

Regular Audit Report

Cherbourg Water Supply Scheme Drinking Water Quality Management Plan

Cherbourg Aboriginal Shire Council
9 November 2020



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Document History

Version	Author	Issue Purpose	Date
0	Jeff Ballard	Draft Report	6 November 2020
1	Jeff Ballard	Final Report	9 November 2020

Glossary of Terms

Acronym	Definition	Acronym	Definition
CASC	Cherbourg Aboriginal Shire Council	WH&S	Workplace health & safety
CCP	Critical Control Point	HBT	Health-Based Targets
C.t	The C.t concept describes the relative effectiveness of a disinfectant. It is determined by multiplying the concentration of residual disinfectant (in mg/L) by the contact time (in minutes)	QA	Quality assurance
DNRME	Queensland Department of Natural Resources, Mining and Energy	QC	Quality control
DWQMP	Drinking Water Quality Management Plan	RMIP	Risk Management Improvement Plan
HACCP	Hazard analysis and critical control points	SCADA	Supervisory Control and Data Acquisition
OFI	Opportunity for Improvement	SOP	Standard Operating Procedure
NWM	Northern Water Management	WTP	Water Treatment Plant

Approval

This document is authorised for release once all signatures have been obtained.

In signing this approval, I agree that the document meets the standards required for the project and approve the project to progress.

Northern Water Management Pty Ltd:

Jeff Ballard
Director



Signature

9-Nov-20

Date

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Executive Summary

ES.1 Introduction

NWM was engaged by CASC, service provider identification number 146, to undertake the next regular (external) audit of its Registered Water Supply Services covered under a single DWQMP.

ES.2 Compliance Statement

The auditor believes that CASC:

- Demonstrated an unacceptable level of compliance with the regular audit imposed by the *Water Supply (Safety and Reliability) Act 2008* during the audit period;
- CASC has written a DWQMP that adequately manages risk to public health but does not provide a framework for the safe delivery of drinking water to its customers;
- Was found to not have reasonable processes for managing drinking water incidents and progressing the risk management improvement plan.

There were several non-compliances identified. There were many opportunities for improvement identified and are discussed later.

ES.3 Audit Conclusions

The audit concluded that CASC:

- Provided partial evidence that it has been providing accurate monitoring and performance data to the regulator;
- Generally, has not implemented its DWQMP to manage risks to public health;
- Generally maintained the relevance of the DWQMP.

The overall summary of compliance is shown in Table ES1. In total 60 questions were asked. Where relevant, questions were repeated in the field to confirm that management requirements were promulgated and implemented.

Table ES.1 – Compliance Summary

Compliance Code		Number of Findings
Compliant	Compliant	17
Compliant with Opportunity for Improvement	OFI	24
Minor Non-Compliant	Minor	5
Major Non-Compliant	Major	4
Critical Non-Compliant	Critical	0
Not-applicable or combined with another observation.		10
Total		60

ES.4 Recommendations

The recommendations for non-compliances were:

1. Major – Sampling Scheduling:
 - a. Ensure that the weekly verification tests occur each and every week. The multiple sampling periods missed is a major risk in being able to mitigate issues as they occur;

- b. Ensure that verification data is entered into the Cherbourg Water Results.xlsx spreadsheet upon receipt of the results.
2. Minor – Internal Reporting:
 - a. Follow the DWQMP procedure for reporting and managing incident;
 - b. Create a procedure for a boiled water alert;
 - c. The verification results spreadsheet needs to be set up to automatically highlight poor verification results. Alternatively, commence using council's SWIMLocal database to assist in managing verification information;
 - d. Produce Incident Notification Forms to QLD Health.
3. Major – SCADA Monitoring:
 - a. Commence recording daily WTP information onto an electronic spreadsheet that can be viewed by management staff;
 - b. Ensure that all operational information is accurately obtained through calibrated instrumentation whether it be handheld devices or inline analysers;
 - c. Check plant records against verified weekly results as an overall check to ensure that operational information has been correctly calibrated.
4. Minor – Compliance Tracking:
 - a. Commence tracking of the RMIP items, and conduct monthly management meetings.
5. Major – Asset Maintenance:
 - a. There needs to be a condition inspection program and an active maintenance program. It is recommended that a daily check sheet be used in the short to medium term which is separate to the operational check sheet;
 - b. Specifically perform daily tank inspections to gauge if filter breakthrough has occurred;
 - c. As a minimum, undertake annual tank cleans;
 - d. Investigate the sand breakthrough to the clear water storage tank, and in particular the condition of the filter nozzles as part of the upgrade project;
 - e. It is recommended that the operational staff get sufficiently involved in the upgrade project to address asset condition issues;
 - f. Repair the backwash pump leak.
6. Minor – Vermin Control:
 - a. Repair/replace the gauze covering the 2 openings at the clear water storage tank;
 - b. Secure with padlocks the 2 clear water storage tank access hatches.
7. Major – Jar Testing:
 - a. No jar testing has occurred since November 2019. Given the raw water quality is highly variable, this is of concern, and must be recommenced immediately;
 - b. Ensure that operators with Cert III certificates have are proficient in a Jar testing module;
 - c. Re-order the jar testing equipment.
8. Minor – Incident Management:
 - a. Find the hospital testing records for the dirty water complaint, and if they exist, add the results to the spreadsheet "FY2021 Field Records tab in FY2021 Cherbourg Water Results.xlsx";
 - b. Create a water quality complaints register;
 - c. Commence using the existing water quality complaint form;
 - d. Create a procedure to ensure that water quality complaints are investigated and managed consistently and closed out appropriately;
 - e. Investigate if the council has a records management system and if so, commence using it to ensure the water quality complaints can be tracked;
9. Minor – Risk Management Updates:

- a. The DWQMP mentions exceedances in raw water testing for SWA, heavy metals, Blue-Green Algae, and pesticides, however, these are included in the risk assessment as low to medium risks, and should be higher. They also have not been included in the verification monitoring program. It is recommended that these hazards be adjusted in the risk assessment and included the verification program;
- b. Chlorine Gas is proposed for the WTP to replace the Hypochlorite tank. It is suggested that CASC investigate Chlorine Dioxide as an alternative to Chlorine or Hypochlorite for THMs.

ES.4 Opportunities for improvement

The OFIs are summarised below.

1. Parameter Coverage: Introduce verification testing for Standard Water Analysis, Heavy metals, Blue-Green Algae, and pesticides for a sample site downstream of the water treatment plant;
2. Sample Locations: Relocate the “Gundoo” Day Care Centre (Kitchen tap)” sample location to a location outside of the building that will not be influenced by internal plumbing, or be relocated to a nearby tap located on public land. This is likely to be part of the water supply scheme upgrade project;
3. Certificate III Training in Sampling:
 - a. Continue training staff to obtain water industry credentials specifically for water sampling;
 - b. Review training and assistance opportunities with the QLD Government Water Quality Unit.
4. Chain of Custody: Conduct DWQMP awareness training for all personnel including those new to the organisation;
5. Record Keeping: Store verification certificates on H: Drive and preferably a secure archiving system;
6. Process Management: There is an opportunity to add all water quality incidents to an electronic management system in addition to the email system. This may avoid any action issues such as when someone is on leave and can track incident closure and paperwork;
7. Temperature Data: Temperature needs to be recorded on all sampling records where relevant to that contaminant being tested to enable the client to pick up any seasonal trends;
8. After Hours Management: Formalise the on-call roster;
9. Cross-Contamination Management: Undertake reticulated water safety training for employees;
10. Cross-Contamination Mitigation: Create a procedure for mains repairs/disinfection. It is suggested that the document, ‘WIOA procedure “Practical Guide to the Operation and Optimisation of Distribution Systems” be used as a reference document;
11. System Reserves: Formalise a procedure for isolation and tank emptying for high turbidity and other events;
12. Chemical Storage and In Date: There needs to be a process at the time of chemical delivery on-site whereby each delivery comes with a quality assured certificate for each batch of chemical instead of retrospective certificates being provided. The delivery dockets audited do show the concentration of chemical being supplied. Each delivery docket number should link to that certificate/batch in addition to the Sample ID and delivery docket. The service provider must also be checked for ongoing quality compliance. It is suggested that acceptance testing occurs as per ADWG, and a diluted sample could be used to check the chemical concentration before use;
13. Sourcing of Quality Assured Materials: A procedure needs to be in place to ensure that all drinking water materials purchased are certified to Australian Standards or are WaterMark approved;
14. Security:
 - a. Continue with the replacement or repair of the WTP boundary fence;

- b. Ensure that the gates are closed even while in attendance to avoid horses entering the site.
- 15. Water Stabilisation: Obtain raw water quality results, including alkalinity, to determine the makeup of this water for a range of parameters and add this information to the DWQMP and risk assessment;
- 16. Operator Credentials:
 - a. Operators should be involved in the WTP upgrade commissioning so that they can gain an understanding of troubleshooting issues;
 - b. Operators to be trained in the safe use and operation of the future chlorine gas unit. This will likely be provided as part of the water supply scheme upgrade project.
- 17. Procedures:
 - a. Add the O&M Manual to the electronic list of procedure on council's WH&S System on H Drive;
 - b. Ensure that the WTP O&M Manual be updated as part of the upgrade project.
- 18. Incident Response Capability:
 - a. Create roster including after-hours/on-call personnel;
 - b. Create a process to cover after-hours complaints. Test the after-hours number on the web site to gauge what response council has. To firstly understand if a person will redirect the complaint to the appropriate on-call person.
- 19. Incident Training:
 - a. Perform a mock incident scenario for a high raw turbidity event, to inform operations staff of the water treatment modification required;
 - b. Determine plant derating tables for typical historical events, and keeping historical records for reference purposes to enable the operators to respond quickly to these events.
- 20. SCADA Set Points:
 - a. Ensure that operational setpoints, particularly raw and treated turbidity and chlorine residual are implemented as part of the WTP upgrade project;
 - b. Ensure that operational setpoints are monitored daily and added to the proposed operational monitoring spreadsheet.
- 21. Instrument Management Program: Create a list of instruments required for operational monitoring and ensure these instruments are looked after;
- 22. Instrument Calibration: Commence an internal calibration program of all instrumentation;
- 23. Instrument Servicing: Commence an external calibration program of all instrumentation;
- 24. Plan Accuracy: The DWQMP needs to be updated to state that there are 5 instead of 4 verification monitoring sites.

ES.5 Status of Previous Audit Findings

A check was made on the status of previous audit outcomes. The following was found:

- 1. Part 1 – Verify Accuracy of Monitoring and Performance Data:
 - a. 1 of 1 recommendation closed;
 - b. There were no OFIs.
- 2. Part 2 – Assessment of Compliance with The Plan & Conditions
 - a. 10 of 11 recommendations remain open;
 - b. 9 of 10 OFIs remain open.
- 3. Part 3 – Assessment of Relevance of The Plan as it Currently Exists:
 - a. 6 of 6 recommendations remain open;
 - b. There were no OFIs.

1 Introduction

1.1 Background

NWM was engaged by CASC, service provider identification number 146, to undertake the next regular (external) audit of its Registered Water Supply Services covered under a single DWQMP.

As required by the Water Supply (Safety and Reliability) Act 2008 (the Act), CASC is operating a drinking water service under an approved DWQMP.

CASC received approval for its DWQMP on 9 April 2018. From this information notice, CASC was required to complete the next regular audit of its approved DWQMP by 24 September 2022. CASC advised that this audit was due on 30 June 2021 to align with the WBBROC audit program. The previous audit report was completed on 31 October 2018.

This report includes the findings and conclusions from the first regular audit of CASC's DWQMP.

1.2 Objectives

The objectives of the audit were to:

- To provide a 'standard regular' audit of the way in which the service provider complies with its approved DWQMP to:
 - Verify the accuracy of the monitoring and performance data provided to the regulator under the plan;
 - Assess the service provider's compliance with the plan and its approval conditions;
 - Assess the relevance of the plan in relation to the provider's drinking water service.
- To conduct that audit on behalf of DNRME under the *Water Supply (Safety and Reliability) Act 2008* (Qld) (the Act) and to report the findings of the audit to DNRME.

1.3 Regulatory Regime

The statutory requirements for DWQMP regular audits are detailed in the Act. The relevant provisions of the Act for providing audit reports are:

- Section 99(2)(c) - if the regulator approves the plan, the notice of the decision or information notice for the decision, will state that if the regulator requires audits of the approved plan – the intervals at which the audits must be conducted;
- Section 99(4) - the interval for regular audits will not be less than 2 years;
- Section 108(1) - the provider must arrange for regular audit reports to be prepared about the provider's plans and compliance with the plans;
- Section 108(2) - regular audit reports must be prepared by a person other than an employee of the provider or employed in operating the infrastructure and be certified or qualified to undertake the audit;
- Section 108(3) states that the purpose of the regular audit report for this plan is:
 - To verify the accuracy of the monitoring and performance data provided to the regulator under the plan;
 - To assess the service provider's compliance with the plan;

- To assess the relevance of the plan in relation to the provider's drinking water service;
 - be prepared in accordance with any guidelines made by the regulator.
-
- Section 575 states that the provider must keep a copy of the audit report available for inspection by the public during office hours on business days at the office of the service provider. The service provider does not have to publish the document under Section 575A.

1.4 Audit Scope

The scope of the audit was to:

- Verify the accuracy of monitoring and performance data;
- Assess CASC's compliance with the DWQMP and approval conditions;
- Assess the relevance of the DWQMP in relation to CASC's drinking water service.

1.5 Audit Criteria

The following audit criteria were used:

- The approved DWQMP (version 3.0 9 December 2019);
- Drinking Water Quality Management Plan Application for Approval – Information Notice for the Decision, dated 9 April 2018.

1.6 Audit Period

Under the DNRME auditing guidelines, the audit period is from the date of the last approved plan or from the date of the last audit which occurred in October 2018.

1.7 Audit Standard

The principal documents that have set the standard for this audit are as follows:

- Chapter 2 Infrastructure and service, Part 4 Service provider obligations, Division 2 Audit reports and reviews, Clauses 108 to 109 of the Act;
- Drinking Water Quality Management Plan Review and Audit Guideline (DNRME 2019);
- ISO 19011:2018 - Guidelines for Auditing Management Systems (the generic auditing Guideline).

2 Audit Method

2.1 Auditor

Jeff Ballard conducted the audit. Jeff's background is below.

- Exemplar Global Lead Auditor (ID 122706) for Drinking Water Quality Management Systems;
- Has audited numerous water supply systems;
- 27 years experience as a civil engineer, with 24 years exclusively in the water sector;
- Author and peer reviewer for numerous DWQMPs and risk assessments including HBTs;
- Undertaken Giardia WaterVal assessments;
- Has managed numerous projects for new, or augmentations of, water treatment plant designs and installations;
- Project coordinator on Townsville's drinking water quality enhancement project which involved the upgrade of the Douglas Water Treatment Plant, and the construction of the Northern Water Treatment Plant at Kinduro;
- Experienced in quality assurance systems, and asset management;
- Sound practical knowledge which adds value in providing realistic solutions.

The auditor confirms that:

- Sufficient written evidence has been cited or confirmed that information does not exist. Where information was not available, there has been sufficient verbal information that has been witnessed regarding the absence of information, to base audit conclusions;
- The audit findings accurately reflect the professional opinion of the auditor;
- The audit findings have not been unduly influenced by the auditee and/or any of its associates.

It is noted that there were gaps in written information observed and we have based some report findings on these absences. More information may exist and may soften some of this report's recommendations. However, these absences revealed that document management and operational checks were a fundamental problem.

2.2 Audit Process

The audit comprised of the following steps:

1. Information requests to CASC, identifying necessary information and documentation required to undertake the audit;
2. Preparation of a site visit plan with timetable, resources required, and safety issues;
3. Development of audit checklist;
4. Development of audit opening and closing meeting checklists;
5. On-site audit and verification, including staff interviews;
6. Follow up discussions and requests for information and clarification;
7. Draft and final audit report preparation;
8. Statutory declarations by the auditor and auditee.

2.3 Audit Grades

The current DNRME guidelines do not provide a grading system. The table below identifies the grades used for this audit and has been taken from the document, "Drinking Water Regulatory Audit Guidance Note - Edition 5, December 2015, Victorian Department of Health and Human Services.

Table 2.1 – Audit Grades

Compliance Code		Description
Compliant	Compliant	Sufficient evidence to confirm that the agency has undertaken, prepared and/or implemented all actions in accordance with the legislation and their risk management plan.
Compliant with Opportunity for Improvement	OFI	As above, but the auditor's report has identified opportunities for improvement.
Minor Non-Compliant	Minor	Non-compliance, where there is a low potential for a risk situation and the potential impact of the non-compliance, is not likely to be a serious or imminent risk to public health or compromise public health.
Major Non-Compliant	Major	Non-compliance where there is a high potential for a risk situation, likely to compromise public health if the non-compliance is not rectified.
Critical Non-Compliant	Critical	Non-compliance where a serious or imminent risk to public health is identified.

Recommendations were provided for requirements that are non-compliant, where relevant. An OFI was identified for activities which comply but may also be improved such as an opportunity for process improvement.

2.4 Site Visits

A site visit was undertaken on 3-4 September 2020 to CASC's 1 WTP, 1 river intake, 1 tank site, the operator's office, plumber's store, and the town reticulation network, in accordance with NWM site visit plan which is provided in **Appendix A – Site Visit Plan**.

