



# **Drinking Water Quality Management Plan Report**

Hope Vale Aboriginal Shire Council

SPID: 513

2017-2018 Financial Year

This report has been prepared in accordance with the Drinking Water Quality Management Plan Report Guidance Note.

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# 1 Introduction

This is the Drinking Water Quality Management Plan (DWQMP) report for Hope Vale Aboriginal Shire Council (HVASC) for the financial year 2017–18.

HVASC is a registered service provider with identification (SPID) number 513. HVASC is operating under an approved DWQMP to ensure consistent supply of safe quality drinking water in order to protect public health. This is done through proactive identification and minimisation of public health related risks associated with drinking water.

This DWQMP report includes:

- the activities undertaken over the financial year in operating our drinking water service
- drinking water quality summary
- summary of our performance in implementing our approved DWQMP

This report is submitted to the Regulator to fulfil our regulatory requirement, and is also made available to our customers through our website or for inspection upon request at council office.

## 2 Summary of scheme/s operated

*Table 1 – Summary of schemes*

<i>Scheme</i>	<i>Water Source</i>	<i>Treatment processes</i>	<i>Treatment capacity</i>	<i>Towns supplied</i>
Hope Vale Water Supply	Old Town Bore Field - Bores 4,6 & 8	Chlorination	0.75 ML/day approx.	Hope Vale Township
Hope Vale Water Supply	Eastern Bore Field Bores - GA1, GA2, PB1, PB6	Aeration and Chlorination	1.9 ML/day	Hope Vale Township

### **3 DWQMP implementation**

The actions undertaken to implement the DWQMP are summarised below.

HVASC water and sewerage staff meet every morning to discuss essential service delivery issues, review SCADA trends, and allocated maintenance and repair tasks. The Water and Wastewater Manager takes this opportunity to provide updates and reviews on scheduled monthly/quarterly water analysis results and pending sample collection and shipment dates/timelines in accordance with the DWQMP.

During the reporting period, an Environmental Health Officer from the Queensland Tropical Public Health Services regular stayed on site with the Water and Wastewater Operations team to assist them with daily water operations and provide training support.

The Verification monitoring used by Hope Vale Aboriginal Shire Council is to confirm that safe drinking water is delivered to customers and consumers in compliance with the Australian Drinking Water Guidelines and the Public Health Act. The verification monitoring also verifies that preventative measures stated in the Hope Vale Aboriginal Shire Council's Drinking Water Quality Management Plan are functioning effectively. The drinking water supply verification process includes, daily free chlorine testing at four sites in and around the community, weekly potable water sampling at four sites for bacteria analysis and quarterly treated water sampling at four sites for full analysis at the Cairns Water Laboratory.

The actions undertaken to implement the risk management improvement program are discussed in Table 2.

**Table 2 – Risk management improvement program implementation status**

Scheme name	Ref	Component	Improvement actions	Target date	Actions taken to date	Status and revised target date	Responsible Officer / Position
Hope Vale Water Supply	DI01	Disinfection	Chlorine Overdose - Develop Chlorine Dosing SOPs	December 2017	SOPs developed: <ul style="list-style-type: none"> <li>• Calibration of chlorine analyser</li> <li>• Bleeding of Chlorine Pumps</li> <li>• Filling procedure of chlorine dosing tanks</li> </ul>	Completed	
Hope Vale Water Supply	WS01	Whole of Service	Emergency Situation Communication - Develop Boil Water Notice Proforma and Procedure	December 2017	Proforma and Procedure developed	Completed	
Hope Vale Water Supply	TR01	Treatment	Develop Iron Aerator plant cleaning procedure	December 2017	Complete cleaning procedure	Procedures have been prepared - to be finally documented by Jan 2019	Tom Jones/Water and Wastewater Manager
Hope Vale Water Supply	CA01	Catchment and Source	Turbidity - Implement the monitoring of turbidity at inlet to treatment plant		Currently being routinely undertaken	Completed	
Hope Vale Water Supply	TR02	Treatment	Optimal pH - Develop SOP	December 2017	Not required – no pH correction is not required for treatment as monitoring results confirm	Completed	
Hope Vale Water Supply	ST01	Storage	Storage and balance tank turbidity - Investigate cleaning program for reservoirs		Now routinely undertaken	Completed	

## 4 Verification monitoring - water quality information and summary

This section discusses the compliance with the water quality criteria.

