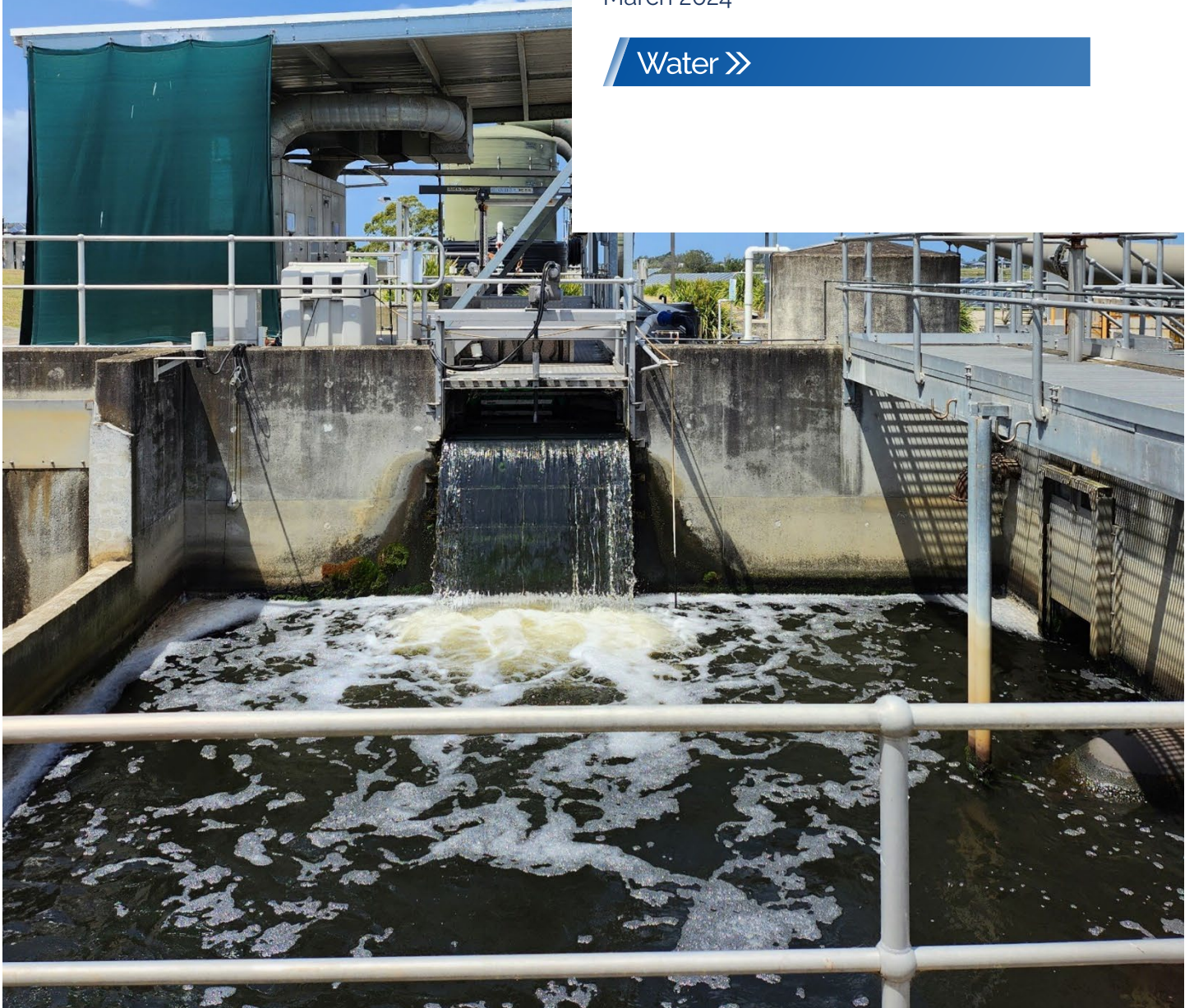


Hunter Water 2023 compliance audit

Report to the Minister

March 2024

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

The Tribunal members for this report are:

Carmel Donnelly PSM, Chair
Jonathan Coppel

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The Independent Pricing and Regulatory Tribunal

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Summary

This is our compliance report to the Minister for Water (Minister) on Hunter Water Corporation's (Hunter Water) compliance with its 2022-2027 Operating Licence (Licence) from 1 November 2022 to 31 October 2023. Compliance was tested by an operational audit under section 18B of the *Hunter Water Act 1991* (Act) and clause 38 of the Licence.

Hunter Water's operational performance in 2023

Hunter Water was forthcoming and cooperative throughout the audit process, demonstrating a strong culture and commitment to compliance. The quality of water produced by Hunter Water continues to be of high standard that meets public health requirements. Hunter Water continues to be non-compliant with its document management obligations. However, it has shown considerable effort in updating critical documents and we expect its overall document management system will improve with the introduction of its new document management system. We will examine its progress at the next audit.

Self-reported non-compliance

In 2022-23, Hunter Water reported a non-compliance with the requirement to set the level of fees, charges, and other amounts payable for its Services in accordance with the terms of the licence, the Act, and any applicable maximum prices or methodologies for fixing maximum prices determined under the IPART Act.

Hunter Water has refunded each impacted customer and updated its internal processes. Hunter Water reported full compliance with this requirement by May 2023.

Key findings from the 2023 audit

Hunter Water demonstrated a high overall level of compliance with the Licence clauses during the 2023 audit period and Hunter Water was Compliant with 35 of 43 audited Licence clauses. There was No Requirement for Hunter Water to comply with 4 of the 43 audited Licence clauses during the audit period.

Hunter Water was Non-Compliant (non-material) with one Licence clause and had Compliant (minor shortcomings) with another 3 clauses.

Hunter Water was Non-Compliant (non-material) with one clause because it did not fully implement its Quality Management System, which has contributed to an increasing number of documents that are overdue for review. The issue of document currency is not considered material as it does not affect the overall implementation of the Quality Management System. Hunter Water has generally implemented its documents and procedures adequately, other than the requirement for review. We have identified similar issues in the previous audit, where we assigned several Compliant (minor shortcomings) grades. As the issues have not been addressed, we have assigned a Non-Compliant (non-material) grade to reflect the fact that the number of documents that are overdue for review is increasing.

Hunter Water was Compliant (minor shortcomings) with 3 clauses relating to the implementation of the:

- Drinking Water Quality Management System
- Recycled Water Quality Management System
- Asset Management System.

We made 13 recommendations to address the identified non-compliance and compliances with minor shortcomings.¹ We have discussed the audit findings and recommendations in Chapter 2.

Previous audit findings

The audit also followed up Hunter Water's progress in addressing 12 outstanding recommendations related to non-compliances or shortcomings identified in previous audits.

Hunter Water has:

- Fully addressed 7 recommendations.
- Partially addressed/is addressing the remaining 5 recommendations that are overdue for completion. Progress with addressing these recommendations is to be checked in the next audit.

Our discussion of Hunter Water's progress with previous recommendations, including the 5 ongoing recommendations, which we have grouped into 3 recommendations going forward, is presented in Chapter 3.

¹ Auditors are only required to make recommendations for grades other than Compliant grades – that is for Compliant (minor shortcomings), Non-Compliant (non-material), and Non-Compliance (material) grades. This is consistent with our audit guideline for public water utilities ([Guideline – Public Water Utility, July 2023](#)).

1 Introduction

Hunter Water is a publicly owned monopoly supplier of essential water and wastewater services to customers in NSW. It operates under the NSW Government issued Hunter Water 2022-2027 Operating Licence (Licence), which outlines obligations and standards for the provision of safe and reliable services.

We conduct annual audits of Hunter Water's compliance with its Licence to assess that Hunter Water is meeting its obligations.

This report summarises the findings and recommendations of the audit.

1.1 Annual Statement of Compliance

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

In 2022-23, Hunter Water reported a non-compliance with clause 7(1) of the Licence. The clause requires Hunter Water to set the level of fees, charges and other amounts payable for its Services in accordance with the terms of the licence, the Act, and any applicable maximum prices or methodologies for fixing maximum prices determined under the IPART Act.

Six manufactured home estates² were overcharged by approximately \$1.6 million during July 2013 to May 2023, due to a misclassification of these home estates as being residential. The classification has since been amended and properties re-billed for the relevant period. All overcharges have been refunded or credited to each impacted customer. To prevent reoccurrence, Hunter Water has updated its internal processes and included a legal counsel review step in their process of implementing new pricing methodologies at the beginning of each price determination.

1.2 Audit scope

In 2023, we audited Hunter Water's compliance with 43 clauses of the Licence. We engaged a specialist auditing firm, Bligh Tanner Pty Ltd (Bligh Tanner), to audit 22 Licence clauses and we checked the other 21 clauses ourselves.³

The audit covered the period from 1 November 2022 to 31 October 2023. Appendix C describes the audit process and Appendix D includes the detailed audit scope that we issued to the auditor.

² Manufactured home estate means land on which manufactured homes are, or are to be, erected. A manufactured home is a self-contained dwelling and includes any associated structures that form part of the dwelling. (*Local Government Act 1993*)

³ Clause 23(2) was not originally in the Bligh Tanner audit scope. This clause requires Hunter Water to fully implement the Quality Management System. It was added to the Bligh Tanner audit scope to address the ongoing actions required under previous audit recommendations related to the currency of documentation. Clause 39(3) was removed

2 Audit findings and recommendations

This chapter sets out the auditor's findings relating to non-compliances and compliances with minor shortcomings.



Where we found Hunter Water non-compliant or compliant with minor shortcomings with a clause, we have made recommendation(s) as to how to address the non-compliance or compliance with minor shortcomings. The auditor's report is provided in Appendix F.

Our assessment of the Licence clauses that we checked is in Appendix E.

Section 6.1.2 of our Reporting Manual⁴ requires Hunter Water to report on its progress in implementing these recommendations by 30 June each year (or, if we agree, a later date).

The 2023 audit is the second audit of Hunter Water's compliance with the requirements of the current Licence. Table 1 shows the percentages of audit findings under each audit grade during the Licence term. The number of clauses that we audited varies from year to year reflecting our risk-based approach to auditing.

Table 1 Percentages of audit findings for the 2022-2027 Licence

Compliance grades	2022 (20 clauses audited)	2023 (43 clauses audited) ^a
 Compliant	60%	81%
 Compliant (minor shortcomings)	30%	7%
 Non-Compliant (non-material)	5%	2%
 Non-Compliant (Material)	0%	0%
 No Requirement	5%	9%

a. Percentages do not total to 100% due to rounding.

Table 2 provides a comparison of non-compliant and compliant with minor shortcomings audit findings across the audit years during the 2022-2027 Licence term. Table 2 does not include all the Licence clauses where Hunter Water has been Compliant when audited during the Licence term. It also does not include clauses assigned No Requirement grades,





The compliance grades in Table 2 represent the overall grade against each of the licence requirements. Some licence requirements consist of many elements, for example, there are 12 elements under the Australian Recycled Water Guidelines. Please note that in the executive summary of the auditor's report, it identified compliance grades against each separate element of

from the 'IPART check' audit scope because the auditing of that clause requires more than a desktop audit of evidence available online. This clause requires Hunter Water to maintain sufficient record systems to enable Hunter Water to report accurately in accordance with clause 39(2).

⁴ IPART, [Hunter Water Reporting Manual – Operating Licence 2022-2027](#).

some the licence clauses that were not fully compliant, which does not necessarily reflect the overall compliance grade of those clauses. The overall compliance grade against the implementation of the Recycled Water Quality Management System and the Asset Management System were compliant with minor shortcomings, as discussed in Chapter 3 of the auditor's report. The auditor has considered the broader context of whether Hunter Water has materially met the licence obligation based on evidence provided when assigning the overall grade. The assessment of each element informed the overall compliance grade, but it does not define the overall grade.

Table 2 Comparative record of non-compliant and compliant with minor shortcomings findings for the 2022-2027 Licence

Licence clause	Requirement	Compliance grade ^a	
		2022 ^b	2023
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		
21(2)	Organisational systems management – Asset management system - implementation		
23(2)	Quality Management System - implementation	-	
25(1), (3) & (4) ^c	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		 ^d
39(2)	Performance monitoring and reporting – Reporting as set out in the Reporting Manual		

a.  – Compliant;  - Compliant (minor shortcomings);  - Non-Compliant (non-material);  - Non-Compliant (material)

b. Each of Hunter Water's audit period is for the period from 1 November to 31 October.

c. These are the relevant clauses that applies to the current Licence. The non-compliance (non-material) identified in 2022 was related to clause 5.7.1 in the previous operating licence 2017-2022. Both licences apply during the 2022 audit period.

d. As the previous recommendation 2022/5.3.1-1 was found to be not complete, we continue to consider this clause Compliant (minor shortcomings) in 2023. See Table 4.

Sources: IPART, Hunter Water's compliance with its operating licence 2021-2022 - Report to the Minister, June 2023; Bligh Tanner Pty Ltd, Hunter Water Audit 2023 – IPART, January 2024.

2.1 Audit findings and recommendations summary

Table 3 provides details of non-compliances and compliances with minor shortcomings identified in the audit. It also includes details of our recommendations to address these deficiencies. IPART will test the extent to which recommendations have been addressed in the next annual audit of Hunter Water's compliance with its Licence.

One non-compliance relating to overdue document reviews was found to be non-material. The risk to public health is considered non-material because the implementation of documents and procedures are generally adequate. The overdue document review does not affect the overall implementation of the Quality Management System.

We consider the finding that the reservoir integrity inspection method required improvement a minor shortcoming at this stage. This shortcoming could potentially affect water quality if unaddressed.


Hunter Water has increasing numbers of documents that are overdue for review


Hunter Water has an increasing number of documents that are beyond the scheduled review date. The auditor identified that there are 247 documents that are overdue for review. The same issue was identified in the 2022 audit against 3 different licence clauses and the issue has not been resolved. However, Hunter Water has shown considerable effort in updating critical documents, such as the drinking water chlorinators critical control point information and the operational and maintenance manual under the bulk water supply agreement with Central Coast Council. In addition, Hunter Water is transitioning to a new document management system. We anticipate its overall document management system will improve and we have made a recommendation to continue to monitor its progress towards compliance.


Hunter Water's reservoir integrity inspection method needs to improve


Hunter Water undertakes reservoir integrity inspection, but the current visual inspection methods are inadequate in inspecting and checking the vermin proofing integrity at the top of the reservoir. We considered this a minor shortcoming as inspection has been undertaken. However, if left unaddressed it could have the potential to affect drinking water quality. We recommend that Hunter Water implements alternative methods of inspection, for example, use of a drone to ensure asset integrity of the reservoir is not compromised.

Table 3 2023 compliance with Hunter Water's Licence – grades other than Compliant

Licence clause	Requirement	Compliance grade	Audit finding	Recommendations
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>Compliant (minor shortcomings)</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. Minor shortcomings were noted for Element 3 (Preventative measures for drinking water quality management), Element 9 (Research and development – validation of processes) and Element 10 (Documentation and reporting) and did not affect the overall implementation of the drinking water management system at a material level during the audit period.</p> <p>Minor shortcomings identified for this clause are:</p> <ul style="list-style-type: none"> Hunter Water reported a reservoir integrity breach to NSW Health in a quarterly meeting rather than reporting the event immediately. While the report was not considered immediate, the overall intent of informing NSW Health was met. This was a shortcoming in understanding and implementing the notification requirements. The Critical Operation Point (COP) for turbidity was set at a high value, at 5 NTU (Nephelometric Turbidity Unit). The auditor indicated that a lower NTU would be more appropriate at the clear water tank at the Dungog Water Treatment Plant (WTP). The CCP table does not explicitly state the Chlorine Contact Time (CT) limit and does not match the controls in place in SCADA (Supervisory Control and Data Acquisition). More specificity in the CCP table would provide clarity. While the filtration CCP limit of 0.3 NTU set for Dungog WTP is protective of public health, the auditor considers to be not ideal. 	<p>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.</p> <p>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 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.</p> <p>2023-7-15(3): Review the CCP table and explicitly incorporate the Chlorine Contact time (CT) as a critical limit to match the alarm in SCADA.</p> <p>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.</p>

Licence clause	Requirement	Compliance grade	Audit finding	Recommendations
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>Compliant (minor shortcomings)</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. While 2 non-material non-compliances and 2 minor shortcomings were identified against several elements of this licence clause, it does not affect Hunter Water's overall implementation of the management system at a material level.</p> <p>The non-material non-compliances and minor shortcomings were noted for Element 3 (operational controls), Element 4 (operational monitoring) and Element 11 (Review and audit) during the audit period.</p> <p>The 2 non-material non-compliances identified for this clause are:</p> <ul style="list-style-type: none"> • Although Hunter Water implemented its auditing process of its recycled water end user, a 25-30m recycled water irrigation buffer zone was not adhered to as required in the end user agreement. The risk to public health is likely to be low due to the rural environment. • Hunter Water's internal audit template failed to identify end user agreement requirements of a minimum of 5 days withholding stock on land irrigated with recycled water. Improvement in auditing of end user controls could assist in improving outcomes. <p>The 2 minor shortcomings identified for this clause are:</p> <ul style="list-style-type: none"> • A missed water quality sample due to sick leave. • The CCP limits in the Morpeth Recycled Water Treatment Plant (RWTP) – Chisholm Scheme Recycled Water Management Plan (RWMP) are inconsistent. However, the CCP limits in SCADA are appropriate and consistent with the tighter limits set in the plan. 	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Licence clause	Requirement	Compliance grade	Audit finding	Recommendations
21(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.	 Compliant (minor shortcomings)	<p>We have assigned Hunter Water a Compliant (minor shortcomings) grade for clause 21(2). This agrees with the auditor's findings.</p> <p>Hunter Water has largely implemented its Asset Management System. While one non-material non-compliance and 3 compliances with minor shortcomings were identified against several elements of this licence clause, it does not affect Hunter Water's overall implementation of the management system at a material level.</p> <p>The non-material non-compliance identified for this clause was in relation to asset integrity of a drinking water reservoir. The current visual inspection methods are inadequate in inspecting and checking the vermin proofing integrity at the top of the reservoir, at approximately 15 metres. Vermin proofed reservoir is one of the controls to protect the quality of drinking water and hence public health. The risk to public health is non-material as there is still inspection for integrity being undertaken, however the effectiveness of inspection method could be significantly improved.</p> <p>Other minor shortcomings identified for this clause are:</p> <ul style="list-style-type: none"> Hunter Water has not mapped resources to planned activities as required under the current standard. Not all critical devices were identified as asset criticality items in the asset management system. Some incident investigation reports did not contain details of root cause analysis. Although a root cause workshop was undertaken and root causes identified, the specified method was not used. 	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Licence clause	Requirement	Compliance grade	Audit finding	Recommendations
23(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.	 Non-Compliant (non-material)	<p>We have assigned Hunter Water a Non-compliant (non-material) grade for clause 23(2). This agrees with the auditor's findings.</p> <p>Hunter Water has an increasing number of documents that are beyond the review date. The auditor identified that there are 247 documents that are overdue for review. The same issue was identified in the 2022 audit against 3 different licence clauses. Documents under the drinking water quality management system, recycled water quality management system and asset management system were overdue for review. The risk to public health is considered non-material because the implementation of documents and procedures are generally adequate. The overdue document review does not affect the overall implementation of the Quality Management System.</p> <p>We have consolidated the previous recommendations for the ease of ongoing monitoring of rectification actions. See Table 4.</p>	<p>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.</p>

Source: Bligh Tanner Pty Ltd, Hunter Water Audit 2023 – IPART, January 2024.

3 Progress on previous audit findings

The previous audit identified areas where Hunter Water did not achieve compliance with its Licence obligations. We made recommendations to address these issues.¹ Table 4 outlines Hunter Water's progress in implementing the recommended actions.



Of the 12 previous recommendations to be completed, Hunter Water:







- closed out 7 previous recommendations
- made progress in addressing 5 previous recommendations but require further work to complete the necessary actions.



Of the 5 recommendations that have not been closed out, we will continue to track progress of 2 of those separately and we have grouped the other 3 recommendations into a single new recommendation to monitor under 2023-4-23(2). This is because these 3 recommendations were all related to currency of documents which can be appropriately assessed against the implementation of the Quality Management System. These 3 recommendations were previously assigned the compliance grades of Compliant (minor shortcomings) separately. We have reassigned the combined compliance grade to Non-Compliant (non-material) in this audit because the issues have not been resolved into the second year and more documents have become overdue while a new document control system is being implemented.

The ongoing recommendations will be audited in the 2024 audit period.

Table 4 Hunter Water's progress in 2023 to address our recommendations from the previous audits

Licence clause	Compliance grade	Recommendation	Progress
<p>15(1)^a Performance standards for water quality – Drinking Water – consistency with the Australian Drinking Water Guidelines</p>	 Compliant (minor shortcomings)	<p>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>	<p>Ongoing</p> <p>The MidCoast Council agreement review has progressed, however the deed of variation that focus on water quality reporting has not yet been created. Hunter Water notes that the current agreement is still valid, legal and ongoing. We will follow up on the status of the deed of variation at the next audit.</p> <p>The Central Coast Council agreement was reviewed, and a new Operations and Maintenance Manual has been signed by both parties in January 2024. We consider this component of the recommendation is complete.</p>
<p>23(2) Quality Management System – implementation</p> <p>The 3 licence clauses that are related to the previous recommendations are:</p> <ul style="list-style-type: none"> • 15(3) – Drinking water management system implementation • 16(1) – Recycled water management system consistent with national guidelines • 21(2) – Asset management system implementation 	 Non-Compliant (non-material)	<p>A new recommendation has replaced 3 similar previous recommendations. Also see Table 2.</p> <p>2023-4-23(2): Overdue documents (and documents coming up for review) should be rated, 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.</p> <p>Previous recommendations that have been grouped for ongoing monitoring:</p> <p>2022/3.1.2-2: By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, Hunter Water must set an evidence-based Key Performance Indicator (KPI) for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water's ability to satisfy its licence and other obligations.</p> <p>2022/3.2.1-1: By 30 September 2023, Hunter Water must set an evidence based KPI for currency of Veolia documents used under the operations and maintenance contract. This KPI shall be set at an achievable level (commensurate with document criticality) that does not compromise Hunter Water or Veolia's ability to satisfy its licence and other obligations.</p> <p>2022/4.1.2-2: By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, set an evidence based KPI for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water's ability to satisfy its operating licence and other obligations</p>	<p>Ongoing</p> <p>While progress has been made and the Drinking Water Management System critical documents are generally reviewed in accordance with the review frequency, no KPI was set and there were over 200 documents overdue for review across the Integrated Management System. We have created a new recommendation to follow up on the status of timely review of documents at the next audit.</p>

Licence clause	Compliance grade	Recommendation	Progress
27(1) Customer and stakeholder relations – Assistance options for Payment Difficulties and Actions for Non-Payment – maintain and implement	 Compliant (minor shortcomings)	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.	Ongoing The <i>Standard for Non-Payment Collections</i> and the <i>Customer Support Policy - Supporting customers who may be experiencing vulnerability</i> was reviewed in September 2022, with the next scheduled review date superseding this date. The policy has not been signed and was not published on the Hunter Water website. We will follow up on the review status of their key policies and standards at the next audit.
15(3) Performance standards for water quality – Drinking Water - implementation	 Compliant (minor shortcomings)	2021-7: By 1 November 2022, Hunter Water must review the CCP Limit Tables and ensure that the limits and the logic are accurate and match SCADA.	Complete
39(2) Performance monitoring and reporting – Reporting as set out in the Reporting Manual	 Compliant (minor shortcomings)	2021-21: By 30 September 2022, Hunter Water should set up a process to ensure that IPART, as well as NSW Health, are advised of any proposed significant changes to the Drinking Water and Recycled Water Quality Systems.	Complete
15(3) Performance standards for water quality – Drinking Water - implementation	 Compliant (minor shortcomings)	2022/3.1.2.1: By 31 October 2023, Hunter Water must consolidate information on CCPs to, as far as possible, one reference point, to improve maintenance of currency and avoid discrepancies of information e.g. by adding a reference to a CCP document (as the point of truth) within the Drinking Water Quality Management System or Drinking Water Quality Management Plan.	Complete
15(3) Performance standards for water quality – Drinking Water - implementation	 Compliant (minor shortcomings)	2022/3.1.2-3: By 30 June 2023, Hunter Water must ensure that the audit report for the Hunter Water Distribution Network has been completed and the audit finalised.	Complete
16(3) Performance standards for water quality – Recycled Water - implementation	 Compliant (minor shortcomings)	2022/3.2.2-1: By 30 September 2023, Hunter Water must develop a system to ensure that reagents used for recycled water analysis have not passed their expiry date.	Complete






Licence clause	Compliance grade	Recommendation	Progress
21(2) Organisational systems management – Asset management system - implementation	 Compliant (minor shortcomings)	2022/4.1.2-1: By 30 September 2023, Hunter Water must set up a system to ensure that its likelihood, criticality rating and risk rating scales, along with the terminology used, are aligned between its asset class management plans and its Enterprise Risk Management Standard.	Complete
25(1), (3) & (4) Customer and stakeholder relations – Provision of information to Customers and the general public – pamphlets at least annually with bills	 Non-Compliant (non-material)	2022/5.7.1-1: By 30 June 2023, Hunter Water must finalise, approve and implement the Standard Operating Procedure - Process-Communication of Regulated Information with Customer Bills.	Complete

a. This previous recommendation was related to the Drinking water clause 3.1.1 in the 2017-2022 licence which was identified in 2021. It is equivalent to the Drinking Water clause 15(1) of the 2022-2027 licence.

Sources: IPART, Hunter Water's compliance with its operating licence 2021-2022, Report to the Minister, June 2023; Bligh Tanner Pty Ltd, Hunter Water Audit 2023 – IPART, January 2024.

Appendices

A Compliance grades

Compliance grades		Description
	Compliant	<p>There is sufficient evidence to confirm that the public water utility has materially met the operating licence obligation during the audit period.</p> <p>No shortcomings have been identified.</p>
	Compliant (minor shortcomings)	<p>There is sufficient evidence to confirm that the public water utility has materially met the operating licence obligation during the audit period.</p> <p>Minor shortcomings have been identified that must be addressed. However, minor shortcomings are unlikely to have an impact on the public water utility meeting the objectives of the licence obligation.</p>
	Non-Compliant (non-material)	<p>There is sufficient evidence to confirm that the public water utility has not met the operating licence obligation or there is insufficient evidence to confirm that the public water utility has met the operating licence obligation during the audit period.</p> <p>The inconsistencies, inadequacies, or deficiencies pose a low or non-material risk to the public water utility meeting the objectives of the licence obligation.</p>
	Non-Compliant (material)	<p>There is sufficient evidence to confirm that the public water utility has not met the operating licence obligation or there is insufficient evidence to confirm that the public water utility has met the operating licence obligation during the audit period.</p> <p>The inconsistencies, inadequacies, or deficiencies pose a high or material risk to the public water utility meeting the objectives of the licence obligation.</p>
	No Requirement	<p>There was no requirement for the public water utility to comply with the licence obligation during the audit period</p>

Source: Extract from IPART, [Public Water Utility Audit Guideline](#), July 2023, Figure 4-1.

B Hunter Water's Statement of Compliance



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31 August 2023

Our Ref: BP2023-8-02/2.005

The Chief Executive Officer
Independent Pricing and Regulatory Tribunal of NSW
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Dear Mr Nicholls

**Statement of Compliance 2022-23
Submitted by Hunter Water Corporation (Hunter Water)**

Hunter Water reports as follows:

1. This statement documents compliance during 2022-23 with all obligations to which Hunter Water is subject by virtue of its Operating Licence.
2. Hunter Water prepared this report with all due care and skill to ensure that all information is true and correct, in full knowledge of conditions to which Hunter Water is subject under the *Hunter Water Act 1991* (NSW).
3. Schedule A provides information on all obligations with which Hunter Water did not comply during 2022-23.
4. Other than the information provided in Schedule A, Hunter Water has complied with all conditions to which it is subject.
5. This compliance report has been approved by the Managing Director and the Chair of the Board of Directors of Hunter Water.

Signed:

NAME: DARREN CLEARY
Title: **Managing Director**

Date: 31 August 2023

NAME: GREG MARTIN
Title: **Chair**

Date: 31 August 2023

Schedule A – Non-compliances identified during the reporting period

List of clauses breached, including a brief description of each licence clause	Describe:	
<p>Operating Licence Clause 7.1</p> <p>(1) Hunter Water must set the level of fees, charges and other amounts payable for its Services in accordance with:</p> <p>a) the terms of the licence;</p> <p>b) the Act; and</p> <p>c) any applicable maximum prices or methodologies for fixing maximum prices determined under the IPART Act.</p>	<p>I.</p> <p>II.</p> <p>III.</p> <p>IV.</p> <p>V.</p> <p>VI.</p>	<p>Date or period of non-compliance</p> <p>Nature and extent of non-compliance (including whether and how many customers have been affected)</p> <p>Results of any monitoring (where applicable)</p> <p>Reasons for non-compliance</p> <p>Remedial actions taken</p> <p>Actual/anticipated date of full compliance</p> <p>I. Non-compliance period was from July 2013 to May 2023.</p> <p>II. A total of six manufactured home estates were impacted resulting in a combined overcharge of \$1,588,940.</p> <p>III. N/A</p> <p>IV. The reason for the non-compliance was Hunter Water's classification of manufactured home estates as being residential for billing purposes. While Hunter Water considers that the impacted properties have the essential characteristics of residential homes, the Local Government Act specifies that land used for a manufactured home estate is not to be categorised as residential (Local Government Act 1993 (NSW) s516(2) & Local Government (General) Regulation 2021 (NSW) s121).</p> <p>V. A review to identify the number of impacted properties was undertaken using the register of land lease communities from the NSW Department of Fair Trading, which identified a possible 58 developments within our area of operations which may have been eligible. A more detailed review of this list was then conducted to confirm if each of these properties were eligible to be classified as manufactured home estates. The majority was ruled out almost immediately based on them either not being connected to our services or some already being classified as non-residential as they most likely started as caravan parks. Caravan parks are classified as non-residential for rating purposes under section 516(2) of the Local Government Act. Desktop title searches and physical property inspections were conducted to confirm property eligibility which identified the six properties. The classification of each identified property was amended and re-billed for the relevant period in accordance with the appropriate charging methodology. All overcharges have been refunded or credited to each impacted customer. Internal processes have been updated to ensure new manufactured home estate developments are appropriately rated as non-residential. An additional step of review by legal counsel has been added to our process of implementing new pricing methodologies at the beginning of each price determination.</p> <p>VI. Full compliance May 2023</p>

C Audit process

We apply our Compliance and Enforcement Policy in developing the annual audit scopes.² 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.

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 how effectively the requirements of the licence are met in practice. This year, we undertook these interviews remotely while field verification visits were undertaken by a combination of physical and virtual inspections.

C.1 2023 audit scope

We do not audit all licence clauses annually. Instead, we adopt a risk-based audit approach, 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.

The audit scope for Hunter Water's 2023 audit included obligations on:

- Licence context (Part 1) – requirements on pricing, availability of the licence and the map of the area of operations, and obligations to make Services available.
- Water conservation and water planning (Part 2) – requirements on water conservation and water planning activities, 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) – not audited.
- Organisational systems management (Part 5) – requirements on asset management system, environmental management system, and quality management system.
- Customers and stakeholder relations (Part 6) – requirements on providing information to customers, and customer, consumer and community consultation.
- Stakeholder cooperation (Part 7) – requirements on memoranda of understanding with Department of Planning and Environment, and Fire and Rescue NSW.

- Information and services for competitors (Part 8) – requirements on negotiation with WIC Act licensees and potential competitors.
- Performance monitoring and reporting (Part 9) – requirements on operational audits, reporting, and information provision for performance monitoring.

The audit scope is in Appendix D.

We also consulted with NSW Health, Fire and Rescue NSW (FRNSW), and Department of Planning and Environment (DPE) and sought public submissions to determine the scope of the audit. We received submissions from NSW Health, FRNSW, and DPE. We did not receive any public submissions.

We had regard to the following comments in finalising the audit scope:

- NSW Health suggested the following be considered:
 - Risk assessment framework - At some point in the future, Hunter Water may need to adjust the 'Guideline – Recycled Water Risk Assessments' due to work associated with its use in recycled water quality risk assessments for individual schemes or through ensuring alignment with any amendments made to the Enterprise Risk Management framework.
 - Drinking Water – Review the progress of the consolidation of Critical Control Point information within the Drinking Water Quality Management Plan; review the progress of improvements in reservoir vermin proofing, additional verification monitoring points and installation of a sample line to address water quality risk due to reservoir vermin ingress.
 - Recycled Water – Review the progress of the proposed upgrade at the Edgeworth Recycled Water scheme to enable expansion to irrigation of Lake Macquarie Council sporting fields; review the progress of ensuring that critical limits within the Recycled Water Management Plan align with programming within SCADA for the treatment system at the Morpeth Recycled Water scheme.
 - Site visit recommendations – Consider visit to Dungog water treatment plant and several water recycling plants (Cessnock, Morpeth, and Edgeworth).
- FRNSW noted that:
 - Hunter Water has met its licence obligations in relation to compliance with a Memorandum of Understanding with FRNSW.
 - Specifically, Hunter Water have provided pressure and flow performance data for all hydrants within their network. Hunter Water has also established a fire flow improvement program to improve the performance of areas of their network with low firefighting water flows where this is economically feasible. FRNSW have been consulted in prioritising these upgrade works. During the last year another stage of this program has been completed.
 - Other significant issues relevant to both organisations such as tracking water use through smart standpipes and streamlining communications have also been discussed.

- DPE noted that:
 - The Department and Hunter Water has revised the Memorandum of Understanding (MoU) in late 2022. The MoU better reflects the implementation phase of the Lower Hunter Water Security Plan (LHWSP) and also cover broader elements of water planning.
 - The Department requested an extension to the delivery date of the Hunter Water's Conservation Plan in June 2023. This was to facilitate alignment with the broader monitoring, evaluation, and review process for the LHWSP and to create efficiencies in reporting for all parties.
 - The revised MoU included clauses to reflect the Department's expectations for integrated water management, specifically the integration of drinking and wastewater assets in long term investment planning. The Hunter Water Long-term Integrated Investment Plan is due to the Department on 1 December 2024.
 - Hunter Water has engaged with the Department and has delivered on their commitment to release a discussion paper related to Integrated Water Cycle Management opportunities within the Lower Hunter.
 - The Department is satisfied that Hunter Water has acted in accordance with the Roles and Responsibilities Protocol during the audit period.

C.2 2023 audit plan

We engaged Bligh Tanner Pty Ltd to undertake the 2023 Hunter Water audit.

We held a project start-up meeting with the auditor on 5 September 2023 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 31 October 2023. 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 4 weeks prior to the commencement of audit interviews (for this audit, the auditor issued the questionnaire before the audit interviews commenced).
3. Review reports and documents provided by Hunter Water in response to the questionnaire.
4. Conduct interviews with Hunter Water staff as appropriate.^e
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.

^e The audit interviews and site visits were conducted in person.

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 a 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 auditor adopted a methodology consistent with IPART's *Public Water Utility's Audit Guideline* (July 2023). This guideline sets out IPART's requirements for an audit, ensuring 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.

Where appropriate, the auditor also sought guidance from *ISO 19011:2018 Guidelines for Auditing Management Systems* and from *ISO 55001:2014 Asset management - management systems - Requirements*.

Where we support an auditor's recommendation, we make a recommendation based on the auditor's recommendation. Our recommendations are summarised in Table 2 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. That is, 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 F.

The auditor conducted in-person audit interviews from 31 October 2023 to 2 November 2023. On 1 November 2023 the auditor also undertook a site visit to the following locations:

- Dungog Water Treatment Plant
- Dungog Recycled Water Plant
- Morpeth Recycled Water Plant
- Medowie Reservoir
- Hydrant repair at Lorn.

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

D 2023 audit scope

2023 operational audit scope Hunter Water Corporation

2023 audit scope

This document sets out the 2023 operational audit scope for Hunter Water Corporation (Hunter Water). Auditors should note any directions in the comments column of Table 2.

Audit period

The audit period is 1 November 2022 to 31 October 2023. We expect that interviews for the audit will be held in November 2023. However, this is subject to change depending on auditor availability.

Guidance for the auditor

The guidance for the auditor in Table 2 identifies the evidence we generally expect Hunter Water to provide to confirm that it has complied with each clause of the *Hunter Water Operating Licence 2022-2027* (licence).

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.

Outstanding audit recommendations

Table 3 outlines outstanding audit recommendations. The auditor is required to review these recommendations to determine progress. We report on outstanding audit recommendations separately within IPART's operational audit report to the Minister.

Statement of compliance

The utility is required to provide a Statement of Compliance (SC), signed by the CEO and a Board Member, by 1 September. The SC is an exception-based report that outlines any non-compliances with the licence clauses during the previous financial year. The financial year is different to the audit period. The SC also identifies what remedial action has been, or is being taken, with respect to these non-compliances.

The SC covers all licence clauses regardless of whether they are scheduled to be audited in that year. The SC may cause a late variation to the audit scope to allow non-compliances relevant to this audit period to be reviewed if necessary.

Interpretation

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

Field verification locations

Table 4 lists the locations that we have visited in previous audits. Together with Hunter Water, we will determine the locations that we will visit in the 2023 audit and advise the auditor before the field verification visits are scheduled to commence.

Table 1 Key

Requirement	Meaning
Audit/Internal IPART check	Audit/check clause in 2023 audit
SC	Audit of this clause not required in the 2023 audit unless the utility's Statement of Compliance identifies a non-compliance relevant to the audit period, or we become aware of other reasons to audit the clause.
NR	No requirement for audit.

Table 2 2023 Audit scope for Hunter Water

Licence clause	Operating Licence obligation	2023 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	2023 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.	Internal IPART Check	<p>There must be a map of Hunter Water's current area of operations available on its website.</p> <p>If there is a change to the area of operations during the audit period, Hunter Water should provide evidence to demonstrate that it updated the map within 30 calendar days of the change being gazetted.</p>	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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	Term of licence 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	This 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	This clause does not require audit.	
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. 	Internal IPART check	There should be a copy of the current operating licence on Hunter Water's website (free of charge). Hunter Water should provide a copy of the operating licence to free of charge when requested through the General Enquiry process.	Customer, Consumer, Community
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 	Audit	Hunter Water must provide evidence that the prices it charged for its services during the audit period were in accordance with relevant pricing determinations and legislation.	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
	(c) any applicable maximum prices or methodologies for fixing maximum prices determined under the IPART Act.			
8	End of term review			
8(1)	<p>IPART intends to review this Licence in its final year to investigate:</p> <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 audit period.	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives				
9	Notices							
9(1)	<p>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.</p> <table border="1"> <thead> <tr> <th>Hunter Water</th> <th>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		
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						
10	Licence authorisation							
10(1)	<p>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:</p> <p>(a) supplying water;</p> <p>(b) providing sewerage services; and</p> <p>(c) disposing of Wastewater.</p>	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.					

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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.	Audit	<p>Hunter Water must provide evidence that it provided Services (other than drainage Services) to a Property in its Area of Operations where a connection to its Water Supply System or Sewerage System was available, when requested, during the audit period.</p> <p>Hunter Water must provide evidence of the requests received during the audit period as well as evidence of how it actioned the requests.</p> <p>The auditor should consider sub-clause (3) which states that 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</p> <p>If no requests were received during the audit period, this clause is not triggered.</p>	Customer, Community, Public Health
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.	Audit	<p>Hunter Water must provide evidence that it provided Services (other than drainage Services) to a WIC Act licensee in its Area of Operations where a connection to its Water Supply System or Sewerage System was available, when requested, during the audit period.</p>	Competition

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>Hunter Water must provide evidence of the requests received during the audit period as well as evidence of how it actioned the requests.</p> <p>If no requests were received during the audit period, this clause is not triggered.</p> <p>The auditor should consider sub-clause (3) which states that 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</p>	
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	2023 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 during the audit period and that all relevant activities were carried out in accordance with the water conservation work program.</p>	Customer, Consumer, Environment, Community
12(2)	<p>Hunter Water must also:</p> <p>(a) maintain a water conservation work program for Water Treatment and Transmission consistent with the Current Economic Method; and</p> <p>(b) implement water conservation measures for Water Treatment and Transmission that have been assessed as economic under the Current Economic Method.</p>	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 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 during the audit period.</p>	Customer, Consumer, Community
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	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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 and IPART, a water conservation plan for the following 5 years (the 5-year Water Conservation Plan).	SC		
12(5)	The 5-year Water Conservation Plan must: <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. 	SC		
12(6)	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: <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; (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. <p><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></p>	SC		

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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.	Internal IPART Check	There should be a copy of the Current Economic Method and a plain English summary of the Current Economic Method on Hunter Water's website (free of charge). Hunter Water should provide this information free of charge when requested through the General Enquiry process.	Customer, Consumer, Community
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.	Internal IPART Check	Hunter Water must demonstrate that it reviewed and updated the economic level of water conservation using the Current Economic Method by 30 September 2023.	Customer, Consumer, Community
13(3)	Hunter Water may, with the Minister's written approval, update the Current Economic Method from time to time.	Internal IPART Check	Hunter Water must provide evidence that if it made updates to the Current Economic Method during the audit period, that it first obtained the Minister's written approval. If no changes were made to the Current Economic Method during the audit period, this clause is not triggered.	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. <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>	NR	Information clause – does not require audit	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
13(5)	Hunter Water must submit to the Minister the Current Economic Method revised in accordance with the written direction within: <ul style="list-style-type: none"> (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	<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 audit period, this clause is not triggered.</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.	
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	<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 audit period, this clause is not triggered.</p>	Customer, Consumer, Community
14	Water planning			
14(1)	Hunter Water must calculate the System Yield either: <ul style="list-style-type: none"> (a) in accordance with the memorandum of understanding with DPE referred to in clause 33; or (b) if no such memorandum of understanding is in effect, in accordance with a reasonable methodology that Hunter Water considers suitable. 	Audit	<p>Hunter Water must demonstrate that it calculated the yield in accordance with the MoU with DPE in clause 33, during the audit period.</p> <p>If the MoU was not in effect in the audit period, Hunter Water must demonstrate that it calculated the yield in accordance with another reasonable methodology, during the audit period.</p>	Environment, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
14(2)	Hunter Water must undertake long term water planning consistent with its memorandum of understanding with DPE referred to in clause 33.	Audit	Hunter Water must provide evidence that it undertook long-term water planning consistent with its MoU with DPE, during the audit period. This long-term planning includes implementing the Lower Hunter Water Security Plan and applying integrated water cycle management to Hunter Water's long-term strategic planning.	Environment, Community
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.	SC	Fixed deadline requirement for amending the MoU (only required to be audited in year of deadline).	
14(4)	The drought response plan referred to in clause 14(3) must: <ul style="list-style-type: none"> (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. 	SC		
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).	Audit	<p>IPART will contact NSW Health to comment on Hunter Water's performance against this clause.</p> <p>Hunter Water must provide evidence that it maintained and kept up-to-date a Drinking Water Quality Management System (DWQMS) that is consistent with the Australian Drinking Water Guidelines (ADWG), throughout the audit period.</p>	Health

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>The auditor should consider how the DWQMS has addressed elements 3, 4, 5, 6, 11 and 12 of the framework for the management of drinking water quality, as detailed in the ADWG.</p> <p>Hunter Water must provide evidence that it met any additional health-based requirements specified by NSW Health, during the audit period, that were reasonable.</p> <p>The auditor should consider clause 15(2), which states that in the event of inconsistency between the requirements specified by NSW Health and the ADWG, the requirements specified by NSW Health prevail.</p> <p>The auditor should check the recommendation 2021-1 relevant to this clause for completion (see Table 3).</p>	
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.	
15(3)	<p>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><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></p>	Audit	<p>IPART will contact NSW Health to comment on Hunter Water's performance against this clause.</p> <p>Hunter Water must provide evidence that it fully implemented its DWQMS throughout the audit period and that all relevant activities and operational practices were carried out in accordance with its DWQMS.</p>	Health

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>The auditor should check Hunter Water's implementation against elements 3, 4, 5, 6, 10, 11 and 12. When auditing against element 5, the auditor should also check that validation monitoring is undertaken in accordance with documented processes and procedures to ensure hazards are effectively controlled (element 9).</p> <p>Hunter Water must provide evidence to show that NSW Health was satisfied with Hunter Water's implementation of the DWQMS during the audit period.</p> <p>The auditor should check the following recommendations relevant to this clause for completion (see Table 3):</p> <ul style="list-style-type: none"> - 2022/3.1.2-1 - 2022/3.1.2-2 - 2022/3.1.2-3 - 2021-7. 	
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).	Audit	<p>IPART will contact NSW Health to comment on Hunter Water's performance against this clause.</p> <p>Hunter Water must provide evidence that it maintained and kept up-to-date a Recycled Water Quality Management System (RWQMS) that is consistent with the Australian Guidelines for Water Recycling (AGWR), throughout the audit period. The auditor should consider how the RWQMS addresses the elements 1, 2, 3, 4, 5, 6, 11 and 12 of the framework for the management of recycled water quality, as detailed in the AGWR.</p>	Health, Environment

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>Hunter Water must provide evidence that it met any additional health-based requirements specified by NSW Health during the audit period, that were reasonable.</p> <p>The auditor should consider clause 16(2), which states that in the event of inconsistency between the requirements specified by NSW Health and the AGWR, the requirements specified by NSW Health prevail.</p> <p>The auditor should check the recommendation 2022/3.2.1 -1 relevant to this clause for completion (see Table 3).</p>	
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.	
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>IPART will contact NSW Health to comment on Hunter Water's performance against this clause.</p> <p>Hunter Water must provide evidence that it fully implemented its RWQMS throughout the audit period and that all relevant activities and operational practices were carried out in accordance with its RWQMS.</p> <p>The auditor should check Hunter Water's implementation against elements 1, 2, 3, 4, 5, 6, 11 and 12</p> <p>Hunter Water must provide evidence to show that NSW Health was satisfied with Hunter Water's implementation of the RWQMS during the audit period.</p>	Health, Environment

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
				The auditor should check the recommendation 2022/3.2.2 -1 relevant to this clause for completion (see Table 3).
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).	SC		
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.	
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.	SC		
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.	
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	NR	Information clause – does not require audit.	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
	<p><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></p> <p>(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.</p>			
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).	SC		
18(2)	<p>A Property is taken to have experienced a Water Pressure Failure when:</p> <p>(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</p> <p>(b) Hunter Water identifies that the Property has experienced a Water Pressure Failure (including through its data collection systems and hydraulic analysis).</p>	NR	Information clause – does not require audit.	
18(3)	<p>A Property is not taken to have experienced a Water Pressure Failure if that Water Pressure Failure occurred only because of:</p> <p>(a) a Planned Water Interruption or Unplanned Water Interruption;</p> <p>(b) water usage by authorised fire authorities in the case of a fire; or</p> <p>(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.</p>	NR	Information clause – does not require audit.	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
18(4)	<p>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.</p> <p><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></p>	NR		
19	Dry Weather Wastewater Overflow Standard			
19(1)	<p>Hunter Water must ensure that, in each financial year, at least:</p> <p>(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</p> <p>(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,</p> <p>(the Dry Weather Wastewater Overflow Standard).</p>	SC		
19(2)	<p>A Property is taken to have experienced an Uncontrolled Wastewater Overflow when:</p> <p>(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</p> <p>(b) Hunter Water's systems identify that a Property has experienced an Uncontrolled Wastewater Overflow.</p>	NR	Information clause – does not require audit.	
19(3)	<p>For the purpose of the Dry Weather Wastewater Overflow Standard:</p> <p>(a) each Multiple Occupancy Property is considered to be one Property.</p> <p><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></p> <p>(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</p>	NR	Information clause – does not require audit	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
	(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.			
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	
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).	Audit	Hunter Water must provide evidence that it maintained an Asset Management System (AMS) consistent with <i>Australian Standard AS ISO 55001:2014 Asset management - Management systems - Requirements</i> , or other standard approved by IPART in writing, throughout the audit period. The auditor should consider how the AMS addresses the individual elements of the specified standard.	Customer, Consumer, Community, Health, Environment
21(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.	Audit	Hunter Water must provide evidence that it fully implemented its AMS throughout the audit period.	Customer, Consumer, Community, Health, Environment

Licence clause	Operating Licence obligation	2023 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 audit 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>The auditor should check the following recommendations relevant to this clause for completion (see Table 3):</p> <ul style="list-style-type: none"> - 2022/4.1.2-1 - 2022/4.1.2-2. 	
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).	Audit	<p>Hunter Water must provide evidence that it maintained an Environmental Management System (EMS) consistent with <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, throughout the audit period.</p> <p>The auditor should consider how the EMS addresses the individual elements of the specified standard.</p>	Environment
22(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Environmental Management System.	SC	<p>Hunter Water must provide evidence that it fully implemented its EMS throughout the audit period.</p>	Environment

