

OFFICIAL

# Westernport Water Recycled Water

## Annual Report 2024-25



**WESTERNPORT**  
WATER

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## Glossary

USMP - User Site Management Plans

DoH - Department of Health

EPA - Environment Protection Agency


HEMP - Regional Health and Environmental Management Plan

RWTP - Recycled Water Treatment Plant

RWQMP - Recycled Water Quality Management Plan

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**Approved**  
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## 1. Introduction

This document reports on Westernport Water's (WPW) Class A, Class B and Class C Recycled Water Schemes.

Under Section 15.10.2 of 'Publication 1911.2 March 2021 - Technical information for the Victorian guideline for water recycling', WPW is required to provide the Victorian Environmental Protection Authority (EPA) with an Annual Report.

The reporting requirements are specified in WPW's Regional Health and Environmental Management Plan (HEMP). The HEMP details the management practices required to control the health and environmental risks associated with the end use of recycled water.

The Class A Recycled Water Treatment Plant (RWTP) underwent annual challenge testing in October 2025. The RWTP operated throughout 2024/25.

Class A recycled water was supplied to residential and commercial customers from July 2024 to June 2025 through the dedicated Class A network.

Class B recycled water was supplied to a commercial customer from October 2024 to June 2025 and was used on site at Cowes Wastewater Treatment Plant (WWTP) from November 2024 to May 2025.

Class C recycled water was used on site at King Road WWTP from October 2024 to June 2025.

## 2. Statement of Compliance and Continual Improvement

During the 2024-25 year, Westernport Water produced and supplied recycled water and complied with the requirements in the Regional HEMP for management of recycled water.

Below is a summary of the requirements for compliance and continual improvement. These requirements have been adhered to in 2024-25:

- Recycled water produced at the RWTP met its regulatory obligations and targets prescribed in the Recycled Water Quality Management Plan (RWQMP).
- The performance of the Phillip Island Recycled Water Scheme has complied with the regulatory requirements of the EPA.
- There has been no adverse impact observed to plants, soil and groundwater from the application of recycled water.
- A review of customer User Site Management Plans (USMPs) is underway to ensure current legislative requirements are captured.
- There were no incidents or emergencies reported in the 2024-25 reporting year.
- Challenge testing for RWTP membrane pathogen removal, received a 'pass' result in each instance, confirming plant performance.
- The Class A membranes passed weekly pressure decay tests, indicating membrane integrity.

### 3. Class A Recycled Water Use

Pall Ultra-60 membranes were installed in September 2022. After approval was given by the EPA, the Class A RWTP was brought online on 24th December 2022 with the new membranes used to produce Class A water for commercial and residential customers.

In 2024-25 a total of 114.2 ML of Class A recycled water was produced at the RWTP.

#### 3.1. Residential Use

The number of residential recycled water customers in 2024-25 was 1151. Residential recycled water usage for the year totalled 39 ML. The Class A system was occasionally taken offline due to low recycled water demand and maintenance requirements therefore 9.8 ML of the water provided through the Class A network was potable water.

#### 3.2. Commercial Use:

There were nine (9) commercial customers connected to the Class A recycled water network. The commercial customers used 89.0 ML of Class A recycled water. Table 1 below displays a breakdown of Class A usage by commercial customers.

*Table 1 – Customer use volumes*

Customer Number	Customer Use	Area Irrigated (Ha)	Onsite Storage (ML)	Metered Use (ML)	Application Method
1	Irrigation (sporting ground)	20	0.2	65.1	Onsite RW storage, pop-up sprinklers and hand-held hose
2	Irrigation (sporting ground)	1.6	0.02	1.4	Onsite RW storage, automatic pop-up sprinklers
3	Irrigation (sporting ground)	2.3	0.06	10.0	Onsite RW storage, in-ground pop up sprinklers
4	Livestock drinking	N/A	0	2.6	Cattle drinking trough
5	Livestock drinking	N/A	0	4.6	Cattle drinking trough
6	Irrigation (community garden)	1	-	2.8	Drip irrigation and hand-held hose
7	Irrigation (recreation land)	N/A	0.01	0.5	RW tank onsite feeding taps and wetland
8	Irrigation (commercial nursery)	0.8	0	1.9	Plant irrigation (drip feed) and tap to hand-held hose
9	Toilet flushing (local business)	N/A	0	0.1	Toilet flushing
	Total Use			89.0	

## 4. Class B Recycled Water Use

Class B recycled water is produced at Cowes WWTP. Water is drawn from the storage lagoon at the end of the treatment process and is further treated to Class B quality by media filtration and chlorine disinfection.

### 4.1. Commercial Use:

There was one Class B recycled water customer who drew 62.7 ML of Class B recycled water in 2024-25.

### 4.2. Westernport Water Use:

Westernport Water recorded the following Class B recycled water use in 2024-25:

- 23.0 ML used as process water
- 10.0 ML used to irrigate the sugar gum plantation.

## 5. Class C Recycled Water Use

Class C recycled water is produced at King Road WWTP. It is used at King Road WWTP for pasture and tree lot irrigation. No Class C recycled water is supplied to customers.

### 5.1. Westernport Water Use:

Westernport Water recorded the following Class C recycled water use in 2024-25:

- 266.8 ML used to irrigate pasture
- 28.3 ML used to irrigate the sugar gum plantation

## 6. Recycled Water Quality

### 6.1. Sampling Schedule

Class A, B and C recycled water is monitored in accordance with the sampling schedule given in Table 2. All samples collected are tested by a NATA certified testing laboratory.

