



Winton Shire Council

LEGENDARY SAFE SCENIC

Drinking Water Quality Management Plan Report WINTON SHIRE COUNCIL

SPID: 131

2023-24

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1. Introduction

This is the Drinking Water Quality Management Plan (DWQMP) report for Winton Shire Council (WSC) for the financial year 2023-24.

During 2023-24 Winton Shire Council commenced updating the DWQMP to incorporate a comprehensive risk assessment and increased testing regime.

WSC is a registered service provider with identification (SPID) number 131. WSC 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

	Water Source	Treatment processes	Treatment capacity	Towns supplied
Winton	Bore 4	Heat reduction only	2ML/day	Winton

3. DWQMP implementation

The DWQMP for Winton has ensured the consistent delivery of potable standard water for the Town of Winton. The DWQMP for Winton has reviewed each element of the supply chain in the drinking water system and assigned an acceptable outcome for each part of the supply chain:

- Bore Infrastructure including pipeline up to pump station
- Pump station infrastructure including heat exchange, hot water and cold-water pump system
- Reticulation network
- Reservoir

Water (and sewerage) issues are discussed at monthly meetings of the works department chaired by the Director of Works.

During 2023-24 Winton Shire Council incorporated the results of a microbial risk assessment into the DWQMP. This risk assessment covered a range of hazards and potential sources for hazard of which Council has addressed through a range of remedial actions.

Operational Monitoring

The system is checked daily with the Water and Sewer department visually inspecting each of the elements daily.

- The Bore Infrastructure
- The Pump Station
- The Reticulation Network
- The Reservoir

Verification of System

The verification of system performance can be determined by checking each element.

- The bore infrastructure flow rate is checked
- The pump station performance is checked with water temperature and flow rates monitored
- The reticulation network is monitored with scour valves throughout the network periodically checked/opened
- The reservoir is brought on and offline during the day when balancing flows
- The integrity of the reticulation network to maintain water quality is checked by the routine sampling and testing of water from the network on various nodes of the network

Progress in implementing the risk management improvement program.

*Refer to table 2 for a summary of progress in implementing each of the Improvement Program actions.

Table 2 – Risk management improvement program implementation status

Ref	Component	Improvement actions	Target date	Actions taken to date	Status and revised target date	Responsible Officer / Position
W1, W2, W3	Borehead – Any Pathogens	Increased inhouse testing	2023/24	Weekly in-house testing has been challenging due to staff shortages	Procedural document has been completed and implemented for use.	DoW / Asset Manager / Water Technical Officer
		Increased testing - HPC	From July 2023	Initial testing done. Testing has been completed quarterly and will continue to aim for continuous quarterly testing.	Testing incorporated into DWQMP from July 2023. Will continue to aim for quarterly testing periods.	DoW / Asset Manager / Water Technical Officer
		Increased testing - Legionella, pseudomonas spp., salmonella, campylobacter	From July 2023	Initial testing done in 2024. First set of Quarterly testing was completed September 2024.	Testing incorporated into DWQMP from July 2023. Will continue to aim for quarterly testing periods.	DoW / Asset Manager / Water Technical Officer
		Maintaining temperature to achieve pasteurisation	2022/23	Process in place to clean HEX units ensuring temperature is maintained.	Procedural document has been completed and implemented for use.	DoW / Asset Manager / Water Technical Officer
W4, W5, W6, W7, W8	Reservoir – Any Pathogens	Increased inhouse testing	2023/24	Weekly in-house testing has been challenging due to staff shortages	Procedural document has been completed and implemented for use.	DoW / Asset Manager / Water Technical Officer
		Increased testing - HPC	From July 2023	Initial testing done	Testing incorporated into DWQMP from July 2023. Will continue to aim for quarterly testing periods.	DoW / Asset Manager / Water Technical Officer
		Increased testing - Legionella, pseudomonas spp., salmonella, campylobacter	From July 2023	Initial testing done in 2024. First set of Quarterly testing was completed September 2024.	Testing incorporated into DWQMP from July 2023. Will continue to aim for quarterly testing periods.	DoW / Asset Manager / Water Technical Officer
		Tower overflowing – prevent stagnation	From July 2023	Monthly flushing of water tower to remove stagnation	Procedural document has been completed and implemented for use.	DoW / Asset Manager / Water Technical Officer