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			The auditor should consider if Hunter Water conducted all relevant activities and operational practices during the audit 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.	
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).	Audit	Hunter Water must provide evidence that it maintained a Quality Management System (QMS) consistent with <i>Australian/New Zealand Standard AS/NZS ISO 9001:2016 Quality management systems – Requirements</i> , or other standard approved by IPART in writing throughout the audit period. The auditor should consider how the QMS addresses the individual elements of the specified standard.	Customer, Consumer, Health, Environment
23(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.	SC		
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.	Internal IPART Check	There should be a copy of the current Customer Contract on Hunter Water's website (free of charge).	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			Hunter Water should provide a copy of the Customer Contract free of charge when requested through the General Enquiry process.	
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.	Internal IPART Check	<p>Hunter Water should demonstrate that the most current version of the Customer Contract is available on its website and through the General Enquiry Process.</p> <p>Hunter Water should demonstrate that it published the amended Customer Contract on the date that a variation took effect.</p>	Customer, Consumer, Community
25	Provision of information to customers and the general public			
25(1)	<p>Hunter Water must prepare one or more communications that:</p> <p>(a) provide a brief explanation of the Customer Contract;</p> <p>(b) summarise the key rights and obligations of Customers under the Customer Contract;</p> <p>(c) refer to the types of account relief available for Customers experiencing payment difficulties;</p> <p>(d) outline the rights of Customers to claim a rebate and the conditions that apply to those rights;</p> <p>(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</p> <p>(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.</p>	SC	The auditor should check the recommendation 2022/5.7.1-1 relevant to this clause for completion.	
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		

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
25(3)	<p>Hunter Water must provide the communication or communications and any updates, free of charge:</p> <p>(a) on its website;</p> <p>(b) to all residential Customers, at least annually with their Bills via the method chosen by the Customer to receive their Bill; and</p> <p>(c) to any person upon request made through the General Enquiry Process.</p>	Internal IPART Check	<p>Hunter Water must provide evidence that it provided the communication(s) (and any updates) free of charge on its website throughout the audit period and also to any person who requested the communication(s) through the General Enquiry Process during the audit period.</p> <p>Hunter Water must provide evidence that it provided the information in clause 25(1) in a communication(s) to customers with their bills, via the method chosen by the customer to receive their bill, at least once in the audit period.</p>	Customer, Consumer, Community
25(4)	<p>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:</p> <p>(a) the types of account relief available for Customers experiencing payment difficulties; and</p> <p>(b) rights of Customers to claim rebates and the conditions that apply to those rights.</p>	Internal IPART Check	<p>Hunter Water must provide evidence that it published the information required in clause 25(4)(a) and (b) on its website during the audit period.</p> <p>Hunter Water must also provide evidence that it advertised this information to the public at least once during the audit period and provided this information in multiple media – i.e. advertisements were not limited to digital platforms.</p>	Customer, Consumer, Community
26	Customers			
26(1)	<p>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:</p> <p>(a) Clause 2.2 – Who is covered by this contract?</p> <p>(b) Clause 2.4 – When does this Customer Contract commence?</p> <p>(c) Clause 2.5 – When does this Customer Contract end?</p> <p>(d) Clause 2.6 – Variation of this Customer Contract</p> <p>(e) Clause 6 – What can I do if I am unable to pay my bill?</p> <p>(f) Clause 7.2(8) and (9) – Notice of restriction or disconnection for non-payment – when Hunter Water will not restrict or disconnect services</p> <p>(g) Clause 12.3 – Forms of redress</p>	NR	Information clause – does not require audit.	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
	(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.			
27	Assistance Options for Payment Difficulties and Actions for Non-Payment			
27(1)	Hunter Water must maintain and fully implement: (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	The auditor should check the recommendation 5.3.1-1 relevant to this clause for completion (see Table 3).	
27(2)	Hunter Water must provide information about the Assistance Options for Payment Difficulties and Actions for Non-Payment 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; (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		

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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.	
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	Fixed deadline requirement for developing the family violence policy (only required to be audited in year of deadline).	
28(2)	The family violence policy must, at a minimum, provide for: (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		
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		
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;	Audit	Hunter Water must provide evidence that it undertook customer, consumer and community consultation during the audit period to meet the purposes listed in clause 29(1).	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
	<p>(b) understand how its systems and processes can better support more effective, direct relationships with Consumers including residential tenants;</p> <p>(c) obtain advice and perspectives on the Customer Contract; and</p> <p>(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.</p>		From 1 July 2023 onwards, this consultation must be undertaken in accordance with the Community Consultation Procedure in clause 29(2).	
29(2)	<p>Hunter Water must:</p> <p>(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</p> <p>(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.</p>	Audit	<p>Hunter Water must provide evidence that it developed its Community Consultation Procedure by 1 July 2023.</p> <p>Hunter Water should provide evidence that it fully implemented the Community Consultation Procedure by 1 July 2023 and that from that date, all community consultation is conducted in accordance with the procedure.</p>	Customer, Consumer, Community
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.	Audit	<p>Hunter Water must provide evidence that until 30 June 2023, Hunter Water maintained and regularly consulted its customers using its Customer Advisory Group.</p> <p>Hunter Water is no longer required to maintain or consult through the Customer Advisory Group from 1 July 2023.</p> <p>This clause will expire with the implementation of the Community Consultation procedure on 1 July 2023.</p>	Customer, Consumer, Community
29(4)	<p>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:</p> <p>(a) on its website; and</p> <p>(b) upon request made through the General Enquiry Process.</p>	Internal IPART Check	<p>There should be a summary of the Community Consultation Procedure on Hunter Water's website (free of charge) - after 1 July 2023.</p> <p>Hunter Water should provide the summary free of charge when requested through the General Enquiry process.</p>	Customer, Consumer, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
29(5)	<p>Hunter Water must undertake a review of the Community Consultation Procedure to assess its effectiveness, including obtaining feedback from Customers, Consumers and the community.</p> <p>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).</p>	SC		
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)	<p>Hunter Water must provide information about internal Complaints handling free of charge:</p> <p>(a) on its website;</p> <p>(b) to all residential Customers, at least annually with their Bills via the same method chosen by the Customer to receive their Bill; and</p> <p>(c) to any other person upon request made through the General Enquiry Process.</p> <p>The information must explain how to make a Complaint and how Hunter Water will receive, respond to and resolve Complaints.</p>	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		
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	
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		

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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 (b) provide a copy of that communication, free of charge: <ul style="list-style-type: none"> (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. 	SC		
31(5)	<p>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.</p>	SC		
31(6)	<p>Updated information provided with Customer Bills can be provided in the next billing cycle after the 60 day period.</p>	NR	Information clause – does not require audit	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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</p> <p>(b) comply with,</p> <p>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>	SC	IPART will contact NSW Health to comment on Hunter Water's performance against this clause.	
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	
33	Memorandum of understanding with Department of Planning and Environment			
33(1)	<p>Hunter Water must:</p> <p>(a) use its best endeavours to maintain; and</p> <p>(b) comply with,</p> <p>a memorandum of understanding (which may be referred to as a roles and responsibilities protocol) with DPE in relation to:</p> <p>(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</p> <p>(d) the calculation and reporting of System Yield.</p> <p><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>	SC	IPART will contact DPE to comment on Hunter Water's performance against this clause.	
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	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
33(3)	<p>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:</p> <p>(a) how Hunter Water should address integrated water cycle management in Hunter Water's long-term planning; and</p> <p>(b) any other matters agreed by the parties.</p>	Audit	<p>IPART will contact DPE to comment on Hunter Water's performance against this clause.</p> <p>Hunter Water must provide evidence that:</p> <p>(1) it maintained a MoU with DPE for the entire audit period</p> <p>(2) if it did not maintain a MoU with DPE for the entire audit period, it used its best endeavours to do so</p> <p>(3) it complied with the MoU throughout the audit 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 DPE and any other relevant factors that impact Hunter Water's ability to establish a MoU).</p>	Community
34	Memorandum of understanding with Fire and Rescue NSW			
34(1)	<p>Hunter Water must:</p> <p>(a) use its best endeavours to maintain; and</p> <p>(b) comply with, a memorandum of understanding with FRNSW.</p>	SC	<p>IPART will contact FRNSW to comment on Hunter Water's performance against this clause.</p>	

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
	<i>[Note: Clause 34 does not limit the persons with whom Hunter Water may enter into a memorandum of understanding.]</i>			
34(2)	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: <ul style="list-style-type: none"> (a) develop the roles and responsibilities of the parties as they relate to each other; (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. 	NR	Information clause – does not require audit	
34(3)	The memorandum of understanding with FRNSW must require the maintenance of a working group and must provide that: <ul style="list-style-type: none"> (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): <ul style="list-style-type: none"> (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. 	Audit	<p>IPART will contact FRNSW to comment on Hunter Water's performance against this clause.</p> <p>Hunter Water must provide evidence that its MoU requires the maintenance of a working group that includes representatives from Hunter Water, FRNSW and other relevant organisations.</p> <p>The MoU must include the specifications/matters for the working group to consider, as set out in clause 34(3).</p>	Community
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 audit period in 'good faith'.	Competition, Community

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
			<p>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.</p> <p>Auditors may consider evidence:</p> <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) - 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>	
36	Publications of servicing information			

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
36(1)	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: <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 (e) key sources of information used to develop the servicing information where those sources are publicly available, (the Servicing Information). 	NR	Information clause – does not require audit.	
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.	SC	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: <ul style="list-style-type: none"> (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.	
37	Code of conduct			

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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.	SC		
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.	
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).	Internal IPART Check	Hunter Water must provide evidence that it cooperated with IPART and IPART's auditor during the operational audit undertaken during the audit period.	Customer, Consumer, Community, Health, Environment, Competition
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.	Internal IPART Check	Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to the information required to establish Hunter Water's compliance during the operational audits and within a reasonable time of receiving a request from IPART or the auditor. Hunter Water can refuse to respond to an information request within the time requested but it must demonstrate why IPART's or the auditor's request is unreasonable.	Customer, Consumer, Community, Health, Environment, Competition

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
38(3)	<p>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:</p> <p>(a) access any works, premises or offices occupied by Hunter Water;</p> <p>(b) carry out inspections, measurements and tests on, or in relation to, any such works, premises or offices;</p> <p>(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;</p> <p>(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</p> <p>(e) discuss matters relevant to the Operational Audit or any report on the Operational Audit with Hunter Water, including Hunter Water's Personnel</p>	Internal IPART Check	<p>Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to its premises and the information required to establish Hunter Water's compliance during the operational audits and within a reasonable time of receiving a request from IPART or the auditor.</p> <p>Hunter Water can refuse to respond to an information request within the time requested but it must demonstrate why IPART's or the auditor's request is unreasonable.</p>	Customer, Consumer, Community, Health, Environment, Competition
38(4)	<p>The activities in clause 38(3) may be carried out remotely:</p> <p>(a) with IPART's approval; or</p> <p>(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.</p>	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.	
39(2)	<p>Hunter Water must comply with all of its reporting obligations set out in the Reporting Manual, including in relation to:</p> <p>(a) water conservation and planning;</p> <p>(b) performance standards for water quality;</p> <p>(c) performance standards for service interruptions;</p> <p>(d) organisational systems management;</p> <p>(e) customer and stakeholder relations;</p> <p>(f) information and services for competitors; and</p> <p>(g) performance monitoring and reporting, including:</p> <p>(i) IPART performance indicators; and</p> <p>(ii) the National Water Initiative Performance Indicators.</p>	Internal IPART Check	<p>Hunter Water must provide evidence that it complied with all of the reporting obligations triggered during the audit period, as set out in the Reporting Manual.</p> <p>The auditor should check the recommendation 2021-21 relevant to this clause for completion (see Table 3).</p>	Customer, Consumer, Community, Health, Environment, Competition

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
39(3)	Hunter Water must maintain sufficient record systems to enable Hunter Water to report accurately in accordance with clause 39(2).	Internal IPART Check	Hunter Water must provide evidence that it maintained adequate record systems to enable it to comply with all of the reporting obligations triggered during the audit period.	Customer, Consumer, Community, Health, Environment, Competition
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.	Internal IPART Check	<p>Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to the information required to establish Hunter Water's compliance during the operational audits and within a reasonable time of receiving a request from IPART or the auditor.</p> <p>Hunter Water can refuse to respond to an information request within the time requested but it must demonstrate why IPART's or the auditor's timeline is unreasonable.</p>	Customer, Consumer, Community, Health, Environment, Competition
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.	Internal IPART Check	<p>Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to the information required to establish Hunter Water's compliance during the operational audits and within a reasonable time of receiving a request from IPART or the auditor.</p> <p>Hunter Water can refuse to respond to an information request within the time requested but it must demonstrate why IPART's or the auditor's timeline is unreasonable.</p>	Customer, Consumer, Community, Health, Environment, Competition

Licence clause	Operating Licence obligation	2023 audit requirement	Guidance for the auditor	Operating Licence objectives
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.	Internal IPART Check	<p>Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to the information required to establish Hunter Water's compliance during the operational audits and within a reasonable time of receiving a request from IPART or the auditor.</p> <p>Hunter Water can refuse to respond to an information request within the time requested but it must demonstrate why IPART's or the auditor's timeline is unreasonable.</p>	Customer, Consumer, Community, Health, Environment, Competition
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.	Internal IPART Check	<p>Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to the information required to establish Hunter Water's compliance during the operational audits, subject to confidentiality agreements.</p>	Customer, Consumer, Community, Health, Environment, Competition
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.	Internal IPART Check	<p>Hunter Water must provide evidence that, during the audit period, it provided IPART or IPART's auditor access to the information required to establish Hunter Water's compliance during the operational audits, subject to confidentiality agreements.</p>	Health, Community

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

Table 3 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 2023 ^a)	Guidance for 2023 audit
2022/3.1.2-1	Drinking water clause 15(3)	By 31 October 2023, Hunter Water must consolidate information on CCPs to, as far as possible, one reference point, to improve maintenance of currency and avoid discrepancies of information e.g. by adding a reference to a CCP document (as the point of truth) within the Drinking Water Quality Management System or Drinking Water Quality Management Plan.	New recommendation from the 2022 operational audit.	Auditor to check for completion.
2022/3.1.2-2	Drinking water clause 15(3)	By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, Hunter Water must set an evidence-based Key Performance Indicator (KPI) for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water's ability to satisfy its licence and other obligations.	New recommendation from the 2022 operational audit.	Auditor to check for completion.
2022/3.1.2-3	Drinking water clause 15(3)	By 30 June 2023, Hunter Water must ensure that the audit report for the Hunter Water Distribution Network has been completed and the audit finalised	New recommendation from the 2022 operational audit.	Auditor to check for completion.
2022/3.2.1-1	Recycled water clause 16(1) & (2)	By 30 September 2023, Hunter Water must set an evidence based KPI for currency of Veolia documents used under the operations and maintenance contract. This KPI shall be set at an achievable level (commensurate with document criticality) that does not compromise Hunter Water or Veolia's ability to satisfy its licence and other obligations.	New recommendation from the 2022 operational audit.	Auditor to check for completion.
2022/3.2.2-1	Recycled water clause 16(3)	By 30 September 2023, Hunter Water must develop a system to ensure that reagents used for recycled water analysis have not passed their expiry date.	New recommendation from the 2022 operational audit.	Auditor to check for completion.
2022/4.1.2-1	Asset management system clause 21(2)	By 30 September 2023, Hunter Water must set up a system to ensure that its likelihood, criticality rating and risk rating scales, along with the terminology used, are aligned between its asset class management plans and its Enterprise Risk Management Standard	New recommendation from the 2022 operational audit.	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 2023^a)	Guidance for 2023 audit
2022/4.1.2-2	Asset management system clause 21(2)	By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, set an evidence-based KPI for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water's ability to satisfy its operating licence and other obligations	New recommendation from the 2022 operational audit- same as recommendation 2022/3.1.1-2.	Auditor 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.	New recommendation from the 2022 operational audit.	Auditor to check for completion,
2022/5.7.1-1	Provision of information to customers and the general public clauses 25(1), (3) & (4)	By 30 June 2023, Hunter Water must finalise, approve and implement the Standard Operating Procedure - Process-Communication of Regulated Information with Customer Bills	New recommendation from the 2022 operational audit.	Auditor to check for completion.
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.	At the time of the 2022 operational audit, the auditor found that Hunter Water had communicated the details of planned improvements to address the water quality component of this recommendation to NSW Health. Hunter Water was in the process of linking the ongoing review of the Central Coast Council agreement with the outcomes of water transfer risk assessments. MidCoast Council was involved in Hunter Water's risk assessment process. Hunter Water was reviewing its progress with this recommendation is reviewed monthly. At the time of the audit, the auditor found Hunter Water's approach to be sound.	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 2023 ^a)	Guidance for 2023 audit
2021-7	Drinking water clause 3.1.2 (2017-2022 licence) Equivalent to drinking water clause 15(3) of the 2022-2027 licence.	By 1 November 2022, Hunter Water must review the CCP Limit Tables and ensure that the limits and the logic are accurate and match SCADA	At the time of the 2022 operational audit, the auditor found that Hunter Water had made significant progress to review and document the CCP limits so that they match Supervisory Control and Data Acquisition (SCADA) system. Some inconsistencies remained between the SCADA information and the CCP Tables that needed to be resolved to complete this recommendation.	Auditor to check for completion. This recommendation is due outside of the audit period, but should be completed by the time of the audit interviews.
2021-21	Performance monitoring and reporting clause 6.2.1 (2017-2022 licence) Equivalent to Reporting clause 39(2) of the 2022-2027 licence.	By 30 September 2022, Hunter Water should set up a process to ensure that IPART, as well as NSW Health, are advised of any proposed significant changes to the Drinking Water and Recycled Water Quality Systems.	At the time of the 2022 operational audit, the auditor found that Hunter Water completed the recommendation for drinking water but had not completed the process to notify IPART for proposed significant changes for recycled water.	Auditor to check for completion.

^a Hunter Water is required to provide a report on progress by 30 June 2023.

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

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

Table 4 Previous field verification locations for Hunter Water





Audit year	Location	Facility
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
	Elmore Vale	Reservoir
2016	Tomago Sandbeds	Borefields
	Lemon Tree Passage	Water Treatment Plant
	Karuah	Wastewater Treatment Plant and the reuse enterprise
2015	Boulder Bay	Wastewater Treatment Plant
	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	



Audit year	Location	Facility
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

E Audit findings for IPART checked conditions

Table E.1 Audit findings for IPART checked conditions

Licence clause	Licence requirement	Compliance grade ^a
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.	
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. 	
13(1)	Hunter Water must make: <ul style="list-style-type: none"> a. a copy of the Current Economic Method; and b. a plain English summary of the Current Economic Method, available free of charge: <ul style="list-style-type: none"> c. to any person upon request made through the General Enquiry Process; and d. on Hunter Water's website. 	
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.	
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: <ul style="list-style-type: none"> 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.	
24(2)	Hunter Water must make a copy of the Customer Contract 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. 	
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.	
25(3)	Hunter Water must provide the communication or communications and any updates, 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 method chosen by the Customer to receive their Bill; and c. to any person upon request made through the General Enquiry Process. 	
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. 	

Licence clause	Licence requirement	Compliance grade ^a
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: <ol style="list-style-type: none"> on its website; and upon request made through the General Enquiry Process. 	
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: <ol style="list-style-type: none"> this Licence (including the Customer Contract); the Reporting Manual; and any matters required by the Minister in writing, (Operational Audit). 	
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.	
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: <ol style="list-style-type: none"> access any works, premises or offices occupied by Hunter Water; carry out inspections, measurements and tests on, or in relation to, any such works, premises or offices; 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; 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 discuss matters relevant to the Operational Audit or any report on the Operational Audit with Hunter Water, including Hunter Water's Personnel 	
39(2) ^b	Hunter Water must comply with all of its reporting obligations set out in the Reporting Manual, including in relation to: <ol style="list-style-type: none"> water conservation and planning; performance standards for water quality; performance standards for service interruptions; organisational systems management; customer and stakeholder relations; information and services for competitors; and performance monitoring and reporting, including: <ol style="list-style-type: none"> IPART performance indicators; and the National Water Initiative Performance Indicators. 	
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.	
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.	
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.	

Licence clause	Licence requirement	Compliance grade ^a
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.	
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.	

a.  - Compliant,  - No requirement.

b. Licence clause 39(3) was originally in the "IPART check" audit scope but was later removed because we are not able to audit this clause by undertaking a desktop audit.

F Auditor's report



BLIGH TANNER

Hunter Water Audit 2023

IPART

Date: 18 January 2024

DOCUMENT	Hunter Water Audit 2023		
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EXECUTIVE SUMMARY

Operational Audit

Bligh Tanner was engaged by IPART to audit Hunter Water's compliance with its licence conditions. The audit was conducted in October and November 2023, and this report outlines the audit outcomes.

The scope of the audit was determined by IPART (Licence conditions to be audited) and is a risk based assessment of compliance. In addition to the compliance with the licence 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. The culture of the organisation is one of excellence and the Hunter Water vision is embedded throughout the organisation. Audit highlights include the demonstration of cross functional understanding, where all auditees interviewed demonstrated their understanding not only of their role, but also of the implications that their decisions have on other parts of the organisation. It is specifically noted 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. However, in some specific instances, where the license condition requires full implementation of, for example the drinking water management system, this is assessed against the requirements of the 12 element framework of the Australian Drinking Water Guidelines (ADWG). The audit therefore assessed compliance with the components of the ADWG separately. And in some cases, the audit outcome was either a compliant minor shortcoming or non conformance non material grading. The audit outcomes of all audited components are then considered in context of the overall license requirement. That is, a non-compliant grading against one component does not necessarily result in an overall non-compliant grading for the broader licence condition. .

For example, there was a non-compliant non-material finding made against the implementation of asset inspections, where, in the opinion of the auditor, the current inspections are not sufficiently robust to ensure reservoir integrity. That specific finding is against a backdrop of compliant assessments for all other aspects of the management system. As a result, the grading for the overall licence condition is assessed as a whole, and was considered Compliant – Minor Shortcoming as it does not affect the overall implementation of the management system at a material level there is a low risk of not being fully implemented to the point that it would not meet the licence obligation.

Recommendation Findings

The following table identifies where the outcome of actions against the previous audit recommendations have not been completed.

Recommendation	Audit Question	Auditor interpretation
<p>Licence Obligation 27(1): Hunter Water must maintain and fully implement:</p> <p>(a) a payment difficulty policy that assists residential Customers experiencing payment difficulties to better manage their current and future Bills;</p> <p>(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;</p> <p>(c) procedures for identifying the circumstances under which Hunter Water may disconnect or restrict a supply of water to a Customer’s Property; and</p> <p>(d) provisions for self-identification, identification by community welfare organisations and identification by Hunter Water of residential Customers experiencing payment difficulties,</p> <p>(Assistance Options for Payment Difficulties and Actions for Non-Payment)</p>		
<p>2022/5.3.1-1</p> <p>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.</p>	<p>Provide the policies and statements for payment assistance and actions for non-payment including evidence of when these were adopted.</p>	<p>The policy has been provided, and the review date was September 2022. The review by date in the document control box was not updated in the file, but the new review schedule supersedes this date.</p> <p>It is noted that the policy has not been signed and is not published on the Hunter Water website.</p> <p>Recommendation: This action should remain open until the new policy is signed and published.</p>

Recommendation	Audit Question	Auditor interpretation
<p>Licence Obligation: 23(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.</p>		
<p>2022/3.1.2-1, and 2022/4.1.2-2</p> <p>By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, Hunter Water must set an evidence-based Key Performance Indicator (KPI) for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water’s ability to satisfy its licence and other obligations.</p>		<p>These items were not completed as required under the previous recommendations. However, in discussion with Hunter Water it was determined that it would be better to incorporate the findings into a single recommendation raised against the implementation of the Quality Management System. Therefore, these items have been referenced to the combined audit finding: 2023-4-23(2) which has been graded as a non material non conformance,</p>

Non Compliant Non Material Findings

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

Reference Number	Licence Clause	Audit Question	Auditor interpretation
Licence 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.			
2023-1-16(3)	S16(3)	Are end user controls implemented appropriately? (Element 1 Regulatory and Formal Arrangements, Element 3, Operational Controls)	<p>End User controls are a key component of the recycled water management system to ensure that the risk to the public is minimised. The current end user controls are defined in the customer contract. During the audit of the Coorrei farm (Dungog Recycled water scheme) it was observed that irrigation is occurring right up to the fence line (ML Field Photo 21) which is publicly accessible. The end user agreement identifies a requirement for a 25-30m buffer. Identification of green irrigated pasture to the fence line is evidence that this particular control was not being implemented.</p> <p>While this specific aspect of the management system is not implemented effectively, the risk to public health is likely to be low, and therefore does not affect the overall implementation of the management system at a material level.</p> <p>Recommendation 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.</p>
2023-2-16(3)	S16(3)	Do the internal audits confirm that the end user controls are implemented appropriately? (Element 11 Review and Audit)	<p>Auditing of end users is required to ensure end user controls are implemented effectively. A number of audit reports were provided that demonstrate that internal audits are occurring.</p> <p>However, on detailed auditing, the Dungog farm audits (Coorrei) demonstrate that while the farmer is being asked about his procedures, this does not currently align with the end user requirements in the RWMP. Specifically, the audit report indicates that the farmer withholds stock for 3 days, when the end user agreement is a minimum of 5 days.</p> <p>While this specific aspect of the management system is not implemented effectively, audits are undertaken and when the end user requirements are next reviewed, the withholding period may not be deemed necessary. Therefore this is viewed as a technical non-compliance, and not material.</p> <p>Recommendation 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.</p>
Licence Obligation: 21(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.			
2023-3-21(2)	S21(2)	Are the requirements of the AMS implemented? Medowie Reservoir - Field Audit ISO 55002 9.1.2.2 Asset Portfolio, 9.1.2.4	<p>Asset Integrity - reservoir vermin proofing installation. The AMS implementation requires the ability to assess and inspect an asset to ensure the asset integrity has not been compromised. During the inspection evidence was provided of the inspection checklist app which detailed relevant information required to check on vermin proofing and integrity of the reservoir. However, it was noted that access to the top of the reservoir (approx. 15m) only gives the inspector one point of inspection. It was confirmed that the remaining vermin proofing is inspected from the ground with use of binoculars. The ability to check for the integrity of the vermin proofing on the reservoir requires close and direct visual inspection. Although the current method from the ground is not ideal in fully inspecting the vermin proofing integrity, the method still better than no</p>

Reference Number	Licence Clause	Audit Question	Auditor interpretation
		Asset Management, 9.1.3 Evaluation of the performance of the asset portfolio and asset management processes	<p>inspection at all. Furthermore, inspections within the reservoir using underwater drones are undertaken which can further demonstrate whether the vermin proof integrity has been compromised</p> <p>The deficiency identified for this non-compliant (non-material) finding poses a low and non-material risk to the PWU meeting the objectives of the licence obligation as there is still an inspection for integrity being undertaken however the effectiveness of this method could be significantly improved.</p> <p>Recommendation 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.</p>
Licence Obligation: 23(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Quality Management System.			
2023-4-23(2)	S23(2)	Previous recommendations 2022/3.1.2.1 (2), and 2022-4.1.2-2 required a KPI for document currency linked to document criticality. Was this achieved and are documents all reviewed on schedule?	<p>The previous recommendation were not met, with no KPI established. However, the issue is broader, with documents across multiple management systems missing the review dates. It was identified by Hunter Water that there are 247 documents that are beyond the review date.</p> <p>This is therefore considered a noncompliance with the implementation of the quality management system that requires documents to be maintained and reviewed on the stated schedule.</p> <p>The Management system has recently been recertified through an external audit. While retaining currency of documents is essential to a strong management system, the documents audited were relevant, and the issue is that they have not been formally reviewed. As there were previous recommendations that have not yet been met, this is now considered a non-compliance, but as there is no impact on public health, it is non-material.</p> <p>Recommendation 2023-4-23(2): Overdue documents (and documents coming up for review) should be rated, 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.</p>

Compliant Minor Shortcoming Findings

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

Reference Number	Licence Clause	Audit Question	Auditor interpretation
Licence 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.			
2023-5-15(3)	S15(3)	Provide a list of any reports made to NSW Health related to exceedances of critical control points or for the exceedance of any health guideline value in the ADWG. (Element 6 Incident and Emergency Response)	<p>Hunter Water are required to notify NSW Health of drinking water incidents. Notifications are made to NSW Health through both the liaison meeting and through quarterly exception reports. The evidence provided includes details of the identification of bird remains demonstrating an integrity breach in Nov 2022 Elermore Vale Reservoir.- This was reported to NSW Health in the quarterly meeting.</p> <p>The NSW Health website identifies the critical control points that are required for other providers across the State, and this includes a CCP for reservoir integrity. While Hunter Water is Licensed differently to Council drinking water providers, the auditor is of the opinion that the need to report this type of event should be raised with NSW Health to determine whether this should be reportable to NSW Health as an event.</p> <p>As it does not affect the overall implementation of the management system at a material level and is otherwise compliant, this element (a sub component of the licence condition) is considered to be a minor shortcoming.</p> <p>Recommendation 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</p>
2023-6-15(3)	S15(3)	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>Element 3 of the ADWG – Critical Control Points.</p> <p>The Dungog WTP Critical Operation Point for the turbidity of the Clear Water Tank (CWT) outlet should be reviewed. If the turbidity in the clear water tank was above 1 NTU, then disinfection may be compromised. While there is an action alarm at 0.8 NTU, the Hunter Water Critical limit of 5 NTU does not support the provision of safe water as well as it should. Further, the reporting level to NSW health of 5 NTU is beyond the point where such elevated turbidity should, in the opinion of the auditor, be considered an event that may have public health consequences as per the criteria for notification (HW2006-2906/4/6.008), as, at this point, such a high turbidity would most likely indicate a filtration failure.</p> <p>However, this CCP is supplementary to the appropriate filtration CCP. Therefore, if considered necessary, then the limits should be reviewed, however, as this is not the only turbidity CCP (and not at the critical barrier managing turbidity), it is considered to be a minor shortcoming.</p> <p>Recommendation 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 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.</p>

Reference Number	Licence Clause	Audit Question	Auditor interpretation
2023-7-15(3)	S15(3)	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>Element 3 of the ADWG – Critical Control Points.</p> <p>The “Basis for critical limits” document identifies that the Ct is a critical limit, and the CCP table has reference to the Ct as the trigger for reporting, however the Ct limit is not explicitly stated in the CCP. Evidence was provided relating to an <i>E. coli</i> detection demonstrating that there is a continuous online SCADA calculation of Chlorine contact time.</p> <p>This is considered a shortcoming in that the documentation does not fully match the controls in place. As it does not affect the overall implementation of the management system at a material level and is otherwise compliant, this element (a sub component of the licence condition) is considered to be a minor shortcoming.</p> <p>Recommendation 2023-7-15(3): Review the CCP table and explicitly incorporate the Chlorine Contact time (CT) as a critical limit to match the alarm in SCADA</p>
2023-8-15(3)	S15(3)	Demonstrate how processes have been validated (specifically for CCPs) and demonstrate how this aligns to CCP monitoring and process control.	<p>For filtration the CCP table that indicates the shutdown is operator selectable up to 0.3 NTU. While the 0.3 NTU is still protective of public health, it potentially degrades the achievable performance of a direct filtration plant which the auditor considers to not be ideal.</p> <p>Recommendation 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.</p>
Licence 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.			
2023-9-16(3)	S16(3)	<p>Element 4 Identify the operational monitoring that is required to ensure that processes are effective.</p> <p>Provide relevant procedures to support operations</p> <p>Site inspection identified that not all required monitoring was undertaken as identified.</p>	<p>There was evidence identified that on one occasion the Dungog operator (who identified that he was on sick leave for the day) did not collect samples on the Tuesday, which is one of the nominated 2 days for grab sampling. Given the plant is staffed throughout the week, it would be appropriate for the grab samples that are missed on one day to be made up for on another day rather than simply not taking them.</p> <p>The issue was identified as infrequent, and not systemic, therefore has been assessed as compliant minor shortcoming, rather than non-compliant. As it does not affect the overall implementation of the management system at a material level and is otherwise compliant, this element (a sub component of the licence condition) is considered to be a minor shortcoming.</p> <p>Recommendation 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 work day after the day on which they would otherwise be taken.</p>
2023-10-16(3)	S16(3)	Element 4 Identify the operational monitoring that is required to ensure that processes are effective.	<p>It was identified that the CCP limits in SCADA match Figure 7-1 in the RWMP, but are inconsistent (tighter) than the CCP limits in Table 7-1</p> <p>Recommendation 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.</p>

Reference Number	Licence Clause	Audit Question	Auditor interpretation
Licence Obligation: 21(2) Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.			
2023-11-21(2)	S21(2)	<p>Resourcing structure of the AMS for planned activities (i.e. internal functions/teams vs outsourcing)</p> <p>ISO 55002 7.1 Resources, 8.3 Outsourcing</p>	<p>The standard requires that current resources are mapped to required resources for planned activities. The AM competencies Model v5.08 details a role matrix by asset management principles however it does not clearly identify and articulate the internal vs external resourcing under the AMS.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p> <p>Recommendation 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.</p>
2023-12-21(2)	S21(2)	<p>Asset critical lists including safety critical including associated risk with failure including financial and non-financial</p> <p>ISO 55002 9.1.2.2 Asset Portfolio, 9.1.3 Evaluation of the performance of the asset portfolio and asset management processes</p>	<p>Safety critical devices not included in the asset criticality. Asset criticality relies on civil, electrical, and mechanical engineering disciplines and consideration to process safety should be included as the system progresses. It is noted that there is pressure vessel standards and management which indicates process safety is considered at that asset level, however Cessnock WWTW has an anaerobic digester and cogenerator which contains processes that require process safety principles implemented and safety critical devices identified i.e. biogas management.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p> <p>Recommendation 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.</p>
2023-13-21(2)	S21(2)	<p>ISO 55002 10.2 Nonconformity and corrective action</p> <p>Asset failure investigation report including root cause analysis</p>	<p>The RW cross connection May 2023 Internal Review Report provides incident details and rectification however did not provide details on root cause analysis.</p> <p>The Wallsend water main leak lessons learnt report was comprehensive but did not contain a root cause analysis.</p> <p>The incident investigation procedure contains the requirement to undertake root cause analysis using either Taproot or ICAM ""if required". It is recognised that root cause analysis can be completed in a workshop process identifying the root cause analysis. This has clearly been applied during these incidents and therefore consideration on including a "root cause workshop" in the incident investigation process would still meet the appropriate process for determining the root cause of an asset failure.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p>

Reference Number	Licence Clause	Audit Question	Auditor interpretation
			Recommendation 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.

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.



Simon Clements



Michael Lawrence



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GLOSSARY

TERM	DEFINITION
AMP	Asset Management Plan
CCP	Critical Control Point
COP	Critical Operation Point
DWQMS	Drinking Water Quality Management System
IMS	Integrated Management System
IPART	Independent Pricing and Regulatory Tribunal
NTU	Nephelometric Turbidity Unit
PHU	Public Health Unit
PNO	Private Network Operator
QMS	Quality Management System
RWMP	Recycled Water Management Plan
UVT	Ultraviolet Transmittance
WIC Act	<i>Water Industry Competition Act 2006</i>
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant



1.1 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 licence for Hunter Water and the Independent Pricing and Regulatory Tribunal arranges for audits of compliance with the licence conditions.

1.1.1 Auditors

Bligh Tanner was engaged for the 2023 Audit. The auditors are listed in the table below:

Auditor	Grade	Scope	Auditor Number	Expiry
Michael LAWRENCE	Lead WQMS Auditor	Framework for Drinking Water Quality Framework for Recycled Water Quality Management and Use	129230	20/8/2024
Simon CLEMENTS	Lead EMS, QMS Auditor	ISO14001:2015 Audit ISO 9001:2015 Audit	462895	17/10/2024
	Lead Specialist Management Systems Auditor	ISO19011: 2018 Audit Quality Management Systems Environmental Management Systems		

1.2 Planning

The Licence 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 Agenda for the Kick-off meeting is included in Appendix 2. The agenda identified that NSW Health had suggested several sites as appropriate for the audit.

In preparation for the audit, Bligh Tanner requested that Hunter Water provided some preliminary information, including the Drinking Water Management System Manual, Environmental Management Plan 2021 – 2024, Corporate Recycled Water Management Plan, Strategic Asset Management Plan, Dungog WTP Facility Plan, Manual – Integrated Management System, and the Edgeworth, Morpeth and Cessnock WWTW Recycled Water Management Plans.

These documents were reviewed and provided the basis for developing questions in the written audit questionnaire. Bligh Tanner prepared an audit questionnaire that was provided to firstly IPART for review, then to Hunter Water.

Hunter Water then 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.

All evidence was subsequently audited in either the original office-based audit, was brought up by Hunter Water in interviews, or a combination of both. Where additional evidence that was not originally provided was

presented, the auditors have captured this evidence photographically to expedite the audit process, and definitively capture evidence.

1.2.1 Site Selection

IPART contacted NSW Health who indicated that the locations they recommended for consideration were the Dungog WTP, Cessnock Morpeth and Edgeworth Recycled Water Plants. Based on the initial review of these documents, Bligh Tanner in conjunction with IPART considered that the Morpeth Recycled Water Plant that has Dual Reticulation, as well as the Dungog Recycled Water Plant and Dungog Water Treatment Plant were appropriate based on the risk to consumers, and the logistics of auditing plants that were geographically dispersed. In addition Bligh Tanner indicated that we wished to audit a Reservoir that had been subject to integrity concerns, and if possible audit live works within the reticulation network. As a result, the Medowie Reservoir was audited as was a leaking hydrant repair at Lorn.

1.3 Audit Methodology

In conjunction with Hunter Water, an audit schedule was developed based on the licence 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 licence condition (or condition of the specific management system) were met.

The auditors assessed the information provided and assigned a grade to the compliance with the Licence condition. Where a Licence 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, Licence conditions such as 15(1) 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).

It was therefore possible for a sub-element (sub-component) of a system to have a grading other than Compliant, but if in the opinion of the auditor the Licence condition was met, the overall grading was considered compliant.

1.3.1 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” for a 1 day, 1 week and 1 month time period. It was requested to overlay specific contextual information. This allowed the auditor to understand what “normal performance” looked like. This 1 month period was challenged, and then on site, the operators were again asked to show the plant performance for the current month of operation. Where there was no evidence that the CCP limits in the relevant management plan were breached for either the preprepared graph, or the on site graph, 1/6th of the entire year’s data was considered sufficient. Where there was evidence of parameters drifting, the operator was asked to scroll a back through 3 or 4 more months, meaning that in some cases at least 1/3 of all online data was sampled.

This methodology ensured a representative sample of information was audited. In the case of filtered water turbidity, the audit also requested information from the Grahamston WTP which was not one of the schemes audited on site, but provided a wider audit of compliance.

1.4 Gradings

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

Grade	Colour Coding in Report
Compliant	C
Compliant – Minor Shortcoming	C-MS
Non-Compliant Non-material	NCNM
Non-Compliant Material	NCM

2. PREVIOUS AUDIT RECOMMENDATIONS

2.1 Section Findings

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

2.1.1 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.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Demonstrate the water supply agreements with MidCoast and Central Coast Councils have been reviewed and any revision adopted.</p>	<p>Hunter Water has previously updated IPART on this recommendation and identified a target completion date of December 2023. Hunter Water reported to IPART that discussions are well advanced with both Central Coast and MidCoast Council. Hunter Water's Legal team has been briefed by the Business Customer Group on the status of the review.</p> <p>Central Coast Council - No change to the agreement is required and a new Operations and Maintenance Manual has been created (outside of the agreement) by the Customer Delivery Group to provide an additional layer of reporting and response protocol and this is in the process of being signed off by both parties.</p> <p>MidCoast Council - A deed variation to the agreement focusing on water quality reporting is being prepared, terms have been agreed by both parties. Next engagement will be to provide the deed for review to MidCoast Council.</p>	<p>Evidence was provided during interview showing the completed operations and maintenance manual.</p> <p>There is ongoing engagement with Mid Coast, and terms for a deed have been agreed, but this is not fully drafted.</p> <p>The new Operation and Maintenance Manual Bulk Water Transfers between Central Coast Council and Hunter Water was provided on 18/1/2024 along with</p>	<p>Central Coast agreement was reviewed and is suitable. Further, the Operation and Maintenance Manual demonstrates that this is complete. With respect to Central Coast Council, this recommendation is compliant.</p> <p>MidCoast Council agreement review has progressed; however the deed of variation has not yet been created. Hunter Water considers the current agreement as valid, legal and ongoing. Hunter Water has indicated that there is ongoing formal and informal engagement is occurring to improve identification of infrastructure (mapping) and water quality reporting, so the intent of the recommendation is being met. As Hunter Water has indicated a deed of variation with MidCoast Council is required for water quality reporting, this finding remains open until that is completed.</p> <div> </div> <p>ML Office Photo 10</p>	<p>C-MS</p>

2.1.2 Recommendation 2021-7

By 1 November 2022, Hunter Water must review the CCP Limit Tables and ensure that the limits and the logic are accurate and match SCADA

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
This action will be audited on site to ensure that any SCADA alarms and shutdowns align with the documented CCP limits.	The current CCP Limit Tables for Dungog WTP and Grahamstown WTP are provided in the evidence.	15.3-R2021-7.001 - HW2014-778 15 2.005 Dungog WTP CCP Limit Table 15.3-R2021-7.001 - HW2014-778 15 2.006 Grahamstown WTP CCP Limit Table	Hunter Water indicated that the CCP limits were checked and aligned through the CCP alarm improvement project referenced in the next finding. The CCP tables for Dungog WTP were compared to the values in SCADA. These were identified as being the same.	C

2.1.3 Recommendation 2022/3.1.2.1

By 31 October 2023, Hunter Water must consolidate information on CCPs to, as far as possible, one reference point, to improve maintenance of currency and avoid discrepancies of information e.g., by adding a reference to a CCP document (as the point of truth) within the Drinking Water Quality Management System or Drinking Water Quality Management Plan.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Provide the consolidated information on CCPs and demonstrate how this has removed discrepancies within the DWQMS.	Consolidated information on CCPs has been integrated into the DWQMS manual as section 2.3. The development of the consolidated information on CCPs was documented in a file note. It recommends progressing the implementation of the CCP alarm improvement project and also simplifying CCP Limit Tables in order to further minimise chance of discrepancies. These two initiatives were discussed in the 2022 IPART Operating Licence audit report, the audit findings for 2021-7 (pg. 76) - "Next steps are to simplify the CCP information in SCADA, through SCADA blocks which will corral all the CCP information in one place, as the point of truth. Hunter Water is also commencing a review process for the CCP tables to improve information readability".	DWQMS Manual 15.3-R2022-3.1.2-1.001 HW2015-1303 31.001 File note - Consolidated information on CCPs	The CCP table is included in the DWMS Manual consistent with the recommendation requirement. Along with the evidence above of aligned CCPs at the Dungog WTP, this demonstrates the recommendation has been met	C

2.1.4 Recommendations 2022/3.1.2-2, 2022/3.2.1-1 and 2022/4.1.2-2

By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, Hunter Water must set an evidence-based Key Performance Indicator (KPI) for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water’s ability to satisfy its licence and other obligations.

Note: These items were not completed as required under the previous recommendations. However, in discussion with IPART and Hunter Water it was determined that it would be appropriate to incorporate all findings into a single recommendation raised against the Quality Management System. Therefore, these items have been combined into the new recommendation: **2023-4-23(2)**

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Demonstrate a KPI has been set, and how the KPI is being tracked in accordance with the original intent.</p>	<p>From a DWQMS perspective the key documents are being maintained as demonstrated by the currency of the DWQMS manual, DWQMP, CCP Limit Tables etc. The Water Quality Monitoring Plan is identified as being due for review however there is a note indicating the frequency of review is being clarified (i.e. it may have been set in the system to be reviewed too frequently). More broadly across Hunter Water there are a number of overdue Integrated Management System documents remaining a key focus. There is a long term document control corrective action project underway with phased activities scheduled to address the issue. The project has been revised to include the development of KPI's based on document critically and several project steps in progress. Progress is as shown in the attached documentation.</p>	<p>15.3-R2022-3.1.2-2-001 - Phase 2 - DCS Improvement Progress Report - 2023-09 15.3-R2022-3.1.2-2-002 - IMS Document Control Improvements Project - Tollgate Presentation 15.3-R2022-3.1.2-2-003 - Critical Documents Overdue - TRIAL REPORT</p>	<p>While progress has been made, and the DWMS critical documents are generally reviewed in accordance with the review frequency, no KPI was set, and the number of overdue documents is ~247 across the Integrated Management System. Therefore, these actions are not complete. For tracking purposes, these items have been combined into a new recommendation</p>	<p>Refer to 2023-4-23(2)</p>
	<p>This recommendation has been partially addressed, with the number of overdue Integrated Management System documents remaining a concern. There is a long term document control corrective action project underway with phased activities scheduled to address the issue. The project has been revised to include the development of KPI's based on document critically and several project steps in progress. Progress is as shown in the attached documentation. This recommendation should remain open.</p>	<p>Above documents and 15.3-R2022-3.1.2-2-002 - IMS Document Control</p>		<p>Refer to 2023-4-23(2)</p>

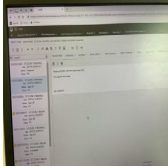



2.1.5 Recommendation 2022/3.1.2-3

By 30 June 2023, Hunter Water must ensure that the audit report for the Hunter Water Distribution Network has been completed and the audit finalised

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Provide the completed audit report for Hunter Water Distribution Network. Identify when the document was finalised	Audit carried out by Water Futures (Dan Deere) in March 2023, report provided as evidence.	15.3-R2022-3.1.2-3.001 - HW2015-1343 26 4.037 Report - Drinking Water Quality Management System 2nd party audit 2022 - Hunter Water Distribution	The report, dated 30 June 2023 was provided.	C

2.1.6 Recommendation 2022/3.2.2-1

By 30 September 2023, Hunter Water must develop a system to ensure that reagents used for recycled water analysis have not passed their expiry date.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Demonstrate the system adopted to ensure reagents are within date. (Will also be audited on site)	Tasks are scheduled within Veolia's VAMS system to check reagents on a monthly basis.	16.3-R2022-3.2.2-1 - PM schedules 16.3-R2022-3.2.2-1 - Example WO	The system has been adopted as indicated, with work orders to check the reagents. When audited on site, all reagents that were used at the Dungog and Morpeth WWTPs were in date <i>with the exception of the pH 10 buffer that is discussed in the RWMS license clause</i> . This was considered an isolated example, and therefore the grading is still compliant.   ML Field Photo 10 ML Field Photo 11   ML Field Photo 42 ML Field Photo 43	C

2.1.7 Recommendation 2022/4.1.2-1

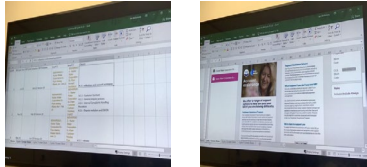
By 30 September 2023, Hunter Water must set up a system to ensure that its likelihood, criticality rating and risk rating scales, along with the terminology used, are aligned between its asset class management plans and its Enterprise Risk Management Standard

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Demonstrate that alignment between the terminology and risk between the asset class plans and the enterprise risk management standard are completed.</p> <p>Note that this is still within the period due. Will review post 30/9/23</p>	<p>The Hunter Water Asset Class Plan (ACP) template is currently being reviewed and feedback will be sought from key stakeholders from across the business. Training will be provided to our people on the changes that have been incorporated to ensure ACPs are aligned to the Enterprise Risk Management (ERM) and updated accordingly. This recommendation is on track for completion by the due date.</p>	<p>21.2-R2022-4.1.2-1 Reservoirs ACP - March 2023</p> <p>21.2-R2022-4.1.2-1 Template - Asset Class Plan</p>	<p>The Asset class plans were updated in March 2023 as per evidence provided by Hunter Water and aligns to the Enterprise Risk Standard.</p>	C

2.1.8 Recommendation 2022/5.7.1.1

By 30 June 2023, Hunter Water must finalise, approve and implement the Standard Operating Procedure - Process-Communication of Regulated Information with Customer Bills

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide the procedure including evidence of when it was adopted</p>	<p>The SOP for this process was implemented on 28/06/2023. A copy of it has been provided as evidence. HW is happy to take the auditors through the steps of this process and how it is implemented within the business as further evidence during the interview stage of the audit.</p>	<p>25.1,3&4-R2022-5.7.1-1 - Procedure - Bill Insert Process (FINAL)</p>	<p>The procedure was explained and was approved on 28/6/2023 – although does not have a TRIM number.</p> <p>Regulated information now provided both as inserts or digitally. This is also supported by information on the website.</p> <p>Communication campaign links (based on customer surveys and engagement), identifying better communication methods. Includes radio, SMS targeting, and connecting with other services. Pop up shops.</p> <p>The evidence demonstrates that Hunter Water is viewing prior audit outcomes broadly, and implementing actions that are more holistic. The different cycles have different information including some advertising, and regulatory compliance items.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			 <p>ML Office Photo 20 ML Office Photo 21</p>	

2.1.9 Recommendation 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.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide the policies and statements for payment assistance and actions for non-payment including evidence of when these were adopted.</p>	<p>Hunter Water's Standard Non-Payment/Collections and our Customer Support (Vulnerability) documents have been presented here as evidence. These documents were last reviewed in September 2022 and are viewed by the business as remaining relevant to the market conditions of today. Customers experiencing hardship is a constant priority for Hunter Water and we would be glad to show the audit team the range of improvements/changes we have made to the way we manage this issue during the interview process.</p>	<p>27.1-R2022-5.3.1-1 - HW2022-737.002 Policy - Policy - Customer Support Policy (Vulnerability)File Name</p> <p>27.1-R2022-5.3.1-1 - Policy - Standard Non - Payment Collections</p> <p>SE-007 Customer contract summary</p>	<p>The policy has been provided, and the review date was September 2022. The review by date in the document control box was not updated in the file, but the new review schedule supersedes this date.</p> <p>It is noted that the policy has not been signed and is not published on the Hunter Water website.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p> <p>Recommendation: This action should remain open until the new policy is signed and published.</p>	C-MS

2.1.10 Recommendation 2021-21

By 30 September 2022, Hunter Water should set up a process to ensure that IPART, as well as NSW Health, are advised of any proposed significant changes to the Drinking Water and Recycled Water Quality Systems.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide evidence of the process implemented to advise IPART and NSW Health of significant changes to the DWQMS or RWQMS.</p>	<p>The process to ensure that significant changes are identified and reported is discussed within the Corporate Recycled Water Quality Management Plan, Recycled Water Quality Management Spreadsheet, NSW Health and Hunter Water Liaison meeting agenda and Recycled Water Committee Meeting agenda. The process mirrors that of the drinking water processes.</p>	<p>39.2-R2021-21-001 - Agenda - RWQ Steering Committee March 2023 39.2-R2021-21-002 - Corporate Recycled Water Quality Management Plan 39.2-R2021-21-003 - DWQMS Manual 39.2-R2021-21-004 - Hunter Water NSW Health Liaison Committee Agenda - June 2023 39.2-R2021-21-005 - Screenshot of unscheduled significant change RWQ management spreadsheet</p>	<p>There is a standing item in steering committee and NSW Health Liaison meetings to discuss significant changes to the DWMS and RWMS. Changes to the documents need to be approved by NSW Health, and there have not been significant changes that needed to be informed to IPART. The auditees demonstrated an understanding of the need to inform IPART when changes are made.</p>	<p>C</p>

3.AUDIT OUTCOMES

3.1 Auditable Licence Conditions

The auditable licence obligations are detailed below.