*Table 2 – Sample Schedule*

Class of Recycled Water	Parameter	RWTP*	Wimbledon Heights buffer storage tank	Class A water at customer tap
Class A	<i>E. coli</i>	Weekly	Monthly	Monthly
	Total coliforms	Weekly	Monthly	Monthly
	Cryptosporidium oocysts and Giardia cysts	Quarterly	-	-
	Bacteriophage (fRNA)	Weekly	-	-
	pH	Weekly	-	Monthly
	Temperature	-	Monthly	Monthly
	Turbidity	Weekly	-	Monthly
	BOD5 and Suspended solids	Weekly	-	-
	Total nitrogen, Total phosphorus, Ammonia-N	Fortnightly	-	Monthly
	Total dissolved solids, Electrical conductivity	Weekly	Monthly	Monthly
	Hardness, colour E.	Monthly	-	-
	Free residual chlorine	Weekly	Monthly	Monthly
	PFAS, metals, disinfection byproducts, pesticides, pharmaceuticals	Quarterly	-	-
Class B	<i>E. coli</i>	Monthly	-	-
	pH	Monthly	-	-
	BOD5 and Suspended solids	Monthly	-	-
Class C	<i>E. coli</i>	Monthly	-	-
	pH	Monthly	-	-
	BOD5 and Suspended solids	Monthly	-	-

\*Samples are only collected when the Class A, B and C plants are in operation.

## 6.2. Water Quality Results

The recycled water quality results are presented in Table 3, 4, 5. All results met compliance obligations under the EPA guidelines.

*Table 3: Class A Water Quality 2024-25*

Parameter	EPA Guideline Limit	Annual Results
Log Removal Viruses	7	7
<i>E. coli</i> (org/100 mL), median	No guideline	0^
pH (pH units), 90th percentile	6-9	7.5^
BOD (mg/L), median	<10	5 <sup>1</sup>
Suspended solids (mg/L), median	<5	2.0 <sup>1</sup>
Turbidity (mg/L), median	<2	0.10*
Ammonia as N (mg/L), median	No guideline	0.1*
Total nitrogen (mg/L), median	No guideline	9.7*
Total phosphorus (mg/L), median	No guideline	6.4*
Total dissolved solids (mg/L), median	No guideline	440*
Electrical conductivity (µS/cm), median	No guideline	873*

^Results from Wimbledon Heights Tank in network

<sup>1</sup>Results from treatment plant discharge

\*Results from customer tap

*Table 4: Class B Water Quality 2024-25*

Parameter	EPA Guideline Limit	Annual Results
<i>E. coli</i> (org/100 mL), median	<100	3
pH (pH units), 90th percentile	6-9	7.9
BOD (mg/L), median	<20	2
Suspended solids (mg/L), median	<30	2

*Table 5: Class C Water Quality 2024-25*

Parameter	EPA Guideline Limit	Annual Results
<i>E. coli</i> (org/100 mL), median	<1000	98
pH (pH units), 90th percentile	6-9	8.5
BOD (mg/L), median	<20	4
Suspended solids (mg/L), median	<30	10

## 7. Environmental Hazard and Risk Management

WPW's Regional Health and Environmental Management Plan (HEMP) details the management practices required to control the health and environmental risks associated with the end use of recycled water from the Phillip Island Recycled Water Scheme. Risks have been divided into residential and non-residential/commercial. The following sections details those risks.

### 7.1. Residential Use

The greatest risks from residential use are human consumption and the uncontrolled release of Class A recycled water to the environment. Risk mitigation is via:

- Supplying recycled water in accordance with the RWQMP and the HEMP



- Plumbers adhere to the Conditions of Connection
- Customers subject to WPW auditing at the Corporation's discretion.

## **7.2. Commercial Use**

USMPs are required for all commercial customers who use recycled water. Customer Use Agreements define the legal terms for commercial customers to meet these conditions. USMPs contain monitoring and reporting requirements to ensure that health and environmental risks of recycled water use are adequately managed.

Using a risk-based approach, commercial customers are audited by WPW's Wastewater Quality Specialist to ensure they are meeting their responsibilities. During these inspections, monitoring and maintenance records are reviewed and work practices are assessed, to ensure they are compliant with the requirements set out in the USMP. These inspections provide an opportunity for reviewing USMPs where WPW and the commercial customer can address areas that may require revision.

## **7.3. Commercial site inspections**

There were eight (8) site inspections of commercial customers carried out on a risk basis and date of last inspection. The following customers were inspected:

- Sporting ground (Class A)
- Sporting ground (Class A)
- Commercial nursery (Class A)
- Sporting ground (Class A)
- Farm (Class B)
- Farm (Class A)
- Community garden (Class A)
- Recreation (Class A)

These sites were found to be compliant with their obligations under their User Site Management Plant (USMPs), with minor adjustments recommended, for example signage replacement.

## **7.4. Schools supplied with recycled water**

Newhaven College was supplied with 10.0 ML of water via the Class A recycled water network in 2024-25. The recycled water is used on site for irrigation of sporting ovals in accordance with Newhaven College's USMP. An inspection of Newhaven College was carried out in November 2024.

# **8. Summary of Incidents and Emergencies**

Any major incident associated with supply and use of recycled water is required to be reported to the EPA and the Department of Health (DoH). Actions will be undertaken to minimise any adverse impacts in accordance with EPA and/or DoH requirements. There were no reportable incidents for 2024-25.

# **9. Audit Outcomes**

## **9.1. Internal Audits**

Validation of the membranes by challenge testing was conducted in October 2024. The membranes achieved the 3-log removal of viruses required by the RWQMP. The results have been recorded.

## **9.2. External Audits**

The most recent HEMP audit was conducted in April 2024. All actions were completed and opportunities for improvement have been actioned. There was no audit conducted this financial year, the next audit is due in 2027.