2.5 Audit Participants

The audit participants are identified in the table below.

Table 2.2 – Audit Participants

Name	Position	Opening Meeting	Field Visit	Audit Session	Closing Meeting
Darren Lonergan	Operations Manager	✓	✓	✓	✓
Les Wragge	Water Treatment Operator		WTP		
Jackson Cobbo	Trainee Health Worker			Operations	✓
Justin Cobus	Water Treatment Operator			Operations	✓

Copies of the meeting minutes are provided in **Appendix B – Opening and Closing Meeting Details**.

2.6 Reference Documentation

The key reference documents and evidence relied on for the audit are identified in **Appendix C – Photographic Evidence** and **Appendix D – Audit Checklist and Detailed Findings**.

2.7 Quality Assurance Process

This audit was carried out in accordance with NWM's Quality Manual, consistent with ISO 9001:2008. Quality assurance activities undertaken during the audit included compliance with the NWM Quality Manual, and document control and approval processes.

3 Audit Findings

3.1 Summary

The completed Audit Checklist is provided in **Appendix D – Audit Checklist and Detailed Findings**. This provided the detailed findings of the audit. These findings have been summarised in the sections below.

Unfortunately, we report that CASC demonstrated an unacceptable level of compliance with the regular audit imposed by the *Water Supply (Safety and Reliability) Act 2008* during the audit period. The overall summary of compliance is shown in the table below. In total 60 questions were asked. Where relevant, questions were repeated in the field to confirm that management requirements were promulgated and implemented. Where an observation was found that required a compliance code, this was not repeated for any of the duplicated questions.

Table 3.1 – Audit Summary

Compliance Code		Number of Findings
Compliant	Compliant	17
Compliant with Opportunity for Improvement	OFI	24
Minor Non-Compliant	Minor	5
Major Non-Compliant	Major	4
Critical Non-Compliant	Critical	0
Not-applicable or combined with another observation.		10
Total		60

CASC has written a DWQMP that adequately manages risk to public health but does not provide a framework for the safe delivery of drinking water to its customers.

The audit found that is generally not maintaining or implementing its drinking water framework. The council's management system, particularly document management and operational management do not assist the DWQMP's framework. This particularly affects an effective incident management process or basic responses to changes in raw water quality. There is an acknowledgement that the state government is assisting CASC in attempting to overcome these gaps.

The audit concluded that CASC:

- Provided only partial evidence that it has been providing accurate monitoring and performance data to the regulator;
- Generally, has not implemented its DWQMP to manage risks to public health;
- Generally maintained the relevance of the DWQMP however there were some risk management elements that need to be updated.

3.2 Accuracy of Monitoring and Performance Data

3.2.1 Compliance

The audit was required to *verify the accuracy of monitoring and performance data* supplied to the regulator by CASC under the plan, including data required under any provisions or conditions outlined in the approval notice. The audit verified that the data supplied was accurate and CASC was compliant with this audit area. The main findings were:

1. E. coli and chlorine testing is undertaken weekly at the following 5 sample locations: Bert Button Lookout, WTP after Treatment (Combined CWT, Res 1 & Res 2), "Gundoo" Day Care Centre (Kitchen tap) and STP (Yard tap);
2. THMs sample are taken monthly from the STP Yard Tap;
3. The council is small and therefore relies on the DWQMP to tell them where to sample;
4. The sample locations are viewed at each DWQMP review;
5. The sample locations were found to be adequate in terms of geographical zonal spread. There is only 1 zone;
6. The "minimum verification monitoring" spreadsheet was viewed and meets that required;
7. There are 5 samples per week. Their locations, access to, water sources, sampling officers, and what to test for weekly and monthly are described in the spreadsheet;
8. There are separately designated sample collectors Lance does Sewerage and Jackson does water for each area. Separate eskies are used. Wastewater sampling was found to occur on different days;
9. All results are reported to the regulator in the annual report;
10. The auditor checked the data provided in the DWQMP (annual) report against verification results and found they were consistent;
11. The auditor checked the data provided in the DWQMP against verification results and found they were consistent;
12. According to Hydramet, the suppliers of the instrumentation panel, Local SCADA measurement panel was installed approximately 3 years ago and includes pH Turbidity, and chlorine. According to the onsite operator, chlorine has only just been introduced and is in progress. There was a mismatch of information here and the auditor could not ascertain the installation date. In terms of whether the relevant parameters are being monitored, this is ok.

3.2.2 Recommendations

The following recommendations were made in relation to this audit area:

1. Major – Sampling Scheduling:
 - a. Ensure that the weekly verification tests occur each and every week. The multiple sampling periods missed is a major risk in being able to mitigate issues as they occur;
 - b. Ensure that verification data is entered into the Cherbourg Water Results.xlsx spreadsheet upon receipt of the results.
2. Minor – Internal Reporting:
 - a. Follow the DWQMP procedure for reporting and managing incident;
 - b. Create a procedure for a boiled water alert;
 - c. The verification results spreadsheet needs to be set up to automatically highlight poor verification results. Alternatively, commence using council's SWIMLocal database to assist in managing verification information;
 - d. Produce Incident Notification Forms to QLD Health.
3. Major – SCADA Monitoring:
 - a. Commence recording daily WTP information onto an electronic spreadsheet that can be viewed by management staff;
 - b. Ensure that all operational information is accurately obtained through calibrated instrumentation whether it be handheld devices or inline analysers;
 - c. Check plant records against verified weekly results as an overall check to ensure that operational information has been correctly calibrated.

3.2.3 Opportunities for Improvement

Opportunities for improvement were made in relation to this audit area and are discussed below.

1. Parameter Coverage: Introduce verification testing for Standard Water Analysis, Heavy metals, Blue-Green Algae, and pesticides for a sample site downstream of the water treatment plant;
2. Sample Locations: Relocate the “Gundoo” Day Care Centre (Kitchen tap)” sample location to a location outside of the building that will not be influenced by internal plumbing, or be relocated to a nearby tap located on public land. This is likely to be part of the water supply scheme upgrade project;
3. Certificate III Training in Sampling:
 - a. Continue training staff to obtain water industry credentials specifically for water sampling;
 - b. Review training and assistance opportunities with the QLD Government Water Quality Unit.
4. Chain of Custody: Conduct DWQMP awareness training for all personnel including those new to the organisation;
5. Record Keeping: Store verification certificates on H: Drive and preferably a secure archiving system;
6. Process Management: There is an opportunity to add all water quality incidents to an electronic management system in addition to the email system. This may avoid any action issues such as when someone is on leave and can track incident closure and paperwork;
7. Temperature Data: Temperature needs to be recorded on all sampling records where relevant to that contaminant being tested to enable the client to pick up any seasonal trends;
8. After Hours Management: Formalise the on-call roster.

3.3 Compliance with the Plan

3.3.1 Compliance

CASC generally demonstrated insufficient compliance with this audit area. The DWQMP is generally not implemented effectively to manage risks to drinking water quality. The following components were compliant with this audit area:

1. Compliance with approval conditions was fulfilled;
2. In terms of cross-contamination risk, many reticulation staff have been trained in Certificate III Water Operations, usually, no contractors currently undertake the construction of the replacement of water or sewerage pipelines as this is done internally. The raw water rising main has recently been replaced using an external contractor. Contractors are currently upgrading the WTP. This is a large contract with water quality requirements in place. There is little to no sub-divisions being built;
3. The auditor checked the plan and went through the site pipework with the operator and found nothing to suggest that a bypass or cross-contamination exists;
4. The auditor inspected the laboratory and cited that the lab chemicals are stored in an air-conditioned room and were in date;
5. The auditor viewed the revision history of the DWQMP and found that there were 3 revisions since 2017;
6. The auditor specifically reviewed the 2019 version and is a significant improvement in risk identification.

3.3.2 Recommendations

The following recommendations were made in relation to this audit area:

1. Minor – Compliance Tracking:
 - a. Commence tracking of the RMIP items, and conduct monthly management meetings.
2. Major – Asset Maintenance:

- a. There needs to be a condition inspection program and an active maintenance program. It is recommended that a daily check sheet be used in the short to medium term which is separate to the operational check sheet;
- b. Specifically perform daily tank inspections to gauge if filter breakthrough has occurred;
- c. As a minimum, undertake annual tank cleans;
- d. Investigate the sand breakthrough to the clear water storage tank, and in particular the condition of the filter nozzles as part of the upgrade project;
- e. It is recommended that the operational staff get sufficiently involved in the upgrade project to address asset condition issues;
- f. Repair the backwash pump leak.
3. Minor – Vermin Control:
 - a. Repair/replace the gauze covering the 2 openings at the clear water storage tank;
 - b. Secure with padlocks the 2 clear water storage tank access hatches.
4. Major – Jar Testing:
 - a. No jar testing has occurred since November 2019. Given the raw water quality is highly variable, this is of concern, and must be recommenced immediately;
 - b. Ensure that operators with Cert III certificates have are proficient in a Jar testing module;
 - c. Re-order the jar testing equipment.
5. Minor – Incident Management:
 - a. Find the hospital testing records for the dirty water complaint, and if they exist, add the results to the spreadsheet “FY2021 Field Records tab in FY2021 Cherbourg Water Results.xlsx”;
 - b. Create a water quality complaints register;
 - c. Commence using the existing water quality complaint form;
 - d. Create a procedure to ensure that water quality complaints are investigated and managed consistently and closed out appropriately;
 - e. Investigate if the council has a records management system and if so, commence using it to ensure the water quality complaints can be tracked.

3.3.3 Opportunities for Improvement

The following opportunities for improvement were made in relation to this audit area:

1. Cross-Contamination Management: Undertake reticulated water safety training for employees;
2. Cross-Contamination Mitigation: Create a procedure for mains repairs/disinfection. It is suggested that the document, ‘WIOA procedure “Practical Guide to the Operation and Optimisation of Distribution Systems” be used as a reference document;
3. System Reserves: Formalise a procedure for isolation and tank emptying for high turbidity and other events;
4. Chemical Storage and In Date: There needs to be a process at the time of chemical delivery on-site whereby each delivery comes with a quality assured certificate for each batch of chemical instead of retrospective certificates being provided. The delivery dockets audited do show the concentration of chemical being supplied. Each delivery docket number should link to that certificate/batch in addition to the Sample ID and delivery docket. The service provider must also be checked for ongoing quality compliance. It is suggested that acceptance testing occurs as per ADWG, and a diluted sample could be used to check the chemical concentration before use;
5. Sourcing of Quality Assured Materials: A procedure needs to be in place to ensure that all drinking water materials purchased are certified to Australian Standards or are WaterMark approved;
6. Security:

- a. Continue with the replacement or repair of the WTP boundary fence;
 - b. Ensure that the gates are closed even while in attendance to avoid horses entering the site.
7. Water Stabilisation: Obtain raw water quality results, including alkalinity, to determine the makeup of this water for a range of parameters and add this information to the DWQMP and risk assessment;
8. Operator Credentials:
 - a. Operators should be involved in the WTP upgrade commissioning so that they can gain an understanding of troubleshooting issues;
 - b. Operators to be trained in the safe use and operation of the future chlorine gas unit. This will likely be provided as part of the water supply scheme upgrade project.
9. Procedures:
 - a. Add the O&M Manual to the electronic list of procedure on council's WH&S System on H Drive;
 - b. Ensure that the WTP O&M Manual be updated as part of the upgrade project.
10. Incident Response Capability:
 - a. Create roster including after-hours/on-call personnel;
 - b. Create a process to cover after-hours complaints. Test the after-hours number on the web site to gauge what response council has. To firstly understand if a person will redirect the complaint to the appropriate on-call person.
11. Incident Training:
 - a. Perform a mock incident scenario for a high raw turbidity event, to inform operations staff of the water treatment modification required;
 - b. Determine plant derating tables for typical historical events, and keeping historical records for reference purposes to enable the operators to respond quickly to these events.
12. SCADA Set Points:
 - a. Ensure that operational setpoints, particularly raw and treated turbidity and chlorine residual are implemented as part of the WTP upgrade project;
 - b. Ensure that operational setpoints are monitored daily and added to the proposed operational monitoring spreadsheet.
13. Instrument Management Program: Create a list of instruments required for operational monitoring and ensure these instruments are looked after;
14. Instrument Calibration: Commence an internal calibration program of all instrumentation;
15. Instrument Servicing: Commence an external calibration program of all instrumentation.

A check was made on the status of previous audit outcomes. The following was found:

4. Part 1 – Verify Accuracy of Monitoring and Performance Data:
 - a. 1 of 1 recommendation closed;
 - b. There were no OFIs.
5. Part 2 – Assessment of Compliance with The Plan & Conditions
 - a. 10 of 11 recommendations remain open;
 - b. 9 of 10 OFIs remain open.
6. Part 3 – Assessment of Relevance of The Plan as it Currently Exists:
 - a. 6 of 6 recommendations remain open;
 - b. There were no OFIs.

3.4 Relevance of the Plan

3.4.1 Compliance

The audit was required to assess the relevance of the DWQMP. The auditor assessed that the plan was generally relevant. The following specific components for compliance with this audit area were observed:

1. A WTP upgrade currently underway and there are numerous changes to the plant;
2. The intake and rising main have only just been replaced;
3. Jar testing has stopped and has been recorded earlier for action.

3.4.2 Recommendations

The following recommendations were made in relation to this audit area:

4. Minor – Risk Management Updates:
 - a. The DWQMP mentions exceedances in raw water testing for SWA, heavy metals, Blue-Green Algae, and pesticides, however, these are included in the risk assessment as low to medium risks, and should be higher. They also have not been included in the verification monitoring program. It is recommended that these hazards be adjusted in the risk assessment and included the verification program;
 - b. Chlorine Gas is proposed for the WTP to replace the Hypochlorite tank. It is suggested that CASC investigate Chlorine Dioxide as an alternative to Chlorine or Hypochlorite for THMs.

3.4.3 Opportunities for Improvement

The following opportunities for improvement were made in relation to this audit area:

1. Plan Accuracy: The DWQMP needs to be updated to state that there are 5 instead of 4 verification monitoring sites.

Appendix A – Site Visit Plan

SITE VISIT PLAN – DWQMP AUDITS

NWM-Tem-90B Site Visit Plan - DWQMP Audits Revision 0

Project 2020-0006 WBBROC DWQMP Regulatory Audits

Audit
Dates

**See Attachment
No.2**

Subject Drinking Water Quality Management Plan

Client Wide Bay Burnett Regional Organisation of Councils – 6 Councils

Sites Water Treatment Plant, Reticulation Areas for Sampling locations

**Participants
Proposed**

Name

Organisation

Jeff Ballard

NWM

Various

Various

1. Background

Site visits are required for the Regulatory audit. General details are below.

Item	Details
Objectives	<ul style="list-style-type: none">▪ To provide a 'standard regular' audit of the way in which the client complies with its approved Drinking Water Quality Management Plan (DWQMP) to:<ul style="list-style-type: none">○ Verify the accuracy of the monitoring and performance data provided to the regulator under the plan;○ Assess the service provider's compliance with the plan; and,○ Assess the relevance of the plan in relation to the provider's drinking water service.▪ To conduct that audit on behalf of the Department of Natural Resources Mines and Energy (DNRME) under the <i>Water Supply (Safety and Reliability) Act 2008</i> (Qld) (the Act) and to report the findings of the audit to DEWS and the client.
Audit Standard	<p>The principal documents that will set the standard for this audit are as follows:</p> <ul style="list-style-type: none">▪ Chapter 2 Infrastructure and service, Part 4 Service provider obligations, Division 2 Audit reports and reviews, Clauses 108 to 109 of the Act.▪ Drinking Water Quality Management Plan Review and Audit Guideline (DNRME 2019)▪ ISO 19011:2018 - <i>Guidelines for auditing management systems</i> (the generic auditing Guideline).
Scope	<ul style="list-style-type: none">▪ Audit type: 'Standard regular' audit of the DWQMP.▪ Criteria:<ul style="list-style-type: none">○ Relevant clauses of the Act, associated DNRME regulations and guidelines and any relevant notices provided to the client by DNRME;○ Relevant components of the Australian Drinking Water Guidelines (ADWG);○ Follow up of recommendations from previous audits, if relevant;▪ Sites: The audit will sample randomly selected sites to be agreed with the client. Site visits will be to the Water Treatment Plant(s) and reticulation area sample points. For multiple water supply schemes from one water service provider, previously audited sites will only be inspected if its rotation is due;▪ Records: The audit will sample randomly selected records to be agreed with the client;▪ Services: Drinking water;▪ Audit period: From the date the plan was approved, as per the approval notice, or from the date of the last Regulatory audit, through to the date of this audit.
Deliverables and timing	<ul style="list-style-type: none">▪ Early August 2020: Project award;▪ Early August July 2020: Selection of sites and records to review and finalisation of audit agenda;▪ 1 week prior to each audit: Supply of background data and information to the auditor;▪ 17 August 2020 – 9 February 2021: Site audits – see timetable;▪ 2 weeks after each audit: Draft audit report to the client for review;▪ For each audit, 1 week after receipt of comments and resolution of issues: Final audit report to the client and DNRME.
Personnel	<ul style="list-style-type: none">▪ Lead Auditor: Jeff Ballard.<ul style="list-style-type: none">○ Exemplar Global Lead Auditor (ID 122706) for Drinking Water Quality Management Systems;○ Audited several DWQMPs;○ 27 years experience as a civil engineer, with 24 years exclusively in the water sector;○ Author and peer reviewer for a number of DWQMPs;

Item	Details
	<ul style="list-style-type: none"> ○ Undertaken many DWQ risk assessments; ○ Has managed a number of projects for new, or augmentations of, water treatment plant designs and installations; ○ WaterVal water validation assessments; ○ Project coordinator on Townsville's drinking water quality enhancement project which involved the upgrade of the Douglas Water Treatment Plant, and the construction of the Northern Water Treatment Plant at Kinduro; ○ Experienced with quality assurance systems, and asset management; ○ Sound practical knowledge which adds value in providing realistic solutions.