**Table 3 – Drinking water quality performance - verification monitoring**

Scheme name	Parameter	No. of samples required to be collected (as per the approved DWQMP)	No. of samples actually collected and tested	Water quality criteria (i.e ADWG health guideline value)	No. of non compliant samples	Comments
Hope Vale Water Supply	E. Coli	Quarterly (at 4 sites)	16	< 1 CFU/100mL	0	Results from Cairns Regional Council Water Laboratory
Hope Vale Water Supply	Total Coliforms	Quarterly (at 4 sites)	16	<1 CFU/100mL	0	Results from Cairns Regional Council Water Laboratory
Hope Vale Water Supply	Heterotrophic Plate Counts	Quarterly (at 4 sites)	16	<10 CFU/mL	0	Results from Cairns Regional Council Water Laboratory
Hope Vale Water Supply	E. Coli	Weekly (at 4 sites)	208	0 MPN/100ml	0	Results from in-house lab sampling
Hope Vale Water Supply	Free Chlorine	Daily (at 4 sites)	1,595	>0.2 mg/L, <5mg/L	28	Results from in-house lab sampling. Some samples <0.2 mg/L but all were > 0.1 mg/L

**Table 4. E. coli compliance with annual value**

**Drinking water scheme:** Hope Vale Water Supply

Year	2017– 2018											
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	16	20	16	16	16	16	20	16	20	16	20	16
No. of samples collected in which E. coli is detected (i.e. a failure)	0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period	208	208	208	208	208	208	208	208	208	208	208	208
No. of failures for previous 12 month period	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Compliance with 98% annual value	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES



## 5 Incidents reported to the regulator

The incidents reported to the regulator and management actions undertaken over the financial year are provided in this section.

**Table 5 – Incidents reported to the regulator**

Incident date	Scheme / location	Parameter / issue	Preventive actions
Nil incidents 2017/2018			



## 7 DWQMP review outcomes

A summary of the outcomes of the review and how issues/changes raised in the review, were actioned is provided in this section.

A review of the 2013 DWQMP was undertaken as suggested in the March 2017 audit. An update of the DWQMP was completed to better reflect the current Hope Vale water supply system and the corresponding operations as a result of this review.

**Table 7 – DWQMP review outcomes**

**Review Date: 02/09/17**

Review component	Findings	Outcomes	Status of actions	Responsible Officer / Position
Service description	Need to update description of current system	Service description and general background information updated in DWQMP	Completed in 2018 DWQMP	Water and Sewerage Manager
Details of infrastructure	Need to remove soda ash dosing from system details	DWQMP infrastructure details updated	Completed in 2018 DWQMP	Water and Sewerage Manager
Water quality and catchment characteristics	No changes required	Not applicable	Not applicable	Water and Sewerage Manager
Risk assessment	Need to review the risk assessment considering the current operating environment	DWQMP Risk Assessment updated to reflect current environment	Completed in 2018 DWQMP	Water and Sewerage Manager
Operations and maintenance procedures	Suggestion to install chlorine analyser and link to SCADA to improve monitoring	Analysers have been installed	Installed 2018	Water and Sewerage Manager
Management of incidents and emergencies	Need to update boil water alert procedure and proforma	Procedure and proforma developed	completed	Water and Sewerage Manager
Risk management improvement program	A number of improvement actions have been implemented	Improvements included in DQWMP and older completed improvements have been deleted	ongoing	Water and Sewerage Manager

<b>Review component</b>	<b>Findings</b>	<b>Outcomes</b>	<b>Status of actions</b>	<b>Responsible Officer / Position</b>
Service wide information management	No changes	Not applicable	Not applicable	Water and Sewerage Manager
Operational monitoring	Need to review plans, parameters, locations, testing method, frequency and target/limits	DWQMP monitoring plans updated to reflect new requirements	Completed in 2018 DWQMP	Water and Sewerage Manager
Verification monitoring	Need to improve accuracy of data to the Regulator	Update data collection proformas and reports	Completed in 2018 DWQMP	Water and Sewerage Manager

## **8 DWQMP audit findings**

No audits were undertaken during the reporting period 2017/2018. Audit findings of 2016/2017 were actioned and incorporated into the updated 2018 DWQMP which has been approved by the Water Supply Regulator.

This report is based on the approved 2018 DWQMP

The actions undertaken to address the audit recommendations are outlined in Table 8.

**Table 8 – DWQMP audit findings and status**

Item	Recommendation or OFI	Action	Status of actions	Responsible Officer / Position
Nil actions required 2017/2018				