		Tower cleaning	2023/24	Next clean scheduled December 2023.	Process in place through RAPAD to clean towners every 5 years.	DoW / Asset Manager / Water Technical Officer
		Ingress of pathogens (vent and hatch)	2023/24	Additional repair works on the hatch and the vent has been completed	Council budgeting 24'25 for additional works to the tower and investigate lining – likely impacting the hatch and vent.	DoW / Asset Manager / Water Technical Officer
		Ingress of pathogens (from reticulation repairs)	2023/24	Tooling and PPE colour coded specifically for water used (separate from sewer works).	Procedural document has been completed and implemented for use. New truck arrived in November 2024 that has clear separation of tools and equipment for Water and Sewer	DoW / Asset Manager / Water Technical Officer
W10 to W15	Reticulation – Any Pathogens	Increased inhouse testing	2023/24	Weekly in-house testing has been challenging due to staff shortages. Additional testing at 'dead-ends' of reticulation lines	Procedural document has been completed and implemented for use.	DoW / Asset Manager / Water Technical Officer
		Increased testing - HPC	From July 2023	Initial testing done	Testing incorporated into DWQMP from July 2023. Will continue to aim for quarterly testing periods.	DoW / Asset Manager / Water Technical Officer
		Increased testing - Legionella, pseudomonas spp., salmonella, campylobacter	From July 2023	Initial testing done in 2024. First set of Quarterly testing was completed September 2024.	Testing incorporated into DWQMP from July 2023. Will continue to aim for quarterly testing periods.	DoW / Asset Manager / Water Technical Officer
		Ingress of pathogens (from reticulation repairs)	2023/24	Tooling and PPE colour coded specifically for water used (separate from sewer works)	Procedural document has been completed and implemented for use. New truck arrived in November 2024 that has clear separation of tools and equipment for Water and Sewer	DoW / Asset Manager / Water Technical Officer
	Reticulation - Backflow	Audit of reticulation to ensure compliant connections	2023/24	Initial investigation of likely problem points completed (long runs leaving the core township). Illegal connections identified and corrected. Smart metering program has been implemented for trial run on Council owned buildings.	Audit of entire network to be completed by July 2025. Smart metering test period has been underway since April 2024. Will continue trial until July 2025.	DoW / Asset Manager / Water Technical Officer

	Reticulation - Scouring	Scouring of mains	2023/24	Scouring of mains has been completed March 2024.	Added to 5 year program with RAPADWSA, to be completed every 5 years alongside Water Tower cleaning.	DoW / Asset Manager / Water Technical Officer
W16	Turbidity	Turbidity – no action. To be monitored post tower cleaning and mains scouring.				
W17	Operator Error	Training of operators		Engaged RTO to deliver cert 3 training.	Delayed due to staff changes. Reinvestigate in 2025.	DoW / Asset Manager / Water Technical Officer
W18	Cyber Security	Council carrying out major upgrades to SCADA system	June 2024	Winton Water Automation Project (WWAP) uses existing security consultants for cybersecurity.	Cybersecurity and SCADA upgrades are expected to be completed by December 2024.	DoW / Asset Manager / Water Technical Officer
W19	Malicious action	Fencing and physical security of water assets	2023/24	Bore fencing repaired, locks replaced	Completed	DoW / Asset Manager / Water Technical Officer
W20 to W26	Heavy Metals	Testing for heavy metals (Lead and Mercury)	From July 2023	Initial testing done	6 month testing incorporated into DWQMP from July 2023	DoW / Asset Manager / Water Technical Officer
	Hydrocarbons	Monitoring of hydrocarbons to determine if the reservoir liner is breaking down	From July 2023	Initial testing done. Further investigation regarding relining the tower will be completed during the 24/25 financial year. Council is seeking contractors for the relining of the tower.	Annual testing incorporated into DWQMP from July 2023	DoW / Asset Manager / Water Technical Officer
W27	Temperature	Council carrying out major upgrades to SCADA system	June 2024	New SCADA system to control temperature	Cybersecurity and SCADA upgrades are expected to be completed by January 2025.	DoW / Asset Manager / Water Technical Officer
W28	Radioactivity	Testing for radioactivity	From July 2023	Initial testing done	Annual testing incorporated into DWQMP from July 2023	DoW / Asset Manager / Water Technical Officer

Risk management factors that are listed in the DWQMP have been adhered to and implemented.