3.1.1 S7(1)

Condition:

Hunter Water must set the level of fees, charges and other amounts payable for its Services in accordance with:

- (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

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>7.1.1 Provide information on the water supply service charges levied on customers for the 22/23 and 23/24 FYs and how this was determined.</p> <p>Demonstrate how the water usage charge was calculated including the number</p>	<p>Hunter Water's prices are determined by IPART for a 5-year period. The current Price Determination is effective from 1 July 2020 (Determination attached as evidence). Once a Determination is in effect, Hunter Water must typically index its prices annually for inflation, as required in the Determination. This annual update process and the calculation methodology is demonstrated in the Price Schedule for each year (e.g. Model - Price schedule 2022-23 FINAL.xlsx) - prices are indexed by the March-to-March CPI. There is also a process to provide IPART with the proposed annual prices, so that IPART can</p>	<p>HW's IPART Price Determination:</p> <p>07.1.1-007 - final-determination-hunter-water-maximum-prices-from-1-july-2020-16-june-2020_2022-23</p> <p>07.1.1-005 - 7.1.1 to 7.1.5 - Model - Price schedule 2022-23 FINAL.xls</p> <p>07.1.1-002 - 7.1.1 to 7.1.5 - Email - Gribble to Thompson - RE Pricing compliance - 2022-23 charges.msg</p>	<p>The evidence provided by Hunter Water was assessed and demonstrated that on request from IPART, that information was provided to demonstrate the updated charges. In 2023 IPART subsequently confirmed the charges were consistent with their calculations.</p> <p>A procedure was provided that outlines the process for updating pricing in the Velocity system including testing. The process was further explained in the interview and confirmed that the system is robust. In respect to drought response days, these have not been required to date. The billing system is set</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
of drought response days.	confirm they are indexed correctly (see emails re: Pricing Compliance).	07.1.1-004 - 7.1.1 to 7.1.5 - Email - Thompson to Gribble - RE Pricing compliance - 2022-23 charges.msg 2023-24 07.1.1-006 - 7.1.1 to 7.1.5 - Model - Price Schedule 2023-24_FINAL.xlsx 07.1.1-001 - 07.1.1-001 - 7.1.1 to 7.1.5 - Email - Gribble to McBride_RE Pricing compliance - 2023-24 charges.msg 07.1.1-003 - 7.1.1 to 7.1.5 - Email - McBride to Gribble_RE RE Pricing compliance - 2023-24 charges.msg 07.1.1-008 - IPART Pricing Evidence 7.1 - Updating rates into Velocity billing system	up in a way that will allow this to be included in the billing when this is required.	
7.1.2 Demonstrate how sewerage service and usage charges align with the IPart determination, and provide specific examples.	Refer to evidence attached showing examples of sewer service and usage charges raised during the audit period.	07.1.2.001 - Non Res 22_23 07.1.2.002 - House 22_23 07.1.2.003 - Strata 22_23 07.1.2.004 - Non Res 23_24 07.1.2.005 - House 23_24 07.1.2.006 - Strata 23_24	The bills provided show the various types of charges that are levied for different connections. The bills show consistency with the IPART determination. E.g. the sewer access charge plus the deemed usage was the price charged for the residential customers. The relevant attributes of each connection are incorporated into GIS and into the velocity billing system.	C
7.1.3 Demonstrate how stormwater drainage service charges align with the IPart determination and provide specific examples.	Refer to evidence attached showing various examples of drainage charges raised during the audit period.	07.1.3,001 - 7.1.3 Drainage Non Residential Large 2022 07.1.3,002 - 7.1.3 Drainage Non Residential Large 2023 07.1.3,003 - 7.1.3 Drainage Non Residential Medium 2022 07.1.3,004 - 7.1.3 Drainage Non Residential Medium 2023 07.1.3,005 - 7.1.3 Drainage Non Residential Small 2022	The bills provided are consistent with the IPART determination. This is reliant on the attributes recorded for the property in GIS and into Velocity.	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
		07.1.3,006 - 7.1.3 Drainage Non Residential Small 2023 07.1.3,007 - 7.1.3 Drainage Non Residential Very Large 2022 07.1.3,008 - 7.1.3 Drainage Non Residential Very Large 2023 07.1.3,009 - 7.1.3 Drainage Residential flats units 2022 07.1.3,010 - 7.1.3 Drainage Residential flats units 2023 07.1.3,011 - 7.1.3 Drainage Residential House 2022 07.1.3,012 - 7.1.3 Drainage Residential House 2023		
7.1.4 Demonstrate how trade waste charges align with the IPart determination, with specific focus on any customers where the BOD and/or TSS concentration strength exceeded the agreed load limit. In such cases, demonstrate the methodology for the TV and BV calculation.	Annual trade waste fees include all sampling costs for Major trade waste deeds. Charges for high-strength is applied for both BOD and TSS. The incentive charge involves charging Customers for their load of BOD or TSS, based on whichever load is higher. The domestic strength concentrations used in the calculation for high strength charges are BOD - 240mg/L and TSS - 290mg/L	2022/23 folder - 2 x bill samples & 2023/24 folder - 2 x bill samples 2022/23 07.1.4.001 - 2022-2023 - Account ID 1553510000 - 12480823_Statement_1000001345649 07.1.4.002 - 2022-2023 - Account ID 6083822727 - 12207486_Statement_1000001149399 2023/24 07.1.4.003 - 2023-2024 - Account ID 0021024943 - 13253478_Statement_1000001880689 07.1.4.004 - 2023-2024 - Account ID 9154810000 - 13451420_Statement_1000002019624	Water bills have been provided for the audit. While the trade waste charge is shown in the bills, the calculation methodology is not. Hunter Water indicated that this was a deliberate choice due to the charging methodology being complex. The methodology was described and allows for an average strength of BOD and TSS for the generation of the charge. Ongoing sampling is used for both billing and compliance and performance.	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>7.1.5 Demonstrate how miscellaneous charges are determined.</p>	<p>To address the direct audit question: "Demonstrate how miscellaneous charges are determined", Hunter Water's 2019 Price Proposal (Technical Paper 9) provides a detailed explanation of each charge, including the breakdown of activities and components of each charge - that is, describes how the charges are determined.</p> <p>The determined Misc. Charges are indexed annually for CPI, in accordance with the rounding rules described in Hunter Water's Final Price Determination. The nominal charges are calculated in Hunter Water's Model Price Schedule (see e.g.: 7.1.1 to 7.1.5 - Model - Price Schedule 2023-24_FINAL.xlsx). These charges are also checked with IPART each year (see: Pricing Compliance emails with IPART).</p> <p>To demonstrate that the charges are levied in accordance with the Determination, several example transactions are provided (see: Miscellaneous Pricing Evidence.docx):</p> <ul style="list-style-type: none"> - Example 1 – Fee 28 - Development Assessment application \$352.00 raised on 20/03/2023 - Example 2 – Fee 26 – Revision of Development Assessment \$330.00 raised on 14/04/2023 - Example 3 – Fee 12 – Statement of available pressure \$104.00 raised on 23/06/2023 - Example 4 – Fee 16 – Building Plan Stamping \$21.85 raised on 18/04/2023 - Example 5 – Fee 1 (b) Conveyancing Certificate (Electronic) – auto raised fee - \$11.40 on 23/06/2023 and Fee 1(b) Conveyancing Certificate electronic raised \$11.40 on 23/06/2023 - Example 6 – Fee 14 - Application to connect Water & Sewer services (combined application) \$58.30 on 19/06/2023 	<p>1. See evidence provided for 7.1.1 above.</p> <p>07.1.5.001 - Backup response draft for 7.1.5</p> <p>07.1.5.002 - Miscellaneous Pricing Evidence</p> <p>07.1.5.003 - Technical Paper 09 - Pricing of other services</p>	<p>The explanation by Hunter Water coupled with the documentary evidence provided demonstrates compliance against this criteria.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<ul style="list-style-type: none"> - Fee 14 raised \$58.30 for above service order on 19/06/2023 - Fee 16 – Building Plan Stamping \$23.35 raised on 01/09/2023 - Fee 28 - Development Assessment application \$376.00 raised on 01/09/2023 			

3.1.2 S11(1)

Condition:

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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Provide evidence of connection to water or sewerage services when requested.	Evidence is available via a Hunter Water bill (account for usage and service charges) and also via a Velocity report for connections that have not reached the end of a billing cycle. This Velocity report can be filtered by meter size to determine and separate out sewer only connections.	<p>11.1.1.001 - 13444289_Statement_1000002013754</p> <p>11.1.1.002 - Service Order Performance_completed connection applications</p>	Hunter Water explained and demonstrated how the Property portal is used for capturing applications for assessment. These may be considered by multiple teams. Extensive evidence was provided of rapid processing and connection. 189 applications were provided, of which 165 have been completed 14 were beyond the internal 10 day KPI.	C
Identify the number of connection requests for water and sewerage services (separately) and provide evidence of the number of connections made. Where the request is still to be completed,	The number of connection requests can be determined via the Property Self Service Portal (PSSP) searching for Connection Applications. These applications are submitted by the customer to commence the connection process. The number of connection applications can be provided by running a report in the PSSP. These services can be filtered in the PSSP to determine	11.1.2.001 - Connection Applications submitted	The number of connections was provided from April to Oct 2023. Hunter Water explained how this evidence aligned to the other audit evidence, and this demonstrated that connections are progressed expediently.	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
identify where in the approval process the request currently sits.	if the applications are for water and/or sewer connections.			
Identify any conditions that were imposed in relation to requests for connections, including their justification.	Applications to connect to Hunter water infrastructure which are for development over 2 units per lot or are commercial/industrial in nature are required to submit an Hydraulic Assessment application prior to connection. This letter outlines the requirements, service and meter sizes required to suit their development. This is identified on our website and also can be identified by Hunter water officers while processing the connection application. The Hydraulic Assessment application is submitted via the PSSP and once processed a letter is issued to the customer with the requirements.	Refer to: 11.1.3.003 - Summary_hydraulic Application 11.1.3.002 - Letter - Hydraulic Assessment Letter 2022-1198 (810084) 11.1.3.001 - Application for Connection	The evidence provided identifies requirements for a site that was assessed as a high hazard site. The requirements for backflow prevention in such a circumstance is reasonable.	C

3.1.3 S11(2)

Condition:

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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Identify if any request was made under this condition. If a request was made, provide evidence of how the request was actioned.	Hunter Water’s intension is to provide to the Private Network Operator (PNO) a written response within 60 calendar days as per Section 50 of the Hunter Water Act. Any subsequent commercial negotiations would take place thereafter to meet the mutual needs of the PNO and Hunter Water. The procedures associated with this process are currently under review and will be included in the scope of the newly formed Business Development Team, established to build a framework to support service applications from WICA Utilities operating in our area of operations. Hunter Water has also engaged the services of external advisors to support the development of the framework.	Refer Clauses 11.2.1 and 35.1 Assessment of water and sewer requirements procedure: 11.2.2.001 - HW2015-1469 15 4.001 Procedure - ART - Application for Development Services - F	There is a development services application for <i>Water Industry Competition Act 2006</i> (WIC) Licensee - although no new applications for a number of years. Evidence has been provided for agreements with WIC Act licensees that demonstrate access was provided, and all conditions imposed appear to be consistent with other customers e.g. trade waste limits and backflow prevention requirements.	C

3.1.4 S12(1)

Condition:

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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide the water conservation strategy and specifically Identify the actions from the work program that were due to be implemented during the audit period. Provide a summary of the actions undertaken to implement these actions, including commentary on those actions that may not have been completed.</p>	<p>Hunter Water submitted the Water Conservation Annual Report to IPART on 1 September 2023. A copy of the report is provided and Section 2.2 and 2.3 details the works completed and those works that were not undertaken. The Operating Licence provides for clauses 12(1) and 12(2) to be superseded by submission of a 5-year Water Conservation Plan that is due to IPART and DPE on 1 Dec 2023. A number of other reports are referenced in the Annual Report or were completed in order to undertake appropriate works. These reports include Bulk supply and source operating strategy, Review of Hunter Water Floating Solar Project Report and file note.</p>	<p>12.1.1.001 - Appendix - Appendix A - GFS_economic analysis_summary_v0.1 12.1.1.002 - Appendix - Appendix B - Frontier Economics Review of Hunter Water Floating Solar Project 12.1.1.003 - Procedure - Bulk Supply - Version 2.0 CURRENT 2.1.1.004 - Report - HWC Water Conservation Annual Report - 2022-23</p>	<p>The annual report for water conservation was provided and this detailed the activities that are incorporated in the whole of government Lower Hunter Water Security Plan. These include leak detection, District metered areas, pressure management.</p>	<p>C</p>

3.1.5 S12(2)

Condition:

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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Demonstrate how water conservation for the Water Treatment and Transmission is consistent with the Current Economic Method</p>	<ul style="list-style-type: none"> • The Current Economic Method for the audit period was the ELWC methodology approved by IPART in 2019. • Hunter Water submitted its proposed methodology on 24 January 2019 – see email to IPART. • IPART provided conditional approval on 8 March 2019 - see email and letter from IPART. • Revised ELWC methodology submitted by Hunter Water on 20 August 2019 – see email, letter and report. <p>The 2023 Water Conservation Annual Report details the work we completed from July 2022 to June 2023 and the 2022 Water Conservation Annual Report details the work we said we would complete during the 2022/23 financial year.</p>	<p>12.2.1.001 - Appendix - Appendix B - Frontier Economics Review of Hunter Water Floating Solar Project</p> <p>12.2.1.002 - Email - (Turner to IPART) - Hunter Waters proposed ELWC methodology - 24 January 2019</p> <p>12.2.1.003 - Email - IPART (Aposhian) to Turner - Conditional approval of ELWC methodology</p> <p>12.2.1.004 - Letter - IPART to Hunter Water - conditional approval of ELWC - Hugo Harmstorf - 7 March 2019</p> <p>12.2.1.005 - Email - Turner to Luke (IPART) - Hunter Waters ELWC methodology - updated for zero option value</p> <p>12.2.1.006 - Letter - Signed - to Liz Livingstone (IPART) - Revised Economic Level of Water Conservation - 12 Aug 20 and</p> <p>12.2.1.007 - Report - Hunter Water - ELWC Methodology - IPART approved - August 2019 v2.0</p> <p>12.2.1.008 - Report - HWC Water Conservation Annual Report - 2022-23</p> <p>12.2.1.009 - Report - Hunter Water - Water Conservation Annual Report 2021-22 Plain English Summary of ELWC on our website https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Other-Reports/Other-Reports/Economic-level-of-water-conservation-methodology-summary.pdf</p>	<p>The audit identified that Hunter Water has an approved economic level of water conservation and has further identified innovative approaches that were proposed and approved by IPART. Evidence was provided of an economic assessment of the proposed floating solar project for Grahamstown Dam. Hunter Water is also currently reviewing design values in water and wastewater codes with respect to ensuring conservation activities are consistent with these codes.</p>	<p>C</p>

3.1.6 S14(1)

Condition:

Hunter Water must calculate the System Yield either:

- (a) in accordance with the memorandum of understanding with DPE referred to in clause 33; or
- (b) if no such memorandum of understanding is in effect, in accordance with a reasonable methodology that Hunter Water considers suitable.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide evidence that the system yield has been calculated as per the MoU or the methodology applied if the MoU was not in effect.</p> <p>Provide a copy of the MoU between Hunter Water and DPE.</p>	<p>The methodology is defined in annexure 2 within the MoU. Programs are being progressed as per the LHWSP. A Monitoring and Evaluation Report is under development and will be provided to DPE Water at the end of October. A copy of this can be provided.</p> <p>Integrated Water Management is part of the LHWSP. Through the development and implementation of the LHWSP IWM principles are being implemented.</p> <p>The long-term integrated investment plan is due for submission by 1 December 2024.</p>	<p>14.1.1.001 - HW2016-622 16 11.010 Agreement - DPE and HW MOU for long term water planning - SIGNED</p>	<p>Evidence provided demonstrates the system yield has been calculated as per the MoU and is current for the audit period.</p>	C

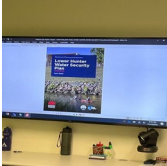
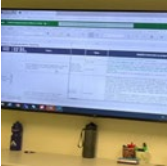
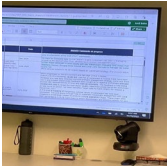
3.1.7 S14(2)

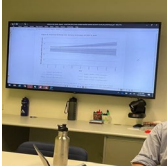
Condition:

Hunter Water must undertake long term water planning consistent with its memorandum of understanding with DPE referred to in clause 33.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide evidence of long term water planning in accordance to the MoU.</p> <p>Provide evidence the Lower Hunter Water Security Plan has begun implementation.</p> <p>Provide evidence that IWCm has been applied to the Hunter Water long term strategic planning.</p>	<p>Programs are being progressed as per the LHWS. A Monitoring and Evaluation Report is under development and will be provided to DPE Water a the end of October. A copy of this can be provided.</p> <p>Integrated Water Management is part of the LHWS. Through the development and implementation of the LHWS IWM principles are being implemented.</p> <p>The long-term integrated investment plan is due for submission by 1 December 2024.</p> <p>Hunter Water IWM and liveable communities report provided.</p>	<p>The MER input spreadsheet is currently under development and can be viewed during the audit interview at the following location. If required an approved copy can be made available once finalised.</p> <p>https://environmentnsw.gov.sharepoint.com/:x:/r/sites/MST_DPE_Metro_WaterUtilitiesBranch/_layouts/15/guestaccess.aspx?e=4%3AbaFaKS&at=9&share=EXByPIF_2S9AkHWpHKBR_kEBFx3mZ0k3CYqHVMvtDYj4ig</p> <p>14.2.3.001 - HW2017-440 22 12.001 Report - Hunter Water IWM and liveable communities Draft Report 1.4</p>	<p>Lower Hunter water security plan (LHWS) contains relevant long term water planning in accordance to the MoU. The Monitoring and Evaluation Report (MER) contains actions towards the program and objectives of the LHWS and is tracked well with open feedback and commentary between Hunter Water and DPE.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>SC photo 1</p> </div> <div style="text-align: center;">  <p>SC photo 2</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>SC photo 3</p> </div> <p>The Monitoring and Evaluation Report (MER) contains actions towards the program and objectives of the LHWS and demonstrates that the LHWS has begun implementation.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>IWCM is applied to the LHWS. IWCM actions are prioritised then implemented as actions through MER. Community engagement on the Willingness to Pay (WTP) and Willingness to Accept (WTA) various programs are incorporated into the long term planning. The LHWS also includes climate change forecast modelling in accordance to Bureau of Meteorology methods. Furthermore the Hunter Water IWM and liveable communities Draft Report provides IWCM principals to the planning process.</p>  <p>SC photo 4</p>	

3.1.8 S15(1)

Condition:

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).

Overall Grading for condition:

Compliant

3.1.9 S15(3)

Condition:

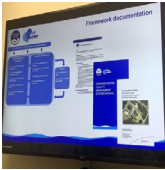
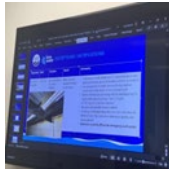
Hunter Water must fully implement the Drinking Water Quality Management System and carry out all relevant activities in accordance with the Drinking Water Quality Management System, and to the reasonable satisfaction of NSW Health.

Overall Grading for condition:

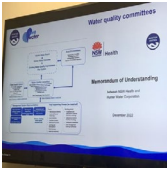
Compliant – Minor Shortcoming

Reason for grading: The clause is assessed against the full requirements of the Australian Drinking Water Guidelines. As there were some minor shortcomings identified against specific ADWG components, the final grading is also Compliant- minor shortcoming.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Provide a list of any reports made to NSW Health related to exceedances of critical control points or for the exceedance of any health guideline value in the ADWG. Where the provided DWMS manual has hyperlinks to internal documents, provide the linked document (where the document relates to the auditable elements) - for example, most documents listed in Table 4-1 of the	<p>Water quality exception reports made to NSW Health and Liaison meeting minutes from December 2022, March 2023 and June 2023 are provided in the evidence.</p> <p>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>For element specific discussion and documents please refer to relevant responses in the questionnaire.</p>	<p>15.1.1.001 - HW2006-1448 41 14.008 Report - Quarterly to NSW Health - Drinking Water and Recycled Water Quality Exceptions April to June 2023</p> <p>15.1.1.002 - HW2006-1448 41 14.006 Report - Quarterly to NSW Health - Drinking Water and Recycled Water Quality Exceptions Jan to Mar 2023</p> <p>15.1.1.003 - HW2006-1448 41 14.003 Report - Quarterly to NSW Health - Drinking Water and Recycled Water</p>	<p>The documents provided include the Hunter DWQMS Manual, policy and monitoring plan. The Veolia DWQMP was also provided. Other documents are specifically included as evidence for later questions.</p> <p>Notifications are made to NSW health through both the liaison meeting and through quarterly exception reports. The evidence provided includes details of the identification of bird remains demonstrating an integrity breach in Nov 2022 Elermore Vale Reservoir.- This was reported to NSW health in quarterly</p>	C-MS

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>DWQMS manual will be required.</p>	<p>The DWQMS manual was reviewed during the audit period and summaries of changes are provided in the evidence.</p> <p>More broadly, the DWQMS is implemented in accordance with the ADWG Framework for Management of Drinking Water Quality (the twelve elements) including continual review and improvement. For relevant discussion and evidence of review please refer to discussion and evidence provided against specific elements.</p>	<p>Quality Exceptions - October to December 2022</p> <p>15.1.1.004 - HW2006-1448 66 3.011 Minutes - Hunter Water NSW Health Liaison Committee Meeting - June 2023</p> <p>15.1.1.005 - HW2006-1448 66 2.015 Minutes - Hunter Water NSW Health Liaison Committee Meeting - March 2023</p> <p>15.1.1.006 - HW2006-1448 66 1.019 Minutes - Hunter Water NSW Health Liaison Committee Meeting - December 2022</p> <p>15.1.1.007 - HW2006-2968 41 44.001 Drinking Water Quality Policy</p> <p>15.1.1.008 - HW2015-1303 9.001 Hunter Water Drinking Water Quality Management System Manual</p> <p>15.1.1.009 - HW2014-778 15 2.002 Veolia Drinking Water Quality Management Plan</p> <p>15.1.1.010 - HW2006-2906 2 6.006 Water Quality Monitoring Plan</p> <p>Update reports for DWQMS Manual implemented across the audit period:</p> <p>15.1.2.001 - HW2015-1444 5.011 DWQMS Manual Update Process Report May 23</p> <p>15.1.2.002 - HW2015-1444 5.014 DWQMS Manual Update Process Report August 23</p>	<p>meeting. The NSW Health website identifies the critical control points that are required for other providers across the State, and this includes a CCP for reservoir integrity. While Hunter Water is Licensed differently to Council drinking water providers, the auditor is of the opinion that the need to report this type of event should be raised with NSW Health to determine whether this should be reportable as an event.</p> <p>As it does not affect the overall implementation of the management system at a material level and is otherwise compliant, this element (a sub component of the licence condition) is considered to be a minor shortcoming.</p> <p>Recommendation 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</p> <div style="display: flex; justify-content: space-around;">   </div> <p>ML Office Photo 1 ML Office Photo 2</p>	
<p>Provide evidence of any review of the DWQMS during the audit period.</p>	<p>In relation to requirements under Operating Licence Clause 15.1, there are no formal letters identified from NSW Health during the audit period that request significant changes/additional health-based</p>	<p>Refer to 15.1.1</p>	<p>Evidence provided demonstrate a rolling review of the DWMS through 2 quarters. This shows that there is a mature system for</p>	C

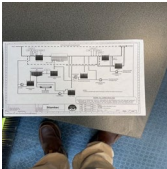


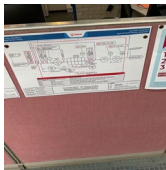

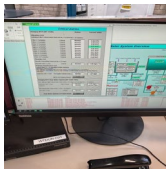
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>requirements to the DWQMS beyond the Australian Drinking Water Guidelines Framework for Management of Drinking Water Quality.</p> <p>Hunter Water and NSW Health continue to be engaged on a regular basis via the Quarterly Liaison meeting between NSW Health and Hunter Water on matters pertinent to drinking water quality management. It is a key forum for correspondence with NSW Health, minutes from the last two meetings are provided as evidence. Via the liaison meeting Hunter Water continues to inform NSW Health on the integration of Health Based Targets into our DWQMS at these meetings. Minutes from example meetings are provided as evidence under 15.1.1</p>		<p>identifying the need to change, and regular update, in accordance with the IMS.</p>	
<p>Identify if there were any additional health based requirements identified by NSW Health, and if so, how these were met. This criteria will be audited in the context of the implementation clause.</p>	<p>The DWQMS is consistent with the Australian Drinking Water Guidelines Framework for Management of Drinking Water Quality and complemented by the Integrated management system (ISO9001). It is documented in a manual and is accessible on the intranet "Reservoir". It provides an overview of Hunter Water's DWQMS, including relevant documentation and alignment with the Framework for Management of Drinking Water Quality. The manual is supported by a range of procedures, registers and data management systems. A Drinking Water Quality Management Plan (DWQMP) is maintained for the Treatment Operations Contract with Veolia.</p> <p>Our approach to implementation of the DWQMS is outlined in the DWQMS manual and DWQMP. Some of the key aspects to our approach include having drinking water quality policy signed by the Managing Director, a DWQMS that address all elements/components/actions recommended from the ADWG Framework for Management of Drinking Water Quality, maintaining a catchment to tap risk assessment program that reviews each water supply system in consultation with NSW Health and facilitated by independent exemplar global certified water quality auditors, having CCP's that are</p>	<p>Example of documentation linked in the DWQMS manual is provided below and others available as required.</p> <p>15.3.1.001 - HW2006-2968 41 44.001 Drinking Water Quality Policy</p> <p>15.3.1.002 - HW2015-1303 9.001 Hunter Water Drinking Water Quality Management System Manual</p> <p>15.3.1.003 - HW2014-778 15 2.002 Veolia Drinking Water Quality Management Plan</p> <p>Requested SCADA data:</p> <p>15.3.1.004 - Dungog IPART 2023</p> <p>15.3.1.005 - Grahamstown IPART 2023</p> <p>Please refer to evidence against specific elements for relevant documents (water quality monitoring plan, CCP tables etc).</p>	<p>While there were no specific requirements from NSW health, evidence was provided of regular meetings where the implementation of the DWQMS and RWMP are discussed including significant changes such as inclusion of UV disinfection. It is also apparent that through these meetings, the concerns of health, such as the potential UV bypass were discussed, and resolved without the need for specific requirements being imposed. This demonstrates a mature and trusted relationship between Hunter Water and NSW Health.</p> <p>Evidence provided for Feb 2023 demonstrates compliance for all filters, chlorine and fluoride for the entire month at Dungog.</p> <p>For Grahamstown, there is an issue with high pH that has impacted fluoride and chlorine measurements on one day, but there is a contemporaneous note indicating the grab sample measured 1.02mg/L indicating this was an issue with the analytical method used for the online meter rather than an actual</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>established with NSW Health, a comprehensive water quality monitoring plan from catchment to consumer, having key partners in the provision of treatment operations/maintenance and laboratory services, having a dedicated customer services and service delivery division, having an MoU with NSW Health and associated engagement forums, undertaking internal and external audits that comprehensively check implementation against the ADWG elements and maintaining a Water Quality Committee that oversee, review and support management of drinking water quality. The implementation of DWMQS is also comprehensively audited by IPART on an annual basis.</p> <p>The requested SCADA data is provided in the evidence.</p>		<p>dosing rate change and failure. The SCADA data provided indicates compliance.</p>  <p>ML Office Photo 3</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 (this may be included in the risk register?). Identify how additional or alternate preventive measures are evaluated and linked into improvement plans.</p>	<p>Risk assessment documentation (registers and report) for each water supply system contain the description of hazards, hazardous events and preventative measures among other details relevant to the management of water quality risk. The risk rating of each hazardous event is assessed without controls (inherent risk) and with controls/preventative measures (controlled/residual risk). 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 recommendations are made as required in the documentation. The recommendations are prioritised through the improvement plan and/or risk treatment plan (out of appetite risks) once the required action and resourcing is confirmed. In some cases recommendations are addressed shortly after the assessment and do not necessarily need to be tracked on the improvement plan. As a feedback loop, the</p>	<p>15.3.E03.001 - Dungog Drinking Water Quality Risk Assessment Register</p> <p>15.3.E03.002 - HW2015-1365 18.009 Report - Dungog Drinking Water Quality Risk Assessment Summary Report</p> <p>15.3.E03.003 - HW2015-1303 6.002 Guideline - Catchment to Tap Risk Assessment for Drinking Water Quality Guideline</p> <p>15.3.E03.004 - HW2014-778 15 2.005 Dungog WTP CCP Limit Table</p> <p>15.3.E03.005 - HW2014-778 15 2.006 Grahamstown WTP CCP Limit Table</p> <p>15.3.E03.006 - HW2016-1069 3.006 Register - Basis for Critical Limits at Drinking Water CCPs</p> <p>15.3.E03.007 - HW2015-1443 10 13.002 File note - Item 3.5 - Drinking Water Quality Improvement Plan - Oct 2022</p>	<p>The risk assessments were provided, as examples; there is evidence that key hazards such as protozoa are identified and assessed, including with reference to the health based target framework. It is noted that there was an improvement item identified to ensure that HBT discussions are included in the liaison meetings with NSW health. The minutes of the 7 Dec 22 meeting indicate this has occurred.</p> <p>No additional unmanaged risks were identified during site audits.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>progress of previous recommendations are reviewed as part of the next scheduled risk assessment/audit (including the annual ISO audits). 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 Improvement Plan progress and development of improvement actions.</p> <p>Hunter Water most recently engaged experienced external water quality specialists to facilitate a scheduled risk assessment of the Dungog system in consultation with NSW Health and currently reviewing the Grahamstown system. The risk summary report for Dungog including recommendations for additional preventative measures (where required) is provided in the evidence. The recommendations are being considered in development of actions to meet risk appetite. Once developed these will be prioritised through the drinking water quality improvement plan.</p>	<p>15.3.E03.008 - HW2015-1444 3.001 Procedure - Establishing and Reviewing Drinking Water Critical Control Points</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>Element 3: 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>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.</p>	<p>15.3.E03.006 - HW2016-1069 3.006 Register - Basis for Critical Limits at Drinking Water CCPs</p>	<p>The CCPs that are included in DWMS are as expected for these treatment plants. The methodology for determining which process is a CCP is included in the "Basis for critical limits" document.</p> <p>The Dungog WTP Critical Operation Point for the turbidity of the Clear Water Tank (CWT) outlet should be reviewed. If the turbidity in the clear water tank was above 1 NTU, then disinfection may be compromised. While there is an action alarm at 0.8 NTU, the Hunter Water Critical limit of 5 NTU does not support the provision of safe water as well as it should. Further, the reporting level to NSW health of 5 NTU is beyond the point where such elevated turbidity should, in the opinion of the auditor, be considered an event that may have public health consequences as per the criteria for notification (HW2006-</p>	<p>C-MS</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>2906/4/6.008), as, at this point, such a high turbidity would most likely indicate a filtration failure.</p> <p>However, this CCP is supplementary to the appropriate filtration CCP. Therefore, if considered necessary, then the limits should be reviewed, however, as this is not the only turbidity CCP (and not at the critical barrier managing turbidity), it is considered to be a minor shortcoming.</p> <p>Recommendation 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 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.</p> <p>The “Basis for critical limits” document identifies that the Ct is a critical limit, and the CCP table has reference to the Ct as the trigger for reporting, however the Ct limit is not explicitly stated in the CCP. Evidence was provided relating to an <i>E. coli</i> detection demonstrating that there is a continuous online SCADA calculation of Chlorine contact time.</p> <p>This is considered a shortcoming in that the documentation does not fully match the controls in place. As it does not affect the overall implementation of the management system at a material level and is otherwise compliant, this element (a subcomponent of the licence condition) is graded as a minor shortcoming.</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>Recommendation 2023-7-15(3): Review the CCP table and explicitly incorporate the Chlorine Contact time (CT) as a critical limit to match the alarm in SCADA</p>	
<p>Provide SCADA trends for 1 day (e.g. 24 hours for the 3rd September for filtered water turbidity overlain with filtered water flow to production or similar to identify when the CCP was in operation. Then provide the same information for a 1 week time period ending 3/9/23 and then provide a time series for 1 month for February 2023. Provide this for the Dungog and Grahamstown WTPs. Also provide 1 month of data for treated water fluoride and chlorine as applicable for the online meter used for control of the CCPs also for both these plants.</p>	<p>The requested SCADA data is provided in the evidence.</p>	<p>15.3.1.004 - Dungog IPART 2023 15.3.1.005 - Grahamstown IPART 2023</p>	<p>Evidence provided for Feb 2023 demonstrates compliance for all filters, chlorine and fluoride for the entire month at Dungog. For Grahamstown, there is an issue with high pH that has impacted fluoride and chlorine measurements on one day, but there is a contemporaneous note indicating the grab sample measured 1.02mg/L indicating this was an issue with the analytical method used for the online meter rather than an actual dosing rate change and failure. The SCADA data provided indicates compliance.</p>	<p>C</p>
<p>Element 4 1.a Identify the operational monitoring that is required to ensure that processes are effective. b Provide relevant procedures to support operations 2. 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</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, 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 including plant manuals. A log-in for the auditor has been provided for the online Papyrs system</p>	<p>Operational monitoring, procedures, corrective action: 15.3.E04.001 - HW2006-2906 2 6.006 Water Quality Monitoring Plan 15.3.E04.002 - HW2014-778 23 1.053 Procedure - PN111 - Drinking Water Standards 15.3.E04.003 - HW2006-2906 4 6.008 Criteria for Notification to NSW Health 15.3.E04.004 - HW2006-2906 4 6.023 Procedure to notify NSW Health of events with potential public health impact</p>	<p>The evidence provided includes the monitoring plan that details the raw water and operational monitoring and this is linked appropriately to the identified CCPS. Further, this links to the incident and emergency response and NSW health notification protocol. Practice Note 111 (PN111) is a contractual limit for Veolia, and not relevant for the audit. The CCP exceedance response plan includes details of responses, including a checklist and flow chart of actions. The login to the Papyrs system allowed the auditor to review a suite of work instructions</p>	<p>C</p>

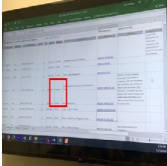

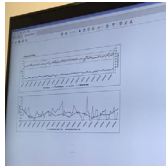
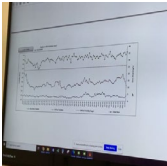
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>key limits were rapidly communicated as per procedures.</p>	<p>The Criteria for Notification to NSW Health defines the levels of key parameters which require notification to NSW Health. A procedure for Notification of Water Quality Events of Potential Public followed when relevant criteria are met. 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.</p>	<p>15.3.E04.005 - HW2006-1448 65 10.003 Email - RE Dungog Clear Water Tank 2 E.coli detect</p> <p>15.3.E04.006 - HW2006-1448 65 10.010 Report - 0880-W-DUNw</p> <p>Refer to Element 3 for CCP Limit Tables</p> <p>15.3.E04.007 - HW2014-778 15 2.001 Plan - CCP Exceedance Response Plan</p> <p>Water Treatment Plant Spreadsheets contain operational data including water quality sample results.</p> <p>15.3.E04.009 - HW2014-1579 2.005 Data - Dungog WTP</p>	<p>for operational practices across the treatment plant.</p> <p><u>Dungog WTP Site Visit</u></p> <p>Plant PFDs and the three operating modes (depending on raw water conditions) were cited during the audit. The CCP wall charts and the CCP limits on the SCADA page for the WTP were aligned as per photos below.</p>       <p>SC photo 60 SC photo 61</p> <p>SC photo 62 SC photo 63</p> <p>SC photo 64 SC photo 65</p>	
<p>3. Identify the required frequency for internal and external water quality instrument calibrations (e.g. those used for implementing CCPs).</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,</p>	<p>Response was used as the specific evidence</p>	<p>Evidence stated that plant spreadsheets include details of calibration. The month of data for Dungog provided as SCADA traces identifies that the chlorine and fluoride instruments are calibrated.</p> <p>Hunter Water has extensive and detailed management of its monitoring programs and</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>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). Individual filter turbidity is verified every 5 weeks with a solid state reference and if out of validation require replacement and factory calibration. The remaining 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>Plant spreadsheets are updated to routinely to include instrument calibration results.</p>		<p>reporting requirements. The monitoring is NATA certified for sampling and analysis which also includes NATA sampling QA process with field blank used during sample runs. There was comprehensive evidence of calibration and verification records and monitoring for measuring equipment.</p>	
<p>4. Provide any procurement information demonstrating that materials and chemicals used in drinking water are suitable for use in contact with drinking water.</p>	<p>Hunter Water requires that all components used in the water and sewer networks (including within the drinking water catchments) are approved products and comply with AS/NZS 4020 (Testing of products in contact with drinking water). Our chemical suppliers include but not limited to: Omega Chemicals, Ixom Operations, and Redox. Our chemical suppliers are chosen through a market tender process managed by our Procurement Team and reviewed by our operations and engineering teams. Chemicals supplied to WTPs are managed through the Treatment Operations Service Provider processes. Veolia has a specification for supply of chemicals as well as management procedures that comply with the requirements of ADWG for the delivery, receipt and storage for bulk chemical supplies.</p>	<p>Materials and chemicals:</p> <p>Hunter Water's website contains information for approved suppliers and manufacturers https://www.hunterwater.com.au/building-and-developing/drawings-plans-and-specifications/approved-products-and-manufacturers</p> <p>Veolia has a specification for supply of chemicals:</p> <p>15.3.E04.008 - Exert- Veolia RFQ Supply of Chemicals - Specifications</p>	<p>A specification spreadsheet was provided identifying the maximum impurities allowed for some chemicals.</p> <p>The specific procedure for Hydrofluorosilicic acid delivery for Dungog was reviewed and found to be appropriate. This identifies the need for operators to confirm the chemical being delivered through inspection of delivery slips.</p>	<p>C</p>
<p>Element 5 1. Identify the verification monitoring that was intended to be undertaken and provide evidence that all samples were in fact collected and analysed (or provide</p>	<p>A Water Quality Monitoring Plan provides an outline of the verification monitoring requirements such as analyte, location and frequency to be sampled for verification of the drinking water quality supplied to consumers. A schedule of works is maintained for the provision of laboratory services to undertake the verification monitoring sampling and analysis. An</p>	<p>15.3.E05.001 - HW2006-2906 2 6.006 Water Quality Monitoring Plan</p> <p>Sample collection:</p> <p>15.3.E05.002 - Schedule of Works - Water Network Operations</p>	<p>Evidence was provided of an automatic notification from ALS when a sample exceeded the upper reportable limit defined. This is sent to a drinking water exceedance inbox.</p>	<p>C</p>


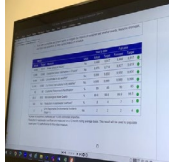
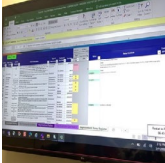
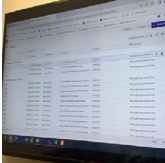
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
justification as to why samples were missed).	example schedule of works is provided for the Network Operations sampling. Hunter Water's Laboratory Services provider is ALS. For the sampling collection, ALS will notify Hunter Water at the unreceived samples address -'Unreceivedsamples@hunterwater.com.au' of any unreceived and collected samples, and upon notification further action is triggered by Hunter Water as required - see example ALS notification in the evidence. A QA process is also maintained by our Operations team to monitor the collection of samples for routine network verification monitoring - see reporting log in the evidence.	15.3.E05.003 - Unreceived & Collected 10-10-23 15.3.E05.004 - HW2022-511 3 2.002 Register - Licence Verification Monitoring Compliance QA Reporting Log		
2. Identify the process for evaluating results to ensure they comply with the ADWG health and aesthetic criteria, and how (and what) actions are triggered for results that are out of specification.	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.	Notification of exceedances: 15.3.E05.005 - EXCEEDANCE NOTIFICATION for ALS Workorder _ WN2311700 3-10-23 Refer to evidence provided in 15.1.1 for water quality exception reports.	A guideline for water quality health complaints was provided - this is comprehensive and covers sufficient aspects to demonstrate that the investigation was comprehensive. Monthly noncompliance reports were provided as evidence that demonstrated that exceedances were identified and actioned.	C
3. Identify how customer complaints are recorded (related to drinking water quality including health and aesthetic complaints) and the process whereby complaints are investigated and actioned.	Customer complaints are actioned as per standard operating procedures – see attached guidelines which were established in consultation with NSW Health. Complaint records are maintained in the Velocity system and Assets Operations Maintenance System (AOMS) where a civil job is required as part of the response (mains flushing to clear discoloured water etc), with more complex cases being managed under a dedicated Complaint Management System.	Customer complaints: 15.3.E05.006 - HW2010-95 2 12.010 Guideline - Water Quality Health Complaint	A guideline for water quality health complaints was provided - this is comprehensive and covers sufficient aspects to demonstrate that the investigation should be comprehensive. The auditees explained the process, and this was consistent with the guideline.	C
4. Where any actions were taken for non-compliant results, identify those actions.	A report of non-compliance results and an explanation is provided to NSW Health through the quarterly exception reports.	For further information, Hunter Water's approach to verification of drinking water quality is outlined in Element 5 DWQMS manual and DWQMP.	Incident reports have been provided, and these indicate appropriate responses when non-compliant results are received.	C

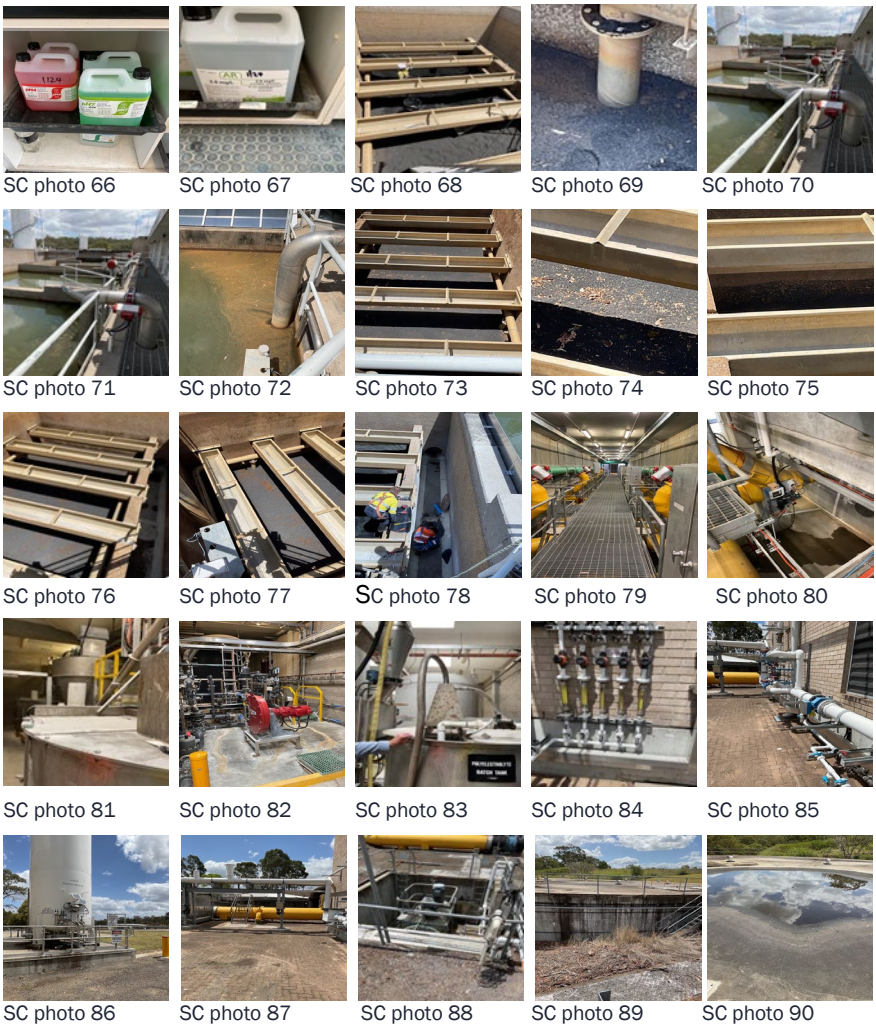
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Element 6</p> <p>1. Provide the incident and emergency response protocols and demonstrate how they align to the NSW Health reporting requirements.</p>	<p>An Emergency Management Plan (EMP) is maintained. It covers all of Hunter Water's area of operations. It determines what constitutes an emergency or major incident and provides guidance to respond.</p> <p>Hunter Water and NSW Health have established notification criteria and protocols for drinking water quality which can be referenced to facilitate meeting obligations under the MoU. The notification criteria is referenced in the EMP in the relevant sections on water quality. Hunter Water reports water quality incidents including exceedances of ADWG guidelines to NSW Health. Hunter Water also provides NSW Health with detailed reports of water quality exceptions on a quarterly basis.</p>	<p>15.3.E06.001 - Emergency Management Plan</p> <p>Refer to evidence provided for 15.3.E04 for Criteria for notification to NSW Health</p> <p>NSW Health Notification procedure</p> <p>15.3.E06.002 - HW2010-95 2 12.010 Guideline - Water Quality Health Complaint</p> <p>Refer to 15.1.1 for water quality exception reports.</p>	<p>Notification procedures and documentation agreed with NSW health on reporting requirements was provided. The emergency response plan identifies triggers for standing up an incident response team. The water quality aspects are very clearly identified and the processes demonstrated are robust.</p>	<p>C</p>
<p>2. Provide summary information for public and media communication strategies, including reference to pre-existing templates. Highlight any specific information that is pre-prepared for vulnerable customers such as dialysis patients, hospitals or food businesses.</p>	<p>The EMP 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 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.</p>	<p>15.3.E06.003 - HW2022-1294.011 Emergency Communications Message Templates_2023</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>Emergency communication message templates were provided, examples related to boil water alerts, or detections of chemicals above health guidelines.</p>	<p>C</p>
<p>Element 9</p> <p>Demonstrate how processes have been validated (specifically for CCPs) and demonstrate how this aligns to CCP monitoring and process control. Specifically demonstrate how factors that may impact disinfection performance (e.g. turbidity) are incorporated.</p>	<p>The disinfection CCP critical limit is based on ADWG Information Sheet 1.2 Overview of Disinfection: "Most Australian water utilities use chlorine as their disinfectant of choice with C.t target of at least 15 mg/L.min which is consistent with the World Health Organization's recommendation that effective disinfection can generally be achieved by maintaining a free chlorine concentration of 0.5 mg/L for 30 minutes (WHO, 2011). Based on data contained in Information Sheet 1.3 a C.t of 15 mg/L.min should achieve effective inactivation of enteric bacteria and viruses."</p>	<p>Refer to CCP Limit Tables and basis of critical limits register: 15.3.E09.001 - Extract of B01 Treated Water Quality - GRA DUN Aug 2023</p> <p>For further information, Hunter Water's approach to drinking water quality research and development is outlined in Element 9 of the DWQMS manual and DWQMP.</p>	<p>The evidence provided discusses the process for ensuring appropriate disinfection with the validation approach developed in conjunction with NSW health. However, this does not include all relevant factors such as turbidity which could impact disinfection. Further, it was identified that there is a report to NSW Health when turbidity exceeds 5 NTU (e.g. reporting at the aesthetic guideline), however, there is not a corresponding report where the turbidity at the point of disinfection is > 1 NTU which the ADWG indicates is the</p>	<p>C-MS</p>





Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<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. For example at Dungog WTP, the plant will shutdown if individual filter turbidity exceeds 0.15 NTU for greater than 3 consecutive minutes. NATA accredited laboratory analysis is also performed on a number of analytes at the CWT outlet including chlorine and <i>E. coli</i>. The disinfection CCP was established in consultation with NSW Health and included consideration of pH, turbidity etc.</p> <p>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 water quality database utilises SCADA data at 1 minute time intervals to evaluate and report the performance of CCPs against defined criteria (including critical limits and more stringent criteria as defined in contractual treated water performance targets). 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 limit settings. As required, monthly results are reviewed at the water quality committee meetings and actions identified where further analysis / validation is required.</p>		<p>turbidity required for effective disinfection. This has been raised in Element 3 and has not been repeated here.</p> <p>For filtration the CCP table that indicates the shutdown is operator selectable up to 0.3 NTU. While the 0.3 NTU is still protective of public health, it potentially degrades the achievable performance of a direct filtration plant which the auditor considers to not be ideal.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p> <p>Recommendation 2023-8-15(3): By 30 June 2024 discuss the suitability of a variable shut down limit for the Dungog WTP in the NSW Health Liaison Committee meeting, and implement any change recommended.</p>	
<p>Element 10 Demonstrate how documents and records are managed either through the DWQMS or through the interaction with the IMS/QMS as relevant.</p>	<p>Hunter Water uses a Total Records and Information Management System (TRIM) as its record management system.</p>	<p>15.3.E10.001 - HW2013-421 22.002 Standard - Integrated Management System Document Management</p>	<p>The IMS document management system document management section was provided. This document includes reference to all the relevant elements to be addressed</p>	<p>SEE LICENCE CLAUSE 23(2)</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Document review and revision is managed in accordance with corporate document control processes.</p> <p>The DWQMS manual and associated documents are accessible from the SharePoint "Reservoir".</p>		<p>in the ADWG. The IMS was recently recertified as compliant.</p> <p>There was a previous audit outcome to set a KPI for document review, but this has not yet been closed out. Currently there are a large number of documents overdue for review. This has been raised as a non-conformance non-material against the Quality Management System Licence Clause.</p>  <p>ML Office Photo 4</p>	
<p>Element 11</p> <p>1. Demonstrate the process for long term evaluation of results</p> <p>2. Provide evidence of internal audits and the implementation of internal audit outcomes.</p>	<p>Long term trends are analysed as part of the risk assessment process and reviewed more regulatory through Water Quality Committee, NSW Health Liaison meeting and by relevant teams (operations etc) 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/discoloured water complaints, long term evaluation of various key issues such as filtration performance, disinfection performance, PFAS concentrations.</p> <p>Internal audit programs have been developed and implemented as part of Hunter Water's Integrated Management System. Internal audits are used to review the implementation and effectiveness of the systems</p>	<p>Example evidence for evaluation of results:</p> <p>https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Other-Reports/Water-Quality-Monthly-Reports/Monthly-Water-Quality-Summary-June-2023-amended-19.07.2023-to-include-Mn-results.pdf</p> <p>https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Other-Reports/Water-Quality-Monthly-Reports/Monthly-Water-Quality-Summary-December-2022.pdf</p> <p>15.3.E11.001 - HW2015-1365 18.009 Dungog Drinking Water Quality Risk Assessment Summary Report</p> <p>Recent results reported to NSW Health Liaison:</p>	<p>Long term evaluation is undertaken by both Hunter Water and Veolia, this is appropriate.</p> <p>An audit report was provided demonstrating that the Dungog Plant passed an internal ADWG audit undertaken by an experienced external auditor.</p>  <p>ML Office Photo 5</p>  <p>ML Office Photo 6</p>  <p>ML Office Photo 7</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>within the IMS, including the Drinking Water Quality Management System and requirements of the Australian Drinking Water Guidelines (ADWG).</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.</p> <p>Hunter Water's Treatment Operations team also undertakes procedure-based site inspection audits of the Water Treatment Plants.</p> <p>Under the Laboratory Services Contract (Schedule 1 Clauses 23 & 24), 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>15.3.E11.002 - HW2006-1448 67 1.002 Water Treatment Update - Sept 2023</p> <p>15.3.E11.003 - HW2006-1448 67 1.007 Water Network Update - Sept 2023</p> <p>Recent results reported to Water Quality Committee:</p> <p>15.3.E11.006 - HW2006-1417 38 1.001 Network Report WQC August 2023</p> <p>15.3.E11.007 - HW2006-1417 38 1.002 WTP Monthly Performance - August 2023</p> <p>15.3.E11.008 - HW2006-1448 67 1.003 PFAS Summary - Sept 2023</p> <p>Example evidence for audits completed</p> <p>15.3.E11.004 - HW2014-778 15 41.004 Audit of Veolia's Drinking Water Quality Management System 2023</p> <p>15.3.E11.005 - HW2015-1343 26 4.008 HWC2208 Dungog-Central Coast audit report</p> <p>For further information, Hunter Water's approach to drinking water quality evaluation and audit is outlined in Element 11 of the DWQMS manual and DWQMP.</p>		
<p>Element 12 Demonstrate how senior executives are informed as to key requirements and outcomes of the DWQMS. Provide the Improvement plan and provide evidence of implementation of identified improvements.</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 Progress reporting against the strategic objective to maintain safe drinking water. Review of policies and other key documents requiring executive approval. The Drinking Water Quality 	<p>Example evidence:</p> <p>https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Other-Reports/Regulatory-Reports/Compliance-and-Performance-Report-2021-22.pdf</p> <p>15.3.E12.001 - HW2015-1443 10 13.002 File note - Item 3.5 - Drinking</p>	<p>The opening meeting discussed strategy and the linkage to the corporate vision. The strategic outcomes are consistent with the intent of the ADWG, and IPART license requirements.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Policy is required to be approved by the Managing Director.</p> <ul style="list-style-type: none"> • 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 (i.e.; AS/NZS 4801; ISO 14001; ISO 9001). • Veolia also maintain a procedure outlining responsibilities within their organisation for reporting to their Board and Executive Management Team. <p>An extract of the improvement plan worksheet tool as well as a recent improvement plan update to NSW Health is provided as evidence. In future Protecht is anticipated to support management of improvement plan actions</p> <p>The current process is complemented by risk treatment plans, investment plans developed for water quality, water quality committee/health liaison tracking, follow up actions from incident investigations and individual action plans held by different areas of the business. We anticipate that further actions can be taken to enhance the presentation of a consolidated improvement plan using the Protecht software.</p>	<p>Water Quality Improvement Plan - Oct 2022</p> <p>Refer to 15.1.1 for NSW Health Liaison Meeting minutes</p> <p>15.3.E12.002 - HW2006-2906 10 2.005 Drinking Water Quality Improvement Plan</p> <p>15.3.E12.003 - Drinking Water Quality Improvement Plan - Sept 2023</p> <p>15.3.E12.004 - HW2006-1448 67 1.002 Water Treatment Update - Sept 2023</p> <p>15.3.E12.005 - HW2006-1448 67 1.007 Water Network Update - Sept 2023</p> <p>15.3.E12.006 - HW2006-1448 67 1.009 DWQIP update - Sept 2023</p> <p>15.3.E12.007 - Record - Minutes IMS Management Review Meeting 04052023</p> <p>15.3.E12.008 - Record - Risk Assurance Review Meeting - 4 May 2023</p> <p>For further information, Hunter Water's approach to drinking water quality review and continual improvement is outlined in Element 12 of the DWQMS manual and DWQMP.</p>	  <p>ML Office Photo 8 ML Office Photo 9</p> <p>There is a clear structure in the framework of strategic plan, business plan, and supporting strategies.</p> <p>The executive engagement includes attendance in the water quality liaison meetings with NSW Health. There is also routine reporting through the business performance report.</p>  <p>ML Office Photo 22</p> <p>The audit identified that there is a high level of integration and engagement throughout the organisation. The culture within Hunter Water is one of actively seeking to make improvements, and is specifically identified as an audit highlight.</p> <p>It was also noted that improvement plan items are tracked and discussed.</p>  <p>ML Office Photo 23</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Dungog WTP –Field Audit	<p><u>Field Audit Photos</u></p>  <p>SC photo 66 SC photo 67 SC photo 68 SC photo 69 SC photo 70</p> <p>SC photo 71 SC photo 72 SC photo 73 SC photo 74 SC photo 75</p> <p>SC photo 76 SC photo 77 SC photo 78 SC photo 79 SC photo 80</p> <p>SC photo 81 SC photo 82 SC photo 83 SC photo 84 SC photo 85</p> <p>SC photo 86 SC photo 87 SC photo 88 SC photo 89 SC photo 90</p>		<p>When the filter is put back in service after backwash, a ripening period is experienced until the filter bed matures. Turbidity of the filter outlet is triggered on turbidity above 0.15 NTU enabling a filter to waste or filter backwash. After backwash the plant turbidity is below 0.15 NTU therefore filter to waste not triggered as filter ripening is already meeting requirements.</p> <p>Lab chemicals pH and fluoride identified in previous audit were now within date.</p> <p>Asked team about the supernatant return rate. Current return rate is 5% and there is the ability to return filter to waste which is not included in the 5%. Asked team about the ability to cease supernatant return and response was to keep supernatant return to recycle water for processing as a water efficiency measure. Asked team about licence with EPA to increase release to environment due to the increased risk of supernatant return particularly with direct filtration. Staff believed that an increase wouldn't be accepted by EPA.</p> <p>Algae blooms occur at times and can cause filter blocking. Discussed whether any pre-treatment occurs during these events. They explained the addition of pre-chlorine which can cause issues with algal toxin release. They explained they raised this with health and after robust discussion it was allowed. They also have PAC dosing which is used where needed. Commented that when they pre chlorine and PAC there are no taste and odour complaints. Given the long resistance time between pre chlorine dosing and then PAC dosing algal toxin issues might be low. PAC will remove the toxins and pre chlorine</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	 <p>SC photo 91</p>  <p>SC photo 92</p>  <p>SC photo 93</p>  <p>SC photo 94</p>		<p>will improve filter performance during algal bloom events due to the destruction of the molecular wall reducing matting over the filter bed.</p> <p>CWT 1 – previously used drone robot in reservoir found some issues. Repaired any ingress identified in the reservoir by improving and sealing lid areas and spindle flaps. Did receive a positive <i>Enterococci</i> detection of 1 CFU from this tank in the past. Investigations could not find obvious cause.</p>	
<p>Medowie Reservoir – Identified in Field Audits</p>	 <p>SC photo 46</p>  <p>SC photo 47</p>  <p>SC photo 48</p>  <p>SC photo 49</p>  <p>SC photo 50</p>  <p>SC photo 51</p>  <p>SC photo 52</p>  <p>SC photo 53</p>  <p>SC photo 54</p>  <p>SC photo 55</p>		<p>Reservoir is on a maintenance schedule for a 5 year cleaning cycle. A robotic cleaner (drone) is now being utilised for online cleaning where required.</p> <p>At present the reservoir cannot be deep cycled to improve water age and chlorine residual performance. However, the Smart integrated pumping system (SIPS) used for energy efficiency can be used for deep cycling on other reservoirs.</p> <p>Chlorine dosing is used with tablet dosing to top up which is a manual handling risk with a reliance on operators to ensure it is kept dosed rather than a dedicated dosing system. There is a disinfection optimisation system (DOS) project, and it is recommended the site is considered for the upgrade of chlorine dosing to remove manual handling risk and reliance on manual dosing. There are VSD pumps used to maintain pressure in the network.</p> <p>There was a previous event where there was a positive <i>E. coli</i> detected. Inspection found that the central vent deteriorated, and the vermin proofing was compromised being the likely cause of entry (birds etc.). There was</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>chlorine and micro monitoring at the time of the event from the network, however samples from the reservoir could only be taken from the top entry. A new sample point has now been installed on scour line which is required to be flushed for 10min for a representative sample. Also now have a dedicated full time Hunter Water tradesperson who can undertake any rectification works required quickly.</p> <p>Combined tools disinfection protocol used for maintenance and repair activities. If having to enter the reservoir foot bath for chlorine is used but now use the drone robots wherever possible to avoid the need for entry.</p>	

3.1.10 S16(1)

Condition:

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).

Overall Grading for condition:

Compliant

3.1.11 S16(3)

Condition:

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.

Despite the non complaint - non material and compliant – minor shortcoming, the Licence condition is assessed as compliant – minor shortcoming. As it does not affect the overall implementation of the management system at a material level there is a low risk of not being fully implemented to the point that it would not meet the licence obligation.

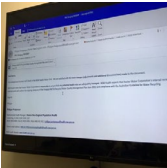
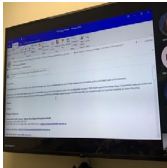
Overall Grading for condition:

**Compliant -Minor
Shortcoming**

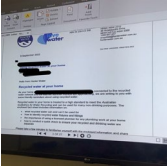
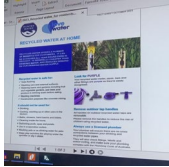
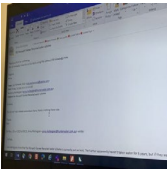

Reason for grading: The recycled water management plans for both Hunter Water and Veolia are suitable for managing the public health risks associated with the use of recycled water if implemented. The table below provides evidence of the audit against the implementation of specific components of the Australian Guidelines for Water Recycling. While there were non-conformances identified for the implementation of end user controls at one location where the end user is irrigating within the buffer required to prevent exposure of the public, and does not withhold stock for the required period under the current end user agreement. This is viewed in context that the wastewater treatment plant has been upgraded, resulting in a higher quality of product water, and the low actual risk of public exposure along the fence line given there is not a public footpath along the road, and exposure through driving past would be minimal. Therefore, while it is a non-conformance with the specific requirement for the end user agreement, the actual public health risk is low. As a result the non-conformance is non-material, and with the balance of the RWMPs being implemented effectively, the overall grading for the licence condition is considered as Compliant - minor shortcoming.

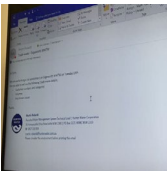
It is also noted that the end user audit process had the opportunity to identify the non-compliance when the farmer stated that he withholds stock for about 3 days, which is less than what is required under the actual agreement. The end user audits were therefore assessed as Compliant – Minor Shortcoming as they are occurring as indicated, but did not explicitly identify what the end use controls were meant to be, and missed the opportunity to rectify the issue at the time.





Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Describe what makes up the RWQMS in its entirety and provide all documents that make up that plan. Demonstrate how you ensure the RWQMS is implemented fully. Provide the RWQMS including any site specific documents that pertain to the audited recycled water plants.</p>	<p>Hunter Water has a Recycled Water Quality Management System. This system is consistent with the AGWR and involves developing Recycled Water Quality Management Plans (RWQMP).</p> <p>The Hunter Water Recycled Water Quality Management System (RWQMS) is comprised of an overarching recycled water policy, corporate RWQMP and specific RWQMPs (Scheme Specific). The RWQMPs address how Hunter Water meets the requirements of the elements within the AGWR.</p> <p>We have provided the RWQMP for Chisholm and Gillieston Heights, Dungog WWTW and Morpeth WWTW Recycled Water Scheme to demonstrate our compliance.</p> <p>In addition, the RWQMP's provide details of procedure/standards and supporting documentation that assist the recycled water quality management system.</p> <p>Veolia Water have also developed documentation that supports the Hunter Water Recycled Water Quality Management System e.g. WWTW specific RWQMP and WWTW operational manuals. Veolia provide Hunter Water a monthly report detailing operational performance with recycled water requirements.</p> <p>Please refer to the HWC and Veolia RWQMPs for the following:</p> <ul style="list-style-type: none"> • Details of intended uses and sources of recycled water • Water supply system analysis • Water quality data assessment • Risk assessment • Details of preventive measures and multiple barriers • Critical Control Points (CCP's) 	<p>16.1.1.006 - Hunter Water Recycled Water Policy</p> <p>16.1.1.014 - Corporate Recycled Water Quality Management Plan</p> <p>16.1.1.010 - Morpeth WWTW Recycled Water Quality Management Plan</p> <p>16.1.1.003 - Dungog WWTW Recycled Water Quality Management Plan</p> <p>16.1.1.001 - Chisholm and Gillieston Heights Recycled Water Quality Management Plan</p> <p>16.1.1.012 - Screenshot of Recycled Water Improvement Plan showing East's Leisure and Golf actions</p> <p>16.1.1.013 - Veolia monthly contract report - August 2023</p> <p>16.1.1.007 - MAN-3073 HW - Dungog WWTW RWQMP</p> <p>16.1.1.008 - MAN-3077 HW - Morpeth WWTW RWQMP</p> <p>16.1.1.009 - MAN-12356 HW - Morpeth RWTP - Chisholm Scheme RWQMP</p> <p>16.1.1.002 - Cooreei HW2013-1008 7 2.005 Agreement - executed Agreement expiry 30 June 2018</p> <p>16.1.1.004 - Easts Golf and Leisure HW2013-1008 8 2.004 Agreement - 2017-18 signed</p>	<p>The evidence provided demonstrates there is a robust management system in place that aligns to the Australian Guidelines for water recycling. The policies for both Hunter Water and Veolia align with the intent of the AGWR and support the production and use of fit for purpose recycled water. There are some areas identified in the following subsections where opportunities for improvement are identified against specific questions, but overall, the grading is considered to be compliant with the License condition.</p>	<p>C</p>


Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Annual site inspections are undertaken on commercial recycled water customers and are conducted in conjunction with the customer. These occur as part of the requirement under the Agreement for the Supply of Recycled Water Clause 8.5.</p> <p>The inspection includes reviewing locations where recycled water is used and sighting and discussing relevant documentation.</p>	<p>16.1.1.005 - Email communication example audit inspections Recycled Water customer 2023</p> <p>16.1.1.011 - Recycled Water 1st Party Audit Report Morpeth 2023</p>		
<p>Identify whether there were any additional health based requirements specified by NSW Health. If so demonstrate how you complied with the requirements.</p>	<p>NSW Health have not specified any amendment or addition to the AGWR.</p> <p>NSW Health have been involved during the process of completing risk assessments and creating the RWQMP.</p>	<p>No documents required</p>	<p>There have been discussions with NSW Health have indicated that the ammonia Critical Operations Point (COP) may be upgraded to a Critical Control Point (CCP).</p> <p>The photos below, along with the letter from Hunter New England Health to IPART Ref d23/66 demonstrate that NSW Health are engage regularly and effectively with Hunter Water. In the view of the auditor, the evidence demonstrates a reasonably level of satisfaction with the Licence condition.</p> <div style="display: flex; justify-content: space-around;">   </div> <p>ML Office Photo 11 ML Office Photo 12</p>	C
<p>Provide detailed information the Morpeth Dual reticulation system - provide SCADA data for 3 Sept, week ending 3 September, and Feb 2023 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. Provide evidence that NSW Health was satisfied with the</p>	<p>No CCP breaches occurred during the audit period. 3 Sept 2022 wet weather prevented the supply of effluent from Morpeth WWTW to the Morpeth Dual Reticulation System. No flow was processed through the plant however flow from the product water tank was supplied to customers. CCP graphs for 2 Sept have been provided to show when the plant was operational.</p> <p>Notifications to NSW Health are listed in the Quarterly exception report.</p>	<p>16.3.1.002 - CCP Graphs 2 and 3 Sept 2022</p> <p>16.3.1.004 - CCP Graphs Week Ending 3 Sept 2022</p> <p>16.3.1.003 - CCP Graphs February 2023</p> <p>16.3.1.001 - CCP Breaches</p>	<p>Data provided was limited to alarm or normal state and the position of the off specification valve. This shows that when in alarm state the off specification valve is open, it does not provide evidence to assess whether there are issues with maintaining chlorine etc.</p> <p>12 months of exception reporting was provided. There have been 2 microbial detections, but at the limit of detection, and not detected in repeat</p>	C


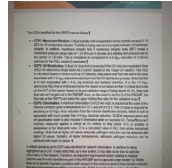

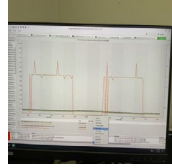
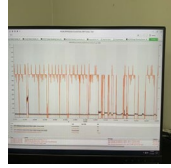
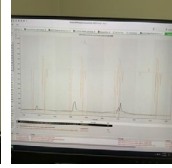
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>implementation of the RWQMS. Provide a list of all notifications made to NSW Health (e.g. incidents/ non compliant water supplied). Provide the linked documents identified in the RWQMS related to the identified elements for 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). 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>Further documentation are listed in element by element questions.</p>	<p>16.3.1.005 - Drinking Water and Recycled Water Quality Exceptions - July to September 2022 16.3.1.006 - Drinking Water and Recycled Water Quality Exceptions - October to December 2022 16.3.1.008 - Drinking Water and Recycled Water Quality Exceptions Jan to Mar 2023 16.3.1.007 - Drinking Water and Recycled Water Quality Exceptions April to June 2023</p>	<p>samples. The notes indicate there were no CCP breaches. During the on site audit, SCADA was interrogated, and this supported the previously provided information. This was then confirmed on site as appropriate.</p>	
<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 For the Morpeth dual reticulation system identify when and how customers are made aware of the allowable uses for recycled water, and provide examples.</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. 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. 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>16.1.1.006 - Hunter Water Recycled Water Policy 16.3.E01.003 - Hunter Water Customer Contract 16.3.E01.004 - Letter - Key reminders dual reticulation (2022) 16.3.E01.006 - Reminder key messages RW_Fact Sheet for all owners and tenants (2022) 16.3.E01.005 - POL-02 - Water Quality Policy 16.3.E01.001 - Example of use of TRIM to record email and mail</p>	<p>The policy has been provided and was updated in Sept 2023. Evidence was provided for stakeholder engagement with the Golf club - arranging a site inspection and audit. The Morpeth scheme Farmer is currently not receiving recycled water and was excluded from the risk assessment, but is noted as an end user in the Veolia RWMP. The pump to the farmer has been removed, so cannot receive water at this time. The current approach is considered to be appropriate while the farmer is not receiving recycled water, and it was indicated that supply would not recommence until a risk assessment covered the end user.</p>	C

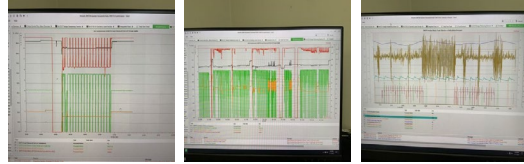


Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>The Corporate RWQMP and scheme specific RWQMPs provide details of team members involved in the management of recycled water quality.</p> <p>Directly relevant regulatory and formal requirements are detailed within the recycled 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. Communication is recorded on a Recycled Water Quality Management Spreadsheet, kept as a TRIM file in HW Content Manager (excerpt provided). Corresponding emails and letters mentioned in the register are also kept in TRIM (screenshot of TRIM file locations provided).The Customer Contract also details recycled water requirements. 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>Hunter Water have a Recycled Water Policy approved by the Managing Director</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.</p>	<p>correspondence to Recycled Water Customers 2023</p> <p>16.3.E01.002 - Excerpt End Users Communication Log RWQM spreadsheet 2023</p>	<p>Evidence has been provided to demonstrate the communication with high risk dual reticulation customers.</p>   <p>ML Office Photo 13 ML Office Photo 14</p>  <p>ML Office Photo 15</p> <p>The Policy was printed and in place in the Dungog WWTP</p>  <p>ML Field Photo 18</p>	
<p>Element 2 Identify the intended uses for recycled water for each of the audited RWTPs. (identify where information is in the plans) Provide evidence of understanding of the source,</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>16.3.E02.002 - Chisholm and Gillieston Heights Risk Assessment</p> <p>16.3.E02.007 - Dungog WWTP recycled water risk assessment</p>	<p>End users are identified appropriately in each of the RWMPs.</p> <p>The HACCP report and RWQMP include appropriate information for the catchment characterisation for a domestic catchment.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>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 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>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 - Clause 1.4 'Use of Recycled Water and Clause 9.1 Safety and Environment'.</p> <p>Pertinent information has been assembled for each recycled water scheme; detailed within the recycled water quality management plans.</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. Veolia have responsibility for updating the flow diagrams.</p> <p>The hazard identification and risk workshops were 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 HW 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 (examples</p>	<p>16.3.E02.010 - Morpeth WWTW recycled water risk assessment June 2023</p> <p>16.3.E02.011 - Morpeth WWTW Recycled Water Risk Assessment Workshop Briefing Paper June 2023</p> <p>16.3.E02.006 - Dungog Recycled Water Risk Workshop presentation 2021 (NSW Health and DPI review)</p> <p>16.3.E02.012 - Morpeth WWTW Recycled Water Risk Assessment Workshop Output Paper June 2023</p> <p>16.3.E02.001 - Chisholm and Gillieston Heights Recycled Water Scheme HACCP report</p> <p>16.3.E02.013 - Recycled water risk assessment process guideline</p> <p>16.3.E02.009 - Morpeth and Karuah RW water quality risk assessment presentation June 2023</p> <p>16.3.E02.004 - Dual Reticulation Pressure Results June 2023</p> <p>16.3.E02.005 - Dual Reticulation Pressure Results March 2023</p> <p>16.3.E02.003 - Cooreei HW2013-1008 7 2.005 Agreement - executed Agreement expiry 30 June 2018</p> <p>16.3.E02.008 - Easts Golf and Leisure HW2013-1008 8 2.004 Agreement - 2017-18 signed</p>	<p>Trade waste is identified in the briefing papers and RWQMP. Section 4.1 of the briefing document provides a general description.</p> <p>The Trade waste policy and assessment demonstrate that consideration is given to the source water characterisation, although not specifically in relation to the quality of recycled water.</p>  <p>ML Office Photo 16</p> <p>PFAS was discussed with the auditees, and it was identified that there is a zero limit imposed for trade waste. This demonstrated the methodology adopted for the management of known “emerging” micropollutants.</p> <p>There is also a trade waste risk assessment, and the upcoming Nov 2023 risk review document was provided as evidence of ongoing consideration of the risks of trade waste on (predominantly) environmental license requirements. (SE-005 Trade Wastewater Risk Review Nov 2023 Draft).</p>	


Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	included in E11) as a means to capture changes in quality over time.	16.1.1.005 - Email communication example audit inspections Recycled Water customer 2023		
	<p><u>Field Audit Photos Below – Dungog Wastewater Treatment Plant</u></p>  <p>ML Field Photo 1 ML Field Photo 2 ML Field Photo 3 ML Field Photo 4 ML Field Photo 5</p>  <p>ML Field Photo 6 ML Field Photo 13 ML Field Photo 14 ML Field Photo 15 ML Field Photo 16</p>		The schematic and scheme descriptions were determined to be accurate during the site audit. No other environmental or asset management concerns were identified.	C
	<p><u>Field Audit Photos Below – Morpeth Wastewater and Recycled Water Treatment Plant</u></p>  <p>ML Field Photo 25 ML Field Photo 26 ML Field Photo 27 ML Field Photo 28 ML Field Photo 29</p>  <p>ML Field Photo 30</p> <p>Rechlorination of recycled water for Dual Reticulation</p>		The Morpeth WWTW and RWTP were audited and were found to be consistent with the documentation	C

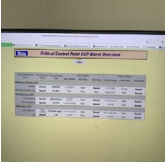

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	 <p>ML Field Photo 44 ML Field Photo 45</p>			
<p>Element 3 Demonstrate how preventive measures are related to the management of specific hazards and hazardous events and how this relates to the residual risk for those hazards and hazardous events (this may be included in the risk register?). Identify how additional or alternate preventive measures are evaluated and linked into improvement plans.</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 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>Previously referenced RWMPs</p>	<p>The evidence includes the risk assessments and a discussion of how the risk workshop has addressed this requirement. The risk assessments are thorough, and the bow tie methodology was able to be explained by the relevant Hunter Water auditees.</p> <p>One of the preventive measures for Chisholm and Gillieston is to maintain a pressure differential of 10m head is intended to reduce the risk of backflow, and the document notes there is an improvement item for a program of pressure monitoring and reporting, and an assessment by Water Network operations. This was noted to be intended to be confirmed in the first 12 months of operation. Data is provided for pressure monitoring in March 2023 indicating >10m head. It is noted that the data from June 2023 indicates that for a period of approximately 12 minutes, the differential was reversed with potable pressure 12 -18 m lower than the recycled water pressure. This demonstrates that despite best efforts, there are occasions where, if there was a cross connection, recycled water could, on occasion, enter the drinking water network. This emphasises that not all barriers can be 100% effective at all times, and that the implementation of an effective multibarrier approach is required to ensure the safety of the recycled water supply. Nonetheless, this 12 min period does not of itself (in the opinion of the auditor) pose a significant risk, or require additional barriers.</p> <p>During the audit of the water conservation clause, the auditor asked whether pressure reductions are</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>possible in dual reticulation areas, and it was immediately stated that the maintenance of pressure was a key preventive measure. This level of cross functional understanding between different areas within Hunter Water demonstrates a wide understanding of water quality requirements, which is specifically noted as outstanding.</p> <p>The control measure of locking out recycled water hydrants was demonstrated in the field.</p>  <p>ML Field Photo 46</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>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 (were 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/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>16.3.E03.001 - Establishment and Review of Recycled Water CCPs</p>	<p>A document was provided for establishment and review of CCPs, this is in addition to the documented CCPs included in the RWMP.</p>   <p>ML Office Photo 17 Dungog ML Field Photo 12 Morpeth WWTW and RWTP</p>    <p>ML Field Photo 35 ML Field Photo 36 ML Field Photo 37</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			 <p>ML Field Photo 38 ML Field Photo 39 ML Field Photo 40</p>	
<p>End User Controls – Identified in Field Audits</p>	<p><u>Photos from Field Audit</u></p>  <p>ML Field Photo 19 ML Field Photo 20 ML Field Photo 21 ML Field Photo 22 ML Field Photo 23</p>  <p>ML Field Photo 24</p>		<p>It was noted during the site visit to Dungog WWTP that the end user does have one small sign indicating recycled water is in use. The irrigators were provided by Hunter Water, and the pipes on site are clearly purple non-potable water pipes.</p> <p>However it is apparent that irrigation is occurring right up to the fence line (ML Field Photo 21) which is publicly accessible. The end user agreement identifies a requirement for a 25-30m buffer. This was not being implemented.</p> <p>While this specific aspect of the management system is not implemented effectively, the risk to public health is likely to be low, and therefore does not affect the overall implementation of the management system at a material level.</p> <p>Recommendation 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.</p>	NCMN
<p>Element 4 Identify the operational monitoring that is required to ensure that processes are effective. Provide relevant procedures to support operations</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>Documents are stored using TRIM</p> <p>Table 4-1 of the recycled water quality management plans contain scheme specific information on operational monitoring.</p>	<p>16.3.E04.011 - Recycled Water Quality Monitoring and Communication</p> <p>16.3.E04.003 - Chisholm 2 Chlorinator SCADA screenshot</p> <p>16.3.E04.011 - Recycled Water Quality Monitoring and Communication</p>	<p>Data has been provided demonstrating that appropriate parameters are monitored and reported.</p> <p>16.3.E04.011 identifies the processes by which Veolia operators are expected to comply with the RWMP, and to immediately report to Hunter Water if the water quality is out of specification (or may become out of specification).</p>	C-MS

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<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 CS0341 Treatment Operations Contract Practice Note PN110.</p> <p>EMM perform scheduled maintenance / checks at the chlorinator used in the Chisholm dual reticulation network. Water Network Operations checks the water quality (as described in E5) and if the chlorine is low/high, investigate the issue including the performance of the chlorinator. The chlorinator runs automatically and System Control monitor and respond where there are alarms (Chisholm 2 Chlorinator SCADA screenshot)</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>16.3.E04.010 - PN110 - Recycled Water Standards</p> <p>16.3.E04.014 - TEM-3124 HW - Dungog WWTW Weekly Duties</p> <p>16.3.E04.015 - TEM-3126 HW - Morpeth WWTW Weekly Duties</p> <p>16.3.E04.006 - MAN-2960 - Dungog WWTW Plant Operating Manual</p> <p>16.3.E04.007 - MAN-2969 - Morpeth WWTW Plant Operating Manual</p> <p>16.3.E04.004 - Dual Reticulation Recycled Water Report 20220914</p> <p>16.3.E04.012 - Recycled Water Report 20220914</p> <p>16.3.E04.005 - Feb23 Monthly Report 12 Biosolids and Effluent Reuse</p> <p>16.3.E04.008 - MAN-3068 - Wastewater Quality Management Plan</p>	<p>The Plant operating manuals and recycled water management plan provide all the relevant information for monitoring.</p> <p>When inspected on site, the Morpeth monitoring was observed to be compliant with the minimum requirement.</p> <p>There was evidence identified that on one occasion the Dungog operator (who identified that he was on sick leave for the day) did not collect samples on the Tuesday, which is one of the nominated 2 days for grab sampling. Given the plant is staffed throughout the week, it would be appropriate for the grab samples that are missed on one day to be made up for on another day rather than simply not taking them.</p> <div> </div> <p>ML Field Photo 7 ML Field Photo 8 ML Field Photo 9</p> <p>The issue was identified as infrequent, and not systemic, therefore has been assessed as compliant minor shortcoming, rather than non-compliant.</p> <p>Records at Morpeth were generally appropriate</p> <div> </div> <p>ML Field Photo 47</p> <p>As it does not affect the overall implementation of the management system at a material level there is a</p>	


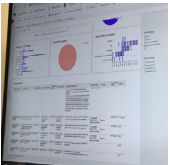
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>low risk of not being fully implemented to the point that it would not meet the licence obligation.</p> <p>Recommendation 2023-9-16(3): By 30 June 2024 implement a procedure so that water quality samples that are nominated to be collected and analysed at a frequency of less than daily, but were missed are made up on the next work day after the day on which they would otherwise be taken.</p> <p>For the Chisholm Scheme RWMP, it was identified that the CCP limits in SCADA match Figure 7-1 in the RWMP, but are inconsistent (tighter) than the CCP limits in Table 7-1</p> <p>Recommendation 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.</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>Veolia carry out daily (SCADA CCP EPL Alarm Reports), weekly (weekly reports) and monthly reporting (monthly Contract Report Sects 11 and 12) of key parameters. CCP Graphs in Element Prefix 16.3.1 show the Off Spec valve opening during time of CCP Alerts being triggered. External Laboratory also send out exceedance notifications to advise of analyte exceedances against specified targets.</p>	<p>16.3.E04.001 - CCP EPL Alarm Report 20230903</p>	<p>The RWMPs and CCP charts identify the action and reporting levels appropriately. Further, evidence provided has demonstrated that the actions are implemented as stated.</p> <p>The process for external laboratory exceedance notification is also robust</p> <p>Morpeth WWTP and RWTP</p>  <p>ML Field Photo 31 ML Field Photo 32 ML Field Photo 33</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			 ML Field Photo 34	
Identify the required frequency for internal and external water quality instrument calibrations (e.g. those used for implementing CCPs).	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.	16.3.E04.017 - WO 1007256816 DUN Monthly Verification, Turbidity Sensor 16.3.E04.018 - Wo 1007257127 MOR MONTHLY CALIBRATION OF PH ANALYSERS	Calibration work orders were sighted both through the provided evidence and on site at the WWTPs demonstrating that the processes identified are effective.  ML Field Photo 41	C
Provide any procurement information demonstrating that materials and chemicals used in recycled water are appropriate.	Veolia uses an Approved Supplier system for major chemicals to ensure control over supply reliability and quality. Veolia Wastewater Quality Management Plan (MAN-3068) specifies delivery documentation data required for quality assessment. All bulk chemical suppliers are required to submit a third party Certificate of Analysis (CoA) for the supplied chemicals. CoA's are required to be supplied for each delivery. Chemical specifications were included in the RFQ sent to suppliers for national chemical procurement.	16.3.E04.013 - Screenshot HW website - approved products 16.3.E04.016 - Veolia Mail - Fwd_ Certificate of analysis for Sodium Hydroxide batch 23C5013 Ref 13245151 Dungog WWTW 16.3.E04.002 - Certificate of analysis for Sodium Hydroxide batch 23C5013 Ref 13245151 16.3.E04.009 - Part C - Veolia RFQ Supply of Chemicals	Operators were interviewed during the on site audit and confirmed this process. The Morpeth operator also showed the folder containing all the certificates of analysis demonstrating that the identified process was being followed.	C
Element 5 Identify the verification monitoring that was intended to be undertaken and provide evidence that all samples	Routine recycled water quality monitoring is conducted weekly via a NATA accredited Laboratory to verify that recycled water complies with the specified targets. If there is a non-compliant result a group email is sent to	16.3.E05.015 - Recycled Water Quality Monitoring Plan	The recycled water monitoring plan was provided and is appropriate for these schemes.	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>were in fact collected and analysed (or provide justification as to why samples were missed). Provide the recycled water quality monitoring plan.</p>	<p>(recycledwaternotifications@hunterwater.com.au & FarleyMorpeth.DualReticSchemes@hunterwater.com.au). Hunter Water, Water Network Operations perform weekly checks on dual reticulation quality data and also provide a review to NSW Health in the quarterly liaison meeting.</p> <p>Sampling calendars are provided and accessible via the Hunter Water / Veolia Portal. This lab data is available in HWC's EnviroSys system.</p>	<p>16.3.E05.014 - Recycled Water Network Quality Weekly Checks</p> <p>16.3.E05.004 - Dual Retic WNO Weekly Check Procedure</p> <p>16.3.E05.013 - Morpeth WW RW, Dungog WW Labdata</p> <p>16.3.E05.017 - TEM-2877 (DUN-v6) HW - Dungog WWTW Sampling Calendar 2023</p> <p>16.3.E05.018 - TEM-2877 (MOR-v6) HW - Morpeth WWTW and RWTP Sampling Calendar 2023</p>		
<p>Identify the process for evaluating results to ensure they comply with the recycled water criteria, and how (and what) actions are triggered for results that are out of specification. 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>Veolia and ALS provide Hunter Water with weekly/exception reports detailing sample results vs required quality parameters. This report flags those analytes that are out of range against the required quality. The reporting requirements for routine sampling is detailed in the RWQMP.</p> <p>In addition monthly recycled water quality meetings are held in which Veolia provide a review of recycled water quality as well as a selected (and rotational) WWTW for more detailed review of effluent quality trends.</p> <p>There weren't any non-compliance results with these customers. In the event there were, written notification would be provided, recorded in the End Users Communication Log and on TRIM.</p>	<p>16.3.E05.012 - MAN-2799 - Incident and Emergency Management</p> <p>16.3.E05.005 - Dual Reticulation Recycled Water Report 20220914</p> <p>16.3.E05.020 - Veolia Mail - Fwd_ ALS EXCEEDANCE NOTIFICATION - RET_Morpeth RWTP (Sample Date_ 09-07-22)</p> <p>16.3.E05.011 - Incident Form 0861-RW-MOR</p> <p>16.3.E05.019 - TEM-3033 - RWQ Notification</p> <p>16.3.E05.016 - Sep22 Monthly Report 11 Incidents</p>	<p>The process for laboratory notification, then escalation of out of specification results was explained and is consistent with the evidence provided.</p>	C
<p>Identify how customer complaints are recorded and the process whereby complaints are investigated and actioned. Where any actions were taken</p>	<p>Hunter Water has a Call Centre guideline which outlines the process for managing service faults relating to water quality. Water quality complaints are captured and managed in two separate systems. The primary system for recording service faults relating to water quality is our</p>	<p>16.3.E05.002 - Call Centre Guideline - Recycled Water Priority</p>	<p>As there were no complaints, there was no evidence to audit.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>operational data base AOMS. Where customers express dissatisfaction, these are recorded as complaints. Water Quality complaints that have not been able to be resolved through the AOMS process and/or that may require further investigation, may be recorded in our complaints management system, Velocity. We also have an established Complaint Management Standard available on our website which outlines the overall process for how we manage complaints.</p> <p>Hunter Water's Business Service Delivery Lead's role is to be the principal contact within Hunter Water for commercial Recycled Water customers. Any complaints are managed by the BSDL and would be recorded in the End Users Communication Log Recycled Water Quality Management spreadsheet.</p> <p>Open communication and collaborative problem solving are encouraged and during the review period there haven't been any complaints lodged by customers.</p>	<p>16.3.E05.001 - Call Centre - Recycled Water Quick Guide</p> <p>16.3.E05.009 - IC9-003 - Water Quality Complaint - Velocity Example</p> <p>16.3.E05.010 - IC9-004 - Water Quality Complaints - March, 2023</p> <p>16.3.E05.007 - IC9-001 - AOMS - job example _ 2NTU</p> <p>16.3.E05.008 - IC9-002 - AOMS Job example - dirty water</p> <p>16.3.E05.003 - Customer Complaint examples - taste and odour, possible cross connection</p> <p>16.3.E05.006 - Excerpt Commercial End Users Communication Log RWQM spreadsheet 2023</p>	<p>With respect to the call centre guidelines and quick guide, this has been well thought through, and the processes are well documented.</p>	
<p>Element 6 Provide the incident and emergency response protocols. Detail the communication processes used to ensure that public health can be protected in the event of non-compliant recycled water quality.</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 developed in liaison with NSW Health and works in conjunction with Veolia's incident procedures.</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.</p> <p>Veolia maintain an incident report register, which records any early warnings or incidents and is a supplementary record of all incidents reported to HW</p>	<p>16.3.E06.003 - Dual Reticulation Recycled Water Quality Microbiological Exception Reporting & RWTPs CCP Breach Response</p> <p>16.3.E06.006 - Notification of Water Quality Events of Potential Public Health Significance to NSW Health</p> <p>16.3.E06.011 - Recycled Water Quality Incident Response procedure</p> <p>16.3.E06.009 - Potable and recycled water incident response map</p> <p>16.3.E06.002 - Corporate Emergency Management Plan</p>	<p>The relevant incident responses and notification procedures support the implementation of the corporate emergency management plan. The evidence provided indicates that there are suitable processes in place to identify, notify and manage incidents.</p> <p>It is noted that the agreement with Coorei expired in 2018, but a subsequent clause indicates the agreement continues in the present form on a monthly basis. Therefore, while the expiry has passed, the agreement holds.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>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>Hunter Water has prepared a specific procedure related to dual reticulation incident response - Dual Reticulation Recycled Water Exception Reporting procedure and Notification of Water Quality Events of Potential Public Health Significance to NSW Health. Hunter Water have developed a incident response map to assist with working through the different documents.</p> <p>Hunter Water has an overarching Emergency Management Plan which also discusses public and media strategies.</p> <p>Clause 9 'Safety and Environment' of the Commercial recycled water Agreement for the Supply of Recycled Water provides guidelines for Public Health incident response and Environmental contamination, outlining processes.</p>	<p>16.3.E06.010 - Process Incident Report Register DUN MOR</p> <p>16.3.E06.001 - Cooreei HW2013-1008 7 2.005 Agreement - executed Agreement expiry 30 June 2018</p> <p>16.3.E06.004 - Easts Golf and Leisure HW2013-1008 8 2.004 Agreement - 2017-18 signed</p> <p>16.1.1.005 - Email communication example audit inspections Recycled Water customer 2023</p> <p>16.3.E06.005 - MAN-2799 Incident and Emergency Management</p> <p>16.3.E06.007 - PN110 - Recycled Water Standards</p> <p>16.3.E06.008 - PN203 - Recycled Water Interruption Notification</p> <p>16.3.E06.012 - TEM-2801 Internal Incident Notification Process</p> <p>16.3.E06.013 - TEM-2802 Emergency Contact List</p> <p>16.3.E06.014 - TEM-3033 - RWQ Notification</p>		
<p>Element 11 Demonstrate the process for long term evaluation of results. Provide evidence of internal audits and the implementation of internal audit outcomes. Provide the past 2 annual end user audits for each of the relevant RW schemes (the audits undertaken outside of the audit timeframe are for information to demonstrate</p>	<p>Each month as part of the Monthly Process and Recycled Water (PoPs) meeting, the long term trends for a recycled water scheme are included as in attachment to the agenda for discussion.</p> <p>Internal audits are scheduled in line with the risk assessment schedule and recorded in the internal audit schedule. During the audit period 2023, audits associated with risk assessments were undertaken on Morpeth WWTW (including Easts Leisure and Golf) and Karuah WWTW recycled water schemes. Recycled water site</p>	<p>16.3.E11.010 - Recycled Water 1st Party Audit Report Karuah WWTW 2023</p> <p>16.3.E11.011 - Recycled Water 1st Party Audit Report Morpeth WWTW 2023</p> <p>16.3.E11.001 - 07_Morpeth WWTW and RWTP RWQLT</p>	<p>There are a number of processes used for reviewing the recycled schemes as in the written response from Hunter Water, which was demonstrated in the audit interviews. This includes graphing of long term performance.</p>	<p>NCNM</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>that any actions required previously are being appropriately followed up).</p>	<p>inspections have been included for Easts Leisure and Golf 2022 and Dungog Farm 2022 and 2023. 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.</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 Audit Library section of RIVO. Actions are captured in the Issues Management System on RIVO.</p> <p>Note: Morpeth customer - Lynch farms - have not accessed Recycled Water since 2017 and have no interest in recommencing supply in the near future. It is agreed by all parties that a cease supply be put in to place. Lynch will contact HW if there is future interest to recommence supply and a review and audit of the scheme could then be undertaken.</p>	<p>16.3.E11.002 - 10_Dungog WWTW RWQLT</p> <p>16.3.E11.003 - 221108 Minutes HW-Veolia POPs November 2022</p> <p>16.3.E11.004 - 221108 POPs Dungog RWQMP trends</p> <p>16.3.E11.007 - Hunter Water Internal Audit Report December 2022 - Environment</p> <p>16.3.E11.008 - Hunter Water Internal Audit Report December 2022 - Quality and Operations</p> <p>16.3.E11.009 - Hunter Water Internal Audit Report December 2022 - System Overview</p> <p>16.3.E11.014 - Recycled Water Site Inspection Dungog farm (Coorrei) September 2022</p> <p>16.3.E11.006 - Easts Golf and Leisure RW audit site visit report June 2022</p> <p>16.3.E11.013 - Recycled Water site inspection Dungog farm (Coorrei) Sept 2023 - draft</p> <p>16.3.E11.005 - Commentary document and evidence of communication 2023</p> <p>16.3.E11.015 - Screenshot of Recycled Water Improvement Plan showing East's Leisure and Golf actions</p> <p>16.3.E11.012 - Recycled Water Quality Improvement Plan September 2023 - Liaison meeting</p>	 <p>ML Office Photo 18</p> <p>The new Protecht system was demonstrated and this is now live through Hunter Water. This provides dashboard analysis of the performance of different business units and includes an audit dashboard This demonstrates that audits are planned and implemented.</p>  <p>ML Office Photo 19</p> <p>A number of audit reports were provided that demonstrate that internal audits are occurring.</p> <p>However, on detailed auditing, the Dungog farm audits (Coorrei) demonstrate that while the farmer is being asked about his procedures, this does not currently align with the end user requirements in the RWMP. Specifically, the audit report indicates that the farmer withholds stock for 3 days, when the end user agreement is a minimum of 5 days.</p> <p>In addition, during the site inspections, it is immediately apparent from the green irrigated grass that irrigation occurs right up to the boundary fence next to the public road (see ML Field Photo 21 – See Element 4). This is not in accordance with maintaining a buffer of 25-30 m from public access.</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>This is therefore raised as a non-compliance nonmaterial.</p> <p>It is noted that the WWTP has been significantly upgraded to a MBR with UV treatment plant where from the previous plant that was an Imhoff tank with trickling filters, and lagoon storage was required for helminth reduction. Given the increase in treatment log reductions, the end user requirements could be reviewed in conjunction with NSW Health.</p> <p>Recommendation 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.</p>	
<p>Element 12 Demonstrate how senior executives are informed 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>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 • Progress reporting against the strategic objective to maintain safe drinking water. • 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 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 (i.e.; AS/NZS 4801; ISO 14001; ISO 9001). • Veolia also maintain a procedure outlining responsibilities within their organisation for reporting to their Board and Executive Management Team. <p>An extract of the improvement plan worksheet tool as well as a recent improvement plan update to NSW Health is provided as evidence. In future Protecht is anticipated to</p>	<p>16.3.E12.007 - Risk driver analysis summary - Inability to manage recycled water 2023</p> <p>16.3.E12.003 - Hunter Water NSW Health Liaison Committee Meeting - June 2023</p> <p>16.3.E12.008 - Screenshot RWQ management spreadsheet - RWQMP review schedule</p> <p>16.3.E11.012 - Recycled Water Quality Improvement Plan September 2023 - Liaison meeting</p> <p>16.3.E12.008 - Screenshot RWQ management spreadsheet - RWQMP review schedule</p> <p>16.3.E12.002 - Hunter Water and Veolia CMG Meeting September 2023</p>	<p>Evidence was provided of regular liaison meetings including NSW Health, and ongoing Process and Operations meetings with Veolia. There was also evidence of reviews of RMIP programs and inclusion of recycled water in the wider IMS management review meetings with the Executive Management Team.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>support management of improvement plan actions The current process is complemented by risk treatment plans, investment plans developed for water quality, water quality committee/health liaison tracking, follow up actions from incident investigations and individual action plans held by different areas of the business. We anticipate that further actions can be taken to enhance the presentation of a consolidated improvement plan using the Protecht software.</p>	<p>16.3.E12.005 - Minutes IMS Management Review Meeting May 2023 16.3.E12.006 - Risk Assurance Review Meeting - May 2023 16.3.E12.001 - 221108 Minutes HW-Veolia POPs November 2022 16.3.E12.004 - MAN-3073 - BMS Live - Change Log</p>		

3.1.12 S21(1)

Condition:

Hunter Water must maintain a Management System in relation to Hunter Water's Assets that is consistent with the Australian Standard AS ISO 55001:2014 Asset management - Management systems – Requirements, or other standard approved by IPART in writing, (the Asset Management System).