2. General Reporting and Auditing Format

The audit report format will generally follow the structure below with 3 aspects being presented:

Details	Evidence	Compliance
Summary of what was being audited and what was observed	Details of records viewed, who was spoken to and infrastructure or scheme components sighted.	Summary of compliance status: <ul style="list-style-type: none"> ▪ Compliant; ▪ Opportunity for Improvement. ▪ Minor non-compliance; ▪ Major non-compliance; or, ▪ Critical non-compliance.

Topic Area	Information Source: Primary or Site Audit
Verify accuracy of monitoring and performance data	
Verification monitoring	Primary
Operational monitoring	Primary
Additional monitoring and performance data (if any)	Primary
Assessment of compliance with the plan and its approval conditions	
Implementation of all preventive measures for managing hazards and hazardous events as described in the plan	Primary and Site
Implementation of operational and maintenance procedures	Primary and Site
Implementation of the process for managing incidents and emergencies as described in the plan	Primary
Implementation of the operational and verification monitoring programs as described in the plan	Primary and Site
Implementation of the risk management improvement program as described in the plan	Primary
Maintaining records using the information management systems as described in the plan	Primary and Site
Undertaking regular reviews at the frequency specified in the approval notice.	Primary
Reporting incidents in relation to events that are beyond the control of the service provider and have the potential to impact public health and for failing to meet water quality criteria as defined in the approval notice, and whether preventative measures taken were adequate to control the hazard.	Primary
The provisions and conditions in the approval notice	Primary
Assessment of relevance of the plan as it currently exists	
Assessing whether the service description and details of infrastructure in the plan reflect the current circumstances for each scheme	Primary and Site
Confirming the information in the plan used to identify hazards and hazardous events reflects the current circumstances for each scheme (including catchment characteristics, water quality information and infrastructure)	Primary and Site

Topic Area	Information Source: Primary or Site Audit
Confirm that risk assessment and risk management measures, including choice of critical control points and limits, reflect the current circumstances for each scheme, including the outcomes from any incident management which required a change to the preventive measures and from implementation of the risk management improvement program	Primary and Site
Operational and verification monitoring in the DWQMP reflect the current circumstances for each scheme	Primary and Site

3. Site Visit Agenda

See Attachment No.1.

4. Resources Required

Resource	Preparation
Travel and accommodation	<ul style="list-style-type: none"> NWM to organise travel and accommodation. Client to take Auditor around.
Reference documentation on laptop	<ul style="list-style-type: none"> Take a laptop; AC power pack.
QA Documentation	<ul style="list-style-type: none"> This site visit plan; Opening and closing meeting proformas; and, Site audit checklists highlighting areas for discussion.
Other Documentation	<ul style="list-style-type: none"> Information found in background documentation highlighting areas for discussion.
Writing resources	<ul style="list-style-type: none"> Take folder, notebook and pens.
Phone camera with GPS	<ul style="list-style-type: none"> Phone charged; GPS turned on recording during inspections; Power bank and cable.

5. Safety Issues

Concern	Action
General Safety	<ul style="list-style-type: none"> Adhere to client general induction and site-specific inductions; Wear appropriate PPE – long pants and shirt, capped boots.
Inspections on road side if relevant	<ul style="list-style-type: none"> High-Vis Vest; Keep off road side or stay in vehicle; Vehicle hazard lights on.
Sun exposure	<ul style="list-style-type: none"> Appropriate clothing, hat and sunscreen as per client requirements.
Uneven Slopes	<ul style="list-style-type: none"> Take care when traversing the area.
Dangerous Animals	<ul style="list-style-type: none"> Snakes – Stay away from long grass, or make noise, walk cautiously, if relevant. Wear long clothes.
Unfamiliar Site Hazards	<ul style="list-style-type: none"> Site Induction.
Mechanical hazards	<ul style="list-style-type: none"> Do not touch the plant.
Electrical hazards	<ul style="list-style-type: none"> Do not touch plant.
Chemical hazards	<ul style="list-style-type: none"> Do not touch plant, materials, or test equipment.
Fall from Height if relevant	<ul style="list-style-type: none"> Require training to participate, follow procedures, if relevant.
Drowning	<ul style="list-style-type: none"> Stay away from streams, intake, tanks, if relevant.
Becoming lost	<ul style="list-style-type: none"> GPS and maps.

SITE VISIT PLAN – DWQMP AUDITS

NWM-Tem-90B Site Visit Plan - DWQMP Audits Revision 0



Concern	Action
Dehydration	<ul style="list-style-type: none">▪ Carry drinking water throughout the inspection;▪ Carry water bladder in the vehicle.
Fatigue	<ul style="list-style-type: none">▪ Carry snacks.

Time	Item	Criteria	Sub-Area Questions
Day 1			
8:30		SAFETY INDUCTION	
		Depot.	NWM to be inducted. Induction form can be provided to NWM prior.
8:45		OPENING MEETING	
		Depot.	Run through meeting checklist.
9:00	1	PART 1 - VERIFY ACCURACY OF MONITORING AND PERFORMANCE DATA	
	1.1	Verification monitoring – How does the auditee ensure compliance between the DWQMP and the verification monitoring program?	Program Structure: How do you continually actively manage the verification water quality analysis program?
	1.2		Parameter Coverage: How extensive is the current program and does it cover the full range of chemical, physical and microbial parameters that would be expected for its water supplies?
	1.3		Geographical Zone Coverage: Do you regularly review your sampling program and make many improvements to it? For instance, a particular effort has been made to ensure that all reservoir zones are included? (i.e. location-based, where relevant).
	1.4		Geographical Expansion: Are sampling points changing over time in response to improvements that are identified and in response to population growth?
	1.5		Geographical Spread: Does the sampling regime provide good coverage of the whole water supply system(s)?
	1.6		Sample Locations: Where do you sample taps, on public/council/client land or in other public spaces rather than within private properties?
	1.7		Pesticides: Are pesticides measured? (if relevant).
	1.8	Verification monitoring – How does the auditee ensure the reliability of monitoring results? Consider sampling site selection, sampling, transport of samples, analysis, quality assurance and control, reporting and communication.	Collection Management: Has there been any move to have most treated water verification samples collected by laboratory staff rather than operators, with the exception of some remote samples?
	1.9		Sample Collection Training: Does the laboratory provide training in sampling and calibration to operators? Or do you go to a registered training organisation?
	1.10		Certificate III Training in Sampling: Do operators take part in the Certificate III module relating to water sampling and making chlorine measurements?
	1.11		Sampling Frequencies: What are the sampling frequencies? Do these generally match or exceed the ADWG 'defaults'? (Ref: ADWG Table 9.4 >100,000 = 6/wk/monitoring zone + 1/mon for each 10,000 above 100,000; 5,000–100,000 = 1/wk/monitoring zone + 1/mon for each 5,000 above 5,000; 1,000–5,000 = 1/wk/monitoring zone; or, <1000 = 1/wk/monitoring zone, but balance with logistics).
	1.12		Specific Sampling Location: Do you examine water quality in terms of quality at the meter, and quality at the customer tap? The question is in relation to internal plumbing fittings influencing results.

Time	Item	Criteria	Sub-Area Questions
	1.13		Sampling Scheduling: How are sampling schedules set up (in a database and can be viewed in calendar view mode and Excel format)?
	1.14		Chain of Custody: How is the chain of custody managed? NATA?
	1.15		False Positives: Are water and wastewater samples separated to avoid a false positive?
	1.16		Record Keeping: How are the test results kept? Is there a traceable history?
	1.17		Internal Reporting: How are the results reported internally? i.e. for negative results, what happens? Any highlighting? Process improvement notice?
	1.18		Process Management: Can any of the negative samples be left and not addressed? How is this avoided?
	1.19		Temperature Data: Look at a sample - has client measured temperature data with every microbial test sample?
	1.20		Annual Reporting: How have such monitoring results been reported to the regulator, and do they match verified results?
	1.21		DWQM Plan Data: Do the monitoring results provided in the plan match verified results?
	1.22		Additional Reporting Conditions: Are additional reporting conditions in place, have such monitoring results been reported to the regulator, and do they match verified results?
	1.23	Operational monitoring – How does the auditee ensure compliance between the DWQMP and the SCADA systems?	Parameters measured on SCADA: Are the relevant parameters measured on SCADA? - check plan against screen information.
	1.24		SCADA Monitoring: How are they monitored, constantly, or by alarm? How do you know the SCADA results are the same as the verifiable results (where possible)?
	1.25		After Hours Management: What occurs after hours? (telemetry)
	1.26	Operational monitoring – How does the auditee ensure the reliability of monitoring results? Consider analyser sample line site selection, verification and calibration, reporting and communication.	Cross-Check of SCADA and reported results: Audit some records of a sample of results from the SCADA systems through to reporting.
	1.27		SCADA Alarm Management: Is there a process of updating the SCADA alarms in line with monitoring program changes or seasonal changes?
11:00		LUNCH	
			Break for lunch.
11:30		PART 2 - ASSESSMENT OF COMPLIANCE WITH THE PLAN	
	2.1	The provisions and conditions in the latest approval notice	Compliance with Approval Conditions: Auditor to review plan against approval notice for accuracy. Can you please provide a copy of the approval notice? Have the requirements for this notice been fulfilled?
	2.2		Compliance Tracking: How have you actively recorded and tracked compliance with its obligations under the approval notices?

Time	Item	Criteria	Sub-Area Questions
	2.3	Implementation of all preventive measures for managing hazards and hazardous events as described in the plan	Cross-Contamination Management: How is sewage to potable water cross-contamination mitigated?
	2.4		Cross-Contamination Mitigation: How is suspected contamination of compromised mains identified and mitigated?
	2.5		Cross-Contamination Risk Awareness: How well are you aware of cross-contamination risks?
	2.6		System Reserves: Do you have sufficient storage to avoid being forced to supply breached water in the event of short exceedances? How long can you store water for? Or are there other management activities for this?
	2.7		Asset Maintenance: How are assets maintained in a secure, functional and readily operable state in order to protect water quality outcomes?
	2.8		Chemical Storage and In Date: How are parts, fittings and chemicals that might come into contact with drinking water stored? Are they clean, in good condition, and in date?
	2.9		Sourcing of Quality Assured Materials: How are the stored materials that may come into contact with water (e.g. pipes and jointing compounds) sourced and quality assured (inventory kept and traced)?
	2.10		Security: Is the site fully fenced and secured?
	2.11		Vermin Control: How are vermin prevented from getting into the clear water storage? Is the ladder locked? What is the condition of the infrastructure?
	2.12		Water Stabilisation: Is there enough buffering capacity and corrosion inhibition of the distributed water (pH control)?
	2.13		Plant Bypass: Does the plant have a bypass? If so, is there any chance that untreated water can bypass the plant and enter the drinking water system?
	2.14	Implementation of operational and maintenance procedures	Operator Credentials: Who is responsible for operating the system and what are their credentials with respect to training, experience and qualifications?
	2.15		Procedures: Can I see where you store the site procedures? Are these up to date? Can you perform all of your inspections using these procedures? Are there any missing?
	2.16		Jar Testing: Do you have jar testing equipment on site? Are they functional? Is there a jar testing procedure?
	2.17		Monitoring Instruments: What are the operational monitoring instruments reading during the audit, how does that compare to the DWQMP, and how are the instruments and SCADA outputs routinely verified and calibrated?
	2.18	Implementation of the process for managing incidents and emergencies as described in the plan	Incident Response Capability: How does the auditee maintain readiness to respond to water quality incidents? Consider detection and communication of incident triggers, duty arrangements, incident management facilities and documents.
	2.19		Incident Management: Have there been any examples of incidents during the audit period? How was it managed?
	2.20		Incident Reporting: How have incidents been reported to the regulator? If no examples, how would this be done (e.g. flowchart, escalation reporting protocol, names and phone numbers)? What is sent to QLD Health? What is sent to the public?
	2.21		Incident Training: Have you practised mock incidents during the audit period?
	2.22	Implementation of the operational and verification	SCADA Set Points: What are the SCADA system process <u>control set points</u> during the audit, how do they compare to the DWQMP, and how are they modified and controlled? i.e. Are SCADA set points entered correctly into the system and match the monitoring plan? Check Turbidity, Cl ₂ , and pH. Record real-time and last 6 months of data.

Time	Item	Criteria	Sub-Area Questions
	2.23	monitoring programs as described in the plan	Reagent Management: How are chemicals, standards and reagents stored and maintained to ensure their quality and efficacy? Consider both treatment chemicals that are added to the water and laboratory chemicals used for monitoring purposes (Potentially visit the Depot Store).
	2.24		Instrument Management Program: Are instruments adequately housed? Are they identified for QA control - calibration?
	2.25		Instrument Calibration: Can you show me the calibration records for a meter (look for compliance frequency)?
	2.26		Instrument Servicing: Are there independent checks undertaken by a laboratory?
	2.27		Fluoridation Plant: Check for a fluoridation plant - if relevant, check for calibration and if QLD Health has also done an audit within the past year.
	2.28	Implementation of the risk management improvement program as described in the plan.	RMIP Implementation: Can you show me evidence where you have implemented the actions from the RMIP that are required to be completed by now?
	2.29	Maintaining records using the information management systems as described in the plan	Record Maintenance: How are records stored and reported as they relate to water quality operational monitoring?
	2.30	Undertaking regular reviews at the frequency specified in the approval notice.	Regular Reviews: What reviews have occurred since the plan approval?
	2.31	Previous Audit findings	Addressing Previous Audit Findings: What were the previous findings, and have they been placed into a revised RMIP for longer term issues and/or addressed in another way that is suitable to the State Government?
1:30		BREAK	
			Break.
1:45		PART 3 - ASSESSMENT OF RELEVANCE OF THE PLAN AS IT CURRENTLY EXISTS	
	3.1	Assessing whether the service description and details of infrastructure in the plan reflect the current circumstances for each scheme	Changes: What has changed since the DWQMP was approved by the regulator? These changes may include personnel, procedures, documents, records, responsibilities, environment, infrastructure, regulations, legislation, guidelines or organisational structure and contractors.
	3.2		Plan Accuracy: How does the infrastructure in the field compare to the DWQMP description? Field inspect random samples from the catchment, source, treatment and network for the selected system and compare to the DWQMP description.
	3.3	Confirming the information in the plan used to identify hazards and hazardous events	Risk Management Updates: How has the risk assessment and DWQMP been updated to reflect those changes? How are improvement needs identified and how are improvements made and managed? How have such changes been reported to the regulator?

Time	Item	Criteria	Sub-Area Questions
	3.4	reflects the current circumstances for each scheme (including catchment characteristics, water quality information and infrastructure)	Significant Risk Issues: Subject to the above question, if there are differences, are there any significant risk issues? When was this last reviewed?
2:15	5:00	SITE VISIT	
		Water Treatment Plant(s) and reticulation system(s)	Meet at the Depot/Office. NWM to familiarise with the site infrastructure. NWM to ask those questions that are highlighted in light green above. Return to the depot.
Day 2			
8:00		SITE VISIT OVERFLOW	
		Water Treatment Plant(s) and reticulation system(s)	Meet at the Depot/Office. NWM to familiarise with the site infrastructure. NWM to ask those questions that are highlighted in light green above. Return to the depot.
9:15		FOLLOW UP SESSION	
(11:15 Larger sites)			<ul style="list-style-type: none"> Run through of any flagged items for follow up; Confirm any additional information needed that was not able to be sourced.
9:45		CLOSING MEETING	
(11:45 Larger sites)			<ul style="list-style-type: none"> Run through meeting checklist.
10:00 (12:00 Larger sites)			<ul style="list-style-type: none"> Close of Audit.

Generic Evidence Reference List

DWQMP

DWQMP-annual report 2017-2018

DWQMP-annual report 2018-2019

DWQMP-annual report 2019-2020

Plan approval notice or amended approval if relevant

Procedures:

Needed

Work Instructions:

Needed if relevant

Audit Grades

Compliance Code		Description
Compliant	Compliant	Sufficient evidence to confirm that the agency has undertaken, prepared and/or implemented all actions in accordance with the legislation and their risk management plan.
Compliant with Opportunity for Improvement	OFI	As above, but the auditor's report has identified opportunities for improvement.
Minor Non-Compliant	Minor	Non-compliance, where there is a low potential for a risk situation and the potential impact of the non-compliance, is not likely to be a serious or imminent risk to public health, or compromise public health.
Major Non-Compliant	Major	Non-compliance where there is a high potential for a risk situation, likely to compromise public health if the non-compliance is not rectified.
Critical Non-Compliant	Critical	Non-compliance where a serious or imminent risk to public health is identified.

