



Barcaldine Regional Council
Drinking Water Quality Management Plan Regular
Review 2019

Drinking Water Service Provider ID - 473

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GBA CONSULTING
ENGINEERS

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1. RATIONALE

The Department of Natural Resources Mines and Energy (DNRME) administers the drinking water provisions of Queensland's *Water Supply (Safety and Reliability) Act 2008* (the Act), which commenced on 1 July 2008. Under the act providers must carry out regular reviews of their Drinking Water Quality Management Plan (DWQMP). The requirement for Barcaldine Regional Council (BRC) is to submit a regular review to be issued by the 31st December 2019.

2. PURPOSE

The purpose of the review is to ensure the plan remains relevant, having regard to the current legislation, circumstances and operations of the water service. This review aims to determine if the plan is reflective of the current water schemes and is tailored towards ensuring optimised drinking water quality and avoids risks to public health.

3. REVIEW METHODOLOGY

The DWQMP review was conducted in November 2019. The DWQMP review process was conducted in collaboration between GBA staff, BRC management and operational staff. The collaboration process between GBA and BRC included a review of the DWQMP by both parties, discussing the issues or improvements to be implemented into the DWQMP as amendments.

The review format provided below in section 5 has been adapted from the departments DWQMP review and audit guidelines suggested review topics. These topics have been utilised to provide specific prompts to identify deficiencies in the DWQMP, responses to these prompts are provided in section 5 below.

4. AMENDMENTS TO DWQMP

In accordance with statutory requirements, amendments are required to be made to the DWMP where the review identifies outdated materials or the need for updating. As identified in the review checklist in section 5 below there has been minimal actions identified which are required to update the plan, as such a major amendment to the DWQMP will not be required. Given the recent amendment to the plan in 2018 it is not unexpected that the review has not identified any major amendments requiring immediate attention. Taking these findings into account BRC should not be required to submit an amendment application to the department based on the findings of this review.

5. REVIEW OUTCOMES

Areas to consider	Action required Yes/No	Identified Actions Required
5.1 Service Description		
Have any of the service provider contact details changed?	No	No, no action required.
Do the scheme details still apply?	No	No, no action required.
Have the number of communities serviced changed?	No	No, no action required.
Has the population size changed?	No	No, no action required.
Have the number of connections changed?	No	No, no action required.
Is the design capacity sufficient for population projections?	No	Yes, no action required.
5.2 Details of Infrastructure Used For Providing The Service		
Do the schematics accurately reflect all the components, processes and linkages, from catchment to consumer?	No	Yes, no action required.
Do any of the system description details require updating?	No	No, no action required.
Have new chemicals been introduced into the treatment process or the dosing points re-located?	No	No, no action required.
Have monitoring and telemetry systems been checked and/or changed?	Yes	Telemetry system in Alpha and Jericho has been assessed. The recommendation from the system specialist is to undertake upgrades of the system. These works have not been commissioned and are planned for 2020. Updates will be undertaken as required.
Have low pressure areas in the distribution system changed?	No	No, no action required.

Areas to consider	Action required Yes/No	Identified Actions Required
Has a reservoir undergone refurbishment?	No	Tendering for the scheduled maintenance of the Pomona Bore reservoir was developed in the reporting period. This maintenance includes the relining of the reservoir interior to maintain the integrity of the structure.
Have there been changes in the key stakeholders or engagement process?	No	No, no action required.
Have there been any problems with infrastructure or equipment breakdown or deterioration?	Yes	In accordance with the DWQMP RMIP the Aramac and Muttaborra water supply schemes require significant upgrades, major renewal works have been undertaken to replace water mains which had reached their useful life expectancy.
5.3 Information Gathering on Water Quality and Catchment Characteristics		
Water quality data should be collated, analysed and trended, including for source water, treatment process steps and distribution.	No	Water data has been well maintained. Staff utilisation of SWIM water system has provided a central point of access and data management.
Have there been changes to the source water quality or characteristics?	No	No, no action required.
Have there been any changes to the output quality?	No	No, no action required.
Does water quality data indicate that the level of risk has changed for certain hazards?	No	No, no action required.
Has operational monitoring data identified any poorly functioning treatment processes?	No	No, no action required.
Has there been any significant development or land use changes in the catchment?	No	No, no action required.
Has the nature or frequency of any water quality complaints changed?	No	Complaint data is consistent with recent previous year's data.

Areas to consider	Action required Yes/No	Identified Actions Required
Has there been any occurrence of suspected illness following a customer complaint about water quality?	No	No, no action required.
5.4 Hazard Identification		
Have the personnel (position) responsible for hazard identification and risk assessment changed?	No	No, no action required.
Have any new or emerging hazards or hazardous events been identified?	No	No, no action required.
5.5 Assessment of Risks		
Is the risk assessment methodology still considered appropriate?	No	No, no action required.
Have new risk management strategies been implemented?	No	No, no action required.
Do any new risk management strategies require new assessment of residual risk?	No	No, no action required.
Has an acceptable, residual risk level been clearly defined?	No	No, no action required.
5.6 Risk Management Measures		
Have the existing risk management strategies achieved desired water quality outcomes?	No	Water quality for BRC's water supply schemes have remained stable.
Has the effectiveness of any new risk management strategies or infrastructure upgrades been evaluated?	No	No, No action required.