Overall Grading for condition:

Compliant

3.1.13 S21(2)

Condition:

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

Despite the non complaint - non material and compliant – minor shortcoming, the Licence condition is assessed as compliant – minor shortcoming. As it does not affect the overall implementation of the management system at a material level there is a low risk of not being fully implemented to the point that it would not meet the licence obligation.

Overall Grading for condition:

**Compliant – Minor
Shortcoming**

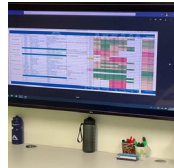
Reason for grading: The overall asset management system (AMS) is comprehensive and includes management of the relevant elements within the standard. There were three areas of the AMS that require further improvement in their implementation as detailed in the following table. The resourcing structure of the AMS for planned activities, asset critical lists including safety critical devices were both considered to be compliant – minor short coming as they had demonstrated the intent of the standard requirements was partially implemented with further work required to fully meet the standard requirement. The field visit to Medowie Reservoir identified a non complaint – non material finding related to asset integrity of the reservoir vermin proofing installation. The asset requires inspection of the vermin proofing to ensure the assets integrity has not been compromised. During the field visit it was confirmed that the inspection is undertaken from the ground not allowing for an adequate assessment of the assets integrity, therefore requiring rectification. As it does not affect the overall implementation of the management system at a material level there is a low risk of not being fully implemented to the point that it would not meet the licence obligation.

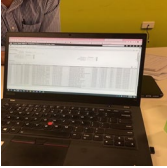
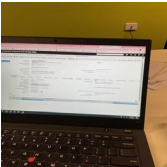
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>4. Context of the organisation. Provide evidence that outline the following:</p> <ul style="list-style-type: none"> - Describe what makes up the AMS in its entirety. - Demonstrate how you ensure the AMS is implemented. - SAMP that includes the scope of the AMS - Asset management policy or plans/procedures that outlines the organisation context (internal and external) stakeholder needs/expectations (i.e. SWOT) - Any plans/procedures for developing the asset management system 	<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>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>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 2023.</p>	<p>21.1.C04.003 - SAMP - Version 5</p> <p>21.1.C04.001 - 2023 ISO Audit Report BV</p> <p>21.1.C04.002 - AU005512-1 Hunter Water 55001 Certificate July 2023</p>	<p>The SAMP is comprehensive and meets the requirements under the standard. It includes a clear scope and purpose of the AMS, demonstrates the function and leadership group responsible for implementation of the AMS, and includes a clear summary of the key internal/external stakeholders and their requirements and/or expectations.</p> <p>The Asset management Policy includes accountability for implementation.</p> <p>The SAMP and policy clearly identify the organisational context.</p> <p>Both the Dugong WTP Facility Plan and the Reservoirs Asset Class Plan - March 2023 provide sufficient information to meet the standard as a plan for developing the asset management system</p> <p>Maturity of the systems via the IMS demonstrates effective implementation across core business processes.</p>	C
<p>5. Leadership Provide evidence that outline the following:</p> <ul style="list-style-type: none"> - Asset management policy - Any plans/procedures demonstrating leadership commitment and roles and responsibilities including authorities (i.e. regulatory bodies) 	<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>Asset Management Leadership</p>	<p>21.1.C05.004 - Policy - Asset Management 2021</p> <p>21.1.C05.005 - SAMP - Version 5</p> <p>21.1.C05.006 - Miromaliko Baato - Corporate Strategy</p>	<p>Asset management Policy provided meets standard requirements.</p> <p>Clear leadership commitment is provided in the Miromaliko Baato - Corporate Strategy, Asset Management System Steering Committee - Terms of Reference with supporting material in the AMS minutes</p>	C

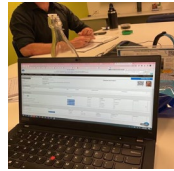
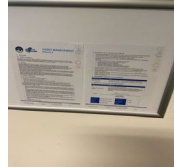
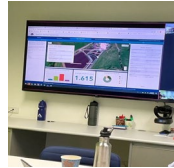
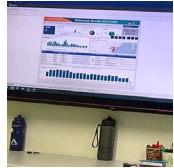
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Strong asset management leadership ensures that the asset life cycle activities are prioritised and consistently implemented to ensure the objectives are achieved. Leadership is provided in many ways at Hunter Water, including 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 HWC's asset life cycle. In order to fulfil its objectives, the AMS Steering Committee will:</p> <ol style="list-style-type: none"> a. Develop strategic actions for the continuous improvement of the AMS. b. Ensure the AMS process is effective and appropriately resourced. c. Review relevant AMS documentation and make recommendations for approval. d. Ensure adequate internal and external stakeholder review of AMS processes and procedures. 	<p>21.1.C05.001 - Asset Management System Steering Committee - Terms of Reference</p> <p>21.1.C05.002 - Minutes - AMS SC Meeting 2023.05.01</p> <p>21.1.C05.003 - Minutes - AMS SC Meeting 2023.07.31</p>	<p>demonstrating continual improvement and alignment to identified regulatory bodies (i.e. IPART) as discussed findings.</p>	
<p>6. Planning Provide evidence that outlines the following: - Documented assessment management objectives for strategic, tactical, and operational.</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. Table 3 of the SAMP provides an overview of the alignment</p>	<p>21.1.C06.009 - File note - Review and update of SAMP Objectives - 2022</p> <p>21.1.C06.015 - Standard - Critical Assets</p>	<p>Strategic asset management objectives are contained within the SAMP and the Miromaliko Baato - Corporate Strategy.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<ul style="list-style-type: none"> - Asset criticality and measures to control - Review of asset management objectives - An example asset management plan (i.e. WTP asset) - Improvement plan for identified risk or opportunities requiring action/improvement - Asset risk management including risk improvement plan or demonstrate how this is addressed through the planning process. Also outline how the effectiveness of actions taken are evaluated. - Demonstrate how life cycle assessment/costs is undertaken in the planning process - Any asset failure contingency or resilience plans (i.e. key Sewer PS failure or flooding) 	<p>between SAMP objectives and HWC's business strategy.</p> <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.</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</p>	<p>21.1.C06.017 - Risk Driver Analysis Summary - Critical Assets 2023</p> <p>21.1.C06.007 - Enterprise Risk Management Standard</p> <p>21.1.C06.001 - ACF Gateway Process Overview</p> <p>21.1.C06.011 - Miromaliko Baato - Corporate Strategy</p> <p>21.1.C06.010 - Growth-Plan 2023</p> <p>21.1.C06.016 - Strategic Case – Safe and Reliable Water Services</p> <p>21.1.C06.005 - Business Case - Investment Plan - Water Quality - 17 July 2023</p> <p>21.1.C06.012 - Presentation - POAP Water Quality</p> <p>21.1.C06.006 - Dungog WTP Facility Plan</p> <p>21.1.C06.014 - Reservoirs ACP - March 2023</p> <p>21.1.C06.018 - Template - Asset Class Plan</p> <p>21.1.C06.004 - Business Case - Grahamstown WTP Replacement of Stage 1 Filter Gallery Air Scour Pipework</p> <p>21.1.C06.008 - File note - NPV Analysis GTown Stage 1 Filter Gallery</p> <p>21.1.C06.013 - Farley WWTW Stage 3B Upgrade Assessment G6 - June 2023</p> <p>21.1.C06.002 - BCP7 – Dungog WTP</p> <p>21.1.C06.003 - BCP7 Water Supply Network</p>	<p>Tactical and operational risk provided in the Dungog WTP Facility Plan and Reservoirs ACP.</p> <p>Asset criticality is captured in the SAMP and the associated Asset Class Plans. Asset criticality is determined by evaluating the consequence of asset failure, using Hunter Water's Standard - Critical Assets HW2018-111.001.</p> <p>Measure to control is managed through a local impact rating. Each plant system is given a Consequence of Failure category consistent with Hunter Water's Standard – Enterprise Risk Management which then is monitored and measured to control the asset risk.</p> <p>The SAMP contains eight asset management objectives. A review of the asset management objectives was undertaken with recommended changes to be made as contained in the File note - Review and update of the SAMP objectives - 2022.</p> <p>Both the Dungog WTP Facility Plan and the Reservoirs ACP - March 2023, contain adequate information to meet the standard requirements for an "asset management plan". There is clear linkage from the site-specific plans to the SAMP and corporate strategies.</p> <p>There is multiple evidence of improvement plans provided in the evidence which include the risk and opportunities requiring action or improvement.</p> <p>Asset risk management is managed through the Standard - Enterprise Risk Management. The planning process uses a "gateway process" as outlined in the ACF Gateway Process Overview. The gateway process includes the identification of investment programs to be evaluated through the planning process. Each</p>	

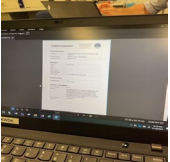
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Reliable Water Services and the Water Quality Investment Plan is provided. The Hunter Water Growth Plan 2023 is also provided and available via our website.</p> <p>Service & Asset Planning</p> <p>Hunter Water implements 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 Dungog WTP and Reservoirs. For clarity on the scale of planning and investment undertaken, the 2020-25 Price Submission provides a comprehensive assessment (please refer to HWC website, see 'Technical Papers'; https://www.hunterwater.com.au/about-us/publications/regulatory-reports. Example HWC Business Continuity Plans (BCP) is provided for both Dungog WTP and Water Supply Network.</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</p>		<p>project has a project specific "Project Risk Management Plan". The effectiveness of actions taken are evaluated through the business case when seeking approval to proceed, with the benefits realisation completed after the delivery of the project assessing the effectiveness of the project against the risk item and ERM.</p> <p>Lifecycle costs are undertaken in the planning process using Net Present Value (NPV) and Multi Criteria Analysis (MCA) to align to the Asset Management Objectives. This is then contained within the Business case and is reviewed and approved by the Management Investment Committee (MIC). The evidence provided in File note - NPV Analysis GTown Stage 1 Filter Gallery is extensive and demonstrates meeting the standard requirements.</p> <p>Asset failure and contingency planning is contained within the BCP7 Water Supply Network and BCP7 – Dungog WTP. Key "events" (i.e. asset failure, power outages, flooding etc.) are documented under the scenarios relate to the critical business process (i.e. critical water treatment plant).</p>	

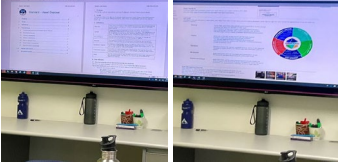
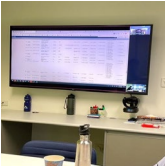
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>of meeting a current or future service standard at the lowest long run cost. Refer to summaries for the Asset Creation Framework (ACF) and Gateway Approval Process. Our gateway process is a modified version of the NSW Treasury 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 examples for investment approval business case.</p>			
<p>7. Support Provide evidence that outlines the following: - Plans or documented information that shows future asset renewal that requires additional resources or materials or whether there will be changes to assets in the future requiring different skills to manage - Overview of the planned and unplanned maintenance activities and system that manages this - Any necessary training and/or competency assessment for personnel - Any training and awareness programs delivered during the audit period - Contractor and staff work management system showing how the asset management activities are managed (i.e. work order</p>	<p>Training, Awareness & Communication Evidence of training completed in relation to the Asset Management System and its implementation. AMS Competency Framework 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. Asset Renewals Asset Renewals are prioritised in accordance with condition assessment programs, engineering standards, asset creation</p>	<p>21.1.C07.007 - RE_ AMS Awareness Training - ELSA 21.1.C07.006 - RE_ AMC AM Fundamentals - List of people 21.1.C07.003 - Design Assurance Training - Participants Master List 280923 21.1.C07.001 - AM Competencies Model v5.08 21.1.C07.008 - SR Response Template _Asset Management System Phase 2 21.1.C07.010 - Damstra report for HWC electricians 21.1.C07.004 - File note - VP2633 MOR Digester Blower 1 Replacement PDP</p>	<p>The AM competencies Model v5.08 details the "current" resourcing and training needs analysis (TNA). There was evidence of the "future" resourcing required for changes in asset type or identification within the business case for the new desalination plant including a variety of resources for the key skills in the first 3 years of operation. Furthermore, Hunter Water ask Veolia to review the preventive maintenance and tasks in their forecasting to ensure adequate resourcing is included.</p> 	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>system with assigned persons and completion).</p> <ul style="list-style-type: none"> - Outsourced contractors demonstrated competency on the required activities (i.e. electrician suitably qualified etc) - Asset management policy displayed at site (i.e. WTP) - Overview and demonstrate how asset management performance is displayed to the business (i.e. noticeboard, Power BI) - How changes or risks are communicated within the business including an example - An example of an incidents related to asset failure or change in asset operation and how this was managed and communicated - Asset management data information storage and management (i.e. digital system , software, spreadsheet) - Asset financial information (i.e. cost, replacement cost, OPEX, CAPEX, depreciation) - Asset data quality management (i.e. data review and validation) - Asset condition assessment 	<p>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.</p> <p>Asset Information and Data Management</p> <p>The HWC Information, Control & Energy Group is a key interface between the Customer and Operations Groups, Maintenance and Engineering. They are customer outcome and process focused, duties include: system monitoring and control, dispatch, resource management, after-hours customer service, operational change management, trend analysis, incident prevention, incident triage and management, information management, SCADA (and alarm) management, operationalising new assets, energy management, energy efficiency and productivity and management of automation and control systems.</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 	<p>21.1.C07.011 - File note - VP2275 DUN WTP Generator Diesel Tank Replacement PDP r2</p> <p>21.1.C07.012 - File note - VP2553 MOR Effluent Pump #1 VSD Replacement_PDP R2</p> <p>21.1.C07.009 - Trunkmain Break Risk Assessment - DN600 DICL - Aug 23</p> <p>21.1.C07.014 - RW Xconneciton May 2023 Internal Review Report</p> <p>21.1.C07.005 - IPART OL Audit 2023 - EMM workflow Asset Management</p> <p>21.1.C07.015 - treatment plant Audits example 2023 example</p> <p>21.1.C07.002 - Asset Solutions Monthly Report_August 2023</p> <p>21.1.C07.-17 - Water Network & Recycled Water Asset Revaluations - Final Report 2023</p> <p>21.1.C07.013 - FW_ IPART OL Audit for AMS - Ellipse and VAMS</p> <p>21.1.C07.016 - Treatment Plant Condition Assessment Dashboard</p> <p>21.1.C07.018 - Water trunks mains Dashboard</p>	<p>SC photo 5</p> <p>Ellipse is used for work orders and an example of the planned maintenance schedule and the unplanned maintenance records was provided meeting the condition.</p>  <p>SC photo 6</p> <p>Training and competency is comprehensive and detailed in the AM competencies Model v5.08. Records during the audit period supplied in the following:</p> <ul style="list-style-type: none"> - RE_ AMS Awareness Training - ELSA - RE_ AMC AM Fundamentals - List of people - Design Assurance Training - Participants Master List 280923 <p>Details shown in evidence FW_ IPART OL Audit for AMS - Ellipse and VAMS of the ellipse system and also includes assigned people.</p>  <p>SC photo 7</p> <p>Standard requires current resources mapped to required resources for planned activities. The AM competencies Model v5.08 details a role matrix by asset management principals and is comprehensive.</p>	

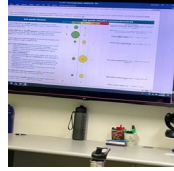
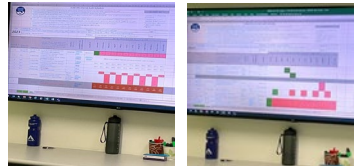
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>includes Veolia’s inherent, controlled, and post-project risk assessments.</p> <ul style="list-style-type: none"> Step 2 – Hunter Water prioritises PDPs based on risk and available capital funding, converting to Hunter Water’s 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). Step 3 - Prioritised PDPs are approved and implemented. Three PDPs are provided as examples. 		<p>Damstra report for Hunter Water electricians shows details on electricians which meets the standard and also includes outsourced contractors with review dates of currency imbedded in the system.</p>  <p>SC photo 8</p> <p>Current version of the Asset Management Policy cited at head office</p>  <p>SC photo 9</p> <p>Treatment Plant Condition Assessment Dashboard, Water trunks mains Dashboard and Asset Solutions Monthly Report August 2023 shows the asset management performance.</p> <p>Dashboard witnessed during audit which is detailed and comprehensive.</p>   <p>SC photo 10 SC photo 11</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>Treatment options renewals overview describes how this is communicated through the business. Example evidence provided in Trunkmain Break Risk Assessment - DN600 DICL - Aug 23 and the Water trunks mains Dashboard</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.</p> <p>Asset data information details shown in evidence FW_ IPART OL Audit for AMS - Ellipse and VAMS of the ellipse system.</p> <p>Asset financial information evidence supplied in Water Network & Recycled Water Asset Revaluations - Final Report 2023 details the evaluation and asset financial information. Asset financial information is also contained within the fixed asset register in ellipse.</p> <p>VAMS and ellipse contain relevant information on asset data which is reviewed and maintained by the team against internal KPIs and operational targets. VAMS and ellipse systems are aligned by the work order to ensure consistency between the systems is captured for quality data purposes.</p> <p>Treatment Plant Condition Assessment Dashboard and Water trunks mains Dashboard are used to display the asset condition assessment. An example of the asset condition assessment for a pump station was provided. Details and assessment is comprehensive. A copy of the draft Network Condition Assessments was cited during the audit which captures relevant information related to asset condition for a network.</p>	

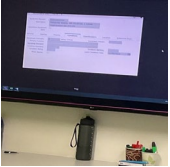
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			 <p>SC photo 12</p>	
<p>- Resourcing structure of the AMS for planned activities (i.e. internal functions/teams vs outsourcing)</p>			<p>Standard requires current resources mapped to required resources for planned activities. The AM competencies Model v5.08 details a role matrix by asset management principals however it does not clearly identify and articulate the internal vs external resourcing under the AMS.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p> <p>Recommendation 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.</p>	C-MS
<p>8. Operation Provide evidence that outlines the following: - Any management of change (MoC) procedures or plans and example - Plans or documents related to asset delivery, acquisition, utilisation, maintenance renewal and decommissioning - Asset performance reporting or tracking - Any technical standards used by the organisation and how these are managed and controlled</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 HWC website.</p> <p>Management of Technical Change</p>	<p>Standards are available via HWC website.</p> <p>21.1.C08.016 - Form - Technical change request - Citric acid sloped tank floor Paxton WWTW</p> <p>21.1.C08.019 - Technical change request - Storage bund grading WT-LEM non ionic polymer</p> <p>21.1.C08.018 - Standard - Management of Technical Change</p>	<p>Comprehensive evidence that MoC is evident and meets standard requirements.</p> <p>Hunter Water intranet page contains a central location for all documents and standards related to the asset life cycle assessment including a decommissioning standard. Details contained with in the page a centralised for ease of use and access and demonstrate a clear understanding and management of the asset life cycle using the system approach.</p>	C

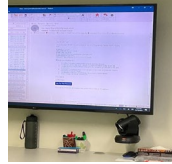
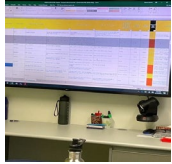
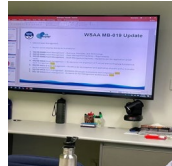
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>- Any operational plans or procedures or instructions related to asset operations (i.e. SOP for chemical dosing)</p> <p>- For outsourced operations overview of governance and reporting as well as performance criteria for contractor. Also include performance review example</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, HWC utilises Proci change management methodology. An example change management plan is provided for HBT implementation for drinking water quality management.</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>Network Isolation Procedures</p>	<p>21.1.C08.014 - Change-Management-Plan-Microbial Health-Based Targets implementation</p> <p>21.1.C08.011 - Work Instruction 001 – Working on Potable Water Mains and Fittings</p> <p>21.1.C08.012 - Work Instruction 006 – Conduct First Response Including Diagnostics</p> <p>21.1.C08.003 - BPR June 2023</p> <p>21.1.C08.002 - AOMS Dashboard - Example</p> <p>21.1.C08.013 - WWPS Dashboards – overview</p> <p>21.1.C08.009 - State of the Assets Report 2023_Septemberr</p> <p>21.1.C08.010 - treatment plant Audits example 2023 example</p> <p>21.1.C08.020 - CS0341 Treatment Operations Contract - Schedules - some exclusions</p> <p>21.1.C08.001 - 2023 Work order Vs Assets - Veolia Memo</p> <p>21.1.C08.008 - MCR CS0341 - August 2023</p> <p>21.1.C08.007 - MCR CS0341 - August 2023 - Attachments A and B</p> <p>21.1.C08.017 - MCR CS0341 - August 2023 - Attachments C, D and E</p> <p>21.1.C08.005 - IPART OL Audit 2023 - EMM workflow Asset Management</p>	 <p>SC photo 13 SC photo 14</p> <p>The State of the Assets Report 2023_September details the annual status report which provides a snapshot of Hunter Water's asset capability and performance.</p> <p>Grit bin example for deferral due to asset condition using non-destructive testing.</p> <p>As an opportunity for improvement, Hunter Water could consider tracking when an item in the action list has been deferred to further the understanding of the potential increased risk of an asset failure if the action is deferred again in the future. The Asset deficiency register is comprehensive and tracked well.</p> <p>HW standard technical specifications (STS), standard drawings and design manuals define default technical requirements for a variety of materials and classes of work associated with the construction and maintenance of the water and sewer systems. Viewed all the STS on the HW website, comprehensive and practical standards. Offline review library used for managing document control in SharePoint.</p>  <p>SC photo 15</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Work instructions 001 and 006 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 monthly report is provided.</p>		<p>Plans related to asset operation are included in the Work Instruction 001 – Working on Potable Water Mains and Fittings and Work Instruction 006 – Conduct First Response Including Diagnostics that details relevant information to meet the standard requirements.</p> <p>The CS0341 Treatment Operations Contract - Schedules - details the overview and governance for the outsourced operations at Hunter Water.</p> <p>Performance on the operations was provided in monthly reports and works order vs assets in the following:</p> <ul style="list-style-type: none"> - 2023 Work order Vs Assets - Veolia Memo. - MCR CS0341 - August 2023 - MCR CS0341 - August 2023 - Attachments A and B - MCR CS0341 - August 2023 - Attachments C, D and E 	
<p>9. Performance evaluation Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - Asset performance reports and performance monitoring example - Overview of performance metrics for different asset criticality - overview of asset functional and failure modes (i.e. FMECA or PF) - Internal audits undertaken during the audit period - Management review minute or documentation 	<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.</p> <p>Implementation of the asset management system is monitored through the Compliance and Performance Report, Business Performance Report, Risk Driver Analysis Summaries, System Performance</p>	<p>21.1.C09.017 - Risk Driver Analysis Summary - Critical Assets 2023</p> <p>21.1.C09.005 - Compliance-and-Performance-Report-2022-23</p> <p>21.1.C09.004 - BPR June 2023</p> <p>21.1.C09.003 - AOMS Dashboard - Example</p> <p>21.1.C09.014 - WWPS Dashboards – overview</p> <p>21.1.C09.012 - Template - National Performance Report 2022-23</p>	<p>Implementation of the asset management system is monitored through the Compliance and Performance Report, Business Performance Report, Risk Driver Analysis Summaries, System Performance Dashboards (E.g. AOMS, Operating Licence), 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>	C

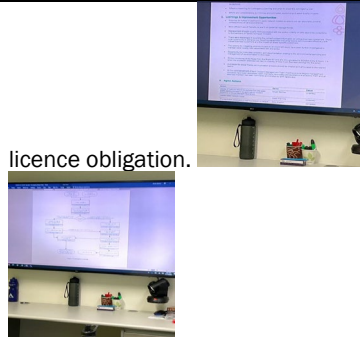

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Dashboards (E.g. AOMS, Operating Licence), Internal Audits, Asset Management Steering Committee, National Performance Reporting, WSAA AMCV benchmarking report, Management System Reviews. Specific indicators for public viewing 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>WSAA AMCV benchmarking report</p> <p>Hunter Water participated in the five-yearly WSAA Asset Management Benchmarking Program in 2020/2021 and has done so since 2004. Hunter Water seeks to continually improve its practice, particularly as the industry rapidly moves towards recognition of the integral nature of asset management with that of service delivery, health and safety, environmental benefits, the circular economy, customer value, and higher service standards.</p> <p>Example internal audit - Electrical Safety</p> <p>As part of the Hunter Water Corporation ('Hunter Water') internal audit plan for 2022/23, Deloitte Touche Tohmatsu ('Deloitte') undertook an internal audit on the design and operating effectiveness of the key controls in place to effectively manage electrical safety for Hunter Water and third-party service delivery partners. Electrical activities at Hunter Water are primarily completed by the Electrical and Mechanical Maintenance ('EMM') and Civil Maintenance ('Civil') teams in the Customer Delivery Division. A suite of documented processes</p>	<p>21.1.C09.007 - HWC Operating Licence Performance Dashboard 22-23</p> <p>21.1.C09.011 - State of the Assets Report 2023_September</p> <p>21.1.C09.013 - treatment plant Audits example 2023 example</p> <p>21.1.C09.002 - AMCV 2020 Utility Report_Hunter Water FINAL_20201202</p> <p>21.1.C09.015 - FMECA Template Spares review - 18-08-23</p> <p>21.1.C09.010 - MCR CS0341 - August 2023</p> <p>21.1.C09.009 - MCR CS0341 - August 2023 - Attachments A and B</p> <p>21.1.C09.008 - MCR CS0341 - August 2023 - Attachments C, D and E</p> <p>21.1.C09.001 - 2023 Work order Vs Assets - Veolia Memo</p> <p>21.1.C09.006 - Deloitte - HWC - WHS (Electrical Safety) IA FINAL Report - 10 May 2023</p> <p>21.1.C09.018 - treatment plant Audits example 2023 example</p> <p>21.1.C09.016 - Risk Assurance Review Meeting - 4 May 2023</p>	<p>Risk appetite statements and table contain information related to asset type and the performance of the assets. Further classification has started, and classes will be further refined during this process. Consideration of safety critical items in ellipse should be coded as safety critical, noting the system has the capability to include. Team will include as the rollout begins.</p>  <p>SC photo 16</p> <p>Failure modes, effects, and criticality analysis (FMECA) template spares review completed in August.</p> <p>Deloitte - HWC - WHS (Electrical Safety) IA FINAL Report - 10 May 2023 provided as internal audit evidence. Comprehensive audit with practical outcomes.</p> <p>Treatment plant Audits example 2023 example provided shows the typical process of an audit at a treatment plant.</p> <p>Veolia audit each year against whether they undertake maintenance according to the plan</p> <p>2 Lines of Defence (2LoD) program provided during audit.</p> 	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>has been developed to manage how work is completed, as well as associated control measures. In particular, the Lifesavers processes, which capture control measures and electrical safety initiatives, as well as works on or near electrical services below ground and overhead power lines.</p>		<p>SC photo 18 SC photo 19</p> <p>Evidence provided in the Risk Assurance Review Meeting - 4 May 2023. Contains information on management review for the IMS (and AMS).</p>	
<p>- Asset critical lists including safety critical including associated risk with failure including financial and non-financial</p>	<p>Management System Review</p> <p>The 4 May 2023 quarterly risk assurance review meeting includes a section communicating the status of the IMS and its management systems.</p>		<p>Asset criticality is captured in the SAMP and the associated Asset Class Plans. Asset criticality is determined by evaluating the consequence of asset failure, using Hunter Water's Standard - Critical Assets HW2018-111.001.</p> <p>Consideration of safety critical items in ellipse should be coded as safety critical, noting the system has the capability to include. Team will include as the rollout begins.</p> <p>Safety critical devices not included in the asset criticality. Asset criticality relies on civil, electrical, and mechanical engineering disciplines and consideration to process safety should be included as the system progresses. It is noted that there is pressure vessel standards and management which indicates process safety is considered at that asset level, however Cessnock WWTW has an anaerobic digester and cogenerator which contains processes that require process safety principles implemented and safety critical devices identified i.e. biogas management.</p> <p>Hazardous Area standard has been adopted from WSAA and Hunter Water have engaged a consultant to undertake evaluation of hazardous areas for Hunter Water operations which will include a Hazardous Area dossier.</p> <p>Managing process safety can be applied by using a number of systems and processes already identified in the AMS by considering a</p>	<p>C-MS</p>





















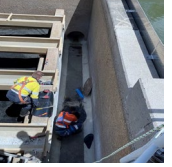
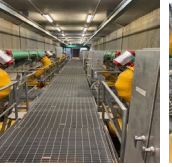
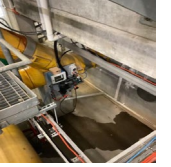












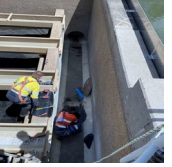
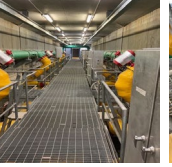
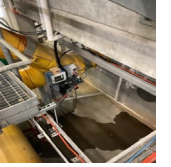
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>process safety framework such as the IChemE Safety Centre (ISC) framework Core Body of Knowledge. More information can be found below;</p> <p>https://www.icheme.org/media/12083/113-managing-process-safety-2e.pdf</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the licence obligation.</p>  <p>SC photo 17</p> <p>Recommendation 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..</p>	
<p>10. Improvement Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - Corrective action plan and status - Corrective action implementation - Preventative and predictive actions overview and example - Updated standards or changes to legislation that are applied to the AMS or SAMP - Human resources undertaking specialist training, conferences, or participation in professional bodies forums (i.e. Engineers Australia) 	<p>Corrective actions - Examples</p> <p>In May 2023, a dual reticulation recycled water cross connection occurred in the Chisholm system and was subsequently rectified. An incident review report was produced. In addition, a DN600 trunk main break risk assessment is also provided.</p> <p>Example preventative maintenance program - Gravity sewer pipes</p>	<p>21.1.C10.005 - Trunkmain Break Risk Assessment - DN600 DICL - Aug 23</p> <p>21.1.C10.006 - RW Xconneciton May 2023 Internal Review Report</p> <p>21.1.C10.002 - AMS Improvement Plan - Working Copy</p> <p>21.1.C10.001 - AMPEAK 2023 Hunter Water Digital Asset Class Plans (1)</p>	<p>Provided evidence Trunkmain Break Risk Assessment - DN600 DICL - Aug 23, which details the assessment of an action and rectification. Currently adding relevant details to Protecht for new incidents requiring corrective actions which will significantly improve tracking and management. A list of corrective actions and status related to crucial assets are included in ERM crucial assets 2023.</p>	C


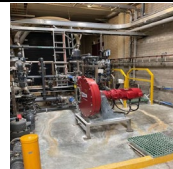
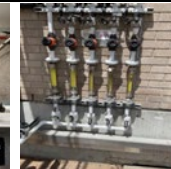











Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>- Research and innovation activities related to assets</p>	<p>Hunter Water has historically had some of the highest rates of blockages of major Australian utilities. There are several local specific network, climatic and development factors that contribute to the rate, however, there has been a strong corporate focus on improving performance. A preventive jetting program was a key initiative implemented. The program was based on an adaptive selection model that used historical data, network characteristics and recent interventions to prioritise pipes likely to block in the near future. Assessments of the initial trials found that sewer pipes included in the preventive jetting program were 45% less likely to have a blockage compared to a control group. Preventative pipe cleaning was found to have a cost of less than half the average reactive blockage clearing costs and avoids the impacts to the environment and community. This was due to the opportunistic nature of the delivery model, with work issued as 'fill-in' jobs when crews a near a pending preventative cleaning task. A climate corrected sewer overflow model was developed to better assess the performance of jetting and other initiatives on total system wastewater overflow by accounting for the natural changes in overflow rates. The combined improvement across all dry-weather overflow works is currently an overflow reduction of more than 40% less than climate corrected value (rolling 12-month window), with the 22/23 performance a ~50% reduction from the 5-year average performance prior to interventions (2014/15-2018/19).</p> <p>AMS Improvement Plan</p>	<p>21.1.C10.004 - Ozwater23_Poster_Anna_Mollergren</p> <p>21.1.C10.003 - Full Paper A TALE OF TWO MBR PLANTS Ozwater23</p>	<div style="display: flex; justify-content: space-around;">   </div> <p>SC photo 20 SC photo 21</p> <p>Hunter Water are members of the WSAA and receive notification of any changes to standards. They are also part of the WSAA Asset Management working group where they have in depth involvement ensuring awareness of nay upcoming changes to legislation or standards. Furthermore, other legislative changes will be advised by internal legal counsel.</p> <p>Evidence provided on HW staff participating in professional forums.</p> <ul style="list-style-type: none"> - AMPEAK 2023 Hunter Water Digital Asset Class Plans (1) - Ozwater23_Poster_Anna_Mollergren - Full Paper A TALE OF TWO MBR PLANTS Ozwater23 <p>Simon Groves is also the WSAA representative for the upcoming review of ISO 55001</p> <p>Rowan Lonergan was currently in Kathmandu providing Asset Management Support to the utility provider.</p> <div style="text-align: center;">  </div> <p>SC photo 24</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<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>Research and innovation example is the use of Kevlar pipe liner for pipe refurbishment. Trialled relining and assessed products to solve pipeline refurbishment reducing capital costs and renewing asset life of critical infrastructure.</p>	
<p>- Asset failure investigation report including root cause analysis</p>	<p>Hunter Water Staff Participation in professional forums</p> <p>A number of examples are provided from the audit period (e.g. OzWater, AMPEAK).</p>		<p>The RW cross connection May 2023 Internal Review Report provides incident details and rectification however did not provide details on root cause analysis.</p> <p>Another example provided was the Wallsend water main leak lessons learnt report. The report was comprehensive but did not contain a root cause analysis.</p> <p>The incident investigation procedure contains the requirement to undertake root cause analysis using either Taproot or ICAM "if required". It is recognised that root cause analysis can be completed in a workshop process identifying the root cause analysis. This has clearly been applied during these incidents and therefore consideration on including a "root cause workshop" in the incident investigation process would still meet the appropriate process for determining the root cause of an asset failure.</p> <p>The finding is considered compliant with a minor shortcoming that is required to be addressed. It has been evaluated that the minor shortcoming is unlikely to an impact on the PWU meeting the objectives of the</p>	<p>C-MS</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			 <p>licence obligation.</p> <p>SC photo 22 SC photo 23</p> <p>Recommendation 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.</p>	
<p>Medowie Reservoir - Identified in Field Audits</p>	<p>Photos below from field audit</p>  <p>SC photo 47 SC photo 54 SC photo 52 SC photo 53</p>		<p>Asset Integrity - reservoir vermin proofing installation. The AMS implementation requires the ability to assess and inspect an asset to ensure the asset integrity has not been compromised. During the inspection evidence was provided of the inspection checklist app which detailed relevant information required to check on vermin proofing and integrity of the reservoir. However, it was noted that access to the top of the reservoir (approx. 15m) only gives the inspector one point of inspection. It was confirmed that the remaining vermin proofing is inspected from the ground with use of binoculars. The ability to check for the integrity of the vermin proofing on the reservoir requires close and direct visual inspection..</p> <p>Although the current method from the ground is not ideal in fully inspecting the vermin proofing integrity, the method still better than no inspection at all. Furthermore, inspections within the reservoir using underwater drones</p>	<p>NCNM</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p>are undertaken which can further demonstrate whether the vermin proof integrity has been compromised.</p> <p>The deficiency identified for this non-compliant (non-material) finding poses a low and non-material risk to the PWU meeting the objectives of the licence obligation as there is still an inspection for integrity being undertaken however the effectiveness of this method could be significantly improved.</p> <p>Recommendation 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.</p>	
			<p>Combined tools disinfection protocol used for maintenance and repair activities. If having to enter the reservoir foot bath for chlorine is used but now use the robots wherever possible to avoid the need for entry.</p> <p>When asked if there are delays to repair or upgrade of assets (i.e. reservoir roofs) due to the criticality reducing the window of opportunity it was stated that Elermore Vale had been pushed out a year due to difficulty of shutdown etc but the asset condition is generally ok and can do it when required.</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Lorn, Leaking Hydrant Repair – Identified in Field Audits</p>	<p>Photos below from field audit</p>  <p>SC photo 56</p>  <p>SC photo 57</p>  <p>SC photo 58</p>  <p>SC photo 59</p>	   	<p>Leak identified by a customer called into Hunter Water. A work order is generated from the system (AEOMS) and is sent to field crew for rectification. The system is not derived by each asset but rather the property adjacent to where the asset requiring repair or replacement is. The field service team provide updates from the ground to the head office operations and other relevant managers (i.e. Environment or water quality) where required. A new system to replace AEOMS called FSM will have the ability to integrate with the GIS system and provide a heat map on asset performance based on number of breaks etc. improving oversight and asset performance information.</p>	<p>C</p>
<p>Dungog WTP – Identified in Field Audits</p>	<p>Photos below from field audit</p>  <p>SC photo 66</p>  <p>SC photo 67</p>  <p>SC photo 68</p>  <p>SC photo 69</p>  <p>SC photo 70</p>  <p>SC photo 71</p>  <p>SC photo 72</p>  <p>SC photo 73</p>  <p>SC photo 74</p>  <p>SC photo 75</p>  <p>SC photo 76</p>  <p>SC photo 77</p>  <p>SC photo 78</p>  <p>SC photo 79</p>  <p>SC photo 80</p>	              	<p>Inspected the filter inspection. Good install and design of the backwash outlet common channel using Kevlar impregnated epoxy. Other filter showed signs of potential scour nozzle restriction due to slight build-up of media on surface. Recommended inspect that section before recommissioning. to ensure the nozzle isn't blocked or broken.</p> <p>Cwt 1 - run robot in reservoir found some issues repaired. Repaired any ingress identified in the reservoir by improving and sealing lid areas and spindle flaps.</p> <p>Removed tree next to tanks recently to prevent organic material buildup. Water pooling on tank roof evident during inspection. Not ideal and discussed option to improve runoff. However no evidence that water was entering the tank via ingress.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	 <p>SC photo 81</p>  <p>SC photo 82</p>  <p>SC photo 83</p>  <p>SC photo 84</p>  <p>SC photo 85</p>  <p>SC photo 86</p>  <p>SC photo 87</p>  <p>SC photo 88</p>  <p>SC photo 89</p>  <p>SC photo 90</p>  <p>SC photo 91</p>  <p>SC photo 92</p>  <p>SC photo 93</p>  <p>SC photo 94</p>  <p>SC photo 95</p>		<p>Overall plant was well maintained. Lime and chemical room was excellent and above standard.</p>	

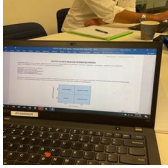
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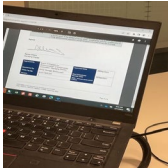
Condition:


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 Australian/New Zealand Standard AS/NZS ISO 14001:2016 Environmental management systems – Requirements with guidance for use, or other standard approved by IPART in writing, (the Environmental Management System).

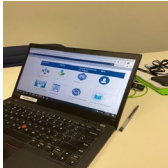
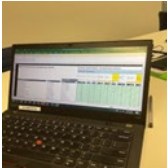

Overall Grading for condition:

Compliant

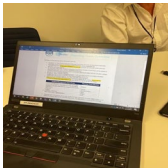
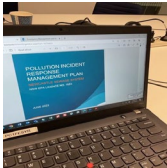
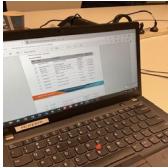
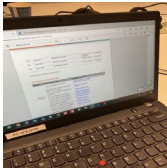
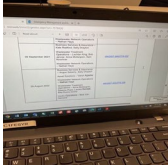
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>4. Context of the organisation Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - Describe what makes up the EMS in its entirety - Demonstrate how you ensure the EMS is implemented - Documented list of interested parties under their needs and expectations - Any overarching documentation like EMP or EMS procedure/plan 	<p>A copy of the ISO14001 certificate from Bureau Veritas, external auditors, is provided. The scope of the EMS was originally defined in document "EP001" (HW2012-738/6.001). As management systems at HWC matured over the years, an integrated management system was developed. On 2 September 2014, on the request of the Integrated Systems Manager, this documented was made redundant with relevant information being incorporated into the IMS manual (HW2013-421/2.003). A copy of the current IMS is provided. This deals with Organisation context (chapter 2), scope (Chapter 3), management commitment (chapter 4), needs and expectations of stakeholders (Section 2.5). I attach a copy of the EMS compliance obligations register (both regulatory and voluntary commitments detailed) and a copy of the corporate Environmental Management Plan</p>	<p>22.1.C04.001 - AU005502-1 Hunter Water EMS Certificate 2023</p> <p>22.1.C04.002 - Plan - EP0128 Environmental Management Plan 2021 - 2024</p> <p>22.1.C04.003 - Register - ER0014 Compliance Obligations Register - CURRENT</p> <p>22.1.C04.004 - User Manual - Integrated Management System</p>	<p>The User Manual - Integrated Management System and Plan - EP0128 Environmental Management Plan 2021 - 2024 provide the required evidence describing the EMS in its entirety, overarching documentation procedure/plan, overview of how the EMS is implemented and includes commitment and measures for ensuring the implementation. A copy of the current EMS 14001 Certification further demonstrates the implementation.</p> <p>Compliance obligations and voluntary obligations captured with interested parties documented therein. For construction jobs - there is compulsory consultation for some interested parties through legislation i.e. cultural heritage or catchment groups.</p>  <p>SC photo 25</p>	<p>C</p>

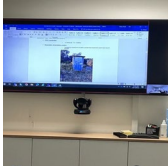
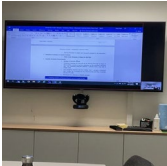
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>5. Leadership Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - Environmental Policy - Roles and responsibilities - Commitment from leadership for the EMS (can be contained within the policy) 	<p>The IMS manual provides the overarching documentation concerning leadership and commitment (see chapter 4). We also maintain a complimenting document EP0013 (HW2012-738/4/12.002) simply to provide a little bit more information for those that are interested. Copy provided. Specific staff roles are obviously detailed in position descriptions managed by our People and Culture Team. Copy of Environmental Policy (HW2012-738/6.024) provided.</p>	<p>22.1.C05.001 - PLACHOLDER - Appendix - A - Revised Environment Policy - Approved by Board 29 September 2023</p> <p>22.1.C05.002 - Plan - EP0013 Structure and Responsibility - CURRENT</p> <p>22.1.C05.003 - User Manual - Integrated Management System</p>	<p>A copy of the Environmental Policy was provided dated 29/9/23 and signed which includes the commitment from leadership for the EMS.</p> <p>The Plan - EP0013 Structure and Responsibility - CURRENT, provides a table inclusive of roles and responsibilities.</p>  <p>SC photo 26</p>	C
<p>6. Planning Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - Aspects and Impacts risk assessment and associated procedures - Compliance obligation register - Risk and opportunities identified as well as level of significance that has been determined - Details or process for evaluating effectiveness of the actions/controls - Documentation related to identified Environmental objectives including action plans and targets 	<p>Copy of aspects and impacts risk assessment procedure provided (HW2012-738/5.008) Aligns / conforms with HWC corporate enterprise risk process. Copy of Corporate risk register (hw2013-830-830/20/7.005) provided. Copy of risk driver analysis (HW2013-830/20/7.006 provided (reported annually to management) Copy of compliance obligations register included (duplicate of that provided earlier for 22.1.C04). Copy of monthly BPR report provided. Copy of quarterly environment report that is sent to management provided. Copy of the towards 2024 business plan. Copy of targets / kpi's showing targets promoting continual improvement over time. Copy of the new business plan going forward.</p>	<p>22.1.C06.001 - Controlled Document - Corporate Risk Assessment - Non compliance with Environmental Legislation - 2023</p> <p>22.1.C06.002 - HW-Our-Corporate-Strategy-Full-Version-PRINT</p> <p>22.1.C06.003 - Plan - Towards 2024_Business Plan_Reservoir version</p> <p>22.1.C06.004 - Procedure - EP0010 - Environmental Aspects and Risk Assessment - CURRENT</p> <p>22.1.C06.005 - Register - ER0014 Compliance Obligations Register - CURRENT</p> <p>22.1.C06.006 - Report - EMS Quarterly Report_April-June 2023 - July 2023</p> <p>22.1.C06.007 - Report - EMT Monthly Report - Objective Status-2021-08-17-082151</p> <p>22.1.C06.008 - Report - Risk Driver Analysis Summary - Non-compliance with environmental legislation - Sept 2023</p> <p>22.1.C06.009 - Towards2024_BusinessPlan_YearlyTargets_Customers</p>	<p>A copy of the Procedure - EP0010 - Environmental Aspects and Risk Assessment - CURRENT was provided and meets the requirements of the standard.</p> <p>Treatment plants are managed by Veolia. Hunter Water manage the supply chain to ensure aspects and impacts are managed under the contract as Veolia is the responsible operator.</p> <p>Enterprise risks covers business aspect and impacts.</p> <p>Register - ER0014 Compliance Obligations Register - CURRENT provided.</p> <p>Compliance accountability listed in aspect and impacts register against risk business partner and Executive Manager. Further detailed information is also continued with the business risk appetite statements.</p> <p>Business risk has been consolidated in the Controlled Document - Corporate Risk Assessment - Non compliance with Environmental Legislation - 2023.</p>	C