2020-0006 WBBROC DWQMP Audits
07 September 2020

 =outstanding

Request For Information No.1

Group	Auditee	Dates			Scope			Documentation					Inductions	Meeting Location	Comments
		NWM Proposed	Client Requires By	DNRME Requirement	Audit Period	Schemes Audited last time	Schemes Proposed this time	DWQMP - All versions since last audit	DNRME Information Notice for the Decision	Annual Reports	Previous Audit Report	Procedures & Work Instructions List			
Auditing Group 1 - Coastal Areas	Bundaberg Regional Council	Wednesday, 26 August 2020	July 2020	NWM to obtain from Inf. notice.	Dec 2016 - Present	Branyan, Vecellios Rd, Gin Gin, Wallaville	Powers St, Kalkie, Gregory River	Received	Received	2016/2017 - Obtained 2017/2018 - Obtained 2018/2019 - Obtained 2019/2020 - if available	Obtained	Received	Onsite	2 Victoria Street, Bundaberg East	
	Fraser Coast Regional Council	Monday, 31 August 2020	September 2020	NWM to obtain from Inf. notice.	Jan 2017 - Present	Burgowan, Teddington, Tiaro	Howard, Teddington, Tiaro	Received	Received	2016/2017 - Requested 2017/2018 - Requested 2018/2019 - Obtained 2019/2020 - if available	Obtained	Received	Online or onsite	29-31 Elingowan St	
	Gympie Regional Council	Thursday, 11 February 2021	November 2020	NWM to obtain from Inf. notice.	Nov 2018 - Present	Gympie, Imbil, Kilkivan	Cooloolo Cove, Goomeri, Rainbow Beach	2015 obtained from web	Requested	2017/2018 - Obtained 2018/2019 - Obtained 2019/2020 - if available	Obtained	Requested	Online or onsite	18 Channon Street Gympie Qld 4570	
Auditing Group 2 - Inland Areas	Cherbourg Aboriginal Shire Council	Thursday, 3 September 2020	Not stated	NWM to obtain from Inf. notice.	Requested	Cherbourg	Cherbourg	Received	Received	2016/2017 - Requested 2017/2018 - Obtained 2018/2019 - Obtained 2019/2020 - if available	Received	Received	Nil.	Corner Carter and Fisher Streets	Prefer if Cherbourg undertaken next to South Burnett time.
	South Burnett Regional Council	Date Option No.1 - Wednesday 9 September 2020 Date Option No.2 - Monday 7 September 2020 or	March 2021	NWM to obtain from Inf. notice.	Feb 2017 - Present	Proston, Wondia, Gordon Brook, Blackbutt, Nanango	Boondooma, Murgon, Yallakool	Received	Received	2016/2017 - Requested 2017/2018 - Requested 2018/2019 - Obtained 2019/2020 - if available	Obtained	Received	Online - Felix	?	Adam is flexible with audit dates, perhaps earlier in August or September 2020.
	North Burnett Regional Council	Monday 8 February 2021	January 2021	NWM to obtain from Inf. notice.	Jan 2019 - Present	Eidsvold, Mundubbera, Gayndah	Biggenden, Mulgildie, 'Monto	Requested	Requested	2018/2019 - Obtained 2019/2020 - if available	Obtained	Requested	Online or onsite	34-36 Capper St, GAYNDAH QLD 4625?	

Notes:

Information sharing on NWM ClientCloud (OneDrive):

- Common folder for all councils for site visit plan and RFIs, plus private/confidential folders for individual councils
- Private/confidential folders for individual councils

Suggest with COVID that the audits are undertaken sooner than later.

Auditee	Primary Contact	Phone	Email	Other Staff Proposed	Contract Signed by NWM	Contract Signed by Client	NWM sent paper version of contract to client?	Purchase Order supplied to NWM	NWM Client Cloud - Common	NWM Client Cloud - Private Area	Meeting Requests Sent	All data entered into questionnaire?	Accommodation Booked?
Bundaberg Regional Council	Charandeep Chahal	07 4130 4819	Chamdeep.Chahal@bundaberg.qld.gov.au	Steph Garrick	Yes	Yes	Sent 12/8/2020	Yes	Yes	Yes	Yes	Yes	Yes
Fraser Coast Regional Council	Cameron Ansell	0475 984 645	cameron.ansell@frasercoast.qld.gov.au	Sarah Williams, Stephen Hinks	Yes	Yes	Sent 12/8/2020	Requested	Yes	Yes	Yes	No	Yes
Gympie Regional Council	Lorelle Hatch	0437 824 957	Lorelle.hatch@gympie.qld.gov.au	Neelan Rana, Rhonda Otto	Yes	Not required	Not required - Complete	Requested	Yes	Yes	Yes	No	No
North Burnett Regional Council	Brad Thode	0437 502 453	Brad.Thode@nortburnett.qld.gov.au	Katrina Cekanauskas	Yes	Requested	Sent 12/8/2020	Requested	Yes	Yes	Yes	No	No
South Burnett Regional Council	Adam Branch	0467 007 197	ABranch@southburnett.qld.gov.au		Yes	Yes	Not required - Complete	Yes	Yes	Yes	Yes	No	Yes
Cherbourg Aboriginal Shire Council	Darren Lonergan	0472 878 268	DarrenL@cherbourg.qld.gov.au		Yes	Yes	Sent 12/8/2020 - Complete	Yes	Yes	Yes	Yes	No	Yes

Travelling Away - No
Travelling Home - No

Appendix B – Opening and Closing Meeting Details

DWQMP AUDIT - OPENING MEETING

NWM-Tem105 DWQMP Audit - Opening Meeting Revision 0

Project 2020-0006 WBBROC DWQMP Regulatory Audits

Date 3/09/2020

Subject Drinking Water Quality Management Plan

Time 9:00 am

Client Cherbourg Aboriginal Shire Council

Venue WTP / Offices

Participants	<u>Name</u>	<u>Organisation</u>
	Jeff Ballard	NWM
	Darren Loneragan	CASC

Apologies

Distribution As above

No.	Item	Details and Comments
1.	<ul style="list-style-type: none">Welcome	<ul style="list-style-type: none">Welcome to everybody;Thanks for choosing NWM;I am looking forward to spending time with you today and get to see how things are going;15-20 minutes to cover the details about today's audit.
2.	<ul style="list-style-type: none">Introduce your team	<ul style="list-style-type: none">Jeff Ballard – Lead Auditor.
3.	<ul style="list-style-type: none">State the reasons for the audit	<ul style="list-style-type: none">As required by the Water Supply (Safety and Reliability) Act 2008 (the Act);Client is operating its drinking water services under 1 approved DWQMP;Client is required to complete the next regular audit of its approved DWQMP by 24 September 2022.
4.	<ul style="list-style-type: none">State the standard that you are auditing against	<ul style="list-style-type: none">Drinking Water Quality Management Plan Review and Audit Guideline (DNRME 2019);ISO 19011:2018 - Guidelines for Auditing Management Systems (the generic auditing Guideline).
5.	<ul style="list-style-type: none">Clarify the audit period	<ul style="list-style-type: none">From the date of the previous audit to the date of this opening meeting.
6.	<ul style="list-style-type: none">Finalise the audit agenda and scope – go through Site Visit Agenda	<ul style="list-style-type: none">Confirm changes if any.
7.	<ul style="list-style-type: none">Check who is available for the audit	<ul style="list-style-type: none">Confirm attendees;Interviews will only be conducted with people at appropriate levels within the audit scope;If at any time any auditee feels that we are asking questions to the wrong person, that person will need to advise us.
8.	<ul style="list-style-type: none">Confirm any logistics (rooms, lunch, guides, etc.)	<ul style="list-style-type: none">Rooms;Lunch;WTP.
9.	<ul style="list-style-type: none">Company Rules / WH&S	<ul style="list-style-type: none">The auditor's intention to follow all company rules and safety precautions;Induction required? – request but not provided. Signed in undertaken and escorted.If we find an issue of significant risk, where it be WH&S or related to DWQ, we will bring it to the attention of the auditee immediately.
10.	<ul style="list-style-type: none">Remind auditees that the audit is confidential	<ul style="list-style-type: none">Make a general commitment to maintain confidentiality related to the evidence gathered and conclusions generated during the audit.
11.	<ul style="list-style-type: none">Check that any documents sent to you before the audit are still current i.e. work documents are appropriate to the scope	<ul style="list-style-type: none">List work documents received and are appropriate to the scope:<ol style="list-style-type: none">Client DWQMP;Water Quality Monitoring Results;DWQMP-annual reports: 2017-2018, 2018-2019, 2019-2020;

No.	Item	Details and Comments
12.	<ul style="list-style-type: none"> State that you are only looking at a sample of the system 	<ul style="list-style-type: none"> The audit will be a representative sampling of evidence, not a 100% inspection; We believe our sample will provide an accurate snapshot of current operations.
13.	<ul style="list-style-type: none"> How information relevant to audit objectives, scope and criteria is collected 	<ul style="list-style-type: none"> The questions we will ask will mostly be from the list of questions sent to you; If some are not relevant, we will remove them from the scope; Some additional questions may be asked to clarify the answers provided; The scope of this audit is how the DWQMP has been implemented; The criteria are the 3 main sections of the state's auditing guideline as described in the site visit plan. information is gathered from a variety of sources including: <ol style="list-style-type: none"> interviews with employees and other persons; observation of activities; documents and records; information systems; and, Customer feedback if relevant.
14.	<ul style="list-style-type: none"> Confirm how you will communicate findings during the audit 	<ul style="list-style-type: none"> Generally, from the structure of the site visit plan; Verbal information will be reported as verbal; Only verifiable written information is identified as audit evidence and will need to be recorded for the report; We are looking for objective evidence, not subjective; Potential non-conformities will be reviewed with the auditee to ensure evidence is accurate and complete and that reason for nonconformity is understood; Any unresolved differences of opinion concerning evidence and/or findings are recorded; There will be a follow up session just prior to the closing meeting to close out any outstanding questions; Gradings will be: <ol style="list-style-type: none"> Compliant; Opportunity of Improvement; Minor Non-Compliance; Major Non-Compliance; Critical Non-Compliance.
15.	<ul style="list-style-type: none"> Confirm time, location and attendees for the closing meeting 	<ul style="list-style-type: none"> From Site Visit Plan.
16.	<ul style="list-style-type: none"> Allow any questions 	<ul style="list-style-type: none"> Nil.
17.	<ul style="list-style-type: none"> Thanks again 	<ul style="list-style-type: none"> Thank you again for choosing us, and we look forward to today.
18.	<ul style="list-style-type: none"> Other notes 	<ul style="list-style-type: none"> Nil.

Jeff Ballard

Auditor Name

DWQMP AUDIT - CLOSING MEETING

NWM-Tem107 DWQMP Audit - Closing Meeting Revision 0

Project 2020-0006WBBROC DWQMP Regulatory Audits

Date 04/09/2020

Subject Drinking Water Quality Management Plan

Time 11:30 am

Client Cherbourg Aboriginal Shire Council

Venue Offices

Participants

<u>Name</u>	<u>Organisation</u>
Jeff Ballard	NWM
Darren Lonergan	CASC
Jackson Cobbo	CASC
Justin Cobus	CASC

Apologies

Distribution As above

No.	Item	✓	Details and Comments
1.	▪ Thankyou		<ul style="list-style-type: none">▪ Thank the auditees for their time;▪ Thank them for allowing you to audit them;▪ 10-15 minutes to cover the details about today's audit.
2.	▪ Reason for the audit		<ul style="list-style-type: none">▪ As required by the Water Supply (Safety and Reliability) Act 2008 (the Act);▪ The client is operating its drinking water service under an approved DWQMP;▪ The client is required to complete the next regular audit of its approved DWQMPs by 24 September 2022.
3.	▪ Standard that you audited against		<ul style="list-style-type: none">▪ Drinking Water Quality Management Plan Review and Audit Guideline (DNRME 2019);▪ ISO 19011:2018 - Guidelines for Auditing Management Systems (the generic auditing Guideline).
4.	▪ Confidentiality		<ul style="list-style-type: none">▪ Remind everyone that the audit is confidential.
5.	▪ Sample		<ul style="list-style-type: none">▪ State that you have only looked at a sample of the system.
6.	▪ State if the audit is invalid		<ul style="list-style-type: none">▪ You may have needed to see a specific activity and you did not see this.
7.	▪ Explain how you will present your findings		<ul style="list-style-type: none">▪ Show them the audit template;▪ Show them the scoring system.
8.	▪ Provide a closing summary on how the audit has gone (good points)		<ul style="list-style-type: none">▪ Refer to audit checklist
9.	▪ State your conclusions of the audit (compliant etc.)		<ul style="list-style-type: none">▪ Refer to audit checklist
10.	▪ State any situations encountered during the audit that may affect reliability of results advised by audit team leader		<ul style="list-style-type: none">▪ Nil found.
11.	▪ Tell the auditees when they will receive the audit report		<ul style="list-style-type: none">▪ Within 2 weeks.
12.	▪ Tell the auditees what they are expected to do once they receive the report		<ul style="list-style-type: none">▪ Review the report provide comments;▪ Sign the Auditee Statutory Declaration;▪ NWM will submit the report with its Auditor Statutory Declaration to DNRME;▪ Service provider must keep a copy of the audit report available for inspection by the public;▪ Follow up on audit actions;▪ Report annually actions undertaken.
13.	▪ Allow any questions		<ul style="list-style-type: none">▪ Nil.

No.	Item	✓	Details and Comments
14.	▪ Thanks again		
15.	▪ Other notes		▪ Nil.

Jeff Ballard

Auditor Name

Appendix C – Photographic Evidence

Water Treatment Plant













CHERBOURG ABORIGINAL SHIRE COUNCIL
Water Treatment Plant
RECORD SHEET 4092

Raw Water Pumps No. 1 ☐ No. 2 ☐ DATE 3/5/08

Reservoir Level ☐ Filtered Water Meter 673.453 pH pH Alum. ☐ pH Soda Ash ☐ Town Supply Meter 3719 Cl₂ into Reservoir 5.00 Cl₂ out of Reservoir 7.00 Turbidity 2

CHEMICAL STORAGE TANKS Level %
Alum. 84 Bags x 25Kg
Soda Ash Bags x 25Kg
P.A.C. Bags x 25Kg
Cl₂ Litres
Polyelectrolyte Litres

CHEMICAL PUMP SETTINGS DUTY STANDBY SETTING
Alum. Hz %
Soda Ash Hz %
P.A.C. Stroke Rate
Cl₂ Pre: Stroke Rate
Cl₂ Post Stroke Rate
Polyelectrolyte Stroke Rate

Cleaned / Checked Turbidity Chamber YES NO WEATHER
Cleaned / Checked pH Probe for Alum ☒ ☐ Temp 19.3°C
Cleaned / Checked pH Probe for Soda Ash ☐ ☐ Humidity
☐ ☐ Cloud 100%

Clarifier Condition
Time setting between sludge drawoffs Hrs m
Depth to top of sludge blanket 10.5 14

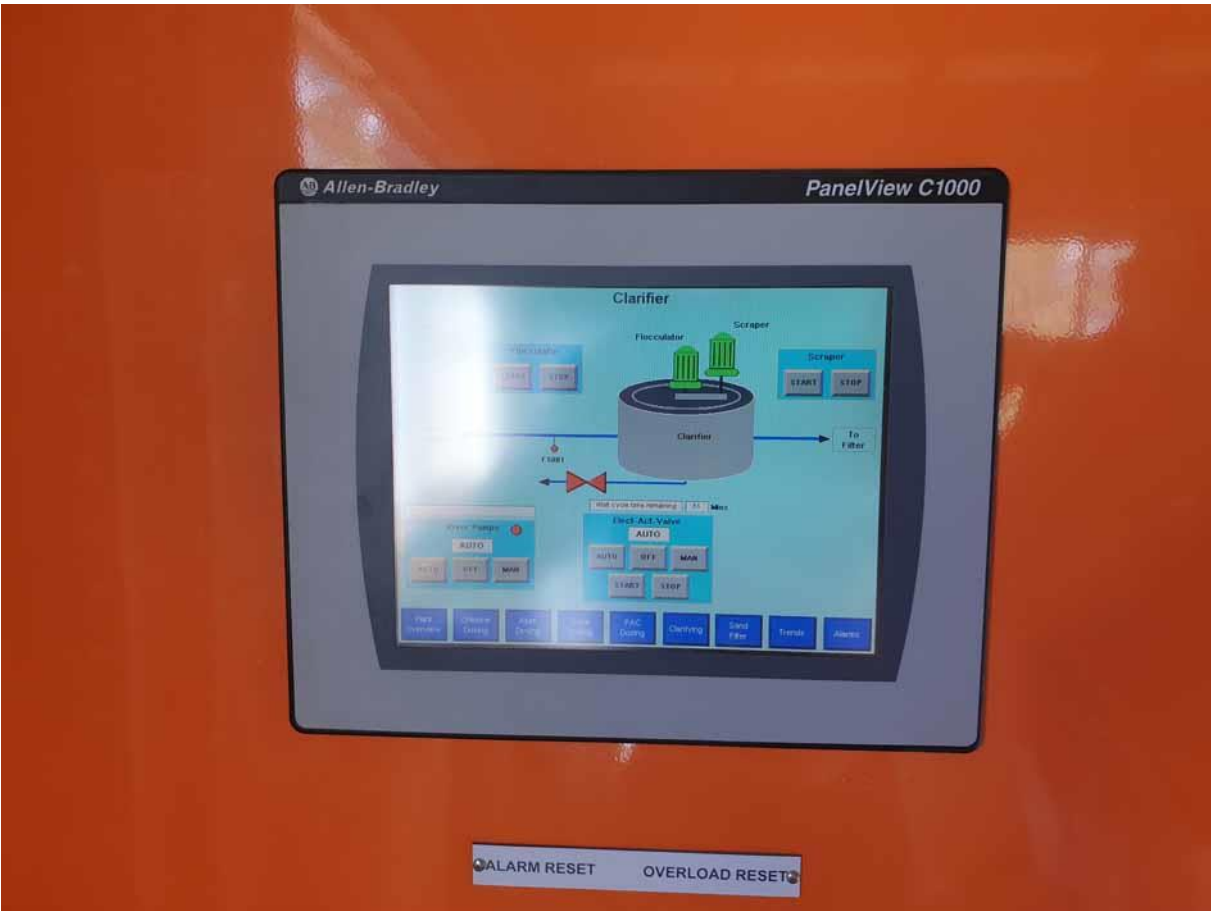
Filter Condition
am / pm 7.00 8.00 8.00 8.00
Times of Backwash am / pm 2.00 8.00 8.00 8.00
other

