

Drinking Water Quality Management Plan Report

Mornington Shire Council

SPID: 515

2018-2019

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 report for Mornington Shire Council for the financial year 2018-19.

Mornington Shire Council is a registered service provider with identification {SPID} number 515. Mornington Shire Council 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 risk associated with drinking water.

This DWQMP report includes:

- The activities undertaken over 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 office

2 Summary of scheme/s operated

Gununa draws its water from Dithery Creek Dam which is located north of the community. The dam has a storage capacity of 846mL when at 100% full. The raw water is pumped from the dam by three submersible pumps. Two pumps are call upon and one is on stand by.

The raw water is generally clear for most of the year however the raw water turbidity increases significantly during heavy rainfall events due to surface run off. Turbidity is normally 1 and can get as high as 10. This raises significant concerns about the efficiency of chlorine as a disinfectant. During these times of high turbidity, chlorine dosing is higher and the flushing of the mains are doubled from one to twice a week.

At the WTP sodium hydroxide is used to adjust the pH as the raw water from Dithery Creek Dam has a pH of 5.8 to 6.1. The aim is to adjust the pH between 6.8 to 7.2. Chlorine is also being used as a disinfectant before the reticulation. Treated water is pumped to two 1.7mL clearwater reservoirs. Treated water is pumped into the community by four inline constant pressure pumps.

Table 1 – Summary of schemes

	<i>Water Source</i>	<i>Treatment processes</i>	<i>Treatment capacity</i>	<i>Towns supplied</i>
Gununa	Dithery Dam	Chlorination, Ph. correction	1 ML/day	Gununa

3. DWQMP implementation

The actions undertaken to implement the DWQMP are summarised below.

In October 2018 a DWQMP regular audit report was carried out by Karen Pither from Viridis Consultants.

The scope of the audit included site inspections of the raw water intake, the water treatment plant and verification monitoring points. (*Refer to audit findings*).

Currently Mornington Shire Council has a monthly meeting with council staff in the sewerage and water department to discuss any water and sewer issues. This provided the opportunity to refer to the approved DWQMP and emphasise the importance of using the plan. Including record keeping in all areas of the WTP.

During the reporting period Council has had new staff recruited, and these new staff will be may aware of the approved DWQMP. Training will be implemented on all process of the water and sewerage operations.

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
Gununa	WT1	Whole of Scheme	Operators to be trained And hold an appropriate Water operators certificate	2019	Operators will be enrolled to under-Take it as priority next available Course 2019	In progress Jan 2019	Human Resource Manage
Gununa	WT2	Whole of Scheme	Developed robust Record Keeping Procedures	Dec.2019	Operators to undertake training in Record keeping procedures	In progress Dec 2019	Operations Supervisor
Gununa	WT3	Treatment	Training in SCADA for adjustments and alarms	Dec.2019	SCADA alarm awareness and Required response times.	In progress Dec.2019	Operations Supervisor
Gununa	WT4	Whole of Scheme	Developed formal procedures for all other aspects of water operations	Dec. 2019	Available for all staff necessary to carry out operations	In progress Dec. 2019	Operations Supervisor

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
Gununa	E.coli	235	235	<cfu/ 100ml	0	N/A
Gununa	Chlorine	248	248	..02-4.5 mg/l	0	
Gununa	pH	248	248	5.7-7.2	0	
Gununa	Turbidy	248	248	1.2 - <1	0	

Table 4. E. coli compliance with annual value

Drinking water scheme: Gununa

Year	2018 – 2019											
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	20	25	20	20	25	15	25	20	20	20	25	20
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	255	255	255	255	255	255	260	260	255	255	255	20
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
NONE	NONE	NONE	NONE

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.

Table 7 – DWQMP review outcomes

Review Date: DD/MM/YY

Review component	Findings	Outcomes	Status of actions	Responsible Officer / Position
Service description	No changes	N/A	N/A	-
Details of infrastructure				
Water quality and catchment characteristics	No changes in catchment	N/A	N/A	-
Risk assessment	Updating	Updating	Schedule revised	Risk management team
Operations and maintenance procedures	Record keeping needs updating	Maintenance schedule updating	Maintenance schedule has been revised	Water & Sewerage Officer
Management of incidents and emergencies	No changes	N/A	N/A	
Risk management improvement program	Implementing improvements	Risk management improvement to be revised	A workshop review of improvements	Water & Sewerage Officer
Service wide information management	No changes	N/A	N/A	
Operational monitoring	Record keeping update	Operational monitoring		Water & Sewerage Officer
Verification monitoring	As above	Program to be advised	Operational monitoring program in progress (ongoing)	

8 DWQMP audit findings

The audit findings and any recommendations and/or opportunities for improvement (OFI), including how these were actioned are discussed below.

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
Raw water turbidity	Trail measure to reduce silt run off	A geotextile battle put in place	Trial still in place	Treatment plant operator
Suitable instruments and portable turbidity meter	Turbidity monitoring	Purchased high quality portable turbidity meter	Completed operational monitoring	Treatment plant operator
Chlorine gas cylinders	Secured at all times	Secured on metal pallet for easy pick up	Completed	Treatment plant operator
Chlorine gas cylinder storage	Storage of full & empty	Constructed lean to	Completed	Treatment plant operator
Verification of monitoring	Improve record keeping process	MSC offices preparing annual reports to ensure information is provided in the reports	Ongoing training and have administrative support	Treatment plant operator