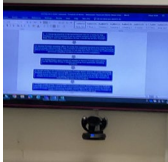
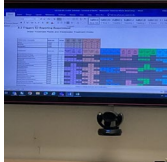
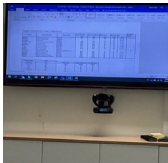
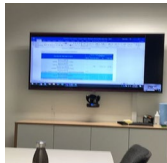
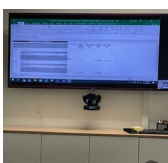
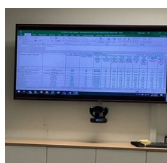
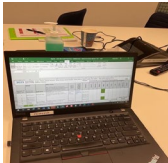
Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
		<p>22.1.C06.010 - Towards2024_BusinessPlan_YearlyTargets_Environment</p> <p>22.1.C06.011 - Towards2024_BusinessPlan_YearlyTargets_Organisation</p> <p>22.1.C06.012 - Towards2024_BusinessPlan_YearlyTargets_Stakeholders</p> <p>22.1.C06.013 - Working Paper - Governance & Assurance 2023-24</p>	<p>For construction jobs, erosion and sedimentation controls (ESC) controls are included in the contract for inclusion in the construction environmental management plans where Hunter Water undertake periodic site audits to check effectiveness.</p> <p>Internal audits of EMS in development services checked where the supplier followed works requirements to check the effectiveness of controls via compliance requirements. The Hunter Water EMP contains KPIs with performance reporting included in the scorecard.</p> <p>Dry weather overflows undergo review of effectiveness of controls, constantly adding further controls and improvements and lessons learnt.</p> <p>Action plans and targets are included in the business EMP as well as several other documents. Team is adaptive to change and use consultants and other internal resources where required to ensure action plans and targets remain on track.</p> <p>Evidence was identified in the field demonstrating that environmental licence conditions are understood and actions are taken to ensure they are met.</p>  <p>ML Field Photo 17</p>	
<p>7. Support Provide evidence that outlines the following:</p>	<p>Copy of new starter induction slide pack provided (HW2012-</p>	<p>22.1.C07.001 - EMS Intranet screenshot 6 October 23 - system policies procedures and admin controls</p>	<p>The Presentation - Environmental induction presentation - CURRENT provides details for inductions. TRIM Environmental Training Records</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>- Training and awareness (i.e. inductions or specific training)</p> <p>- Competency of persons doing he work (i.e. competency assessment, qualifications, or Position Description)</p> <p>- Communication plan or details on how elements of the EMS are communicated throughout the organisation and to external audiences</p> <p>- Documents related to the EMS</p>	<p>738/4/9.023). Inductions completed on a needs basis.</p> <p>Register EF101 - Environmental Training needs analysis and Gap analysis redundant circa 2017 with requirements now in the Corporate Learning Management System (LMS) - Auditors will need to discuss / have the system demonstrated to them by People & Culture.</p> <p>Specific environmental training provided to Civil and EMM staff annually. Refer screenshot of training curriculum and attendance records.</p> <p>Elements are communicated through various mediums. System policies, procedures and administrative controls are communicated via the intranet and training. Screenshot of Intranet provided</p> <p>Outwards facing documents including the EMS policy and EMP are made publicly available on the website. Items may also be raised in the HWC eNews, or from alerts or circulated fact sheets, depending on needs. Copy of the 3 October eNews provided - contained messaging on heritage and also the EMS. . Copy of 20 June eNews provided. Contains messaging on waste, water security. IMS work, values etc</p>	<p>22.1.C07.002 - eNews 3 October 2023</p> <p>22.1.C07.003 - eNews 20 June 2023</p> <p>22.1.C07.004 - Presentation - Environmental induction presentation - CURRENT</p> <p>22.1.C07.005 - TRIM Environmental Training Records - screenshot</p>	<p>- screenshot provides environmental training provided to Civil and EMM staff annually. This and the competency of persons doing the work is then captured in the learning management system (LMS) ELSA and the training needs analysis.</p> <div style="display: flex; justify-content: space-around;"> <div>  </div> <div>  </div> </div> <p>SC photo 27 SC photo 28</p> <div>  </div> <p>SC photo 29</p> <p>Screenshots provided eNews 3 October 2023 and eNews 20 June 2023 show and example of internal communications.</p> <p>IMP details various communication methods for internal and external as detailed below;</p> <p>Internal</p> <ul style="list-style-type: none"> • eNewsletter • Team meetings • Leadership Forum • Employee 'Town hall' style updates • Notice boards • Culture discussions • Alerts 	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			<p><u>External</u></p> <ul style="list-style-type: none"> Hunter Water website Formal written communications such as letters, emails, reports Committees, forums Meetings Alerts, notifications via Damstra Informal communications such as telephone calls <p>EMS Intranet screenshot 6 October 23 - system policies procedures and admin controls provides a good overview of documents related to the EMS. Also provided comprehensive list of documents as evidence in 22.1.C08.</p>	
<p>8. Operation Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> Overview of the established operating criteria and controls for processes Details on how life cycle assessment is incorporated in the organisation for Environmental requirements Details on emergency planning and/or exercise for the audit period or as per the internal scheduling 	<p>Provided copies of various administrative controls (plans, guidelines, procedures, work instructions) relevant to operational control. Provided copy of Treatment Operations contract management document, example of env inspections and contractor monthly report re:control of outsourced processes. Provided copies of EIA documents. This includes how life cycle aspects are considered in the Environmental requirements of HWC (as related to construction and operation). Note that HWC also looks at influencing its supply chain for sustainable procurement in this regard. Sustainability strategy provided. Env & Sustainability Schedule provided. Supplier Due</p>	<p>Refer to evidence list – items prefixed 22.1.C08.01 to 22.1.C08.97</p>	<p>Provided copies of various administrative controls (plans, guidelines, procedures, work instructions) relevant to operational control. Provided copy of Treatment Operations contract management document, example of env inspections and contractor monthly report regarding control of outsourced processes. Provided copies of EIA documents.</p> <p>Review of Environmental Factors (REF) documents, contractor documents and construction documents consider life cycle stages for the products and services Hunter Water provides. Supply chain for sustainable procurement included in the environment and sustainability schedule is a good measure of considering lifecycle from contractors, incoming and outgoing supply chain factors.</p> <p>Asset disposal considerations for lifecycle are included in the AMS asset disposal standard.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>Diligence Schedule Provided. HWC also will look at topic based issues such as waste management - copies of waste guidelines as well as EPA approved resource recovery exemptions provided looking for improvements under the concept of reduce, reuse, recycle. Provided copies of Environmental emergency planning documents, including the corporate emergency manual, pirms, and asset specific emergency documents, as well as incident response. Emergency planning exercises conducted in 2022. Next exercise is planned for end of 2023</p>		<p>Belmont Desalination Plant will be assessed against the Infrastructure Sustainability Council Australia (ISCA) Infrastructure Rating Sustainability Scheme.</p> <p>Incident emergency exercise undertaken in 2022 with plan and report provided. An emergency exercise will be undertaken this year on bushfires and will consider environmental impact, response and review should be undertaken to meet the standard requirement.</p> <p>The Pollution Incident Response Management Plans (PIRMP) review is undertaken after breaches or notification under the Environment Protection License (EPL).</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>SC photo 30</p> </div> <div style="text-align: center;">  <p>SC photo 31</p> </div> <div style="text-align: center;">  <p>SC photo 32</p> </div> <div style="text-align: center;">  <p>SC photo 33</p> </div> <div style="text-align: center;">  <p>SC photo 34</p> </div> </div>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>9. Performance evaluation Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - environmental monitoring program including methods for monitoring and measurement - calibration records or verification of monitoring and measuring equipment where applicable - Environmental compliance records including non-compliances etc (reportable and non-reportable) - Environmental performance reporting - Internal audit program - Internal audit during the audit period (if applicable) - Management review minutes or associated documentation 	<p>Inspection schedule for treatment plants, depots, civil works, EMM works etc provided. Examples of inspection forms given. Observations / issues formerly logged in integrum, now logged in Protecht (new system). Audits performed per Integrated Management System - copy of developer services audit provided. 3LOD audits undertaken by Bureau Veritas annually. BV audit report from May 2023 provided. Env reporting files (monthly and quarterly reporting) provided in prior evidence folders. Minutes of the last meeting held copied to folder.</p>	<p>22.1.C09.001 - Form - EF0052 - Depot environmental inspection checklist - CURRENT</p> <p>22.1.C09.002 - Highfields Inspection 13 September 2023</p> <p>22.1.C09.003 - Hunter Water_BVC_AUDIT_REPORT_REC_May23_INTEGRATED_55k QHSE_Int</p> <p>22.1.C09.004 - Procedure - EP0055 - Depot and Work Site Environmental Inspection Procedure - CURRENT</p> <p>22.1.C09.005 - Record - Minutes IMS Management Review Meeting 04052023</p> <p>22.1.C09.006 - Report - 14-Sep-2023 Haz Chem Environmental Inspection - Warners Bay 1 WWPS CDU</p> <p>22.1.C09.007 - Report - EF0053-Work-Site-Environmental-Inspection-Checklist - Kemp St Hamilton Sep 2023</p> <p>22.1.C09.008 - Report - HWC Development Services Process Audit Report 23-04-18</p> <p>22.1.C09.009 - Schedule - ER0054 - Depot and work site environmental inspection schedule - CURRENT</p>	<p>Hunter Water has extensive and detailed management of its monitoring programs and reporting requirements. This is also included in the Schedule of wastewater works and monitoring program. The monitoring is NATA certified for sampling and analysis which also includes NATA sampling QA process with field blank used during sample runs. There are also comprehensive evidence of calibration and verification records and monitoring for measuring equipment.</p> <p>Network SCADA monitoring of the sewer catchment uses a mass balance to manage dry weather overflows. There is also an intelligent networks monitor program that checks for flows and other anomalies.</p> <p>The monitoring program also includes a trigger for harm against several analytes. This monitoring program is a leading practice and demonstrates going beyond compliance for improved environmental performance.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>SC photo 35</p> </div> <div style="text-align: center;">  <p>SC photo 36</p> </div> </div>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			 <p>SC photo 37</p>  <p>SC photo 38</p>  <p>SC photo 39</p>  <p>SC photo 40</p>  <p>SC photo 41</p>  <p>SC photo 42</p> <p>Example of report to the EPA - ENV info and report 24240 provided outlines evidence for compliance records. Environmental performance monitoring is managed through Envirosys and monitoring program captured and reported by the team with direct connection to lab LIMS system. Internal audit program completed through the IMS internal program with of internal audit reports provided as well as inspection forms.</p>  <p>SC photo 44</p>	

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
			Management review is undertaken in accordance to the standard requirements as outlined in the evidence Record - Minutes IMS Management Review Meeting 04052023.	
<p>10. Improvement Provide evidence that outlines the following:</p> <ul style="list-style-type: none"> - Corrective actions or non-conformances for the audit period including status, how they have been addressed and effectiveness of applied measures, also include how they were identified (i.e. audit or incident etc) - Documentation that shows continual improvement (outside of standard actions under the EMS) 	<p>IMS procedures for Management review and NCR and Preventative Actions provided. IMS minutes lists and tracks actions for improvement. Root cause / corrective actions for hazards, incidents and NCRs recorded in integrum, and now transitioning to Protecht. Screen shot of integrum logs provided. Screenshot of Protecht logs provided. Audit NCRs managed in the IMS system and Protecht. Where requested, HWC may follow regulators requirements for managing incidents (example of an EPA 7 day pollution report provided), however these are also logged and manage through integrum (now Protecht software)</p>	<p>22.1.C10.001 - Example of report to the EPA - ENV info and report 24240</p> <p>22.1.C10.002 - Procedure - IMS Management Review Meeting - CURRENT</p> <p>22.1.C10.003 - Procedure - Nonconformity, Corrective and Preventive Action - CURRENT</p> <p>22.1.C10.004 - Screenshot - Integrum part 2</p> <p>22.1.C10.005 - Screenshot - Integrum part 3</p> <p>22.1.C10.006 - Screenshot - Integrum</p> <p>22.1.C10.007 - Screenshot - Protecht - open audit actions</p>	<p>Screenshots provided of integrum showing corrective action management details with the new system Protecht being implemented and transitioned which will significantly improve this process with a centralised location for all information.</p> <p>Recent re certification of 14001 demonstrates continual improvement. During audit discuss further for more evidence "outside" of the standard actions under the EMS.</p> <p>The environmental harm monitoring program is an excellent example of going beyond the EMS actions and should be highly commended. Other initiatives include working with landowners on bank stabilisation and fencing as well as business initiatives and priorities (i.e. recycling campaigns).</p> <div> </div> <p>SC photo 45</p>	C

3.1.15 S23(1)

Condition:

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 Australian/New Zealand Standard AS/NZS ISO 9001:2016 Quality management systems – Requirements, or other standard as approved by IPART in writing, (the Quality Management System).

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide evidence that a QMS has been developed and maintained. If your system is certified, provision of the certification, and outcomes of the most recent internal and external audits are sufficient.</p>	<p>Refer to QMS ISO 9001 certificate (attached) and sample audits carried out over the licence period (attached).</p> <p>Hunter Water is the process of adopting an integrated/combined assurance approach to audit and assurance activities, with the aim of identifying gaps and overlaps in activity to optimise assurance value.</p> <p>It is noted that the assurance management process is currently in as state of transition, with the Protecht ERM software solution taking over from multiple disparate management solutions. This work is still underway and is expected to result in a combined schedule for all audits, and all findings being registered, actioned, and analysed in a single location.</p> <p>Example audits are included from:</p> <p>Hunter Water's certification body</p> <p>Second line assurance activities including - Audits carried out on major contracts/contractors by our Asset Solutions Group.</p> <p>Third line internal audits. Third line audits while not specifically carried out against the clauses of ISO</p>	<p>23.1.1.004 - Report - HWC Development Services Process Audit Report 23-04-18</p> <p>23.1.1.005 - Report - IMS-2022-P-08 Audit Checklist_Recycled Water</p> <p>23.1.1.006 - Report - Recycled Water 1st Party Audit Report Karuah 2023 28092023</p> <p>23.1.1.007 - Report - Recycled Water 1st Party Audit Report Morpeth 28092023</p> <p>23.1.1.008 - Internal Audit of Investment Governance and Decision Making</p> <p>23.1.1.009 - Internal Audit of Oversight & Management of Maintenance Activity</p> <p>23.1.1.010 - 3LOD Modern Slavery - Risk Management Report</p> <p>23.1.1.011 - ASG - Contractor Compliance Assessment_Report_ Pensar September 23</p> <p>23.1.1.012 - ASG - Contractor Compliance Assessment_Report_ Service Stream September 23</p> <p>23.1.1.013 - ASG - Contractor Compliance Assessment_Report_Eire_Septermber 23</p>	<p>The QMS has recently been recertified in a surveillance audit and is generally compliant.</p> <p>The implementation of Protecht ERM software has demonstrably improved transparency and reporting lines.</p> <p>There is clear evidence of implementing key aspects of the management system through contractor compliance, and internal audits through Hunter Water.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	9001, cover off on the requirements of various clauses.	23.1.1.014 - ASG - Contractor Compliance Report_Cessnock_3.5.23 23.1.1.015 - ASG - HWC MPG Audit Schedule FY23_Update 12-09-23 23.1.1.016 - ASG - Pensar - Contractor Compliance Assessment Report Rev 2 23.1.1.017 - ASG - Stormwater amenity - Contractor Compliance Assessment_Report_Diona 15-9-23 23.1.1.018 - ASG - WHSMP Audit Solar Pkg 4 20230718 23.1.1.019 - ASG - WHSMP Shortland WWTW Stage 4 Upgrade Final		

3.1.16 S23(2)

Note: This licence clause was not originally included in the scope of this audit – however as the previous audit recommendations related to the review of documentation has not been met, it was considered appropriate to combine the relevant prior recommendations into a single recommendation against the quality management system. The previous clause relates to maintaining a quality management system in accordance with the relevant standard. There is a compliant finding against the requirement to have a QMS that meets the standard, and therefore, the recommendation related to currency of documentation fits best against this subclause of the Hunter Water Licence.

Inclusion of this additional subclause allows S23(1) to be graded as compliant, with the non-compliant grading assessed against S23(2).

Condition:

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

Overall Grading for condition:

Non compliant non material

Reason for grading: The Quality management system is generally implemented with the exception of ensuring all documents are reviewed in accordance with stated review dates; this finding has been raised in prior audits. Given the previous recommendations have not been completed, this condition is now assessed as noncompliant. The noncompliance is considered non material it does not affect the overall implementation of the management system(s). The auditors believe that the

implementation of documents and procedures that, other than the requirement for review, are generally adequate does not prevent the implementation of the management systems.

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Currency of procedures	See evidence in recommendations from prior audit related to the AMS, EMS, DWQMP and RWMP		<p>It was identified that there are 247 documents that are beyond the review date. This is considered a noncompliance with the management system that requires documents to be maintained and reviewed on the stated schedule</p> <p>Recommendation 2023-4-23(2): Overdue documents (and documents coming up for review) should be rated, 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.</p>	NCNM

3.1.17 S29(1)

Condition:

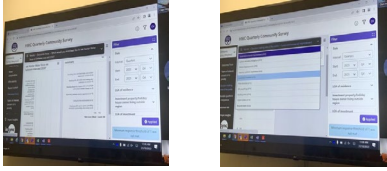
Hunter Water must undertake Customer, Consumer and community consultation at regular intervals that is meaningful, relevant, representative, proportionate, objective, clearly communicated and accurate to:

- (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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide evidence of customer and community consultation in the audit period prior to the adoption of the Community Consultation Procedure.</p> <p>Provide evidence of consultation on relevant needs and willingness to pay including from residential and industrial water users.</p>	<p>1. Hunter Water undertook representative customer, consumer and community consultation regarding willingness to pay for service levels to help inform the customer contract for the end of term review prior to the audit period (2020). This work identified:</p> <ul style="list-style-type: none"> • The service levels and attributes that our customers value • Level of satisfaction with our delivery of valued services • Expectations about rebates (including willingness to pay) for service failures • Analysis of cost-service level tradeoffs. <p>2. From November 2022 through to 31 October 2023, we conducted online workshops, focus groups, online quarterly community surveys, a bill simulation survey and a prioritisation survey</p>	<p>1. Documents describing what we did in terms of customer and community research to inform our current Operating license and Customer Contract can be found in the following Trim locations:</p> <p>29.1.1.003 - HW2021-1452/4.002 -Report - HWC additional information on system performance standards - 1 Nov 2021</p> <p>29.1.1.004 - HW2021-1452/4.001 - Report - HWC response to OL Review Issues Paper - 8 Oct 2021</p> <p>29.1.1.005 - HW2020-82/8.004 - Report - CIE willingness to pay - service levels - Sep 2021</p> <p>29.1.1.006 - HW2020-82/5.002 - Report - Final Report - FE Kantar - Service level and attributes customer research - July 2</p> <p>2. These activities, their methods and outcomes were clearly communicated via multiple channels</p>	<p>The CIE Report provided in the evidence details the methodology and results of willingness to pay investigations. This includes justifications for the research methodology used and outlines the questions and responses. This included both residential and non-residential customers.</p> <p>The IPART pricing proposal stage 1 and 2 summaries processes used in the early phase of the current price cycle. Stage 2 provides the evidence of engagement on what priority to place on different options. This process is well planned and is robust.</p> <p>The customer complaints process is being improved to identify customers on contracts, so that where there may be issues this can be captured. There is an opportunity to include specific questions in quarterly surveys where there was a need to increase understanding.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>to inform our upcoming pricing proposal to IPART.</p> <p>To understand if our customers and community feel we are conducting our research in a meaningful way, we asked survey participants if they felt it was a 'fair and authentic' process, or 'loaded and leading'. Only a small minority (approx. 10% in both surveys) felt we were being loaded and leading.</p>	<p>and are publicly available on our website here: https://www.hunterwater.com.au/haveyoursay/2025-2030-price-proposal</p> <p>29.1.1.001 - IPART pricing proposal Stage 1 - Engagement-Summary</p> <p>29.1.1.002 - IPART pricing proposal Stage 2 Engagement-Summary</p>	<p>The ML Office Photos below demonstrate where ad hoc questions were asked and provide evidence that the process undertaken was thorough and in accordance with this condition.</p>  <p>ML Office Photo 25 ML Office Photo 26</p>	
<p>Demonstrate how the Community Consultation Procedure considers how your planning and operations impact customers and the community.</p>	<p>1. Complaints to Hunter Water are currently categorised by the area of key driver to which they relate. Typical categorisations used including service related faults, pricing, affordability, future servicing plans and rebates. As we don't currently receive high volumes of complaints relating to the Customer Contract, there is no categorisation relating to this document.</p> <p>As part of our ongoing attempt to deliver high quality service we conduct regular reviews of the root cause of customer complaints, and amend our categorisation and tracking approach based on what trends we are seeing. We also conduct regular reviews of the Customer Contract, at which time we undertake broader consultation with our community as a key stakeholder in the document to identify areas of improvement. These two activities ensure we make amendments to the Customer Contract which reflect the nature of our business and customer service objectives at the time.</p> <p>2. The Community Consultation Procedure articulates the methods by which we consult with a range of stakeholders on a variety of</p>	<p>Customer, Consumer and Community Consultation Procedure is available here: https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Plans--Strategies/Hunter-Water-Customer-Consumer-and-Community-Consultation-procedure.pdf</p> <p>Corporate Strategy Miromaliko Baato is available here https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Legislation-and-Governance/WEB-HW-Our-Corporate-Strategy-Final.pdf</p> <p>Community Engagement strategy is available here: https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Legislation-and-Governance/WEB-HW-Our-Corporate-Strategy-Final.pdf</p> <p>Examples of quarterly community survey consultation outcomes from audit period are provided.</p> <p>29.1.2.001 - Quarterly Community Survey Report Aug 2023</p> <p>29.1.2.002 - Quarterly Community Survey Summary February 2023 _final</p>	<p>Stage 2 provides the evidence of engagement on what priority to place on different options. This process is well planned and is robust. The engagement included consideration of hot spots, which demonstrated an altruistic approach to wastewater overflows. There is a consultation panel that includes 150 people, but these are also opened to the community for an opt in. The statistically representative at 95% CI number is 400. Up to 3000 people were engaged in the prioritization survey.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	<p>topics. This procedure aligns with the goals and objectives of our Corporate Strategy, Customer Experience Strategy and Community Engagement Strategy. The various qualitative and quantitative methods described in the procedure are adapted to the insights required to inform corporate and investment planning, as well as asset delivery.</p> <p>The procedure outlines how consultation is tailored to Hunter Water plans and initiatives, ongoing customer service interactions aligned to the IAP2 Spectrum of Engagement to ensure that the appropriate level of consultation is employed for the plan, or project being developed.</p>	<p>29.1.2.003 - Quarterly Community Survey Summary May 2023</p> <p>29.1.2.004 - Quarterly Community Survey Summary November 2022</p>		

3.1.18 S29(2)

Condition:

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
- (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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Demonstrate the Community Consultation Procedure was developed and fully implemented by 1 July 2023</p>	<p>The Community Consultation Procedure was uploaded and made publicly available on the Hunter Water website on 29 June 2023.</p>	<p>Customer, Consumer and Community Consultation Procedure is available here: https://www.hunterwater.com.au/documents/assets/src/uploads/documents/Plans--Strategies/Hunter-Water-Customer-Consumer-and-Community-Consultation-procedure.pdf</p> <p>29.2.1.001 - Hunter Water Customer, Consumer and Community Consultation procedure</p> <p>Screen shot from webpage (from CMS) showing an update was made on 29 June 2023 that includes the Procedure in a 'call to action' block is available as evidence.</p> <p>29.2.1.002 - Screen shot of Procedure upload to website</p>	<p>The procedure, dated July 2023, was uploaded to the website on 29 June 2023. In addition to the information identified in the previous licence clause, this is sufficient to demonstrate compliance with this criteria.</p>	<p>C</p>

3.1.19 S29(3)

Condition 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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Provide evidence of consultation with the community advisory group up until 1 July 2023	Hunter Water's Customer and Community Advisory Group (CCAG) continues to meet in tandem with the ongoing implementation of the Procedure.	<p>All CCAG meeting agendas, minutes and presentations up to and including September 2023 are available on Hunter Water's website here: https://www.hunterwater.com.au/haveyoursay/customer-and-community-advisory-group.</p> <p>Minutes of 2022/23 meetings provided as evidence.</p> <p>29.3.1.001 - CCAG-minutes-December-2022</p> <p>29.3.1.001 - CCAG-minutes-December-2022</p> <p>29.3.1.003 - CCAG-minutes-June-2023</p> <p>29.3.1.004 - CCAG-minutes-November-2022-Approved</p>	Minutes were provided for quarterly meetings of the community and customer advisory group, demonstrating compliance with the criteria though the audit period.	C

3.1.20 S33(3)

Condition:

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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
Provide the MoU including evidence of when agreed. If no MoU, demonstrate the best endeavours that you attempted to comply with this requirement.	The MoU was developed collaboratively between Hunter Water and DPE. The MoU was agreed by parties and signed by Hunter Water by 30/11/2022. DPE signed and returned on 6/02/2023. TRIM folder contains evidence of MoU being developed through 2022.	33.3.1.001 - HW2016-622 16 11.010 Agreement - DPE and HW MOU for long term water planning – SIGNED 33.3.1.002 - HW2016-622 16 11.011 Email to DPE requesting signing of MOU	Section 6.3 of the MOU contains the relevant amendments for integrated water management as required. The MOU was signed on 1 Dec 2022 in compliance with the requirements. The letter Ref BN23/5180 from DPE to IPART confirms that DPE are “satisfied that Hunter Water has acted in accordance with the Roles and Responsibilities Protocol during the audit period.” f	C
Provide evidence of compliance with the MoU e.g. by participating in negotiations to maintain the MoU(provide minutes).	Ongoing collaborative relationship with DPE is maintained. Example of collaboration on the Lower Hunter Water Security Plan is provided through minutes from the Implementation Oversight Committee.	33.3.4.001 - HW2016-622 16 12.015 Minutes - LHWSP IOC Meeting Minutes 22nd May 33.3.4.002 - HW2016-622 16 12.016 Minutes - LHWSP IOC Agenda 18 September 2023	Minutes have been provided demonstrating ongoing engagement.	C

3.1.21 S34(3)

Condition:

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.

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Provide the MoU with FRNSW Provide evidence that the working group has been meeting, and outcomes are aligned with the items listed in license condition b) i-iv</p>	<p>Hunter Water has maintained an MoU with FRNSW since June 2019. The MoU establishes the basis for a cooperative relationship between HWC and FRNSW.</p> <p>Hunter Water and FRNSW have maintained the joint working group since its first meeting in August 2019. The most recent meeting was 8 February 2023. The next working group meeting is scheduled for 20 October 2023.</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.</p>	<p>34.3.1.001 - Agreement - MOU_Executed Version_HWC and Fire Rescue NSW_17 June 2019</p> <p>34.3.1.002 - File note - HWC and FRNSW Meeting Agenda 8 Feb 2023</p> <p>34.3.1.003 - File note - HWC and FRNSW Minute Meeting 8 Feb 2023</p> <p>34.3.1.004 - Placeholder_ Hunter Water and FRNSW - Leadership_Working Group Meeting</p>	<p>The approved MOU was provided, along with evidence of meetings with FRNSW in February 2022, and a placeholder for the next meeting that was provided ahead of the meeting taking place. Other evidence includes engagement with Fire and Rescue to assist with prioritization of mains replacements for improving fire flows. A letter FRN18/1751 from FRNSW to IPART supports the information provided by Hunter Water and confirms that FRNSW are satisfied the Licence condition is being met.</p>	<p>C</p>

Audit Question	Hunter Water Response	Evidence	Auditor Interpretation	Grading
	<p>The working group meets approximately every 9 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 (HW and FRNSW)</p> <p>Brian Smart - Key Local Commander for Newcastle Region</p> <p>Mark Porter - Fire Safety Policy Unit</p> <p>Nathan Everett - Senior Firefighter</p> <p>Regarding RFS participation, this has been an agenda item. We have asked FRNSW to provide an area of jurisdiction map. The intention is to recognise that there are two firefighting organisations within NSW and HWC should establish a formal relationship with RFS since some parts of HWC's area of operations falls under RFS jurisdiction.</p>			
<p>Provide evidence that the working group has been meeting, and outcomes are aligned with the items listed in license condition b) i-iv</p>	<p>Evidence of regular meetings is provided in 34.3.1 above. HWC provides hydrant performance data to FRNSW after HWC completes a hydraulic model update. Time frame and format for data provision is in agreement with FRNSW. Hydrant performance data was previously shared following HWC's 2018 model update. HWC has recently (Sep 2023) completed its first major hydraulic model update since 2018. The updated hydrant performance data will be provided to FRNSW later this year.</p>	<p>Agreed in meeting minutes for 8 Feb 2023 to provide updated hydrant data to FRNSW by Dec 2023 (Page 3- Action no.1)</p> <p>34.3.2.001 - File note - HWC and FRNSW Minute Meeting 8 Feb 2023</p>	<p>The hydraulic model has been updated and calibrated against the pressure monitoring within the network. Fire and rescue provide feedback and inform the prioritisation. Includes interaction with non-revenue water, where the implications of pressure management critically impacts on Fire and Rescue. There is evidence of informing FRNSW when operational issues may impact either party.</p>	C
<p>Provide evidence that the working group has been meeting, and outcomes are aligned with the items listed in license condition b) i-iv</p>	<p>HW has consulted with and received input from FRNSW on HWC's Fire Fighting Improvement Program, with Packages 1,2 and 3 rolled out to date.</p> <p>HWC has also consulted with and received input from FRNSW on our Water Capacity Investment Program, which outlines our program of investment</p>	<p>Emails from FRNSW providing preferred ranking for Fire Fighting Improvement works.</p> <p>Email and letter from FRNSW providing review comments on HWC's Water Capacity Investment Plan.</p>	<p>As per the assessment above</p>	C

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
	in water network capacity to cater for growth into the future.	<p>34.3.3.001 - Letter Out - FRNSW input into Hunter Water Network Investment Plan - Hunter Water</p> <p>34.3.3.002 - Network Investment Plan and Fire area boundaries</p> <p>34.3.3.003 - RE_Leadership_Working Group Meeting and Fire Fighting Improvement Program Package 3</p> <p>34.3.3.004 - RE_ Package 2 Works-Leadership Meeting and Follow up some actions from previous meeting</p>		
Part iv:If relevant, provide evidence.	We have responded to a number of ad hoc enquiries from FRNSW regarding water supply design training, backflow prevention requirements and general email/phone communications regarding operational matters. Examples provided.	<p>Email to FRNSW in relation to WSA Water Supply Design Course</p> <p>Emails to/from FRNSW regarding backflow prevention requirements</p> <p>Email notification to FRNSW regarding water outage and watermain repair at Minmi Road, Wallsend</p> <p>34.3.4.001 - Backflow Prevention Requirements- Hunter Water and FRNSW -</p> <p>34.3.4.002 - FW_ 2022 WSA Water Course</p> <p>34.3.4.003 - Reply-Backflow Prevention Requirements- Hunter Water and FRNSW -</p> <p>34.3.4.004 - Water Outage- Water main repair at Minmi Road Wallsend commencing from 9pm Monday 27 February</p>	Evidence provided demonstrates that the MoU and associated actions results in a collaborative relationship where ad hoc enquiries are able to be raised and addressed appropriately	C

3.1.22 S35

Condition:

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

Overall Grading for condition:

Compliant

Audit Question	Hunter Water Response	Evidence	Auditor interpretation	Grading
<p>Identify whether there were any requests for provision of service or negotiations with competitors in the audit period.</p> <p>If so, identify the request, and/or the outcome of the negotiation.</p> <p>If any complaints or allegations were made to IPART identify these.</p>	<p>Hunter Water assesses requests from Private Network Operators (PNO) under the WIC Act in the same way as any other type of development seeking water and sewer services within our Area of Operation.</p> <p>As the PNO applicant is seeking a long-term bulk supply arrangement with Hunter Water, over and above any technical requirements, a commercial agreement is required governing the arrangement. Hunter Water refers to this as a Utility Services Agreement (USA), which in the examples to date, include a 10 + 10 year-term, requirements for system augmentation, states who delivers, who pays, tariff pricing, operational governance, points of contact etc (a 'co-ordination protocol' or 'code-of-conduct').</p> <p>The three established USA's have operated successfully since 2015/16.</p> <p>Hunter Water has received applications for Tradewaste services and access to increased daily supply of treated effluent through the reporting period. Two of these applications have resulted in new or varied Tradewaste Agreements being established, ongoing assessment of Huntlee Water Tradewaste application and the application for KIWS Increased Daily Treated Effluent Supply.</p>	<p>Existing Utility Services Agreements (USA) Trim references:</p> <p>Altogether Cooranbong Water:</p> <p>35.1.001 - Email - Agreement - Executed USA Cooranbong Water - 14-04-2016</p> <p>Altogether Huntlee Water:</p> <p>35.1.009 - HW2016-28 33 1.211 Agreement - Huntlee Utility Services Agreement (HWC executed)</p> <p>Kooragang Water Pty Ltd Supply (KIWS):</p> <p>35.1.003 - Agreement - Project Semillon - Supply Agreement (EXECUTION VERSION)</p> <p>Varied Agreement with existing WICA Utilities:</p> <p>35.1.008 - 15-21 Channel Rd, Mayfeild - Signed TW Deed</p> <p>New Agreement with existing WICA Utilities:</p> <p>Altogether Cooranbong Water Tradewaste Agreement.</p>	<p>While there have not been any new Private Network Operators approved in the audit period, evidence was provided of ongoing collaborative relationships with one of the Licencees with respect to high demands lowering system pressure. Hunter Water actively engaged with the PNO including ensuring that the customer engagement teams from both organisations are working collaboratively to inform consumers, and manage demand.</p>	<p>C</p>

	<p>A Business Development Team has been established to build a framework in support of the growing demand from WICA Utilities operating in our area of operations. Hunter Water has also engaged the services of external advise to support the development of the framework.</p>	<p>35.1.006 - Non Standard Wastewater Service Agreement - Altogether Group</p> <p>35.1.007 - TRADE WASTE DEED Altogether Group</p> <p>Agreements with Existing WICA Utilities (WIP)</p> <p>35.1.002 - Altogether Huntlee Connection Proposal Jul23</p> <p>35.1.004 - 230406 Letter to HWC re Increase of Maximum Daily Treated Effluent Volume</p> <p>35.1.005 - Letter - Preliminary Servicing Advice Letter - coNEXA sewer mining</p>		
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AUDIT PHOTOGRAPHS



ML Field Photo 1



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ML Field Photo 3



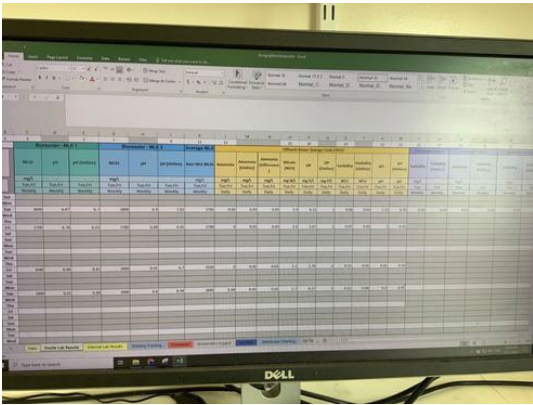
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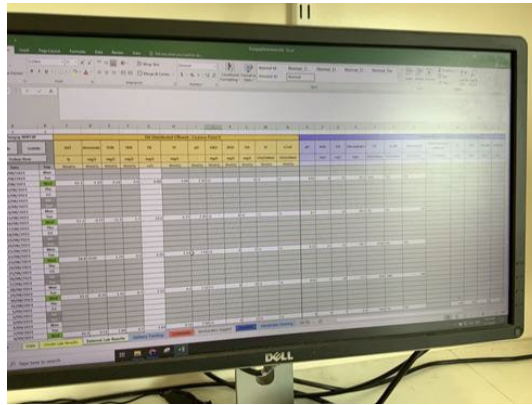
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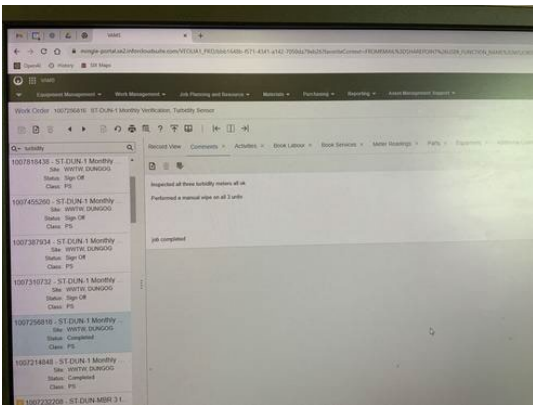
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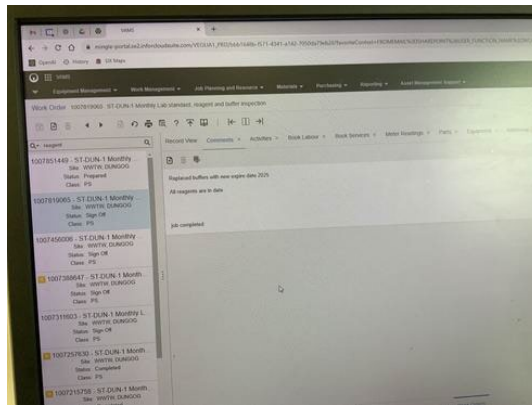
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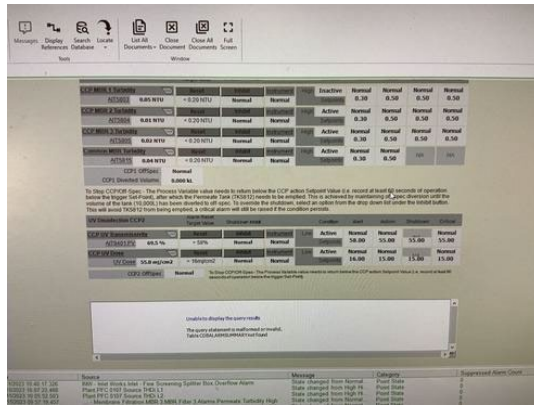
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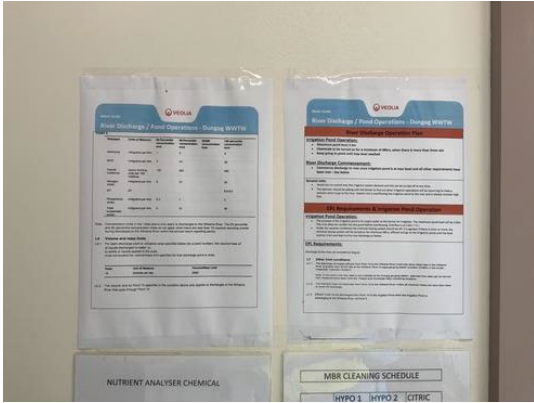
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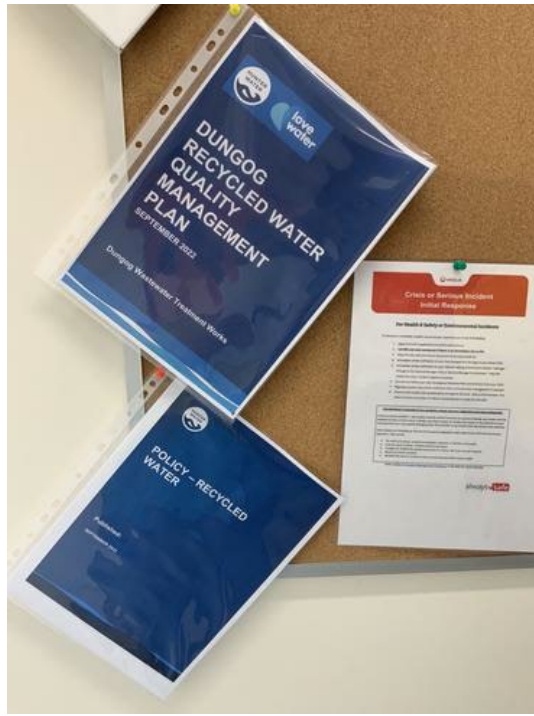
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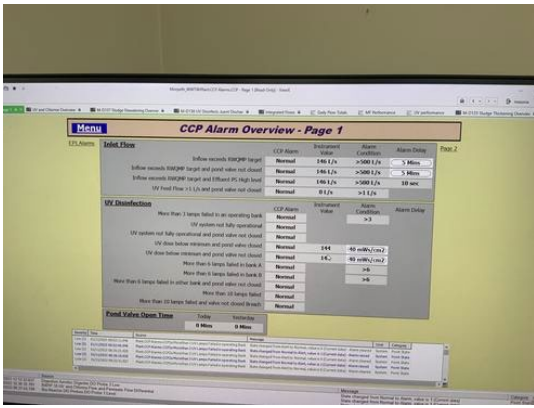
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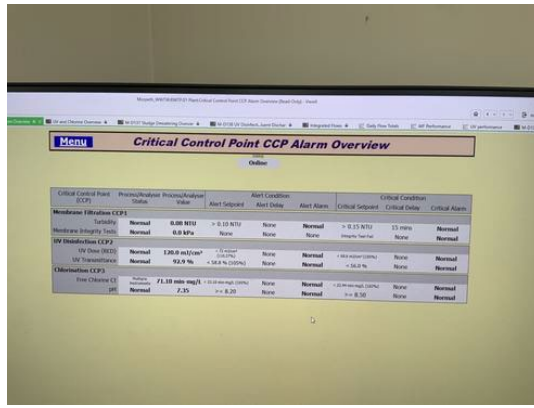
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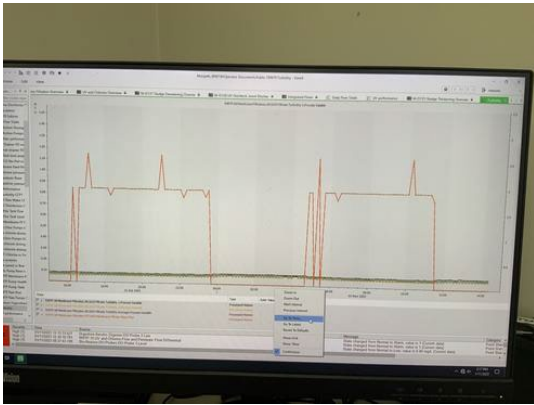
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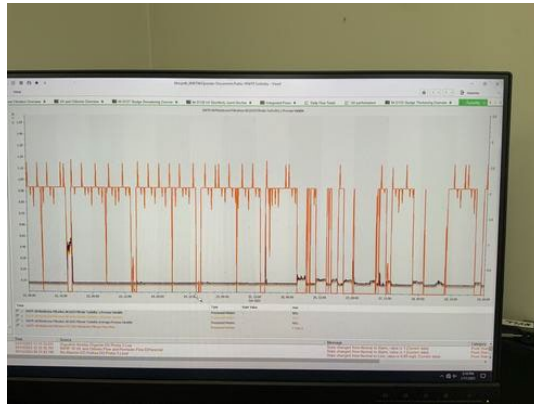
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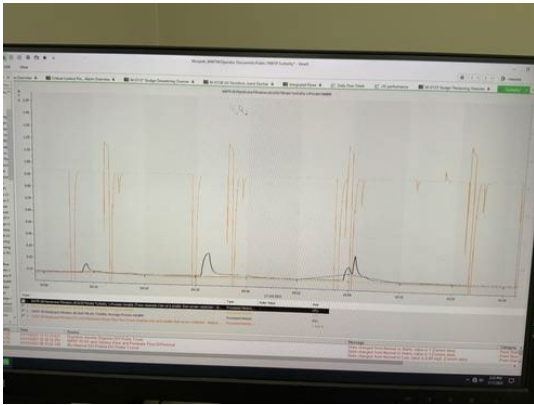
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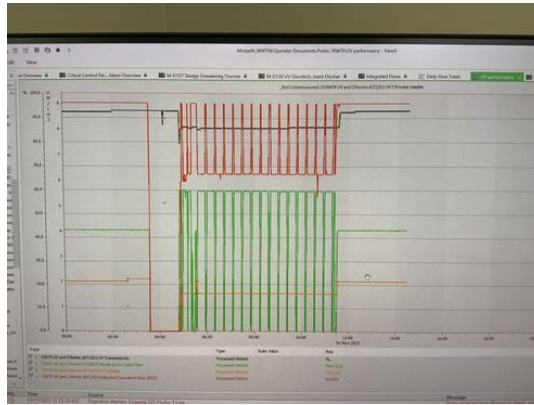
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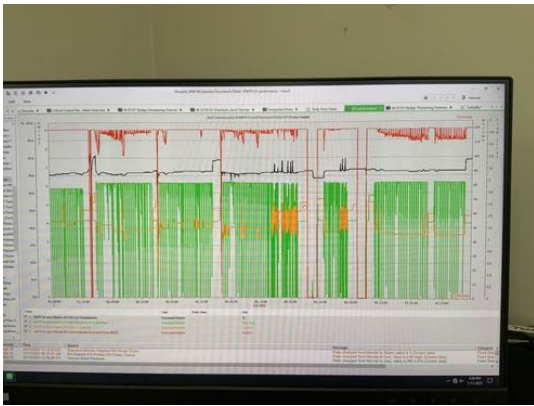
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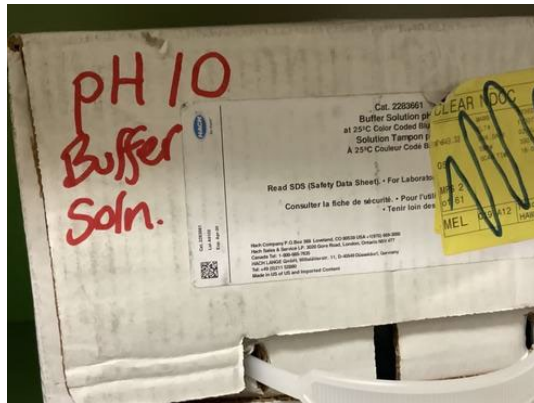
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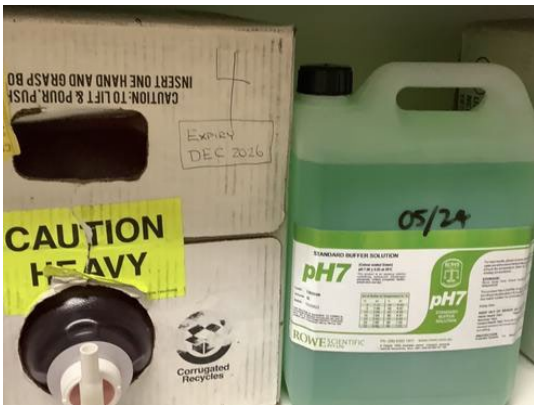
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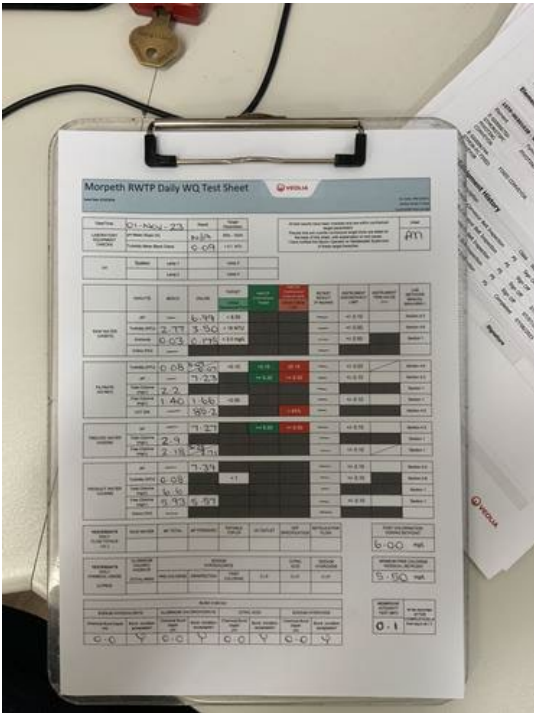
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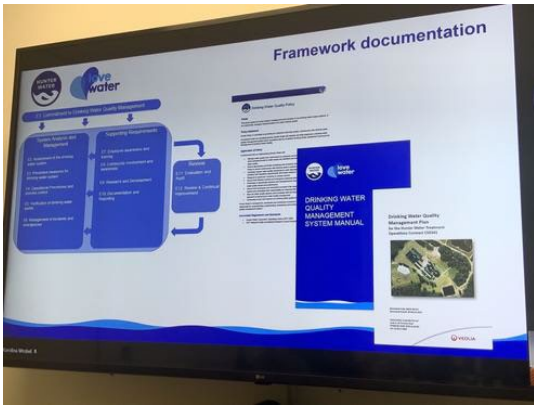
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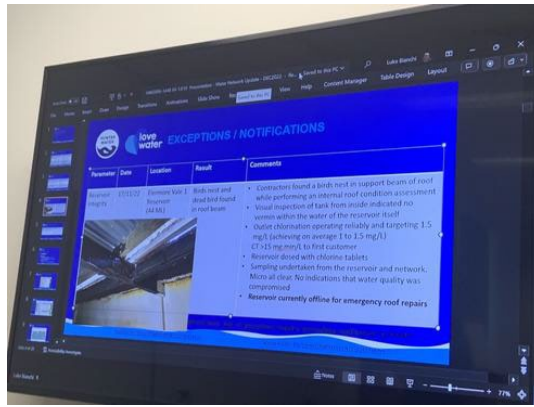
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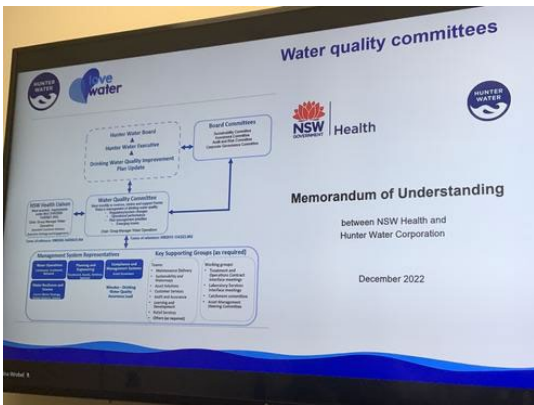
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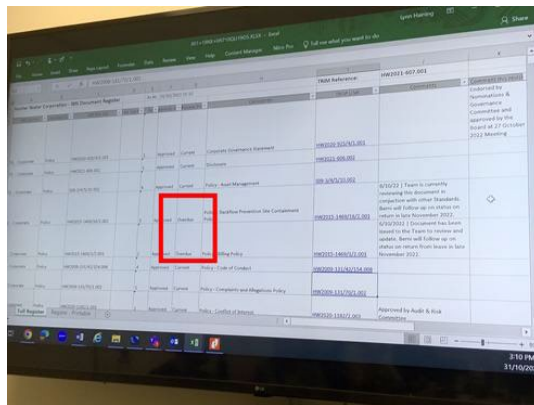
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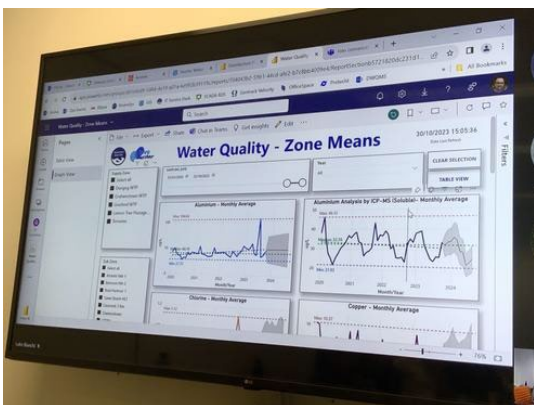
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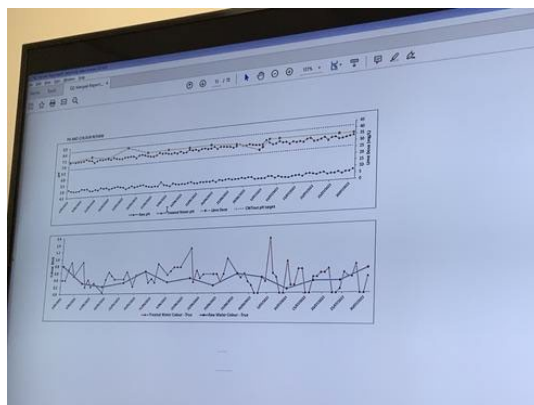
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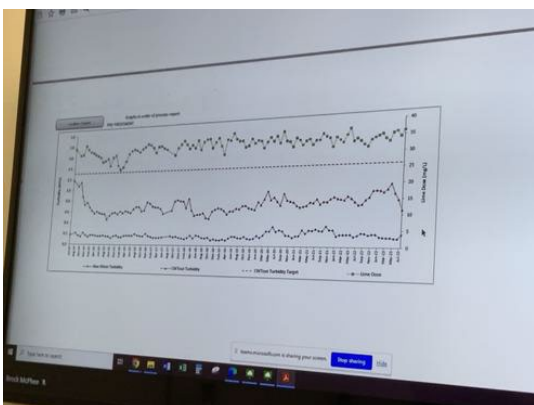
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ML Office Photo 8

With our contracts and project teams to mitigate the impacts of sustained wet weather events, resource shortages, and/or our own resources, please update projects on schedule.