Plant Alarms: Ph 7.40 9.00 7.65 7.65 7.65 7.65 7.65 7.65

Operators Signature: [Signature]







DELIVERY NOTE

Customer Service:
Phone: (07) 3893 7506
Email: cs@coogee.com.au

DELIVERY NUMBER: 9778943
DELIVERY DATE: 06-AUG-20
PURCHASE ORDER: 46743/1 BULK
06AUG2020 WTP
WAREHOUSE: OCA - Lytton
CARRIER: Coogee

EMERGENCY RESPONSE NUMBER: 1800 800 655

DELIVER TO:
CHERBOURG ABORIGINAL - WATER
TREATMENT PLANT, PH: 0432 469 373/4168
2554, TOP OF HILL ON MURRAY ROAD
CHERBOURG, QLD, 4605

INVOICE TO:
CHERBOURG ABORIGINAL SHIRE COUNCIL
ATTN: ACCOUNTS DEPT, 22 BRAMBAVAE
CHERBOURG, QLD, 4605

SHIPPING INSTRUCTIONS

PRODUCT CODE	DESCRIPTION	UOM	QUANTITY
51701403L	Sodium Hypochlorite 10% Solution TO TANK TRUCK ALK *****DANGEROUS GOODS**** UN 1791 / CLASS 8 / PG III Hazchem 2X / No Store 5.1 / Acids	LT	1000

DRIVER: Lundy
REG NO: 338 VJZ
DATE: 06/08/20

CUSTOMER SIGNATURE: _____
PRINT NAME & COMPANY: _____
DATE: _____





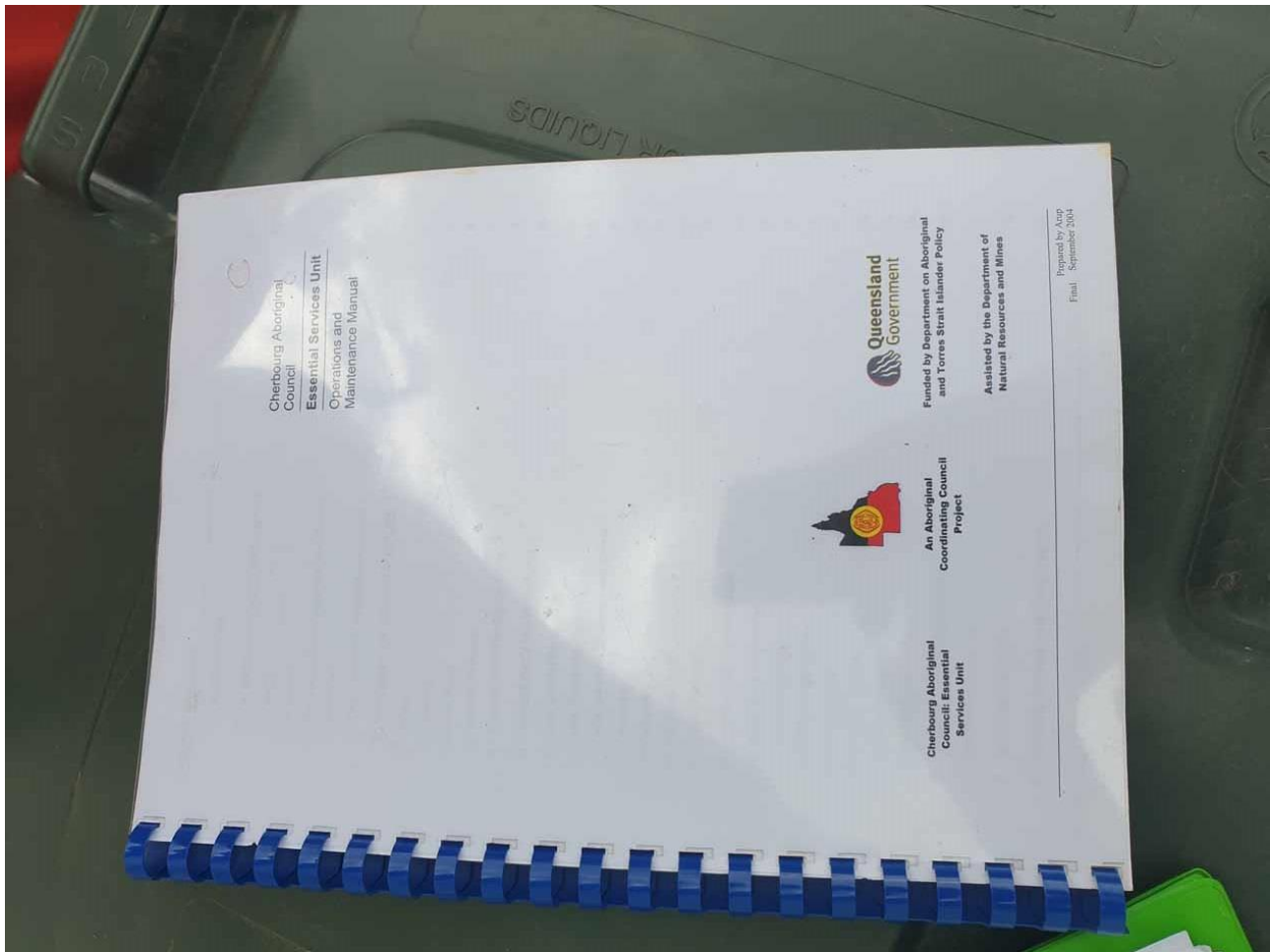


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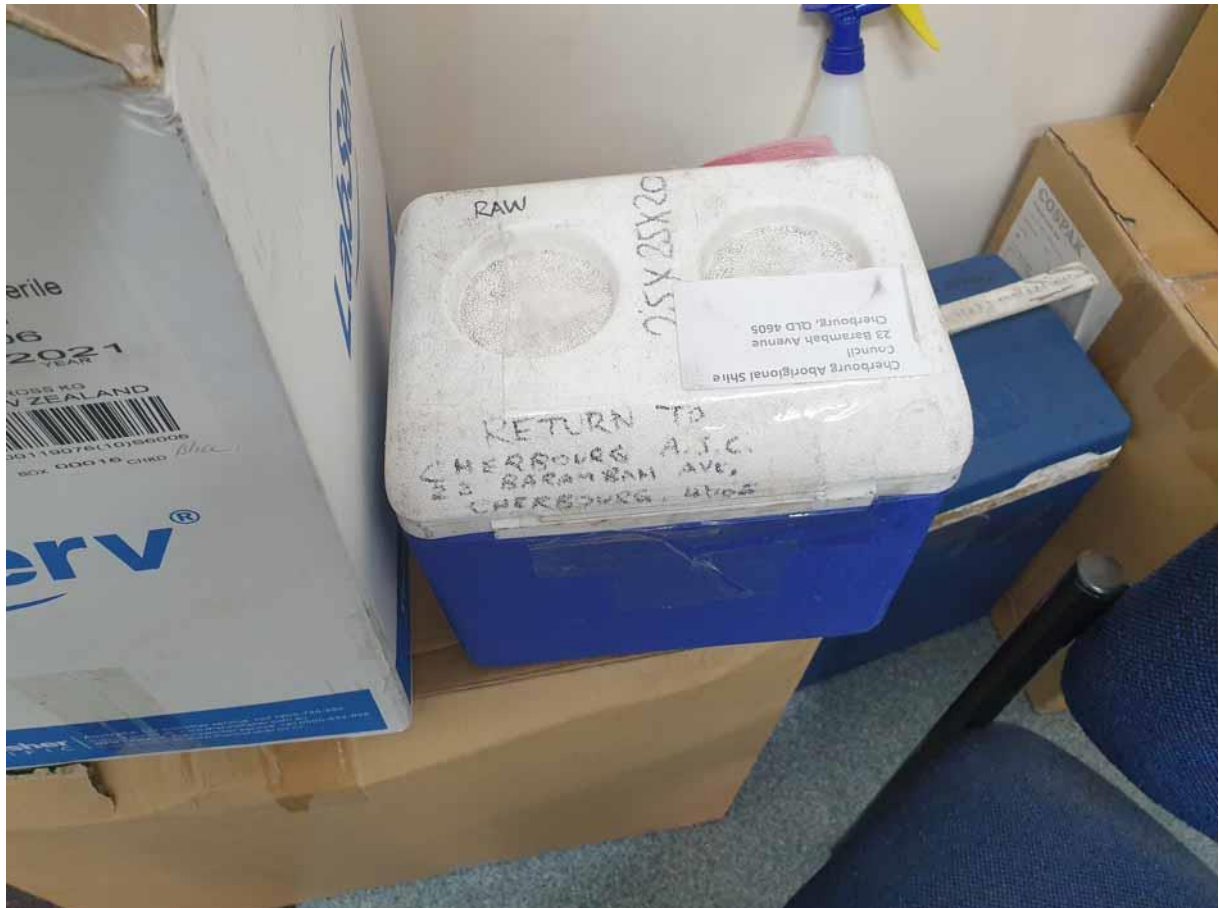






Laboratory







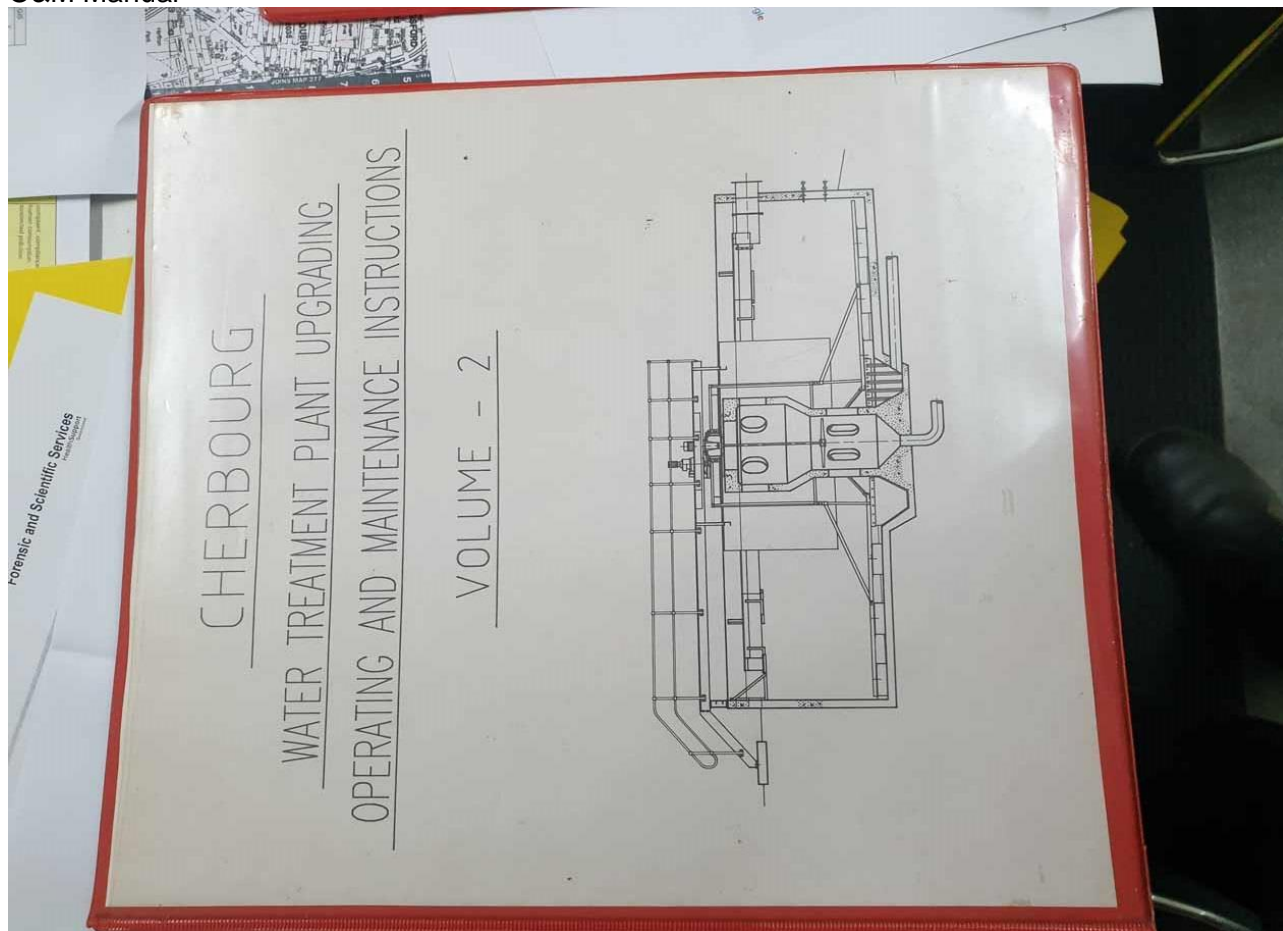
Store







O&M Manual



Jar Testing

Location CHERB Date 5/11/19

Raw water turbidity 3.57 Raw water colour 5 Raw water pH 7.98

And mix 160 rpm 60 sec
Slow mix 20 rpm 20 min
30 min settle

Test data	Beaker No. 1	Beaker No. 2	Beaker No. 3	Beaker No. 4	Beaker No. 5	Beaker No. 6
Coagulant dose - ppmV	<u>80</u>	<u>80</u>	<u>100</u>	<u>100</u>	<u>120</u>	<u>130</u>
Supernatant turbidity	<u>1.14</u>	<u>1.06</u>	<u>1.14</u>	<u>1.29</u>	<u>1.08</u>	<u>0.88</u>
Supernatant colour	<u>3</u>	<u>4</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>3</u>
Recommend dose (tick)						

Operator V. LITTLE Sign [Signature]

PH 7.18 7.16 7.10 7.04 6.95 6.91

PH 7.18 7.16 7.10 7.04 6.95 6.91

UNABLE TO USE THESE RESULTS AS A RECOMMENDATION DUE TO NOT KNOWING CHERB FLOW RATES ETC. AG

Appendix D – Audit Checklist and Detailed Findings

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
PART 1 - VERIFY ACCURACY OF MONITORING AND PERFORMANCE DATA					
Verification monitoring – How does the auditee ensure compliance between the DWQMP and the verification monitoring program?	Program Structure: How do you continually actively manage the verification water quality analysis program?	<ul style="list-style-type: none"> DWQMP, FY2021 Cherbourg Water Results.xlsx – Tab “Ecoli, Chlorine, pH, THM”. 	<ul style="list-style-type: none"> From DWQMP: <ul style="list-style-type: none"> E. coli and chlorine testing is undertaken weekly at the following 5 sample locations: Bert Button Lookout, WTP after Treatment (Combined CWT, Res 1 & Res 2), “Gundoo” Day Care Centre (Kitchen tap) and STP (Yard tap), THMs sample are taken monthly from the STP Yard Tap, The council is small and therefore relies on the DWQMP to tell them where to sample. The sample locations are viewed at each DWQMP review. 	Comp	
	Parameter Coverage: How extensive is the current program and does it cover the full range of chemical, physical and microbial parameters that would be expected for its water supplies?	<ul style="list-style-type: none"> FY2020 Cherbourg Water Results.xlsx – Tab “Ecoli, Chlorine, pH, THM”. 	<ul style="list-style-type: none"> These were found to be as per the DWQMP, Weekly tests are undertaken, THMs are required monthly and were cited to be undertaken weekly for many of the records, The spreadsheet has columns for Standard Water Analysis, Heavy metals, Blue-Green Algae, and pesticides, and are not currently part of the DWQMP however they have been included for convenient entry in the future. The DWQMP does require verification monitoring only for E. coli and THMs. The above 4 parameters are currently identified under operational monitoring for raw water however these should be checked after the WTP. These 4 tests are reported in the DWQMP as failures i.e. being above the ADWG limits, however, they are not included in the verification monitoring. 	OFI	Introduce verification testing for Standard Water Analysis, Heavy metals, Blue-Green Algae, and pesticides for a sample site downstream of the water treatment plant.
	Geographical Zone Coverage: Do you regularly review your sampling program and make many improvements to it? For instance, a particular effort has been made to ensure that all reservoir zones are included? (i.e. location-based, where relevant).	<ul style="list-style-type: none"> As above. 	<ul style="list-style-type: none"> The sample locations were found to be adequate in terms of geographical zonal spread. There is only 1 zone. 	Comp	
	Geographical Expansion: Are sampling points changing over time in response to	<ul style="list-style-type: none"> As above. 	<ul style="list-style-type: none"> The sample locations were found to be adequate. There is little expansion in the area. 	Comp	