Areas to consider	Action required Yes/No	Identified Actions Required
5.7 Operation and Maintenance Procedures		
Do the procedures and practices reflect current operations?	No	Yes, procedures were updated in 2018/19.
Is there a need to create new operation and maintenance procedures?	No	No, procedures were updated in 2018/19.
Have records related to associated procedures been kept?	No	Yes, no action required.
Have training records been maintained?	No	Yes, no action required.
Is training appropriate to the system, as it currently exists?	No	Yes, council has recently trained water operators in certificate 3 in water industry operations. Council currently have 3 licensed plumbers employed.
5.8 Management of Incidents and Emergencies		
Is the process for managing drinking water incidents and emergencies still appropriate for the drinking water service?	No	Yes, no action required.
Do internal and external communication process and protocols work effectively?	No	Yes, no action required.
Is the list of people to be contacted during emergencies up to date?	Yes	OWSR incident contact number listed in DWQMP is incorrect and requires updating.
Is staff training for incidents and emergencies up to date?	No	Staff are aware of incident and emergency protocols.
Have incident and excursion records identified changes in risks and hazards?	No	No, no action required.

Areas to consider	Action required Yes/No	Identified Actions Required
5.9 Risk Management Improvement Program (RMIP)		
Were actions in the program completed in the timeframe outlined in the RMIP?	Yes	All schemes required operations and maintenance procedures to be updated, these have been completed for all schemes in early 2019. Significant mains upgrades have occurred where ageing mains required replacement in Aramac and Muttaborra. Outstanding actions include the sealing of old bores in Alpha which requires actioning.
Did the program outlined in the DWQMP achieve the intended outcomes?	No	The program has resulted in significant improvements within the schemes, notably the replacement of a significant length of mains in Aramac and Muttaborra, resulting in a significant reduction of risk of supply failure to a lesser extent associated health risk.
Does the program require updating to manage risks effectively, including measures for newly identified risks?	No	The current RMIP is relatively recent, approved in 2018, the improvement items remain relevant.
Are all unacceptable risks included in the RMIP and do all of these risks have a remedial action item and completion date?	No	RMIP remains relevant to schemes.
5.10 Service-Wide Support Information Management		
Are staff using current versions of documents?	No	Yes, no action required.
Are the information management, record keeping and reporting processes being used appropriately?	No	BRC has utilised the SWIM reporting program to record and maintain information. The information management systems in place are working well.

Areas to consider	Action required Yes/No	Identified Actions Required
5.11 Operational Monitoring		
Have changes to the infrastructure or process resulted in a need to revise the monitoring program?	No	No, no action required.
Are the range and frequency of parameters being tested appropriate?	No	Yes, operational monitoring program has only recently been developed.
Are the established corrective actions and controls actively applied in the DWQMP still appropriate?	No	The corrective actions applied to the operational monitoring parameters remain relevant.
Have monitoring records been maintained?	No	Water quality data is saved on the council server once received by the town water operator.
Are monitoring equipment being calibrated?	No	Yes, no action required.
5.12 Verification Monitoring		
Have changes to the infrastructure resulted in a need to revise the monitoring program?	No	No, there is no new infrastructure which impacts on the current monitoring program.
Are the range and frequency of parameters being tested appropriate?	No	Yes, the verification monitoring program has only recently been developed and remains relevant to the schemes.
Are the established corrective actions and regulator notifications actively applied as described in the DWQMP?	No	Yes, no action required.
Are the corrective actions and notifications still appropriate?	No	Yes, no action required.
Have monitoring records been maintained?	No	Water quality data is maintained on the SWIM system, which is maintained in a routine fashion.

Areas to consider	Action required Yes/No	Identified Actions Required
Have ADWG health guideline values changed for any parameters?	No	No, no action required.
Have the arrangements for monitoring, transport arrangement for off-site analysis, or testing laboratory changed?	No	No, contracted suppliers remain unchanged.
5.13 Other Areas to Consider		
Have there been any changes in regulations, legislation or formal requirements?	No	None that impact on DWQMP content.
Have there been organisational structure changes that may impact on risk management?	No	None that impact on risk management.
Are critical personnel appropriately qualified or require additional training?	No	Training of staff is ongoing in accordance with councils HR policies, A recent training program has provided operational staff with a Certificate III in Water Industry Operations.
Do the audit outcomes recommend changes to the DWQMP or related processes?	Yes	Audit outcomes were incorporated into the DWQMP amendment approved in 2018.

6. FINDINGS

The review of BRC's DWQMP has identified that the Plan being amended in 2018 remains relevant to the schemes with minimal changes required. Taking into consideration the recent amendment to the plan and that the review has not identified any significant updates required, it has been identified that an amendment application to the department should not be required as a result of this review.