Actual	Target	Units	Actual	Target	Forecast	Target	
1,004	1,817	Water pressure (hours)	No	9,868	9,817	9,995	9,817
3,398	8,188	Unplanned water consumption > 5 hours	No	9,873	9,714	9,827	9,619
1,000	8,000	Unplanned in any weather	No	9,856	9,850	9,930	9,800
1,000	9,999	2 or more unplanned in dry weather	No	9,999	9,999	9,999	9,999
30	81	Customer Response & Rectification	%	89	85	90	85
88.3	88.3	Microbiological Water Quality	%	99.9	99.5	99.9	99.5
NA	NA	Reduction in wastewater overflow	%	8	4	7	5
0	0	EPA Reportable Environmental Incidents (RTEI)	No.	2	2	2	4

Number of properties unaffected per 10,000 connected properties.
 *Reduction in wastewater overflow are measured on a 12-month rolling average basis. This result will be used to populate North and T2 performance for this side measure.

ML Office Photo 9

With our contracts and project teams to mitigate the impacts of sustained wet weather events, resource shortages, and/or our own resources, please update projects on schedule.

Actual	Target	Units	Actual	Target	Forecast	Target	
1,004	1,817	Water pressure (hours)	No	9,868	9,817	9,995	9,817
3,398	8,188	Unplanned water consumption > 5 hours	No	9,873	9,714	9,827	9,619
1,000	8,000	Unplanned in any weather	No	9,856	9,850	9,930	9,800
1,000	9,999	2 or more unplanned in dry weather	No	9,999	9,999	9,999	9,999
30	81	Customer Response & Rectification	%	89	85	90	85
88.3	88.3	Microbiological Water Quality	%	99.9	99.5	99.9	99.5
NA	NA	Reduction in wastewater overflow	%	8	4	7	5
0	0	EPA Reportable Environmental Incidents (RTEI)	No.	2	2	2	4

Number of properties unaffected per 10,000 connected properties.
 *Reduction in wastewater overflow are measured on a 12-month rolling average basis. This result will be used to populate North and T2 performance for this side measure.

ML Office Photo 10

With our contracts and project teams to mitigate the impacts of sustained wet weather events, resource shortages, and/or our own resources, please update projects on schedule.

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With our contracts and project teams to mitigate the impacts of sustained wet weather events, resource shortages, and/or our own resources, please update projects on schedule.

ML Office Photo 11

With our contracts and project teams to mitigate the impacts of sustained wet weather events, resource shortages, and/or our own resources, please update projects on schedule.

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ML Office Photo 12

Hunter Water
 love water
 48V 48 228 517 446
 HRMC NSW 2310
 36 Haysman Drive
 NEWCASTLE NSW 2300
 1300 607 657
 recycled@hunterwater.com.au
 hunterwater.com.au

9 September 2022

Using recycled water at your home

Hello from Hunter Water

Recycled water at your home

As your home [redacted] connected to the recycled water network, we're happy to hear that you're approaching, we are writing to you with some handy reminders about using recycled water.

Recycled water in your home is treated to a high standard to meet the Australian Guidelines for Water Recycling and can be used for many non-drinking purposes. The enclosed fact sheet includes information on:

- what recycled water can and can't be used for
- how to identify recycled water fixtures and fittings
- the importance of using a licensed plumber for any plumbing work at your home
- how to conduct a quick check to ensure your recycled and drinking water are separate

Please take a few minutes to familiarise yourself with the enclosed information and share

ML Office Photo 13

2023 Recycled water for residents...
 love water
 RECYCLED WATER AT HOME

RECYCLED WATER OFFERS A NUMBER OF BENEFITS FOR CUSTOMERS. IT CAN BE USED ALL YEAR ROUND EVEN IN DROUGHT. IT IS GENERALLY CHEAPER THAN DRINKING WATER AND REDUCES DEMAND ON YOUR DRINKING WATER SUPPLY.

Recycled water is safe for:

- Toilet flushing
- Washing cars and external surfaces
- Watering lawns and gardens including fruit and vegetable gardens, just give your produce in drinking water before eating
- Washing machines
- Construction purposes like concrete mixing

It should not be used for:

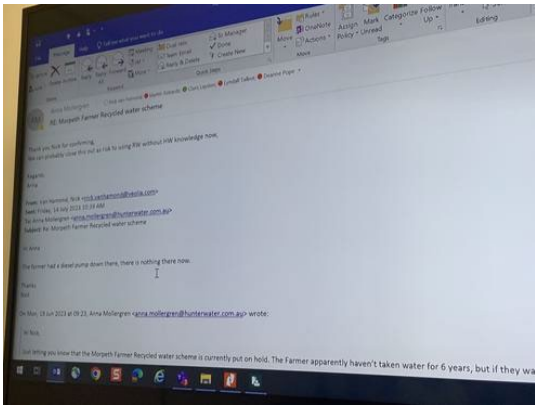
- Drinking
- Cooking, washing up or other uses in the kitchen
- Baths, showers, hand basins and toilets
- Cleaning inside the home
- Swimming pools, spas and ponds
- Use in evaporative coolers
- Washing pets or as drinking water for pets
- Water play activities like playing under the sprinkler or slip n slides

Look for PURPLE
 Your recycled water meter, pipes, taps and other fittings are purple so they're easily recognised.

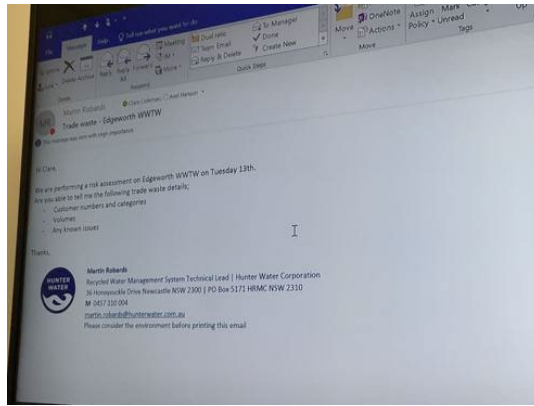
Remove outdoor tap handles
 All handles on outdoor recycled water taps are removable. Please remove the handles to reduce the risk of children using recycled water.

Always use a licensed plumber
 Your plumber will ensure there are no cross connections between your drinking and recycled water pipes. They will also check fittings, labels and colour-coding, and make sure your plumbing complies with the Plumbing Code of Australia.

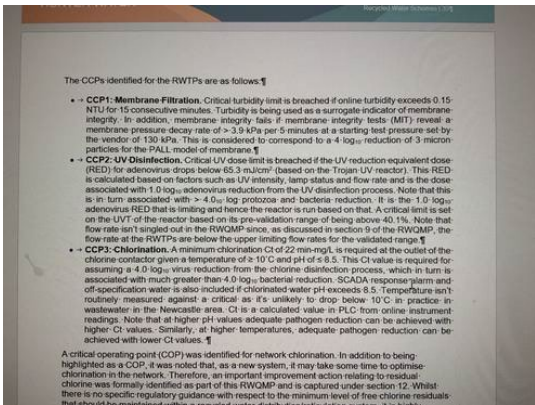
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ML Office Photo 15



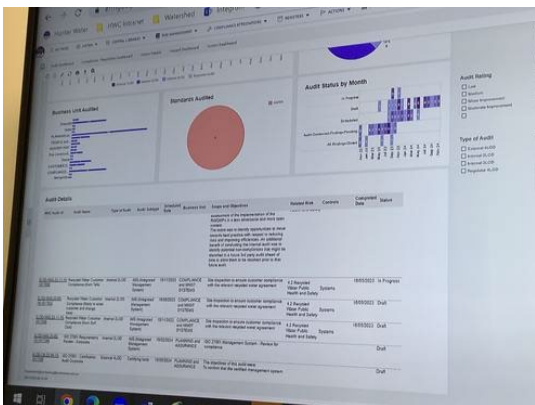
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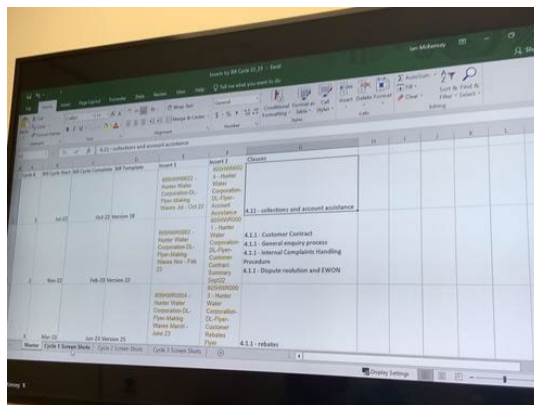
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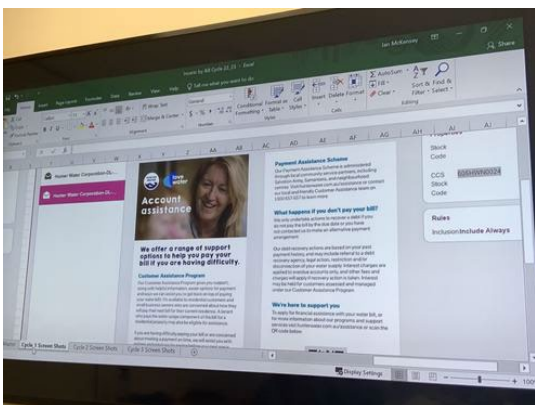
ML Office Photo 18



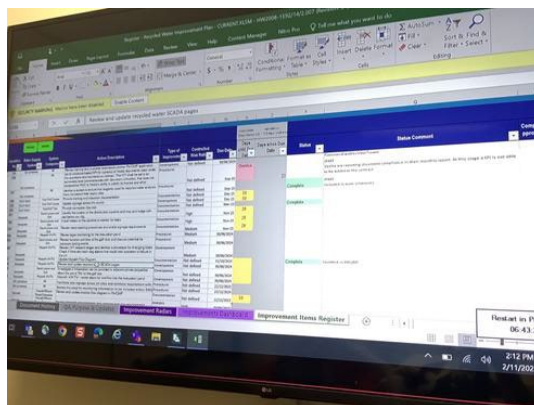
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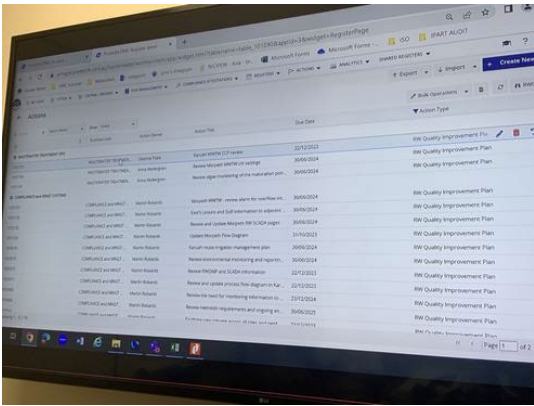
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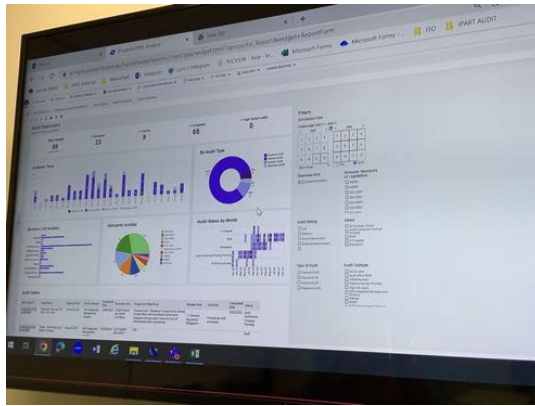
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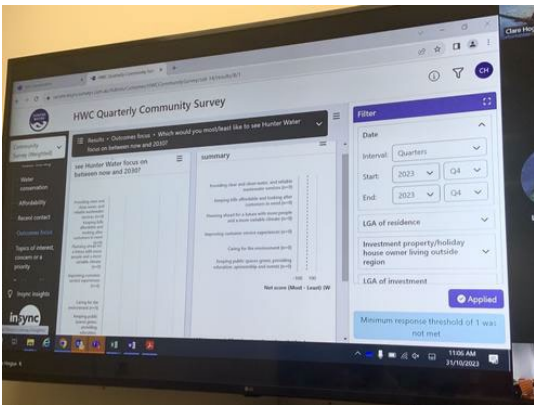
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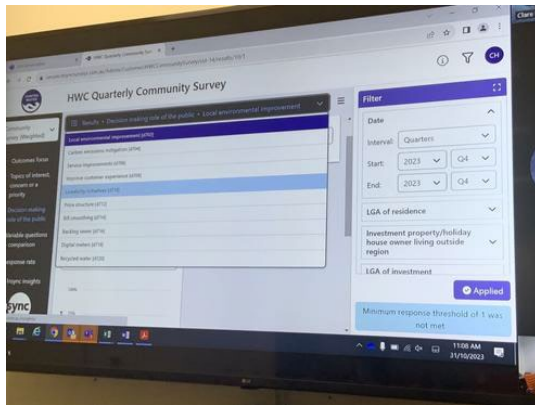
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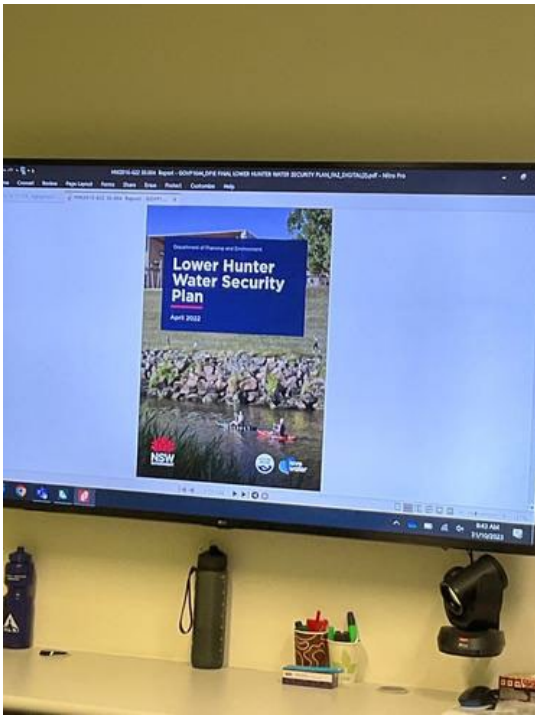
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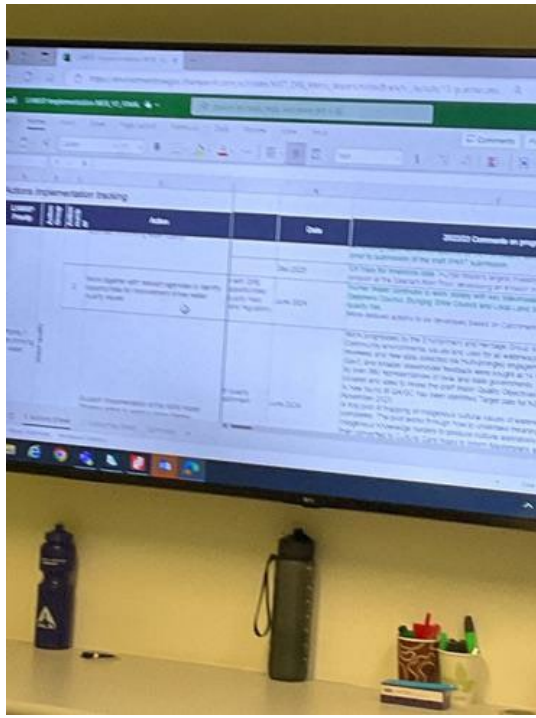
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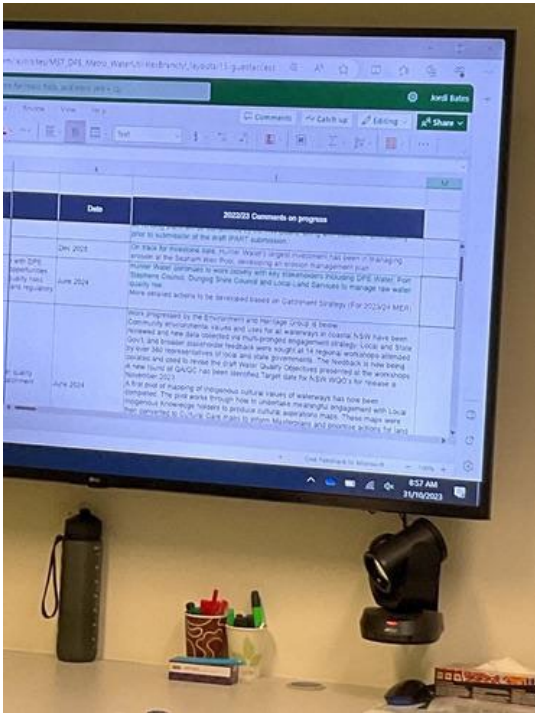
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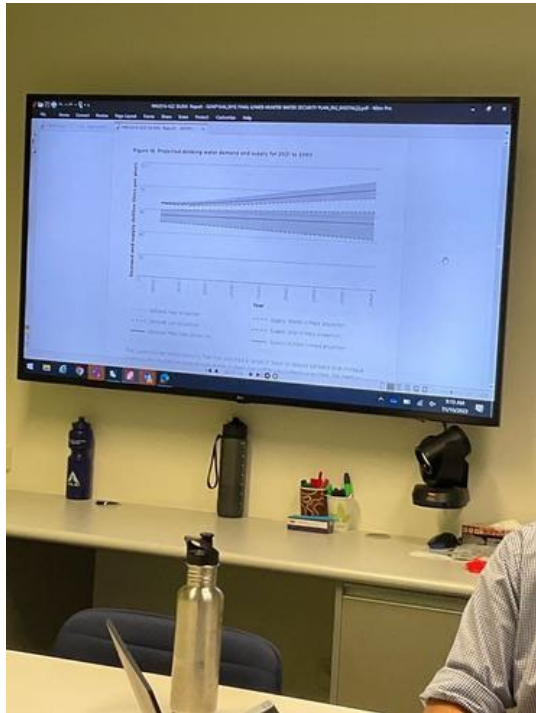
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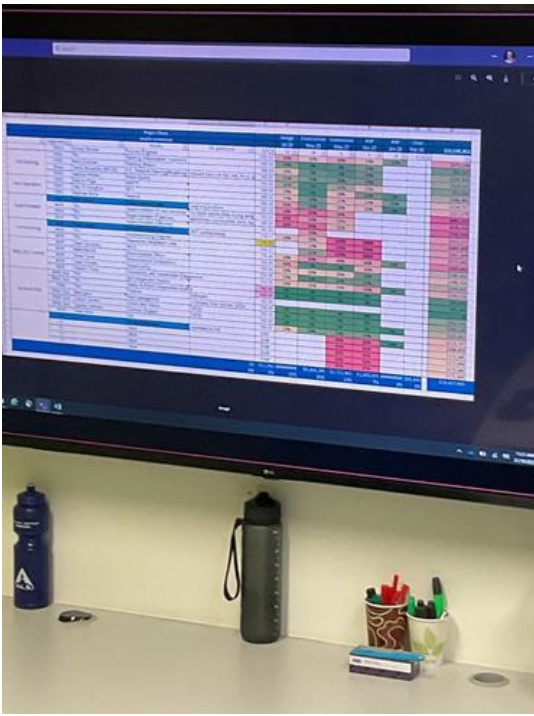
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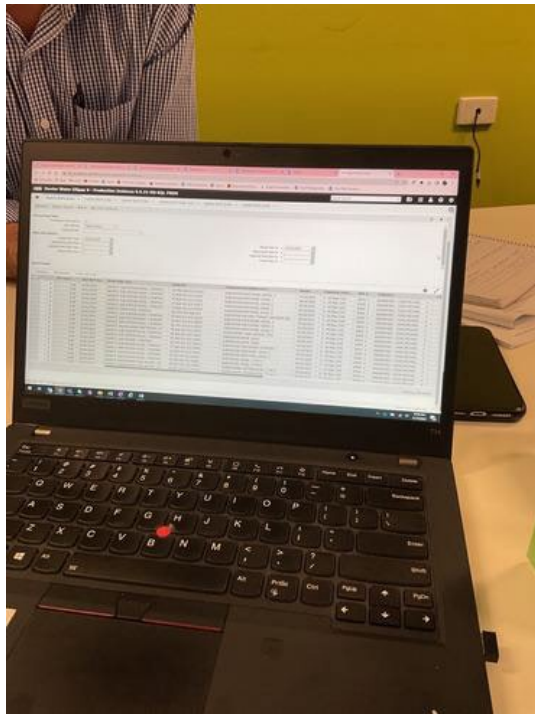
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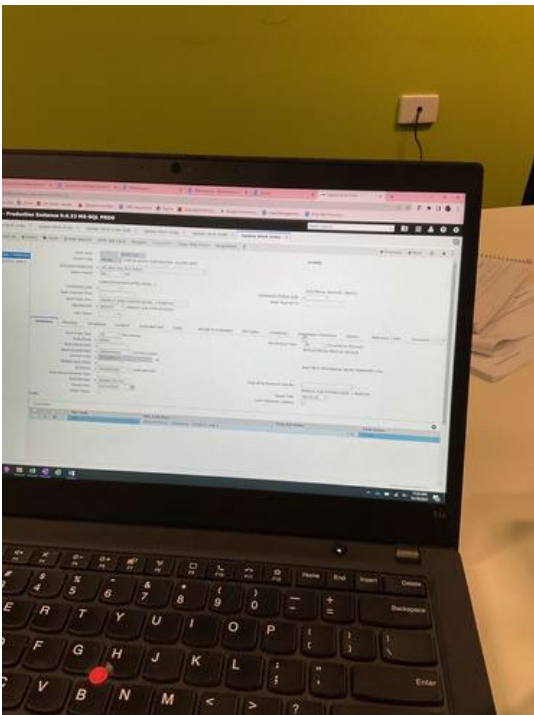
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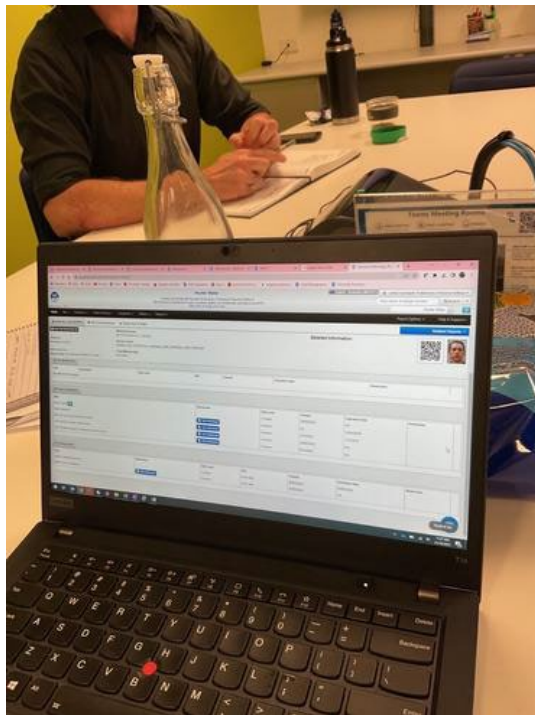
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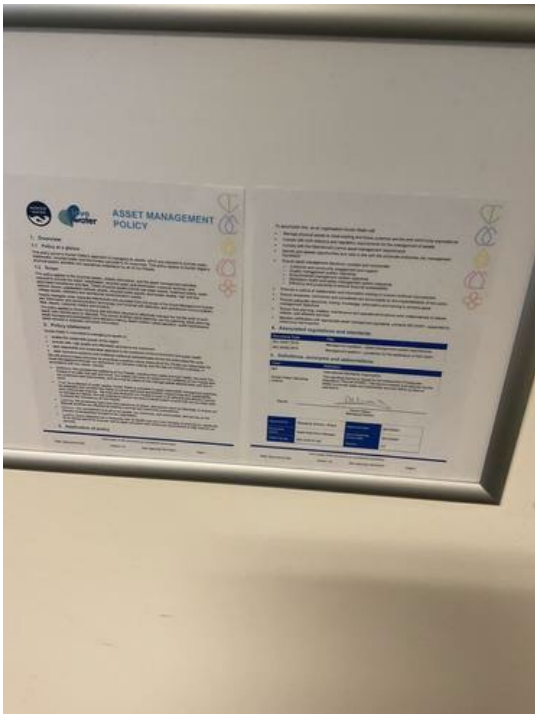
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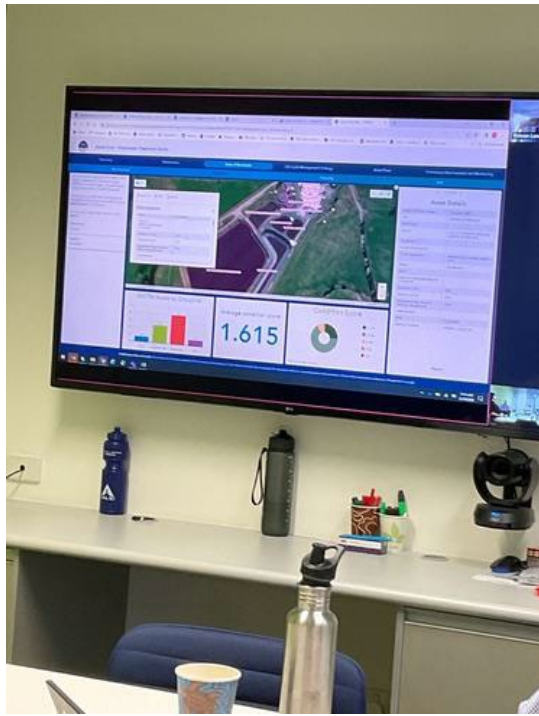
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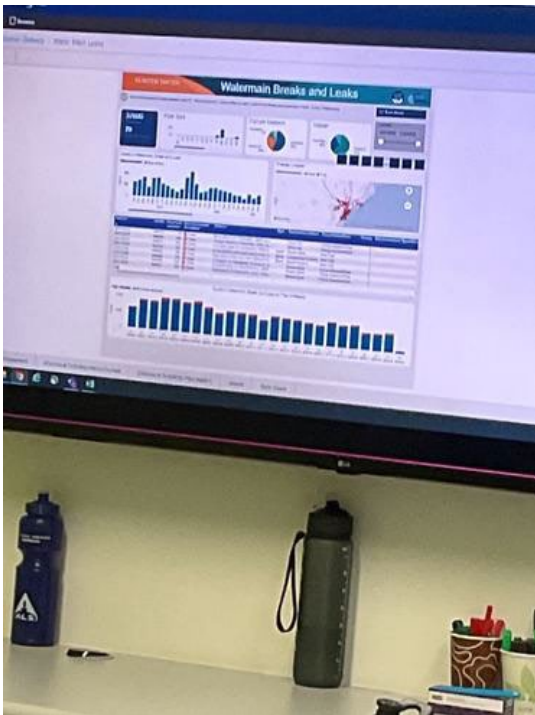
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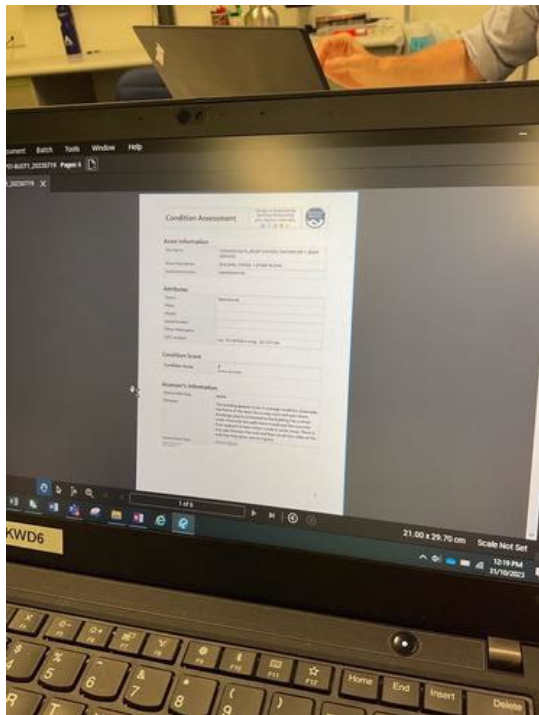
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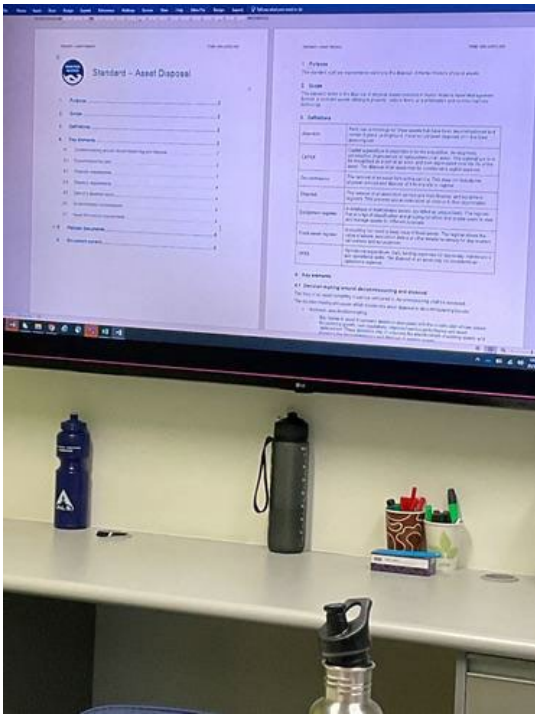
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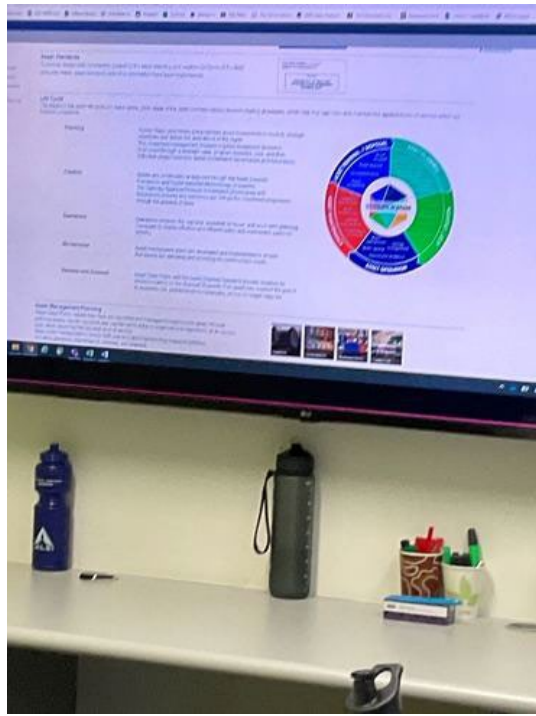
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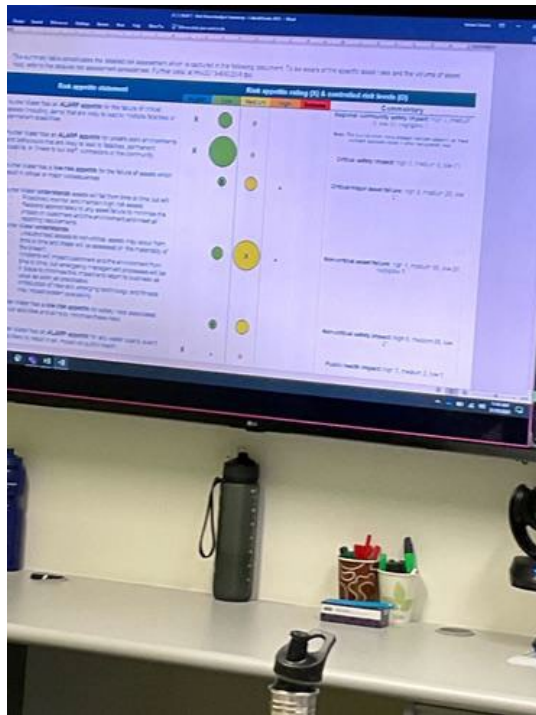
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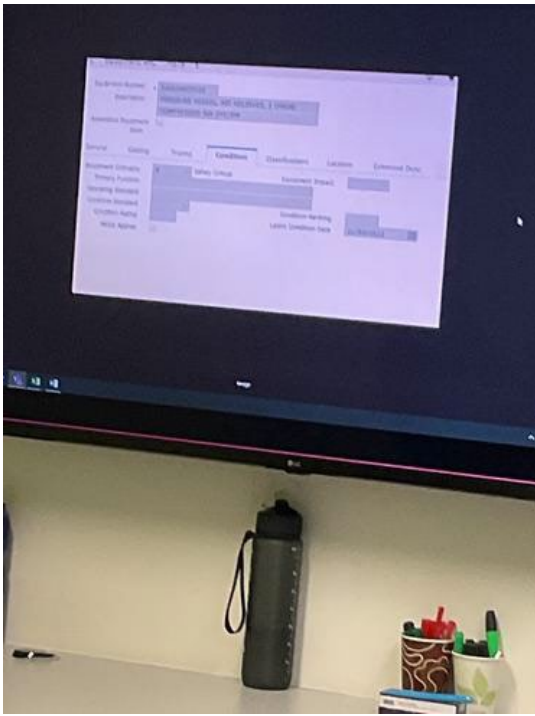
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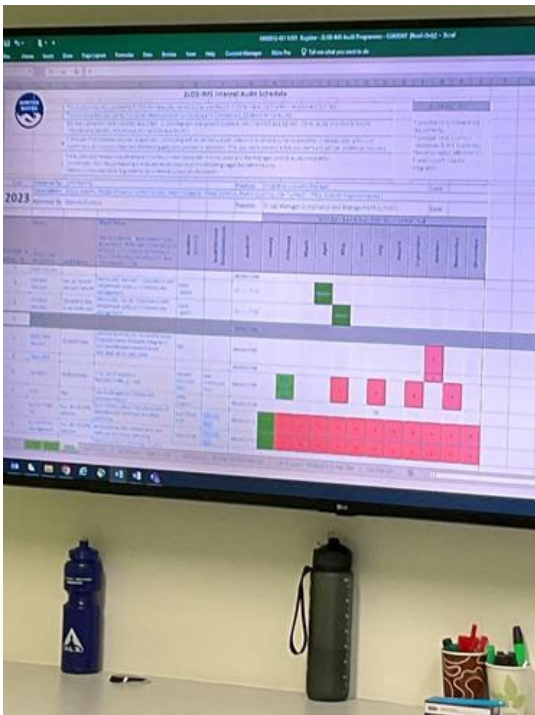
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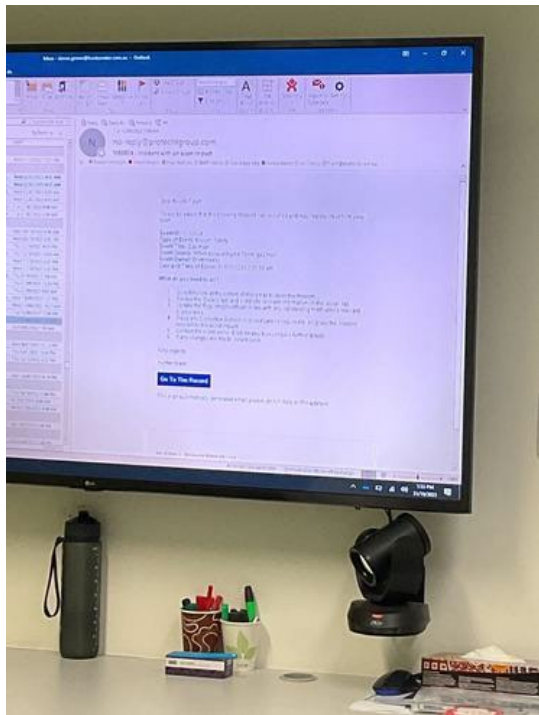
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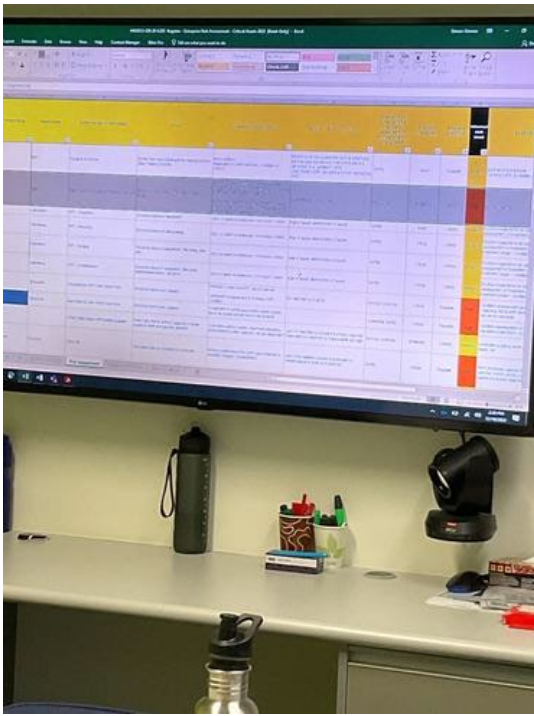
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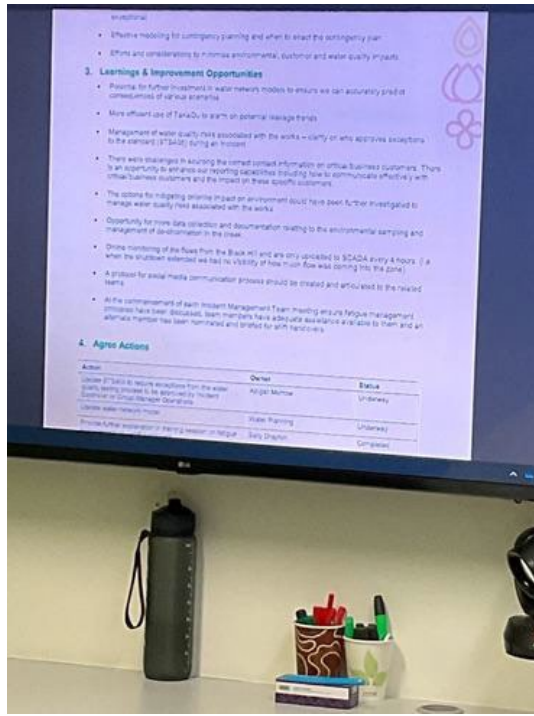
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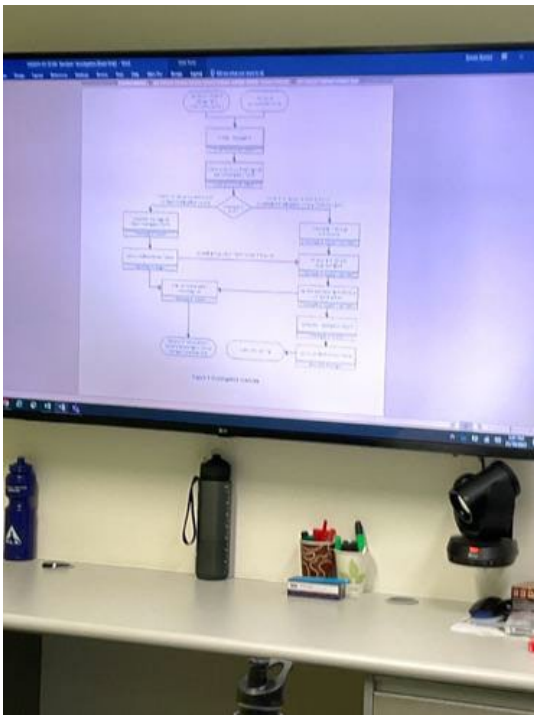
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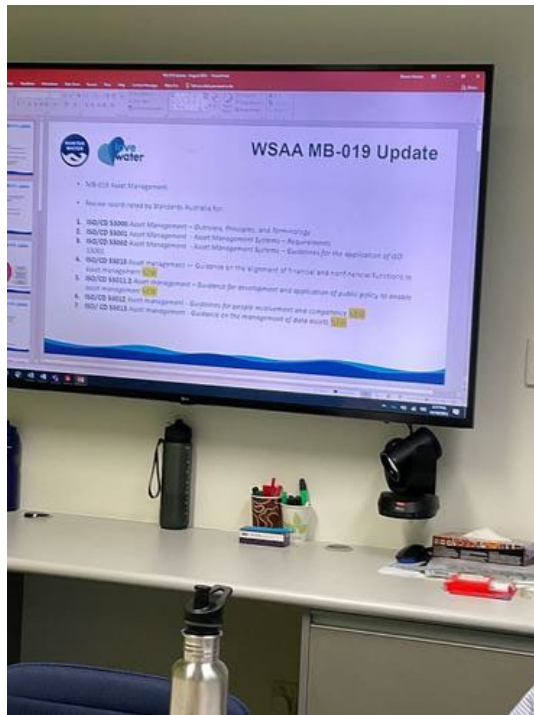
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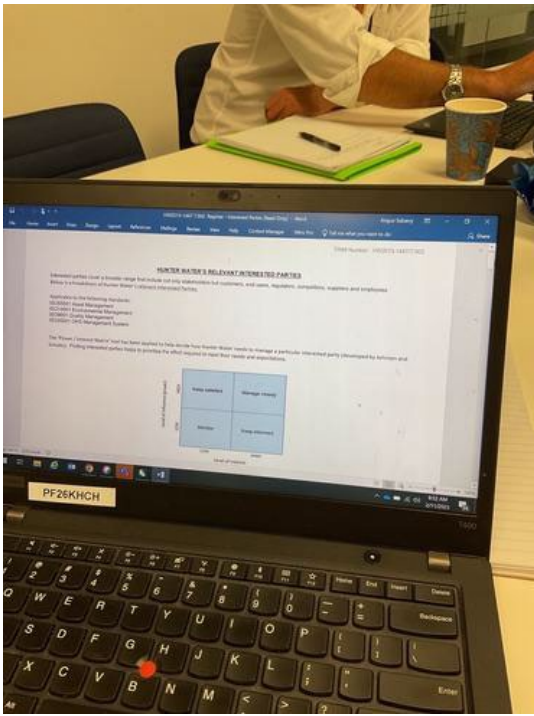
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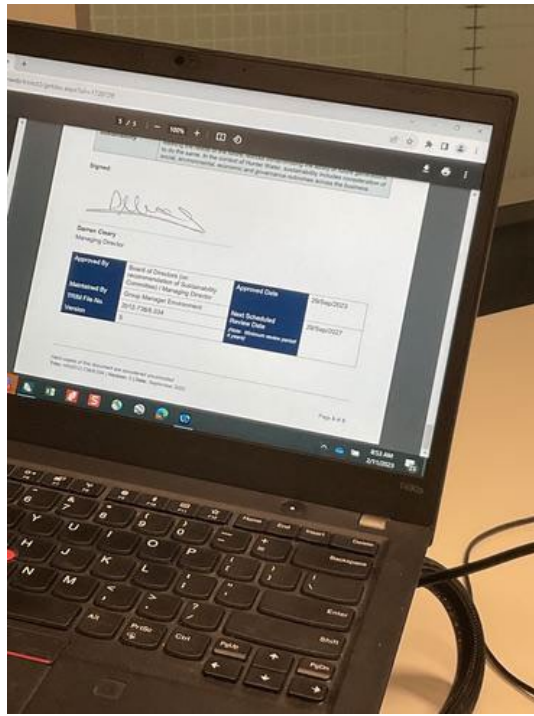
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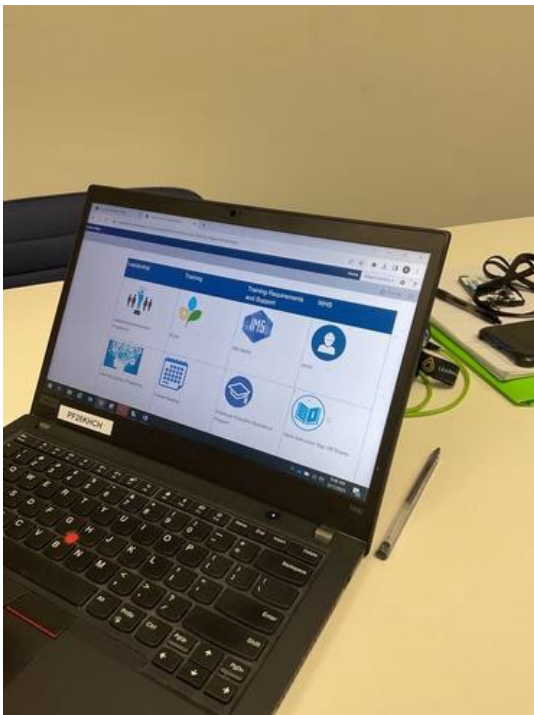
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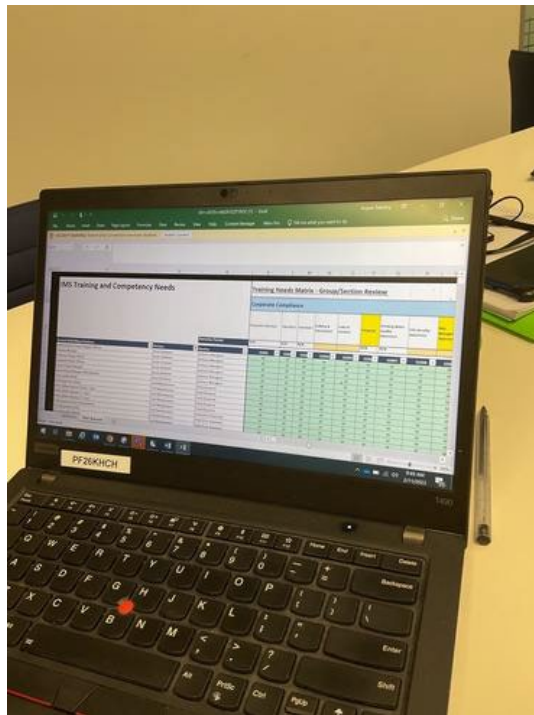
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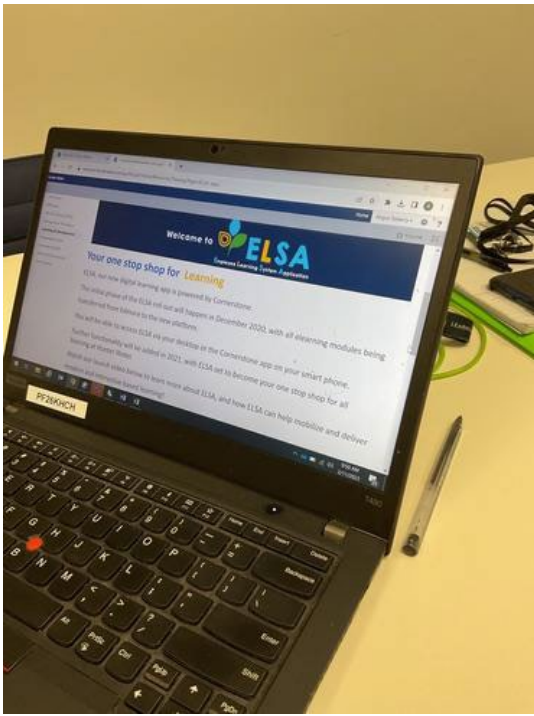
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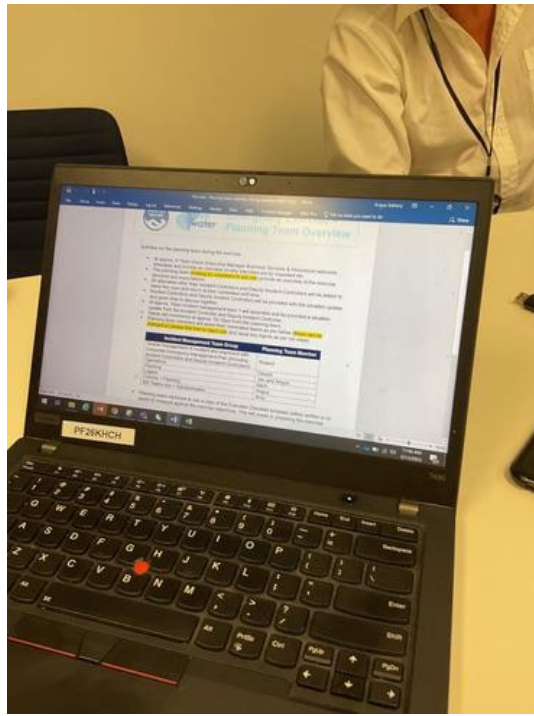
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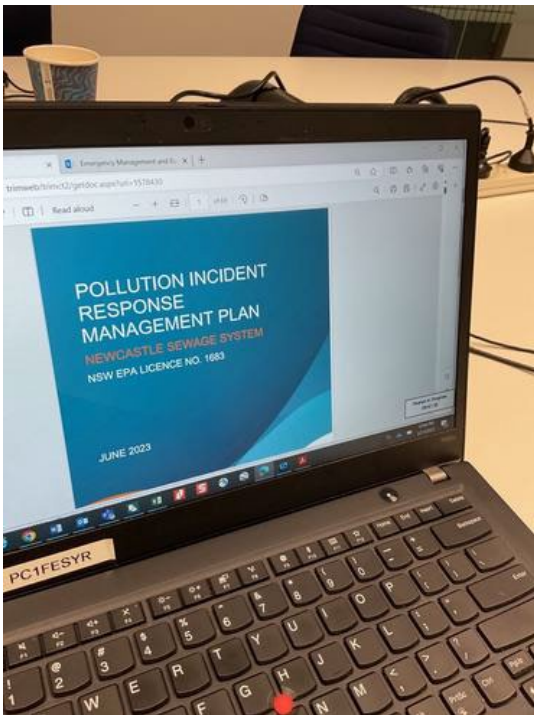
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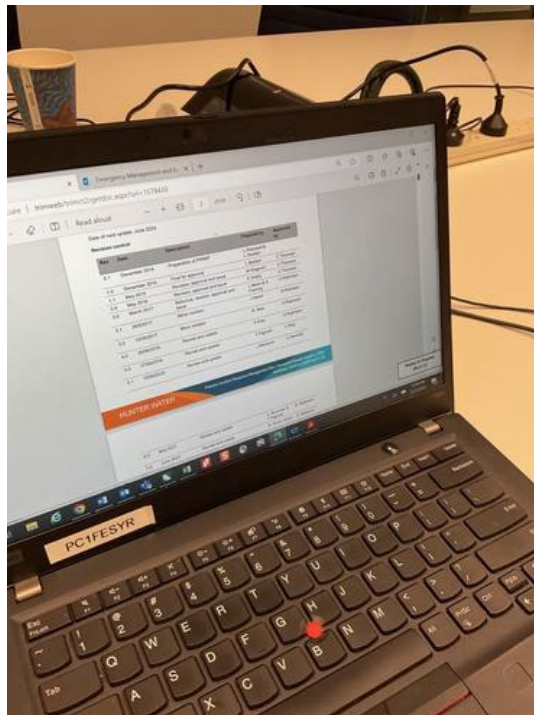
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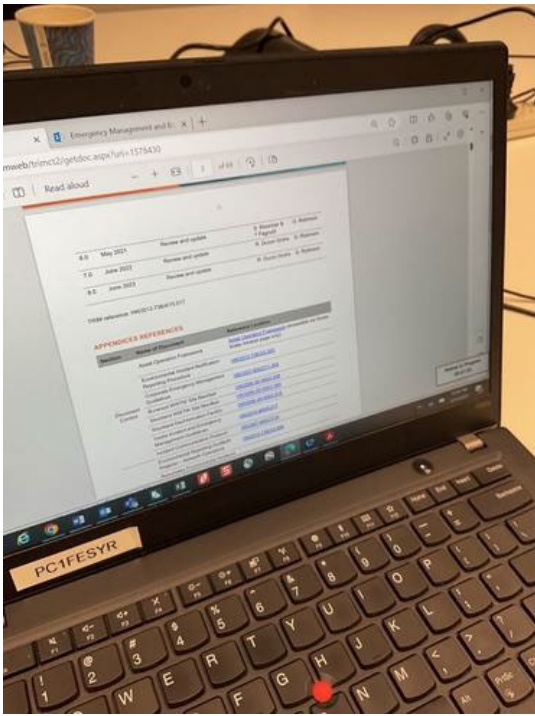
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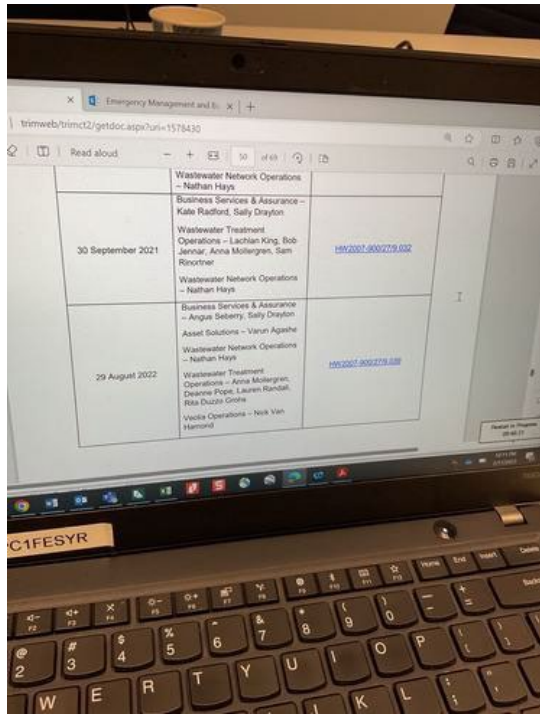
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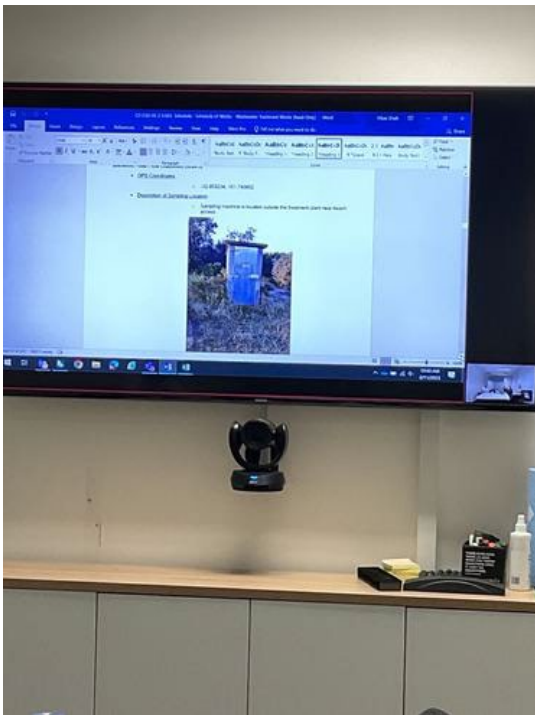
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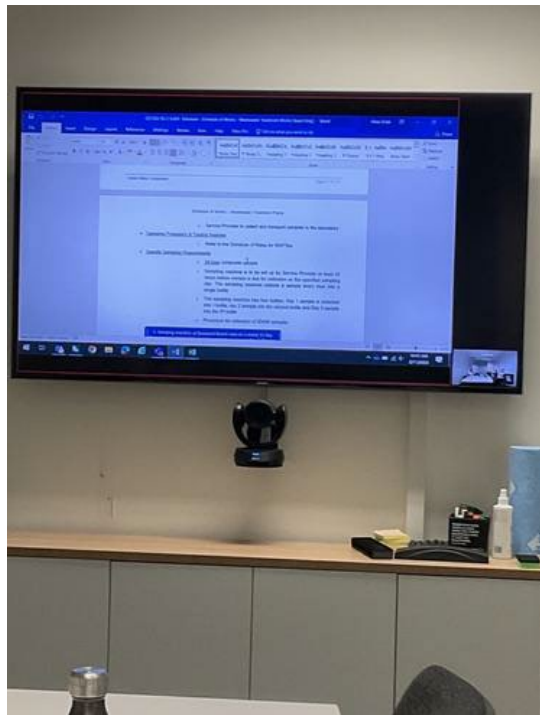
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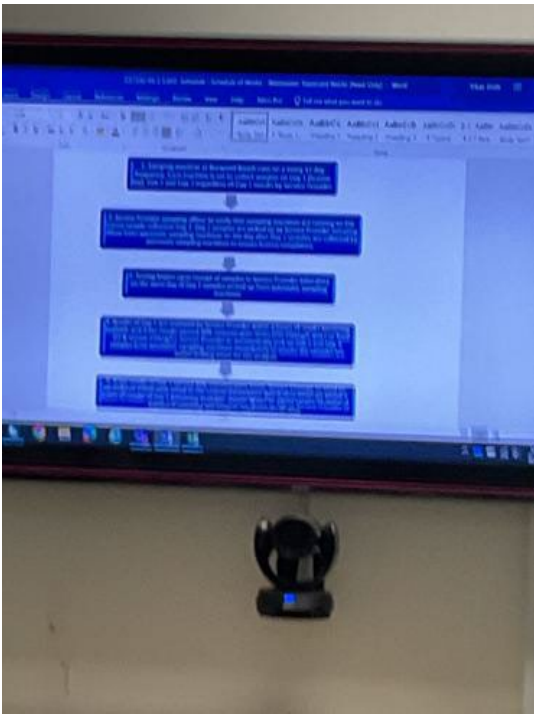
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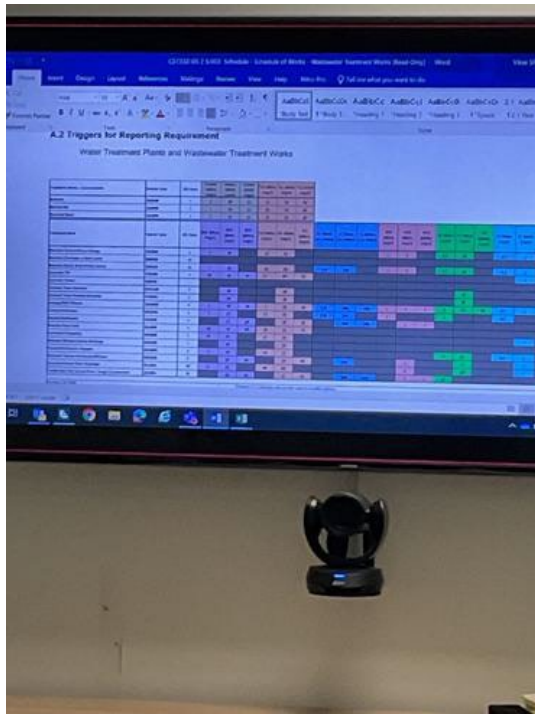
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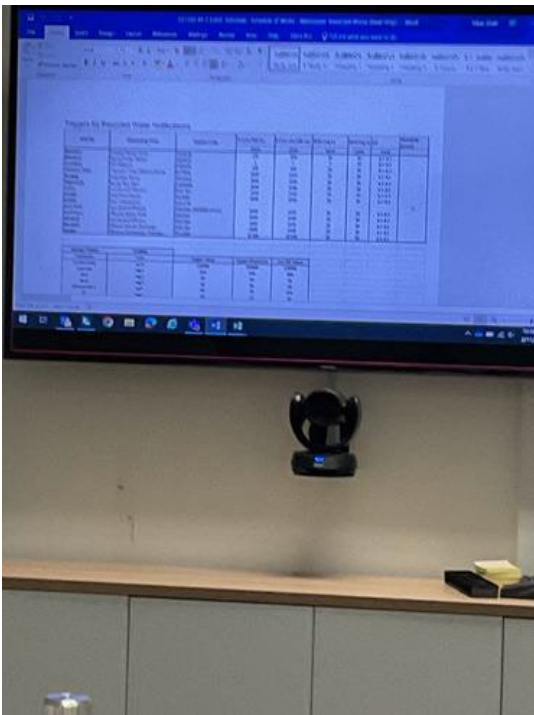
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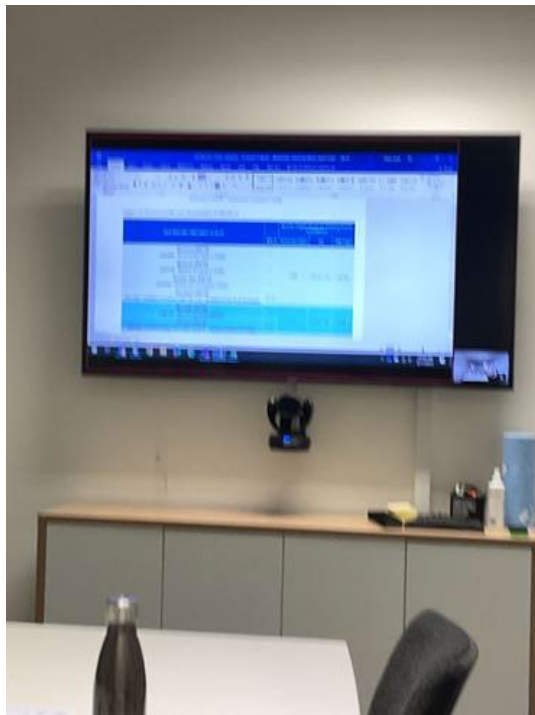
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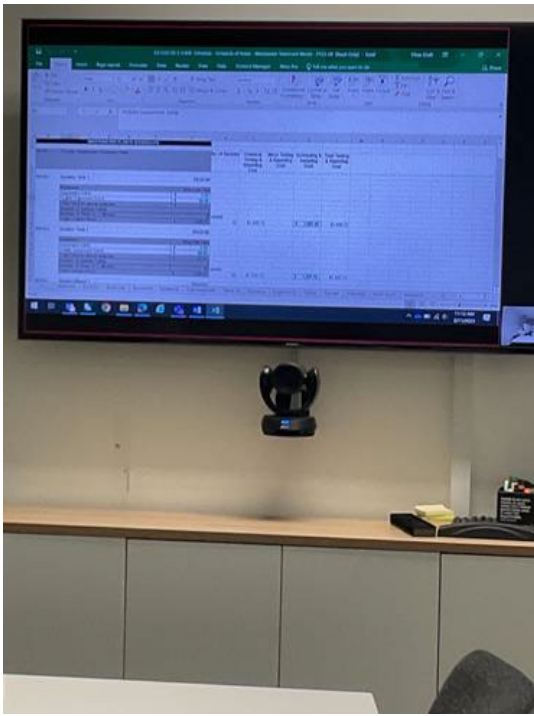
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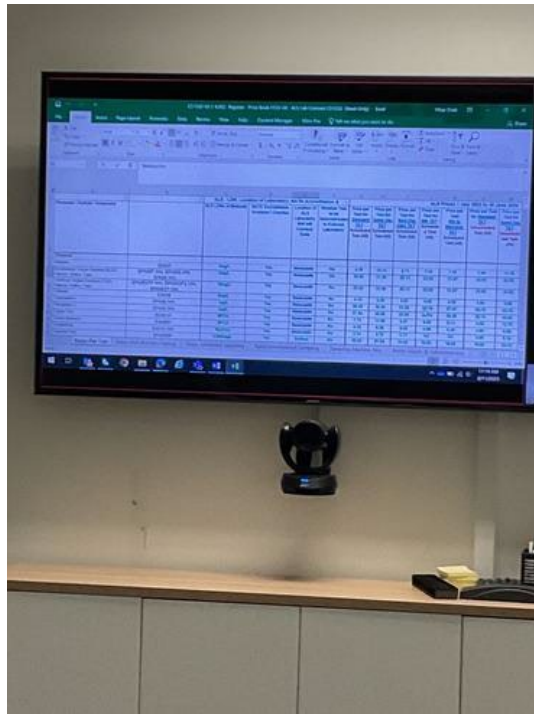
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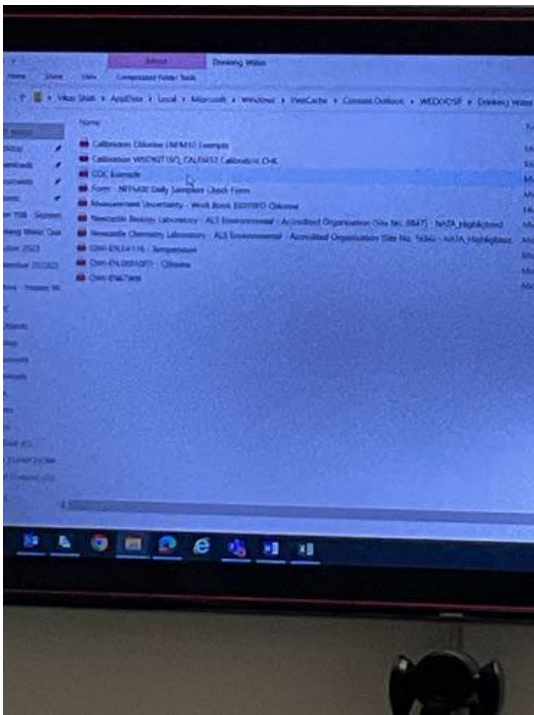
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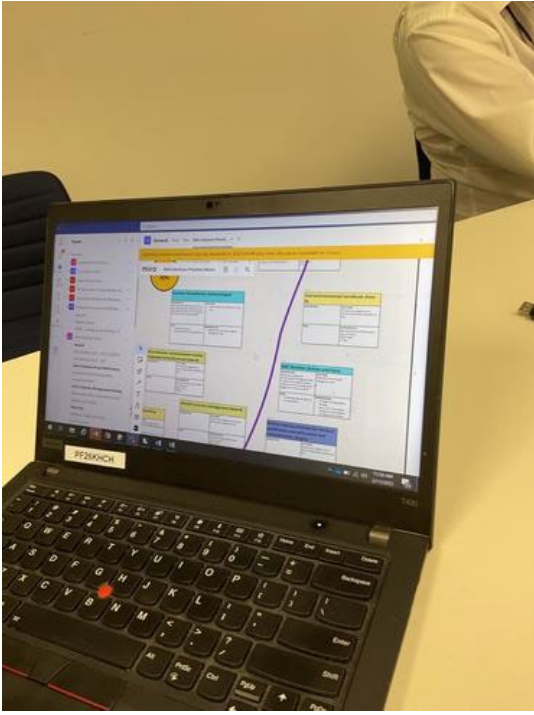
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SC photo 43