Revisions made to the operational monitoring program to assist in maintaining the compliance with water quality criteria in verification monitoring.

Revisions made to DWQMP in June 2023 will apply from July 2023 onwards.

Amendments made to the DWQMP.

The June 2023 DWQMP incorporates the microbial risk assessment, updated verification monitoring and incident and response procedures. These changes will be put into place from July 2023.

An IRN request was submitted to Council on the 1st of September 2024. Water Regulators requested that Council should amend the DWQMP to include up to date inorganic and microbial data, updated progress on our water O&M procedures and to include an overall complaints summary. These changes were completed and an updated DWQMP was submitted on the 28th of November 2024.

4. Verification Monitoring – water quality information and summary

The water quality criteria mean health guideline values in the most current Australian Drinking Water Guidelines, as well as the standards in the Public Health Regulation 2005.

Testing of the Winton potable water was completed on a monthly basis for the 2022-23 financial year. A summary of the parameters from each of the 6 locations in town for the following 10 attributes:

- Turbidity
- Fluoride (naturally occurring)
- Nitrates
- Sulphates
- Iron
- Manganese
- Zinc
- Aluminium
- Boron
- Copper

Details of Winton Shire Councils compliance with water quality criteria for drinking water are shown in table 3.

Table 3 – Drinking water quality performance - verification monitoring.

Scheme name	Parameter	No. of samples collected	Average 2023 - 2024)	Water quality criteria (i.e. ADWG health guideline value)	No. of non-compliant samples	Comments
Winton	E. coli	81	0		0	No results were reported to detect E. coli during this period.
	Coliforms	81	0.125		0	No significant results of high levels of coliforms throughout 2023-24.
	HPC	68	48.53		0	Analysing the data spreadsheet shows the Industrial Estate is the culprit for our highest result at 660 in September 2023. This has skewed the data as the second highest value is 40.
	pH	81	7.67	6.5 to 8.5	0	
	Turbidity	81	1.00	<5	0	
	Fluoride	81	0.34	<1.5	0	
	Nitrate	81	0.06	50	0	
	Sulphate	81	4.79	<500	0	
	Iron	81	0.06		0	Aesthetic limit <0.3
	Manganese	81	0.07	<0.5	0	
	Zinc	81	0.06		0	Aesthetic limit <0.3
	Aluminium	81	0.03		0	Aesthetic limit <0.2
	Boron	81	0.07	<4	0	
	Copper	81	0.07	<2	0	

Table 4. E. coli compliance with annual value

Year	2022 - 2023											
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	6	6	9	8	8	8	8	7	7	7	7	7
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 (2021 - 22)	6	10	6	6	6	6	6	6	13	6	6	6
No. of failures for previous 12-month period (2021 - 22)	0	0	0	0	0	0	0	0	1	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

March 2023 – a sample from the water tower returned on the 24th of March with detected E. coli. A boil water alert was sent out to the public, the tower was isolated and flushed and further verification testing was done. Two more samples were sent away for verification testing during March, the samples came back with no E. coli detected.

5. Incidents reported to the regulator

Table 5 – Incidents reported to the regulator.

Incident date	Scheme / location	Parameter / issue	Preventive actions
N/A	WINTON	No incidents were reported in the financial year of 2023 to 2024.	

6. Customer complaints

The majority of complaints received by council regarding the water in Winton are about the temperature of the water. Many residences on the eastern side of town do not have hot water systems and the residents rely on the water supplied to be warm enough to shower in, particularly during the winter months. During the summer months, however the water can be warmer than they want to have a cold shower, and this cannot be afforded, unless they have large capacity cooling water tanks. Tourists also tend to complain about the smell of the bore water. These are general comments rather than complaints though and are common in areas where the source of potable water is from an artesian bore.

No formal complaints were received during the reporting period.

7. DWQMP review outcomes

Changes to the DWQMP were made during 1/7/2023 to 30/6/2024 after discoveries of incomplete testing and out of date information. Changes to the Risk Management and Verification Monitoring were made.

Additional changes were made at the request of the Water Regulator regarding Winton's O&M Procedural Documentation, incomplete microbial and inorganic data and missing complaints summary.

8. DWQMP audit findings

No audit was completed during the reporting period 1/7/2022 to 30/6/2023.