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	improvements that are identified and in response to population growth?				
	Geographical Spread: Does the sampling regime provide good coverage of the whole water supply system(s)?	<ul style="list-style-type: none"> As above. 	<ul style="list-style-type: none"> Answered earlier, the sample locations were found to be adequate in terms of geographical spread within a zone. 	Comp	
	Sample Locations: Where do you sample taps, on public/council/client land or in other public spaces rather than within private properties?	<ul style="list-style-type: none"> DWQMP, FY2021 Cherbourg Water Results.xlsx – Tab “Ecoli, Chlorine, pH, THM”, H Drive Water Sampling folder – photos of sampling sites. 	<ul style="list-style-type: none"> 3 of the 4 sampling locations have photographs showing their locations, The “Gundoo” Day Care Centre (Kitchen tap)” location does not have a photograph of it and it is understood that, from discussions with the sampling personnel, the location is actually at the kitchen tap inside the building, Verbal advice from the operators is that new sampling points will be part of the water supply scheme upgrade project. 	OFI	Relocate the “Gundoo” Day Care Centre (Kitchen tap)” sample location to a location outside of the building that will not be influenced by internal plumbing, or be relocated to a nearby tap located on public land. This is likely to be part of the water supply scheme upgrade project.
	Pesticides: Are pesticides measured? (If relevant).	<ul style="list-style-type: none"> DWQMP, FY2020 Cherbourg Water Results.xlsx – Tab “Ecoli, Chlorine, pH, THM”. 	<ul style="list-style-type: none"> The DWQMP did show water quality information for pesticides, and as there were exceedances, this should continue, The water Sample Register does not show recent pesticide sampling. It is recommended that CASC introduce verification monitoring testing for Standard Water Analysis, Heavy metals, Blue-Green Algae, and pesticides for a sample site downstream of the water treatment plant. As this has been mentioned above, a new OFI has not been raised. 	combined with another observation	
Verification monitoring – How does the auditee ensure the reliability of monitoring results? Consider sampling site selection, sampling,	Collection Management: Has there been any move to have most treated water verification samples collected by laboratory staff rather than operators, with the exception of some remote samples?	<ul style="list-style-type: none"> Nil. 	<ul style="list-style-type: none"> No, council’s location and size do not allow for this to practically occur. 	Not-applicable	

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
transport of samples, analysis, quality assurance and control, reporting and communication.	Sample Collection Training: Does the laboratory provide training in sampling and calibration to operators? Or do you go to a registered training organisation?	<ul style="list-style-type: none"> Training certificates – see below. 	<ul style="list-style-type: none"> Staff have been trained – see below. 	Comp	
	Certificate III Training in Sampling: Do operators take part in the Certificate III module relating to water sampling and making chlorine measurements?	<ul style="list-style-type: none"> Training certificates – see discussion for details. Expression of Interest Form for Jackson into the Water Industry Worker Program (no date). Justin Cobus Certificate III in Water Industry Treatment – Learner Application /Enrolment Form, 2 Jan 2018 and supporting documentation. 	<ul style="list-style-type: none"> There are 4 sampling personnel; Jackson advised that he starting on 22 September 2020, a Cert II in water treatment, and Cert II in environmental health. Verbal – Justin advised that he has a Certificate III trained treatment supervisor however this was not cited. Enrolment information was cited. He also advised that the operators don't undertake verification testing, but later advised that he does take over if Jackson is away, Les Wragge – Certification IV in Water Operations, 22 June 2011 was cited by the auditor, Lance Hill – Certification II & III in Water Industry Operations, 5 Jan 2009, and Certification IV in Water Operations, 22 June 2011 were cited by the auditor. 	OFI	<ul style="list-style-type: none"> Continue training staff to obtain water industry credentials specifically for water sampling, Review training and assistance opportunities with the QLD Government Water Quality Unit.
	Sampling Frequencies: What are the sampling frequencies? Do these generally match or exceed the ADWG 'defaults'?	<ul style="list-style-type: none"> FY2021 Cherbourg Water Results.xlsx – Tab "Sampling". 	<ul style="list-style-type: none"> The "minimum verification monitoring" spreadsheet was viewed and meets that required by the check below, There are 5 samples per week. Their locations, access to, water sources, sampling officers, and what to test for weekly and monthly are described in the spreadsheet. <p>(Ref: ADWG Table 9.4 >100,000 = 6/wk/monitoring zone + 1/mon for each 10,000 above 100,000, 5,000–100,000 = 1/wk/monitoring zone + 1/mon for each 5,000 above 5,000, 1,000–5,000 = 1/wk/monitoring zone, <1000 = 1/wk/monitoring zone, but balance with logistics).</p>	Comp	
	Specific Sampling Location: Do you examine water quality	<ul style="list-style-type: none"> Answered earlier 	<ul style="list-style-type: none"> Answered earlier 	combined with	

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	in terms of quality at the meter, and quality at the customer tap? The question is in relation to internal plumbing fittings influencing results.			another observation	
	Sampling Scheduling: How are sampling schedules set up (in a database and can be viewed in calendar view mode and Excel format)?	<ul style="list-style-type: none"> FY2020 Cherbourg Water Results.xlsx – Tab “Sampling”. Sample Submission form from Health Support – 6.8.20, Certificate of Analysis – Forensic and Scientific Services 6 Feb 2020 – 5 samples. FSS Laboratory system report in spreadsheet format: “July_2016_to_4_Sep_2020.xlsx” 	<ul style="list-style-type: none"> These are set up in a spreadsheet, Given that this is such a small council, the auditee mentioned that a calendar system is not necessary. However, it was found that there were <u>numerous weeks</u> when sampling had not occurred i.e. E .coli testing has not occurred, or at the least, results had not been entered into the spreadsheet, The laboratory has all of the information for the verification records and it would be beneficial to update the council spreadsheet using this information, 6 February 2020 on the spreadsheet was missing data. The auditor asked for the verification results for this sampling run to check if they had been done and if the issue was limited to lack of data entry. It was found that a certificate of analysis was produced for: <ul style="list-style-type: none"> Chloroform Bromodichloromethane Dibromodichloromethane Bromoform Total Trihalomethanes. However, none was found for E. coli. It was later found (on the Lab spreadsheet) that 4 samples were taken and tested for that day: <ul style="list-style-type: none"> Cher T WTP, Cher 1 STP, Council Depo, Bert Button Lookout. The 2019 DWQMP states that 4 locations are being sampled: <ul style="list-style-type: none"> WTP After Treatment (Combined CWT, Res 1 & Res 2), STP (Yard tap) “Gundoo” Day Care Centre (Kitchen tap) Bert Button Lookout, The results show that the Council Depo has been added. This analysis was found to generally cover the number of parameters required. 	Major	<ul style="list-style-type: none"> Ensure that the weekly verification tests occur each and every week. The multiple sampling periods missed is a major risk in being able to mitigate issues as they occur, Ensure that verification data is entered into the Cherbourg Water Results.xlsx spreadsheet upon receipt of the results.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
			<ul style="list-style-type: none"> Overall, there was 1 major find in the assessment which requires attention: <ol style="list-style-type: none"> The sampling frequency over the auditing period was sometimes sporadic. Of the 26 weeks, there were: <ol style="list-style-type: none"> 1 period of 35 days between samples; 3 periods of approximately 14 days between samples. 		
	Chain of Custody: How is the chain of custody managed? NATA?	<ul style="list-style-type: none"> Sample Submission form from Health Support – 6.8.20 	<ul style="list-style-type: none"> The operations manager did not know of the existence and use of COC forms, This question was deferred for later for the environmental health officer to answer. The auditor later cited 6 samples Cher T, 1, 2, 3, 4, and THMs and was found to be in order, NATA tests are sent to the Qld Health Forensic & Scientific Services in Brisbane, Each sample sent is accompanied by a sample submission form, Bottles and labels are prepared ahead of time with a number which corresponds to log sheet with time, date and location of the sample. Tech officer takes a sample, a sticker is placed on the sample bottle, the samples go into the esky with ice, This is a clear process as the ID is unique to the location, date, and time. 	OFI	Conduct DWQMP awareness training for all personnel including those new to the organisation.
	False Positives: Are water and wastewater samples separated to avoid a false positive?	<ul style="list-style-type: none"> Site visit, lab store, 	<ul style="list-style-type: none"> Yes, there are separately designated sample collectors Lance does Sewerage and Jackson does water for each area, Separate eskies are used, Wastewater sampling was found to occur on different days. 	Comp	
	Record Keeping: How are the test results kept? Is there a traceable history?	<ul style="list-style-type: none"> FY2021 Cherbourg Water Results.xlsx – Tab “Sampling”. Test certificate from Forensic and Scientific Services 2/9/2020 for THMs. 	<ul style="list-style-type: none"> Test certificates are received by email from the lab and are emailed to Amanda Hutchings (QLD Health), Jackson Cobbo (environmental health worker), Darren Loneragan (Operations Manager), Peter Boland (QLD Health), and Robert Nixon (CASC administration officer). Test certificates are kept on the environmental health worker's emails. The environmental health worker advised that no electronic records are kept on the H Drive or anywhere else. Hard copies are kept in folders. 	OFI	Store verification certificates on H Drive and preferably a secure archiving system.
	Internal Reporting: How are the results reported internally? I.e. for negative results, what happens? Any	<ul style="list-style-type: none"> 8/1/2020 high Raw Water THM from FY2020 Cherbourg Water Results.xlsx – Tab “Ecoli, Chlorine, pH, THM”, 	<ul style="list-style-type: none"> The auditee was not able to provide any information on what was done to manage the high THM incident, 19/12/2019 Boiled water alert was discussed. THMs and turbidity were high (> 20 NTU). A verbal account was provided by Justin and Jackson: <ul style="list-style-type: none"> Alum was increased, 	Minor	<ul style="list-style-type: none"> Follow the DWQMP procedure for reporting and managing incident, Create a procedure for a boiled water alert,

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	highlighting? Process improvement notice?	<ul style="list-style-type: none"> Boiled Water Alert 19/12/2019 email trail, Numerous emails cited on Operations Manager email system on boiled water notices to the regulator. 	<ul style="list-style-type: none"> Distribution line was flushed, The water in the clarifier and the CWS were emptied and cleaned, At the same time the public health unit (Amanda) who was in the shire, assisted Jackson in the paperwork advice for a boiled water alert, The community was informed via radio, and Facebook and door knock, The BWA was lifted on 30 July 2020, Anomalies are not automatically highlighted in the results spreadsheet and <u>it was not clear if incidents are dealt with as per the DWQMP and internal procedures,</u> The auditor found that the process had been partially followed for the high turbidity event however the correspondence trail did not discuss how the incident was managed and closed. Part A and Part B forms could not be found. 		<ul style="list-style-type: none"> The verification results spreadsheet needs to be set up to automatically highlight poor verification results. Alternatively, commence using council's SWIMLocal database to assist in managing verification information, Produce Incident Notification Forms to QLD Health.
	Process Management: Can any of the negative samples be left and not addressed? How is this avoided?	<ul style="list-style-type: none"> Verbal. See the previous discussion. 	<ul style="list-style-type: none"> Continued from previous questions, and it was clear that negative samples can be left, the non-conformances are not repeated here. Instead, the discussion was centred around a process for capturing and closing incidents, Jackson advised that: <ul style="list-style-type: none"> verification records are emailed to 3 persons, Jackson, Justin, and Darren, If one person is away, the others also see the email, Amanda from QLD Health also gets a copy of the email, The auditor suggested that an incident register be created to ensure that incidents can be tracked and closed out. 	OFI	There is an opportunity to add all water quality incidents to an electronic management system in addition to the email system. This may avoid any action issues such as when someone is on leave and can track incident closure and paperwork.
	Temperature Data: Look at a sample - has client measured temperature data with every microbial test sample?	<ul style="list-style-type: none"> Verbal. 	<ul style="list-style-type: none"> Jackson advised that temperature is not taken at the time of sampling. 	OFI	Temperature needs to be recorded on all sampling records where relevant to that contaminant being tested to enable the client to pick up any seasonal trends.
	Annual Reporting: How have such monitoring results been reported to the regulator, and do they match verified results?	<ul style="list-style-type: none"> Annual Report – 2017/2018, 2018/2019, Lab results spreadsheet. 	<ul style="list-style-type: none"> All results are reported to the regulator in the annual report, The auditor checked the data provided in the DWQMP (annual) report against verification results and found they were consistent. 	Comp	

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	DWQM Plan Data: Do the monitoring results provided in the plan match verified results?	<ul style="list-style-type: none"> DWQMP Lab results spreadsheet. 	<ul style="list-style-type: none"> The auditor checked the data provided in the DWQMP against verification results and found they were consistent. 	Comp	
	Additional Reporting Conditions Are additional reporting conditions in place, have such monitoring results been reported to the regulator, and do they match verified results?	<ul style="list-style-type: none"> THM's verification record mentioned earlier. 	<ul style="list-style-type: none"> THM's record was cited. 	Comp	
Operational monitoring – How does the auditee ensure compliance between the DWQMP and the SCADA systems?	Parameters measured on SCADA: Are the relevant parameters measured on SCADA? - check plan against screen information.	<ul style="list-style-type: none"> Verbal discussion with operators and Hydramet. 	<ul style="list-style-type: none"> According to Hydramet, the suppliers of the instrumentation panel, Local SCADA measurement panel was installed approximately 3 years ago and includes pH Turbidity, and chlorine, According to the onsite operator, chlorine has only just been introduced and is in progress. There was a mismatch of information here and the auditor could not ascertain the installation date. In terms of whether the relevant parameters are being monitored, this is ok. 	Comp	
	SCADA Monitoring: How are they monitored, constantly, or by alarm? How do you know the SCADA results are the same as the verifiable results (where possible)?	<ul style="list-style-type: none"> Site inspection, Water Treatment Plant Record Sheet Record 4092 3/5/18. 	<ul style="list-style-type: none"> According to the onsite operator, Les, local SCADA or instrumentation panels are currently being installed at the WTP as part of a larger project, however, the pH analyser was working but not yet calibrated and not commissioned, and they had not been trained on it, It was not clear in the discussions with Les Wragge if the instrumentation panel is being used however daily logs are taken and entered onto Water Treatment Plant Record Sheets, Later Justin advised that the instrumentation panel was being used and that he had been cleaning it regularly even though had hadn't been trained in its use, but does not calibrate it, Whilst it appears that operational monitoring information is collected daily onto plant records, it is the auditor's opinion that, based on conflicting information and verbal accounts, there is a significant issue on how operational information is collected, its accuracy, and how it used in the operation of the plant. 	Major	<ul style="list-style-type: none"> Commence recording daily WTP information onto an electronic spreadsheet that can be viewed by management staff, Ensure that all operational information is accurately obtained through calibrated instrumentation whether it be handheld devices or inline analysers. Check plant records against verified weekly results as an overall check to ensure that operational information has been correctly calibrated.