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SC photo 53



SC photo 54



SC photo 55



SC photo 56



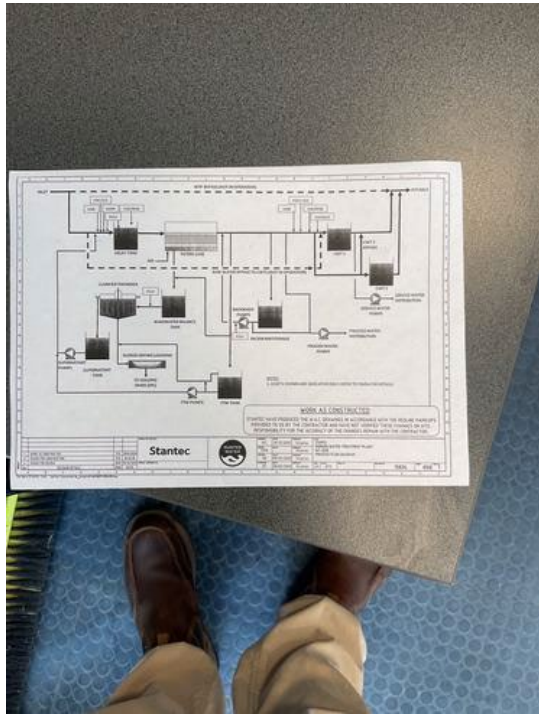
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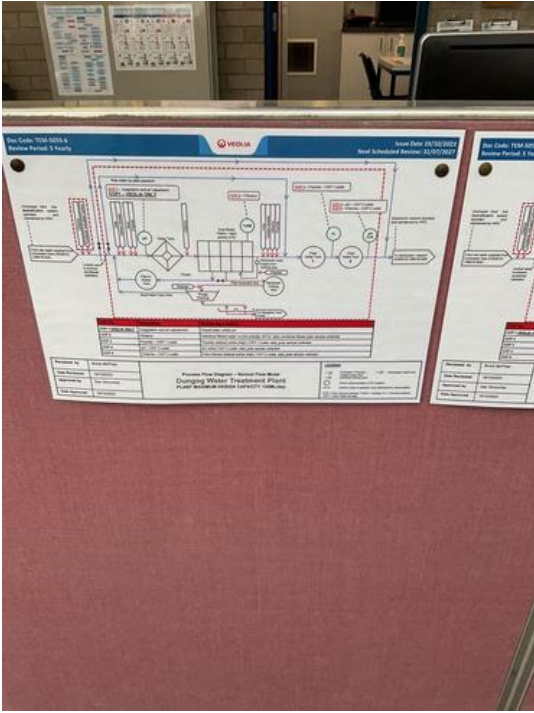
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SC photo 59



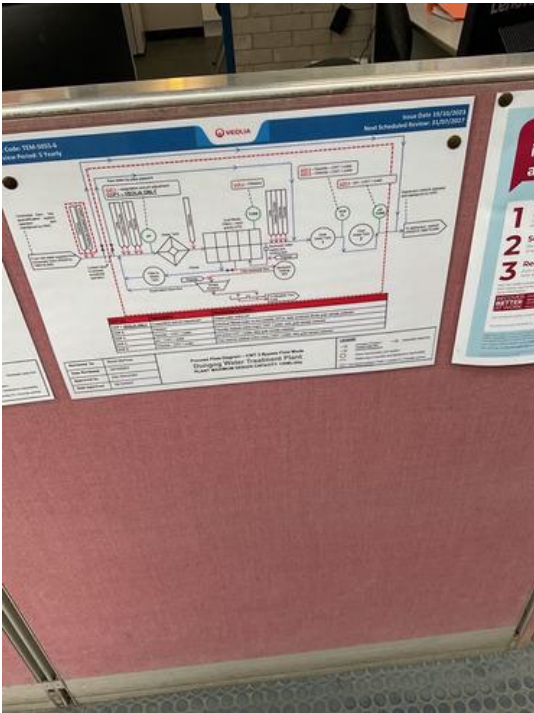
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SC photo 61



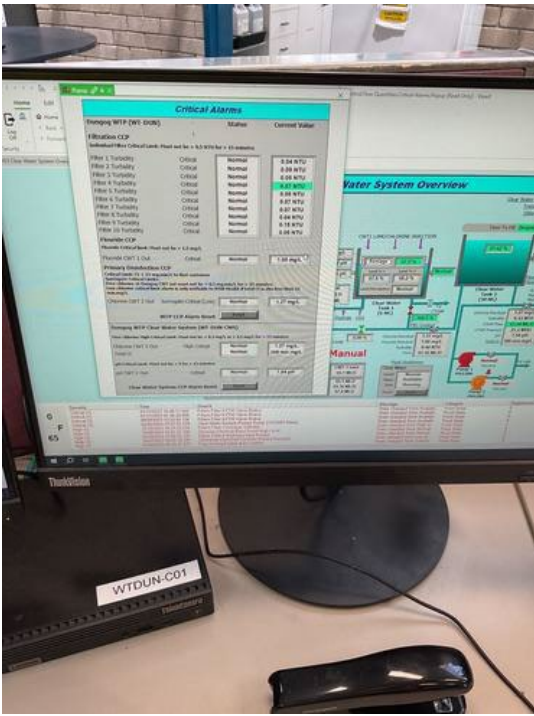
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SC photo 63



SC photo 64



SC photo 65



SC photo 66



SC photo 67



SC photo 68



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SC photo 70



SC photo 71



SC photo 72



SC photo 73



SC photo 74



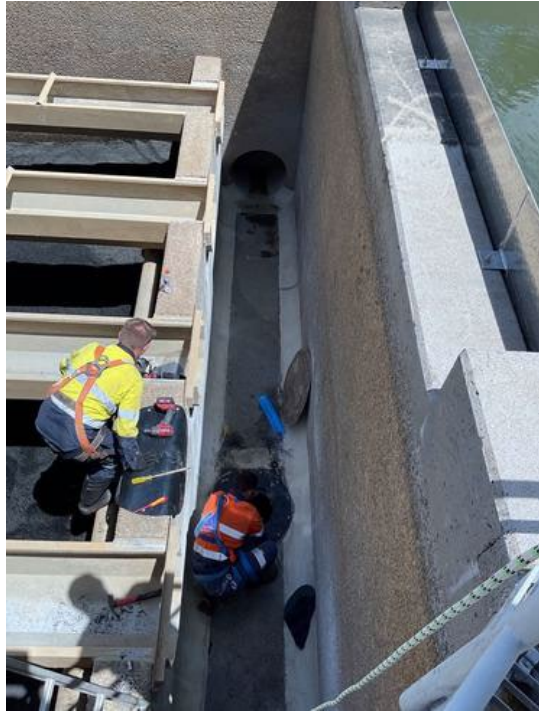
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SC photo 76



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SC photo 80



SC photo 81



SC photo 82



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SC photo 87



SC photo 88



SC photo 89



SC photo 90



SC photo 91



SC photo 92



SC photo 93



SC photo 94

A2. KICKOFF AGENDA

Date	5 September 2023
Time	9.30 am
Location	MS Teams
Subject	Project kick off meeting – 2023 Hunter Water compliance audit

1. Introduction and key contacts

IPART – Robert Aposhian

Auditors – Michael Lawrence, Simon Clements (Bligh Tanner Consultants)

Hunter Water – Matthew Wickens, Lynn Haining

2. Updated Audit Guidelines

Updated guidelines on IPART website reflects practice from 2022 audit including Summary of Reasons for Grade and clarification of gradings

3. Proposed audit dates and reporting timelines.

Stage	Proposed start dates	Proposed end dates
Task 1 – Kick-off meeting	today	-
Task 2 – Submit audit questionnaire to IPART <ul style="list-style-type: none"> Submit to IPART IPART to review Submit to Hunter Water Hunter Water response 	<ul style="list-style-type: none"> Post kick-off 15 September 15 September 13 October 	<ul style="list-style-type: none"> 14 September 15 September
Task 3 – Review PWU response to audit questionnaire	13 October	27 October
Task 4 – Audit interviews and verification activities	WC 30 October	WE 3 November
Task 5 – Deliver a summary of reasons for grade to IPART <ul style="list-style-type: none"> Submit to IPART for review IPART to submit to Hunter Water for review 	<ul style="list-style-type: none"> 24 November 1 December 	<ul style="list-style-type: none"> 1 December 8 December
Task 6 – Preliminary findings meeting <i>Utility to provide any additional evidence within 5 working days of meeting</i>	11 December	15 December
Task 7 – Deliver draft audit reports to IPART and Hunter Water <ul style="list-style-type: none"> IPART and Hunter Water to provide comments 	25 Jan 2024 <ul style="list-style-type: none"> 9 Feb 2024 	25 Jan 2024 <ul style="list-style-type: none"> 9 Feb 2024
Task 8 – Deliver final audit reports	16 Feb 2024	16 Feb 2024
Task 9 – Project close out / lessons learnt workshop	TBA	-

4. Site verification

NSW Health has proposed we consider:

- Dungog WTP.
- Cessnock, ~~Morisseth~~ and Edgeworth WRPs

Need to also consider a reservoir site and planned maintenance inspection if logistically feasible.

Auditors to provide list of proposed site visit preferences.

5. Information sharing - ~~SigBox~~.

We are using ~~SigBox~~ for filesharing for the 2023 audits. Let Robert know if additional users need to be given access to the audit folders.

6. Other matters

A3. AUDIT SCHEDULE

Audit Schedule - IPART 2023 HWC Stream Facilitators: Steam 1 - Lynn Haining, Stream 2 - Simon Groves

Licence clause	Operating Licence obligation	Hunter Water Clause Representative / Team	Auditors	IPART	Day	Stream	Time Start	Time Finish
	Inception meeting and introductions	Lynn Haining Simon Groves Darren Cleary Glen Robinson Grace McPherson Matt Hingston HWC Clause Representatives	Michael Lawrence Simon Clements	Robert Aposhian Jamie Luke	1	1 & 2	8:00:00 AM	8:30:00 AM
11(1)	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.	Ian McKensey Danielle Taylor Clare Coleman	Michael Lawrence	Jamie Luke	1	1	8:30:00 AM	9:00:00 AM
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.	Ardie Morris Dean Cecil Tom Hartigan	Michael Lawrence	Jamie Luke	1	1	9:00:00 AM	9:15:00 AM
12(1)	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.	Julia Irwin Ardie Morris John Stanmore Ian McKensey	Michael Lawrence	Jamie Luke	1	1		9:00 or 09:15 AM for 30 minutes
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.	Julia Irwin Ben Silberberg Peter Sheilds	Michael Lawrence	Jamie Luke	1	1	9:35 am (slight overlap planned)	10:00:00 AM
14(1)	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 (b) if no such memorandum of understanding is in effect, in accordance with a reasonable methodology that Hunter Water considers suitable.	Colin Hancock Brendan Berghout	Simon Clements	Robert Aposhian	1	2	8:30:00 AM	9:00:00 AM
14(2)	Hunter Water must undertake long term water planning consistent with its memorandum of understanding with DPE referred to in clause 33.	Colin Hancock Jordi Bates	Simon Clements	Robert Aposhian	1	2	9:00:00 AM	9:30:00 AM
15(1)	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).	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(1)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(1)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(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.	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
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>	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM

Licence clause	Operating Licence obligation	Hunter Water Clause Representative / Team	Auditors	IPART	Day	Stream	Time Start	Time Finish
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)		Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)	By 1 November 2022, Hunter Water must review the CCP Limit Tables and ensure that the limits and the logic are accurate and match SCADA	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)	By 31 October 2023, Hunter Water must consolidate information on CCPs to, as far as possible, one reference point, to improve maintenance of currency and avoid discrepancies of information e.g. by adding a reference to a CCP document (as the point of truth) within the Drinking Water Quality Management System or Drinking Water Quality Management Plan.	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)	By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, Hunter Water must set an evidence-based Key Performance Indicator (KPI) for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water's ability to satisfy its licence and other obligations.	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(3)	By 30 June 2023, Hunter Water must ensure that the audit report for the Hunter Water Distribution Network has been completed and the audit finalised	Karolina Wrobel Wade Delforce	Michael Lawrence	Jamie Luke	1	1	13:00 PM	4:30:00 PM
15(4)	Site Visits - Stream 2 Medowie Reservoir - Drinking Water Dungog WTP - Drinking Water Planned/Unplanned Maintenance Works Refer to Site Visit Schedule for further Detail	Simon Groves Karolina Wrobel TBC	Simon Clements	Robert Aposhian	2	2		
16(1)	Recycled Water				3	1		
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).	Martin Robards	Michael Lawrence	Jamie Luke	3	1	11:15:00 PM	12:30:00 PM
16(1)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	11:15:00 PM	12:30:00 PM
16(1)(2)	By 30 September 2023, Hunter Water must set an evidence based KPI for currency of Veolia documents used under the operations and maintenance contract. This KPI shall be set at an achievable level (commensurate with document criticality) that does not compromise Hunter Water or Veolia's ability to satisfy its licence and other obligations.	Martin Robards -	Michael Lawrence	Jamie Luke	3	1	11:15:00 PM	12:30:00 PM
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.	Martin Robards	Michael Lawrence	Jamie Luke	3	1	11:15:00 PM	12:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	11:15:00 PM	12:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(3)		Martin Robards	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM

Licence clause	Operating Licence obligation	Hunter Water Clause Representative / Team	Auditors	IPART	Day	Stream	Time Start	Time Finish
16(3)	By 30 September 2023, Hunter Water must develop a system to ensure that reagents used for recycled water analysis have not passed their expiry date.	Martin Robards -	Michael Lawrence	Jamie Luke	3	1	13:00:00 PM	3:30:00 PM
16(4)	Site Visits - Stream 1 Dungog WWTW - Recycled Water Morpeth WWTW - Recycled Water Refer to Site Visit Schedule for further Detail	Lynn Haining Martin Robards TBC	Michael Lawrence	Jamie Luke	2	1		
21(1)	Asset management system				1	2		
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).	Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	9:30:00 AM	10:30:00 AM
21(1)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	10:30:00 AM	11:00:00 AM
21(1)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	11:00:00 AM	11:30:00 AM
21(1)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	11:30:00 AM	12:00:00 PM
21(1)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	12:30:00 PM	1:00:00 PM
21(1)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	1:00:00 PM	1:30:00 PM
21(1)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	1:30:00 PM	2:00:00 PM
21(2)	Hunter Water must fully implement, and carry out all relevant activities in accordance with, the Asset Management System.	Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	2:00:00 PM	2:30:00 PM
21(2)		Simon Groves Rowan Lonergan Rhys Watson Bryce Fitz Henry	Simon Clements	Robert Aposhian	1	2	2:30:00 PM	3:00:00 PM
21(2)	By 30 September 2023, given that 100% document currency compliance is unlikely to ever be achievable, set an evidence-based KPI for currency at an achievable level (commensurate with document criticality) that does not compromise Hunter Water's ability to satisfy its operating licence and other obligations	Simon Groves -	Simon Clements	Robert Aposhian	1	2	3:00:00 PM	3:30:00 PM
21(2)	By 30 September 2023, Hunter Water must set up a system to ensure that its likelihood, criticality rating and risk rating scales, along with the terminology used, are aligned between its asset class management plans and its Enterprise Risk Management Standard	Simon Groves -	Simon Clements	Robert Aposhian	1	2	3:30:00 PM	4:00:00 PM
22(1)	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).	Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM
22(1)		Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM
22(1)		Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM
22(1)		Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM

Licence clause	Operating Licence obligation	Hunter Water Clause Representative / Team	Auditors	IPART	Day	Stream	Time Start	Time Finish
22(1)		Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM
22(1)		Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM
22(1)		Angus Sebery Roland Bow	Simon Clements	Jamie Luke	3	2	8:00:00 AM	11:00:00 AM
23(1)	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).	Lynn Haining	Michael Lawrence	Robert Aposhian	3	1	9:00:00 AM	10:15:00 AM
25(1), (3) & (4)	By 30 June 2023, Hunter Water must finalise, approve and implement the Standard Operating Procedure - Process-Communication of Regulated Information with Customer Bills	Ian McKensey -	Michael Lawrence	Jamie Luke	1	1	10:15:00 AM	10:45:00 AM
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.	Ian McKensey -	Michael Lawrence	Jamie Luke	1	1	10:15:00 AM	10:45:00 AM
29(1)	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;	Clare Hogue	Michael Lawrence	Jamie Luke	1	1	11:00:00 AM	12:30:00 PM
29(1)	(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.	Clare Hogue	Michael Lawrence	Jamie Luke	1	1	11:00:00 AM	12:30:00 PM
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 (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.	Clare Hogue	Michael Lawrence	Jamie Luke	1	1	11:00:00 AM	12:30:00 PM
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.	Clare Hogue	Michael Lawrence	Jamie Luke	1	1	11:00:00 AM	12:30:00 PM
33(3)	Memorandum of understanding with Department of Planning and Environment							
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:	Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
33(3)	(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.	Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
33(3)		Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
33(3)		Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
33(3)		Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM

Licence clause	Operating Licence obligation	Hunter Water Clause Representative / Team	Auditors	IPART	Day	Stream	Time Start	Time Finish
33(3)		Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
33(3)		Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
33(3)		Colin Hancock	Simon Clements	Jamie Luke	3	2	11:00:00 AM	12:30:00 PM
34(3)	Memorandum of understanding with Fire and Rescue NSW							
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;	Kirby Morrison	Michael Lawrence	Robert Aposhian	3	1	8:00:00 AM	8:45:00 AM
34(3)	(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);	Kirby Morrison	Michael Lawrence	Robert Aposhian	3	1	8:00:00 AM	8:45:00 AM
34(3)	(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	Kirby Morrison	Michael Lawrence	Robert Aposhian	3	1	8:00:00 AM	8:45:00 AM
34(3)	(iv) other matters as agreed by both Hunter Water and FRNSW.	Kirby Morrison	Michael Lawrence	Robert Aposhian	3	1	8:00:00 AM	8:45:00 AM
35(1)	Negotiations with WIC Act licensees and potential competitors							
35(1)	Hunter Water must negotiate the provision of Services to WIC Act licensees and Potential Competitors in Good Faith.	Ardie Morris Cheryl Eube	Michael Lawrence	Robert Aposhian	3	1	8:45:00 AM	9:00:00 AM
39(2)	By 30 September 2022, Hunter Water should set up a process to ensure that IPART, as well as NSW Health, are advised of any proposed significant changes to the Drinking Water and Recycled Water Quality Systems.	Matthew Wickens Lynn Haining Simon Groves Karolina Wrobel Martin Robards	Michael Lawrence	Robert Aposhian	3	1	10:15:00 AM	10:30am
7(1)	Pricing							
7(1)	Hunter Water must set the level of fees, charges and other amounts payable for its Services in accordance with: (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.	Peter Shelds Ben Silberberg Ian McKensey Dane Linde Alison Heap Belinda Jones	Michael Lawrence	Robert Aposhian	3	1	10:45:00 AM	11:15:00 AM
NWI	Population receiving services: water supply	Rajesh Khadka	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Percentage of calls answered by an operator within 30 seconds	Kel Dunning	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Average duration of an unplanned interruption: water supply	Shayne Humphries	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of connected residential properties: water supply	Rajesh Khadka (Dane Linde)	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of connected non-residential properties: water supply	Rajesh Khadka (Dane Linde)	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of connected residential properties: wastewater	Rajesh Khadka (Dane Linde)	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of connected non-residential properties: wastewater	Rajesh Khadka (Dane Linde)	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of water service complaints	Emma Carr	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of sewerage service complaints	Emma Carr	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of billing and account complaints: water supply and sewerage	Emma Carr	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of water and sewerage complaints	Emma Carr	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM

Licence clause	Operating Licence obligation	Hunter Water Clause Representative / Team	Auditors	IPART	Day	Stream	Time Start	Time Finish
NWI	Number of unplanned interruptions: water supply	Shayne Humphries	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of restrictions for non-payment of water bills	Kylie Bennett	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of legal actions taken for non-payment of water bills	Kylie Bennett	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
NWI	Number of water quality complaints: water supply	Emma Carr	Simon Clements	Jamie Luke	3	2	1:00:00 PM	3:30:00 PM
	Wrap up Meeting	Lynn Haining Simon Groves Darren Cleary Glen Robinson Grace McPherson Matt Hingston HWC Clause Representatives	Michael Lawrence Simon Clements	Robert Aposhian Jamie Luke	3	1 & 2		

A4. EVIDENCE

CLAUSE 22.1.C08

Name	Extension
22.1.C08.001 - Plan - EP0143 - Balickera Canal Management Plan - June 2020.PDF	.PDF
22.1.C08.002 - Plan - EP0151 - Biosecurity Management Strategy.DOCX	.DOCX
22.1.C08.003 - Plan - EP0152 - Weed Management Plan - 2022.DOCX	.DOCX
22.1.C08.004 - Procedure - EP0156 - Biosecurity Hygiene Protocol.DOCX	.DOCX
22.1.C08.005 - Plan - Bushfire Management Plan - Final.DOC	.DOC
22.1.C08.006 - EG0118 Environmentatol Field Reference Guide.PDF	.PDF
22.1.C08.007 - Procedure - EWMS 0001 - Erosion and Sediment Control - CURRENT.DOC	.DOC
22.1.C08.008 - Procedure - EWMS 0002 - Working Near Watercourses - CURRENT.DOCX	.DOCX
22.1.C08.009 - Procedure - EWMS 0003 - Native Vegetation Clearing - CURRENT.DOC	.DOC
22.1.C08.010 - Procedure - EWMS 0004 - Spill Control - CURRENT.DOC	.DOC
22.1.C08.011 - Procedure - EWMS 0005 - Restoration and Revegetation - CURRENT.DOCX	.DOCX
22.1.C08.012 - Procedure - EWMS 0006 - Dewatering - CURRENT.DOCX	.DOCX
22.1.C08.013 - Procedure - EWMS 0007 - Works at Head Office Building - Contact with Soi.DOC	.DOC
22.1.C08.014 - Procedure - EWMS 008 - Operations Waste Management - CURRENT.DOCX	.DOCX
22.1.C08.015 - Procedure - EWMS 009 - Fauna Handling - CURRENT.DOCX	.DOCX
22.1.C08.016 - Procedure - EWMS 0010 - Dewatering - Civil Maintenance - Current.DOCX	.DOCX
22.1.C08.017 - Procedure - EP0112 - Dechlorination of discharge water.DOCX	.DOCX
22.1.C08.018 - Procedure - EP0119 - pH adjustment of discharge water.DOCX	.DOCX
22.1.C08.019 - Procedure - EP0044 - Groundwater Dewatering Approvals - CURRENT.DOCX	.DOCX
22.1.C08.020 - Controlled Document - 2022 Emergency Exercise- EMT Update.DOCX	.DOCX
22.1.C08.021 - Controlled Document - 2022 Emergency Exercise Report.DOCX	.DOCX
22.1.C08.022 - Report - Hunter Water_CyberCX-CIRE-Findings Recommendations Report_v1.1.PDF	.PDF
22.1.C08.023 - Emergency Management - Corporate Emergency Plan.jpg	.jpg
22.1.C08.024 - Emergency Management - Corporate Emergency Process.jpg	.jpg
22.1.C08.025 - Emergency Management Plan.DOCX	.DOCX
22.1.C08.026 - Guideline - EG0142 - Covid Safe Workpractices and shared areas guideline.DOCX	.DOCX
22.1.C08.027 - Plan - EP0083 - Branxton Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.028 - Plan - EP0084 - Clarence Town Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.029 - Plan - EP0085 - Dungog Water Treatment Plant PIRMP - CURRENT.PDF	.PDF
22.1.C08.030 - Plan - EP0087 - Karuah Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.031 - Plan - EP0088 - Kearsley Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.032 - Plan - EP0089 - Kurri Kurri Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.033 - Plan - EP0090 - Paxton Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.034 - Plan - EP0091 - Tanilba Bay Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.035 - Plan - EP0092 - Balickera Canal PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.036 - Plan - EP0094 - Raymond Terrace Wastewater Treatment Works PIRMP - CURRENT.DOCX	.DOCX
22.1.C08.037 - Plan - EP0095 - Morpeth Wastewater Treatment Works PIRMP - Current.DOCX	.DOCX
22.1.C08.038 - Plan - EP0096 - Farley Wastewater Treatment Works PIRMP - Current.DOCX	.DOCX
22.1.C08.039 - Plan - EP0097 - Cessnock Wastewater Treatment Works PIRMP - Current.DOCX	.DOCX
22.1.C08.040 - Plan - EP0098 - Boulder Bay Wastewater Treatment Works PIRMP - Current.PDF	.PDF
22.1.C08.041 - Plan - EP0099 - Lake Macquarie Sewerage System PIRMP - Current.PDF	.PDF
22.1.C08.042 - Plan - EP0100 - Newcastle Sewerage System PIRMP - Current.PDF	.PDF
22.1.C08.043 - Plan - EP0138 - Water Network Pollution Response Plan.DOCX	.DOCX
22.1.C08.044 - Procedure - EP0129 - Chemical Spill Response - Sodium Hypochlorite at North Lambton Reserv.DOCX	.DOCX

22.1.C08.045 - Procedure - EP0130 - Chemical Spill Response - Sodium Hypochlorite at Cardiff South Reserv.DOCX	.DOCX
22.1.C08.046 - Procedure - EP0131 - Chemical Spill Response - Ferrous Chloride and Dosing Units.DOCX	.DOCX
22.1.C08.047 - Procedure - EP0135 - Chemical Spill Response - Sodium Hypochlorite at Toronto Reservoir.DOCX	.DOCX
22.1.C08.048 - Guideline - EF0057 Reportable Environmental Incidents Fact Sheet - CU.DOC	.DOC
22.1.C08.049 - Guideline - EF0058 Frequently Asked Questions - Environmental Incidents - Fact Sh.DOC	.DOC
22.1.C08.050 - Guideline - EG0028 Environmental Incident Water Sampling Guidelines .DOCX	.DOCX
22.1.C08.051 - Guideline - EG0111 Major Environmental Incidents - Checklist and Contacts for Su.DOCX	.DOCX
22.1.C08.052 - Procedure - EP0056 Environmental Incident Notification and Reporting.DOCX	.DOCX
22.1.C08.053 - Register - ER0059 Environmental reporting contacts register - Network Operations.DOCX	.DOCX
22.1.C08.054 - Register - ER0060 Environmental reporting contacts register - Capital Works - CU.DOCX	.DOCX
22.1.C08.055 - Standard - Investigation.DOCX	.DOCX
22.1.C08.056 - Template - ET0026 - Environmental Incident Report - Updated by Network Ops - CU.DOCX	.DOCX
22.1.C08.057 - Checklist - EF0103 - Review of Environmental Factors Checklist.DOCX	.DOCX
22.1.C08.058 - EG0038 - Acid Sulfate Soil Management Guideline_Final.PDF	.PDF
22.1.C08.059 - Guideline - EG0041 Review of Environmental Factors Guidance Notes - CURRENT.DOCX	.DOCX
22.1.C08.060 - Guideline - EG0126 - REF Scope of Work (Standard Brief) - CURRENT.DOCX	.DOCX
22.1.C08.061 - Guideline - EG0127 - CEMP Guideline on HWC requirements for project managers and contractors.DOCX	.DOCX
22.1.C08.062 - Guideline - EG0144 - Environmental Impact Assessment Public Exhibition Guideline.DOCX	.DOCX
22.1.C08.063 - Guideline - EG0147 - Out of Hours Construction Noise Guideline - CURRENT.DOCX	.DOCX
22.1.C08.064 - Register - ER0148 - REF Standard Mitigation Measures.XLSX	.XLSX
22.1.C08.065 - Template - ET0020 Project Change Assessment Form - CURRENT.DOCX	.DOCX
22.1.C08.066 - Template - ET0021 Greenslip Template - CURRENT.DOCX	.DOCX
22.1.C08.067 - Template - ET0022 Review of Environmental Factors (REF) Template Minor Works - C.DOCX	.DOCX
22.1.C08.068 - Template - ET0040 - Aboriginal Heritage Due Diligence Assessment - CURRENT.DOCX	.DOCX
22.1.C08.069 - Template - ET0136 - Exempt Development - Environmental and Heritage Checklist.DOCX	.DOCX
22.1.C08.070 - Template - ET0137 - Review of Environmental Factors Developer Works.DOCX	.DOCX
22.1.C08.071 - Procedure - EP0115 - Quality Assurance and Control - EPA Annual Licensing Returns.DOCX	.DOCX
22.1.C08.072 - Plan - EPO109 - Heritage Asset Management Strategy.DOCX	.DOCX
22.1.C08.073 - Plan - EP0132 - Former Stockton Waste Water Treatment Works Site Management Plan.PDF	.PDF
22.1.C08.074 - Procedure - EP0075 Contaminated Lands Procedure - CURRENT.DOCX	.DOCX
22.1.C08.075 - EP0117 CONTAMINATED LAND STRATEGY.DOCX	.DOCX
22.1.C08.076 - Procedure - Monitoring of Environmental Risk and Actions for Managing Lead Contamination.DOCX	.DOCX
22.1.C08.077 - Report - CTGM Lead management plan - FINAL - CURRENT.DOCX	.DOCX
22.1.C08.078 - User Manual - NPR and NGER Data Reporting Manual 2022-23.docx	.docx
22.1.C08.079 - Guideline - EG0045 - Pesticide Use - Guidance Notes - CURRENT.DOCX	.DOCX

22.1.C08.080 - Plan - EP0113 - Pesticide Use Notification Plan - Current.PDF	.PDF
22.1.C08.081 - Procedure - EP0049 - Pesticide Application - CURRENT.DOCX	.DOCX
22.1.C08.082 - Environment and Sustainability Schedule.DOCX	.DOCX
22.1.C08.083 - HWC RAP.pdf	.pdf
22.1.C08.084 - HWC sustainability-strategy.pdf	.pdf
22.1.C08.085 - Supplier Due Dilligence Schedule.DOCX	.DOCX
22.1.C08.086 - Example - Contractor monthly Report - MCR CS0341 -.PDF	.PDF
22.1.C08.087 - Example - Report - Grahamstown WTP Env Inspection14 September.PDF	.PDF
22.1.C08.088 - Example - Report - RT WWTW Environmental Inspection 14 Septemb.PDF	.PDF
22.1.C08.089 - Plan - Veolia Contract Management Plan.DOCX	.DOCX
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- ¹ IPART, Hunter Water's compliance with its operating licence 2021-2022, Report to the Minister, June 2023.
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