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	After Hours Management: What occurs after hours? (telemetry)	<ul style="list-style-type: none"> Roster discussed verbally 	<ul style="list-style-type: none"> The roster was discussed however there is no written roster, Alternative persons manage the water supply, The operations manager can be called after hours. 	OFI	<ul style="list-style-type: none"> Formalise the on-call roster.
Operational monitoring – How does the auditee ensure the reliability of monitoring results? Consider analyser sample line site selection, verification and calibration, reporting and communication.	Cross-Check of SCADA and reported results: Audit some records of a sample of results from the SCADA systems through to reporting.	<ul style="list-style-type: none"> Nil. 	<ul style="list-style-type: none"> Not applicable – the instrumentation panel does not provide a searchable history. 	Not Applic	
	SCADA Alarm Management: Is there a process of updating the SCADA alarms in line with monitoring program changes or seasonal changes?	<ul style="list-style-type: none"> Nil. 	<ul style="list-style-type: none"> This is in development, see above question. 	Not Applic	
PART 2 - ASSESSMENT OF COMPLIANCE WITH THE PLAN					
The provisions and conditions in the latest approval notice	Compliance with Approval Conditions: Auditor to review plan against approval notice for accuracy. Can you please provide a copy of the approval notice? Have the requirements for this notice been fulfilled?	<ul style="list-style-type: none"> Regulator letter 9 April 2018. 	<ul style="list-style-type: none"> Checked for: <ul style="list-style-type: none"> Regular reviews (every 2 years) – a revision of the DWQMP is in undertaken in March 2017 (Version 2), February 2018 And December 2019 – compliant, Audits – compliant, Verification monitoring program implemented – compliant, Reporting of non-compliances/incidents – non-compliant – this was discussed earlier under internal reporting, however, a non-compliance is given here for not consistently reporting incidents to the regulator, Reporting of other non-listed parameters – compliant, Annual reporting – compliant. Additional reporting – compliant. 	Comp	
	Compliance Tracking: How have you actively recorded and tracked compliance with its	<ul style="list-style-type: none"> Cherbourg Risk Register Improvement Plan 2019.pdf. 	<ul style="list-style-type: none"> CASC uses the DWQMP Risk Assessment for its risk management improvement plan. The auditee has not reviewed at any time since he had been in the role to review any actions relating to this plan. The auditor went through all of the RMIP actions with CASC. 	Minor	Commence tracking of the RMIP items, and conduct monthly management meetings.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	obligations under the approval notices?		<ul style="list-style-type: none"> Protozoa – testing turbidity – unknown if undertaken, and unknown if the WTP will be upgraded with a UV unit. Jar testing has not occurred since 5/11/19. A complaints register and incident register have not been created, A list of O&M Procedures has not been created, SOP for pipe/mains repairs and hygiene has not been done, See elsewhere for the RMIP action items relating to the previous audit, The auditor had only partial information made available to him to suggest that actions are being undertaken, and in the interest of risk management, a minor non-conformance had to be given. Other risks in the RMIP have been discussed elsewhere in the auditor's review where a non-pliant grade was given and has not been repeated here. It is expected that the WTP upgrade will address many items. 		
Implementation of all preventive measures for managing hazards and hazardous events as described in the plan	Cross-Contamination Management: How is sewage to potable water cross-contamination mitigated?	<ul style="list-style-type: none"> Nil. 	<ul style="list-style-type: none"> The client only has 1 crew that does both water and sewerage works, This team uses the same tools, machinery, and vehicles for both areas, There is 1 digger / 1 excavator. The auditor advised that a procedure is recommended. This is discussed below. 	OFI	Undertake reticulated water safety training for employees.
	Cross-Contamination Mitigation: How is suspected contamination of compromised mains identified and mitigated?	<ul style="list-style-type: none"> Nil, Cherbourg Shire Council WH&S Management Sytem.doc. 	<ul style="list-style-type: none"> The "Cherbourg Shire Council WH&S Management Sytem.doc" was checked for water procedures however none could be found for contamination management, There is a procedure called "Waste Water & Mains Repairs" but only relates to wastewater, however it could be extended to include water mains flushing and disinfection. There is no procedure for mains repairs/disinfection. The auditee was not aware of any repairs/hyper chlorination/flushing procedure, although it is likely that the operations crews will have an understanding through their Certificate III training. WIOA procedure "Practical Guide to the Operation and Optimisation of Distribution Systems" is a useful reference document. 	OFI	Create a procedure for mains repairs/disinfection. It is suggested that the document, "WIOA procedure "Practical Guide to the Operation and Optimisation of Distribution Systems" be used as a reference document.
	Cross-Contamination Risk Awareness: How well are you aware of cross-contamination risks?	<ul style="list-style-type: none"> Site visit, HR Training records. 	<ul style="list-style-type: none"> The auditor quizzed the interviewees about the subject. The reply was: <ul style="list-style-type: none"> Reticulation staff have been trained in Certificate III Water Operations, Usually, no contractors currently undertake the construction of the replacement of water or sewerage pipelines as this is done internally. The raw water rising main has recently been replaced using an external contractor. Contractors are currently upgrading 	Comp	

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
			<p>the WTP. This is a large contract with water quality requirements in place,</p> <ul style="list-style-type: none"> There is little to no sub-divisions being built. 		
	System Reserves: Do you have sufficient storage to avoid being forced to supply breached water in the event of short exceedances? How long can you store water for? Or are there other management activities for this?	<ul style="list-style-type: none"> Site inspection, Incident management flowchart, Water Incident Notification. 	<ul style="list-style-type: none"> Under normal situations, there are 3 tanks totalling 3.46 ML. There may be an opportunity to isolate CWS water from the 2 reservoirs. Internet notices and radio notices and the next step is a boiled water notice, There are times where alternative water source must be used and announcements would go out for these, This is assessed on a case by case basis using the flowchart, however, the flowchart is broad. The auditor suggested that practical information on scenarios be documented. 	OFI	Formalise a procedure for isolation and tank emptying for high turbidity and other events.
	Asset Maintenance: How are assets maintained in a functional and readily operable state in order to protect water quality outcomes?	<ul style="list-style-type: none"> Site visits, Water Incident Notification. 	<ul style="list-style-type: none"> Head Office Interview: <ul style="list-style-type: none"> From a discussion with Justin, regular cleaning is not performed on reservoirs and they are often are thick with sludge on the bottom of the tank. There is no asset condition program, There is a maintenance schedule, however, this is not formalised with specific maintenance actions, Assets cannot be tracked via their Asset ID. Site: <ul style="list-style-type: none"> The WTP was in poor to failed condition. Justin described a large amount of sand in the CWS. The auditor described what scenarios that could occur to produce such an event, including nozzle failure and deteriorated filter floor seals, The WTP is currently being upgraded but it was not clear that this issue will be addressed from quizzing the operational staff. Given the lack of information, it was recommended that the operational staff get involved in the upgrade project, The backwash pumps in the lower shed were leaking. 	Major	<ul style="list-style-type: none"> There needs to be a condition inspection program and an <u>active</u> maintenance program. It is recommended that a daily check sheet be used in the short to medium term which is separate to the operational check sheet. Specifically perform daily tank inspections to gauge if filter breakthrough has occurred As a minimum, undertake annual tank cleans. Investigate the sand breakthrough to the clear water storage tank, and in particular the condition of the filter nozzles as part of the upgrade project. It is recommended that the operational staff get sufficiently involved in the upgrade project to address asset condition issues, Repair the backwash pump leak.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	Chemical Storage and In Date: How are parts, fittings and chemicals that might come into contact with drinking water stored? Are they clean, in good condition, and in date?	<ul style="list-style-type: none"> Site visit, 3 x 10% Sodium Hypochlorite delivery dockets viewed from Coogee Chemicals, 20 Aug 20, 6 Aug 20, 23 July 20. 	<ul style="list-style-type: none"> Site: <ul style="list-style-type: none"> 3 Delivery dockets were cited, There are regular deliveries to avoid the chemical losing effectiveness, however, it was not clear as to the rate of consumption. The upcoming upgrade will address this issue, No QA records of quality certificates were able to be found. 	OFI	There needs to be a process at the time of chemical delivery on-site whereby each delivery comes with a quality assured certificate for each batch of chemical instead of retrospective certificates being provided. The delivery dockets audited do show the concentration of chemical being supplied. Each delivery docket number should link to that certificate/batch in addition to the Sample ID and delivery docket. The service provider must also be checked for ongoing quality compliance. It is suggested that acceptance testing occurs as per ADWG, and a diluted sample could be used to check the chemical concentration before use.
	Sourcing of Quality Assured Materials: How are the stored materials that may come into contact with water (e.g. pipes and jointing compounds) sourced and quality assured (inventory kept and traced)?	<ul style="list-style-type: none"> Depot site visit. 	<ul style="list-style-type: none"> The depot visit showed that only Australian Standard and Watermark stamped pipes and fittings and valves are being purchased, The auditor identified that there is a small risk that a number of products may be purchased from non-reputable suppliers. 	OFI	A procedure needs to be in place to ensure that all drinking water materials purchased are certified to Australian Standards or are WaterMark approved.
	Security: Is the site fully fenced and secured?	<ul style="list-style-type: none"> Site inspection. 	<ul style="list-style-type: none"> Site <ul style="list-style-type: none"> Site is fenced and there is a lockable gate. There were a number of locations along the boundary line where a person or animal could access the site. There was fencing mech on-site indicating that the fence will be repaired or replaced soon. Horse manure was found throughout the compound. 	OFI	<ul style="list-style-type: none"> Continue with the replacement or repair of the WTP boundary fence. Ensure that the gates are closed even while in attendance to avoid horses entering the site.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	Vermin Control: How are vermin prevented from getting into the clear water storage? Is the ladder locked? What is the condition of the infrastructure?	<ul style="list-style-type: none"> Site inspection. 	<ul style="list-style-type: none"> The auditor observed that the clear water storage tank was adequately roofed however the gauze on one side had been damaged and requires replacement. The gauze on the other side of the tank had been replaced however the repair is ineffectual and requires raising to properly cover the hole. All hatches were able to be opened. 	Minor	<ul style="list-style-type: none"> Repair/replace the gauze covering the 2 openings at the clear water storage tank, Secure with padlocks the 2 clear water storage tank access hatches.
	Water Stabilisation: Is there enough buffering capacity and corrosion inhibition of the distributed water (pH control)?	<ul style="list-style-type: none"> Lab results spreadsheet. 	<ul style="list-style-type: none"> Head Office Interview: <ul style="list-style-type: none"> The water sample results were inspected and were found to have a good pH. Buffering information was not available in the verification results or the DWQMP. It was not clear if a suite of parameters has been testing in the raw water as the DWQMP and the verification results viewed did not have this information. 	OFI	Obtain raw water quality results, including alkalinity, to determine the makeup of this water for a range of parameters and add this information to the DWQMP and risk assessment.
	Plant Bypass: Does the plant have a bypass? If so, is there any chance that untreated water can bypass the plant and enter the drinking water system?	<ul style="list-style-type: none"> Site visit. 	<ul style="list-style-type: none"> Site: <ul style="list-style-type: none"> The auditor checked the plan and went through the site pipework with the operator and found nothing to suggest that a bypass or cross-contamination exists. 	Comp	
Implementation of operational and maintenance procedures	Operator Credentials: Who is responsible for operating the system and what are their credentials with respect to training, experience and qualifications?	<ul style="list-style-type: none"> HR Records from earlier. 	<ul style="list-style-type: none"> Staff have the following qualifications (as stated earlier): <ul style="list-style-type: none"> Jackson advised that he starting on 22 September 2020, a Cert II in water treatment, and Cert II in environmental health. Verbal – Justin advised that he has a Certificate III trained treatment supervisor however this was not cited. Enrolment information was cited. He also advised that the operators don't undertake verification testing, but later advised that he does take over if Jackson is away, Les Wragge – Certification IV in Water Operations, 22 June 2011 was cited by the auditor, Lance Hill – Certification II & III in Water Industry Operations, 5 Jan 2009, and Certification IV in Water Operations, 22 June 2011 were cited by the auditor. Operators should be involved in the WTP upgrade commissioning so that they can gain an understanding of troubleshooting issues, Operators to be trained in the safe use and operation of the future chlorine gas unit. This will likely be provided as part of the water supply scheme upgrade project. 	OFI	<ul style="list-style-type: none"> Operators should be involved in the WTP upgrade commissioning so that they can gain an understanding of troubleshooting issues, Operators to be trained in the safe use and operation of the future chlorine gas unit. This will likely be provided as part of the water supply scheme upgrade project.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	Procedures: Can I see where you store the site procedures? Are these up to date? Can you perform all of your inspections using these procedures? Are there any missing?	<ul style="list-style-type: none"> ▪ O&M Manual. ▪ Site visit. 	<ul style="list-style-type: none"> ▪ Head Office Interview: <ul style="list-style-type: none"> ○ The O&M Manual was be found in the office. ▪ On-site: <ul style="list-style-type: none"> ○ The O&M Manual was cited on site. ▪ On-site safety: Not part of the Drinking Water Quality Assessment and not reported under the recommendation/OFI, but was reported to the client: <ul style="list-style-type: none"> ○ The auditee informed CASC that the WTP was a WH&S issue as it was observed that there were a number of trip hazards on site, ○ The general untidiness created by the contractor upgrading the site has created an unsafe environment for any worker accessing the site; ○ A member of the public attended the site to speak to the operator. The auditor informed him and the Operations Manager that the Council should not allow public access. Signage is in place but is being ignored, ○ There are a number of uneven ground spots on-site particularly around the CWS tank, and the tank rear side has a steep embankment which has the potential for an injury. 	OFI	<ul style="list-style-type: none"> ▪ Add the O&M Manual to the electronic list of procedure on council's WH&S System on H Drive, ▪ Ensure that the WTP O&M Manual be updated as part of the upgrade project.
	Jar Testing: Do you have jar testing equipment on-site? Are they functional? Is there a jar testing procedure?	<ul style="list-style-type: none"> ▪ Head office, ▪ Site visit. ▪ Verbal – not being undertaken. ▪ O&M Manual. 	<ul style="list-style-type: none"> ▪ Yes – by SBRC was providing training to Justin and Jackson but has stopped as the operator at SBRC has retired, ▪ Jar testing equipment was ordered by the operators but was not received, ▪ The last jar testing record was cited for 5/11/19. However, the results did not include a determination of dosage rate as the plant flow rate was not provided. ▪ According to the operator, this was stopped in March 2020 due to Vic Little of SBRC retired. ▪ The O&M Manual has a jar testing procedure. 	Major	<ul style="list-style-type: none"> ▪ No jar testing has occurred since November 2019. Given the raw water quality is highly variable, this is of concern, and must be recommended immediately, ▪ Ensure that operators with Cert III certificates have are proficient in a Jar testing module, ▪ Re-order the jar testing equipment.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	Monitoring Instruments: What are the operational monitoring instruments reading during the audit, how does that compare to the DWQMP, and how are the instruments and SCADA outputs routinely verified and calibrated?	<ul style="list-style-type: none"> Site visit. 	<ul style="list-style-type: none"> Discussed earlier. 	combined with another observation	
Implementation of the process for managing incidents and emergencies as described in the plan	Incident Response Capability: How does the auditee maintain readiness to respond to water quality incidents? Consider detection and communication of incident triggers, duty arrangements, incident management facilities and documents.	<ul style="list-style-type: none"> DWQMP. 	<ul style="list-style-type: none"> Water operators are rostered on for 8 hrs a day, 7 days a week, Operations Manager available via phone 24/7, Water Operators Roster not cited and it was advised by the operators that this is set up verbally, It is recommended that the Council phone number be called to determine if it is staffed after-hours and if so, whether calls referred to an on-call officer. 	OFI	<ul style="list-style-type: none"> Create roster including after-hours/on-call personnel, Create a process to cover after-hours complaints. Test the after-hours number on the web site to gauge what response council has. To firstly understand if a person will redirect the complaint to the appropriate on-call person.
	Incident Management: Have there been any examples of incidents during the audit period? How was it managed?	<ul style="list-style-type: none"> Customer complaint for hospital – email 16.7.2020. FY2021 Cherbourg Water Results.xlsx – Tab FY2021 Field Records. Water Supply Complaint Form.doc. 	<ul style="list-style-type: none"> This question is similar to the question earlier on internal reporting where a minor non-conformance was raised, The discussion below concerns responses to customer complaints and are subtly different to internal responses, There was a complaint made by the hospital: <ul style="list-style-type: none"> There is a sample location inside a kitchen and had dirty water, The results for the customer taps could not be found for this complaint. Verbal advice was that the sample was tested for pH, turbidity, total and free chlorine. No written actions were recorded by CASC, An email was viewed that discussed with the water sampler that the water looked ok however no test was undertaken to confirm that the water was ok. There was no instruction for the turbid water to be flushed either to the complainant or any water operations crew, There was no follow-up email to the complainant, 	Minor	<ul style="list-style-type: none"> Find the hospital testing records for the dirty water complaint, and if they exist, add the results to the spreadsheet "FY2021 Field Records tab in FY2021 Cherbourg Water Results.xlsx. Create a water quality complaints register, Commence using the existing water quality complaint form, Create a procedure to ensure that water quality complaints are investigated and managed

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
			<ul style="list-style-type: none"> ○ Darren looking for the lab results but was not able to find any at the time, ▪ The auditee was not aware of a records management system nor the requirement for QLD local governments by law, ▪ A water quality complaint form exists but no examples of it ever being filled out. 		consistently and closed out appropriately. <ul style="list-style-type: none"> ▪ Investigate if the council has a records management system and if so, commence using it to ensure the water quality complaints can be tracked.
	Incident Reporting: How have incidents been reported to the regulator? If no examples, how would this be done (e.g. flowchart, escalation reporting protocol, names and phone numbers)? What is sent to QLD Health? What is sent to the public?	Nil.	<ul style="list-style-type: none"> ▪ A non-compliance was raised under internal reporting earlier and has not been repeated here. 	combined with another observation	
	Incident Training: Have you practised mock incidents during the audit period?	Nil.	<ul style="list-style-type: none"> ▪ No, the client advised that this has not been done for water treatment. 	OFI	<ul style="list-style-type: none"> ▪ Perform a mock incident scenario for a high raw turbidity event, to inform operations staff of the water treatment modification required, ▪ Determine plant derating tables for typical historical events, and keeping historical records for reference purposes to enable the operators to respond quickly to these events.
Implementation of the operational and verification monitoring programs as described in the plan	SCADA Set Points: What are the SCADA system process control set points during the audit, how do they compare to the DWQMP, and how are they modified and controlled? I.e. Are SCADA set	<ul style="list-style-type: none"> ▪ Site Visit. 	<ul style="list-style-type: none"> ▪ It is understood from verbal advice, that this is currently being installed with the upgrades. 	OFI	<ul style="list-style-type: none"> ▪ Ensure that operational setpoints, particularly raw and treated turbidity and chlorine residual are implemented as part of the WTP upgrade project. ▪ Ensure that operational setpoints are monitored daily and added to the proposed

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	points entered correctly into the system and match the monitoring plan? Check Turbidity, Cl ₂ , and pH. Record real-time and last 6 months of data.				operational monitoring spreadsheet.
	Reagent Management: How are chemicals, standards and reagents stored and maintained to ensure their quality and efficacy? Consider both treatment chemicals that are added to the water and laboratory chemicals used for monitoring purposes (Potentially visit the Depot Store).	<ul style="list-style-type: none"> Laboratory visit. 	<ul style="list-style-type: none"> The auditor inspected the laboratory and cited the following: <ul style="list-style-type: none"> The lab chemicals are stored in an air-conditioned room and were in date. 	Comp	
	Instrument Management Program: Are instruments adequately housed? Are they identified for QA control - calibration?	<ul style="list-style-type: none"> Site visit. 	<ul style="list-style-type: none"> This is done using pH tablets, A pH probe instrument was cited at the WTP but appeared to not have been used for some time, Non-compliances were already been raised for operational monitoring. Here an OFI is recommended. 	OFI	Create a list of instruments required for operational monitoring and ensure these instruments are looked after.
	Instrument Calibration: Can you show me the calibration records for a meter (look for compliance frequency)?	<ul style="list-style-type: none"> Verbal – nil. 	<ul style="list-style-type: none"> As above. 	OFI	Commence an internal calibration program of all instrumentation.
	Instrument Servicing: Are there independent checks	<ul style="list-style-type: none"> Verbal - nil 	<ul style="list-style-type: none"> As above. 	OFI	Commence an external calibration program of all instrumentation.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	undertaken by a laboratory?				
	Fluoridation Plant: Check for a fluoridation plant - if relevant, check for calibration and if QLD Health has also done an audit within the past year.	<ul style="list-style-type: none"> Nil. 	<ul style="list-style-type: none"> There is a fluoridation plant on site however this has been decommissioned. 	Not Applic	
Implementation of the risk management improvement program as described in the plan.	RMIP Implementation: Can you show me evidence where you have implemented the actions from the RMIP that are required to be completed by now?	<ul style="list-style-type: none"> Head office, Site visit. 	<ul style="list-style-type: none"> Numerous actions are identified in the latest plan. These were checked for completion. This was discussed earlier and a recommendation was made. 	combined with another observation	
Maintaining records using the information management systems as described in the plan	Record Maintenance: How are records stored and reported as they relate to water quality operational monitoring?	<ul style="list-style-type: none"> Spreadsheets cited earlier, Site visit. 	<ul style="list-style-type: none"> There is a checklist for the WTP O&M manual, There was not a spreadsheet to record daily operational monitoring information. A recommendation has been made under SCADA monitoring. 	combined with another observation	
Undertaking regular reviews at the frequency specified in the approval notice.	Regular Reviews: What reviews have occurred since the plan approval?	<ul style="list-style-type: none"> DWQMP March 2017, DWQMP February 2018, DWQMP December 2019, Cherbourg_Risk_Register_Improvement_Plan-2019. 	<ul style="list-style-type: none"> The auditor viewed the revision history of the DWQMP and found that there were 3 revisions since 2017, The auditor specifically reviewed the 2019 version and is a significant improvement in risk identification. 	Comp	
Previous Audit findings	Addressing Previous Audit Findings: What were the previous findings, and have they been	<ul style="list-style-type: none"> Previous Audit Report, RMIP from the latest DWQMP. 	<p>Previous Audit Findings:</p> <ul style="list-style-type: none"> Part 1 - Verify Accuracy of Monitoring and Performance Data: <ul style="list-style-type: none"> Recommendations: REC-01 Ensure that the Annual Report includes: 	Not Applic – Status	<ul style="list-style-type: none"> Part 1 - Verify Accuracy of Monitoring and Performance Data: <ul style="list-style-type: none"> 1 of 1 recommendation closed.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
	placed into a revised RMIP for longer-term issues and/or addressed in another way that is suitable to the State Government?		<ul style="list-style-type: none"> ▪ The results of all of the verification sampling, including microbiological, chemical and physical parameters – Closed – <i>the 2018-2019 annual report included all parameters.</i> ▪ Accurate details of any non-compliance with the water quality criteria – Closed – <i>The 2018-2019 annual report did report incidents within the period.</i> ▪ The details of the monthly sampling for the correct time period i.e. the financial year rather than the calendar year – Closed – <i>The 2018-2019 annual report did report this.</i> ▪ An accurate account of the progress in implementing recommendations from audits – Closed – <i>The 2018-2019 annual report did report this.</i> ○ Opportunities for Improvement: Nil ▪ Part 2 - Assessment of Compliance with The Plan & Conditions: ○ Recommendations: <ul style="list-style-type: none"> ▪ REC-02 Establish mechanisms to ensure regulatory reporting requirements are complied with, including annual reporting and non-compliance with water quality criteria – <i>Open - not fully established at the time of the September 2020 external audit.</i> ▪ REC-03 Confirm that pre-chlorine dosing is undertaken – <i>Open – confirmed verbally, and there were no records to confirm that pre-chlorination is undertaken.</i> ▪ REC-04 Repair vermin proofing on the clear water tank – <i>Open – not properly undertaken,</i> ▪ REC-05 Secure the hatch on Burt Button Reservoir to prevent vandalism – <i>Open – the auditor was not able to confirm, however, this reservoir will be decommissioned as part of the upgrade project.</i> ▪ REC-06 Ensure that all incidents are managed in accordance with the DWQMP, including reporting, keeping records, resampling, investigations and corrective actions – <i>Open – incidents are not properly managed.</i> ▪ REC-07 Ensure the operational monitoring plan detailed in the DWQMP is implemented – <i>Open – operational monitoring is not properly managed.</i> ▪ REC-08 Provide training to all operational staff to ensure monitoring is undertaken consistently – <i>Open – underway,</i> ▪ REC-09 Provide the required monitoring instruments (turbidity meter) to enable the operational monitoring program to be implemented – <i>Open – a turbidity meter is in place but not effectively used or maintained,</i> 	Check	<ul style="list-style-type: none"> ○ There were no OFIs. ▪ Part 2 - Assessment of Compliance with The Plan & Conditions <ul style="list-style-type: none"> ○ 10 of 11 recommendations remain open. ○ 9 of 10 OFIs remain open. ▪ Part 3 - Assessment of Relevance of The Plan as it Currently Exists: <ul style="list-style-type: none"> ○ 6 of 6 recommendations remain open. ○ There were no OFIs.

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
			<ul style="list-style-type: none"> ▪ REC-10 Establish a calibration and maintenance program for monitoring equipment to ensure the results of monitoring are reliable. Keep records of calibration and maintenance of monitoring instruments – <i>Open – A calibration program has not been implemented,</i> ▪ REC-11 Establish processes to ensure that microbiological samples arrive at the laboratory within the required holding times. – <i>Closed – courier picks it up at 10 am, and samples are now collected at 8:30 am-9:00 am within 8 hours – a procedure exists on H Drive - on the spreadsheet – update procedure to include new photographs of bottles.</i> ○ Opportunities for Improvement: <ul style="list-style-type: none"> ▪ OFI-01 Develop a procedure to trigger the start-up of the PAC plant, when raw water quality changes – <i>Closed – PAC is not in use,</i> ▪ OFI-02 Establish record-keeping processes for mains flushing – <i>Open – a mains flushing program and register have not been implemented,</i> ▪ OFI-03 Consider developing a drinking water policy and including induction to the policy for all relevant staff – <i>Open – There is no policy,</i> ▪ OFI-04 Establish record-keeping and reporting processes for operational issues – <i>Open – Record keeping has not properly occurred,</i> ▪ OFI-05 Consider updating the hard copy and electronic record-keeping process to capture all of the necessary information to reflect the documented monitoring plan – <i>Open – this has not occurred,</i> ▪ OFI-06 Consider using a process to progress and track improvement items, for example in WRIKE – <i>Open – this has not occurred,</i> ▪ OFI-07 Include corrective actions identified through incidents, reviews, audits and other pathways on the improvement plan – <i>Open – this has not occurred,</i> ▪ OFI-08 Regularly review the collection of records to ensure all necessary records are kept – <i>Open – this has not occurred,</i> ▪ OFI-09 Confirm that the event register is established and is being used for all failures, including at the WTP – <i>Open – this has not occurred,</i> ▪ OFI-10 Establish procedures for undertaking a regular review in accordance with the regulator's audit and review guidelines and 		

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
			<p>keep records of reviews, for example in a review report – <i>Open – this has not occurred.</i></p> <p>▪ Part 3 - Assessment of Relevance of The Plan as it Currently Exists:</p> <ul style="list-style-type: none"> ○ Recommendations: <ul style="list-style-type: none"> ▪ REC-12 Establish appropriate process control plans (or equivalent procedure) for filtration that includes monitoring of filtered water turbidity, action limits that are consistent with the ADWG to trigger action in response to exceedance of the limit and suitable corrective actions to prevent the supply of potentially unsafe drinking water – <i>Open – this has not occurred.</i> ▪ REC-13 – Calculate the C.t. currently achieved by the CASC system to confirm that the system is capable of achieving primary disinfection based on the current free chlorine limits in the PCP, otherwise revise the limits to reflect the minimum free chlorine residual required at the outlet of the clear water tank. – <i>Open – this has not occurred. The upgrade will move the probe to a lower level, and the tank to be decommissioned.</i> ▪ REC-14 Identify appropriate record-keeping processes in the DWQMP that capture the results of operational monitoring and any actions taken in response to a deviation from limits – <i>Open – this has not occurred.</i> ▪ REC-15 Identify appropriate reporting mechanisms in the DWQMP to notify managers and supervisors of treatment failures and deviation from limit – <i>Open – this has not occurred.</i> ▪ REC-16 Establish procedures to review operational monitoring results to confirm that all operational monitoring is undertaken in accordance with the DWQMP and records are consistently kept – <i>Open – this has not occurred.</i> ▪ REC-17 Establish procedures and schedules for regular reservoirs inspections that identify the aspects to be inspected, criteria for acceptance/corrective action, record keeping and reporting processes – <i>Open – this has not occurred.</i> ○ Opportunities for Improvement: <ul style="list-style-type: none"> ▪ Nil 		
PART 3 - ASSESSMENT OF RELEVANCE OF THE PLAN AS IT CURRENTLY EXISTS					
Assessing whether the service description and details of	Changes: What has changed since the DWQMP was approved by the regulator? These	Site visit.	<ul style="list-style-type: none"> ▪ A WTP upgrade currently underway and there are numerous changes to the plant, ▪ The intake and rising main have only just been replaced, ▪ Jar testing has stopped and has been recorded earlier for action. 	Comp	

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
infrastructure in the plan reflect the current circumstances for each scheme	changes may include personnel, procedures, documents, records, responsibilities, environment, infrastructure, regulations, legislation, guidelines or organisational structure and contractors.				
	Plan Accuracy: How does the infrastructure in the field compare to the DWQMP description? Field inspect random samples from the catchment, source, treatment and network for the selected system and compare to the DWQMP description.	<ul style="list-style-type: none"> Site inspection. 	<ul style="list-style-type: none"> The DWQMP states that 4 verification monitoring sites are undertaken however 5 are undertaken, Inspection showed that the infrastructure generally matches the description although an upgrade is underway, Catchment characteristics and water quality information in the DWQMP reflect the current circumstances for each scheme. 	OFI	The DWQMP needs to be updated to state that there are 5 instead of 4 verification monitoring sites.
Confirming the information in the plan used to identify hazards and hazardous events reflect the current circumstances for each scheme (including catchment characteristics, water quality information and infrastructure)	Risk Management Updates: How has the risk assessment and DWQMP been updated to reflect those changes? How are improvement needs identified and how are improvements made and managed? How have such changes been reported to the regulator?	<ul style="list-style-type: none"> Cherbourg Risk Register Improvement Plan- 2019.pdf. Annual report on web site. 	<ul style="list-style-type: none"> A risk management plan currently does exist although it was hard to find in council's system. The client did not know this separate document existed as it is separate from the main DWQMP. It is recommended that the risk assessment be included as part of the main document. It specifically needs to be updated to include the missing raw water information, The risk assessment was updated as part of the December 2019 DWQMP update, The DWQMP mentions exceedances in raw water testing for SWA, heavy metals, Blue-Green Algae, and pesticides, however, these are not included in the risk assessment nor have they been included in the verification monitoring program, A discussion occurred with THM formation. The auditor suggested that CASC investigate Chlorine Dioxide as an alternative to Chlorine or Hypochlorite for THMs. 	Minor	<ul style="list-style-type: none"> The DWQMP mentions exceedances in raw water testing for SWA, heavy metals, Blue-Green Algae, and pesticides, however, these are included in the risk assessment as low to medium risks, and should be higher. They also have not been included in the verification monitoring program. It is recommended that these hazards be adjusted in the risk assessment and included the verification program. Chlorine Gas is proposed for the WTP to replace the Hypochlorite tank. It is suggested that CASC

Criteria	Sub-Area Questions	Evidence	Findings and Discussions	Grade	Recommendation / OFI
					investigate Chlorine Dioxide as an alternative to Chlorine or Hypochlorite for THMs.
	Significant Risk Issues: Subject to the above question, if there are differences, are there any significant risk issues? When was this last reviewed?	<ul style="list-style-type: none"> As above. 	<ul style="list-style-type: none"> See above – non-compliance given above. 	combined with another observation	

Generic Evidence Reference List

DWQMP

DWQMP-annual report 2017-2018

DWQMP-annual report 2018-2019

DWQMP-annual report 2019-2020

Plan approval notice or amended approval if relevant

Procedures:**Work Instructions:****Audit Grades**

Compliance Code		Description
Compliant	Compliant	Sufficient evidence to confirm that the agency has undertaken, prepared and/or implemented all actions in accordance with the legislation and their risk management plan.
Compliant with Opportunity for Improvement	OFI	As above, but the auditor's report has identified opportunities for improvement.
Minor Non-Compliant	Minor	Non-compliance, where there is a low potential for a risk situation and the potential impact of the non-compliance, is not likely to be a serious or imminent risk to public health or compromise public health.
Major Non-Compliant	Major	Non-compliance where there is a high potential for a risk situation, likely to compromise public health if the non-compliance is not rectified.
Critical Non-Compliant	Critical	Non-compliance where a serious or imminent risk to public health is identified.

Appendix E – Auditor and Auditee Statutory Declarations

STATUTORY DECLARATION - AUDITOR

NWM-Tem109 DWQMP Audit - Statutory Declaration - Auditor Revision 1



Project 2020-0006 WBBROC DWQMP Regulatory Audits
Subject Drinking Water Quality Management Plan
Client Cherbourg Aboriginal Shire Council

Commonwealth of Australia
STATUTORY DECLARATION
Statutory Declarations Act 1959

I, **Jeffrey Reid Ballard** of 8 Grande Parade, DOUGLAS, QLD, 4814, Water Engineer, make the following declaration under the Statutory Declarations Act 1959:

I am **certified under the Water Quality Management Systems Auditor Certification Scheme**.

1. To the best of my knowledge, information and belief, I have not knowingly included any false, misleading or incomplete information in the report, nor knowingly failed to reveal any relevant information or document to the regulator;
2. I certify that the report addresses the relevant matters for evaluation and is factually correct and that the opinions expressed in the report are honestly and reasonably held.

I understand that a person who intentionally makes a false statement in a statutory declaration is guilty of an offence under section 11 of the Statutory Declarations Act 1959, and I believe that the statements in this declaration are true in every particular.


Declarer Signature

jeffballard@northernwatermanagement.com.au
Declarer Email Address

0487 481 424
Declarer Telephone Number

Taken and declared at

Douglas, Townsville
Town or city and suburb

on 06 of November 2020
Date

before me,



Signature of person before whom the declaration is made

Melissa Janelle Ballard

Witness Full Name

Bachelor of Education – Teacher currently
employed on a permanent full-time basis at Ryan
Catholic College, Townsville, QCT No. 785329
Witness Qualification

8 Grande Parade, DOUGLAS, QLD, 4814
Address of person before whom the declaration is made

Melissaballard1912@gmail.com
Witness Email Address

0417 617 857
Witness Telephone Number

STATUTORY DECLARATION - AUDITEE

NWM-Tem110 DWQMP Audit - Statutory Declaration - Auditee Revision 0

Project 2020-0006 WBBROC DWQMP Regulatory Audits
Subject Drinking Water Quality Management Plan
Client Cherbourg Aboriginal Shire Council

**Oaths Act 1867
Statutory Declaration**QUEENSLAND TO
WIT

I, Darren Lonergan of 22 Barambah Ave, Cherbourg, 4605
name of the person making the declaration on behalf of the provider Address

in the State of Queensland do solemnly and sincerely declare that:

I am the Operations Manager of Cherbourg Aboriginal Shire Council 17 862 722 505
position title of person authorised to sign this declaration on behalf of the provider Provider ABN

Through the course of the regular audit of the drinking water quality management plan by Jeffrey Reid Ballard for the audit period ending 2020
year of audit

, which has resulted in this regular audit report dated, 6 Nov., 2020
date

, that officers and employees of Cherbourg Aboriginal Shire Council
provider name

have not knowingly given any false or misleading information, and have given all relevant information to the auditor who conducted the regular audit of the plan mentioned above.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the Oaths Act 1867.

D Lonergan
Declarer Signature

Taken and declared at

Cherbourg
Town or city and suburb

this 12 November 2020, before me.
Date

D Gray
Witness Signature

Justice of the Peace / Commissioner for Declarations

