Drinking Water Quality

Annual Report 2018-19





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Authorisation

I authorise the use of this report in the Department of Health and Human Services Annual Report and made freely available on Westernport Water's website – www.westernportwater.com.au

Paul Donohue

General Manager Assets & Operations

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Introduction

Westernport Water Overview

Westernport Region Water Corporation (WPW) provides water and wastewater services in an economically, environmentally and socially sound manner to customers within its service area.

WPW services Phillip Island and an area of the mainland from The Gurdies to Archies Creek. Individual towns that are provided with drinking water include Bass, Grantville, Corinella, Kilcunda (including Dalyston), San Remo, Cape Woolamai, Rhyll, Cowes and Ventnor. A map of the service area is included in this report as Figure 1.

Aims and Objectives of this Report

Under section 26 of the Safe Drinking Water Act 2003 (SDWA), WPW is required to provide the Department of Health and Human Services (DHHS) with an annual report on the quality of drinking water supplied to its customers.

The aim of this report is to provide all stakeholders, including the community, with water quality information compliant with Section 26 of the SDWA. The report covers the period of 1 July 2018 to June 30 2019 and covers issues relating to the quality and management of drinking water.

Westernport Water's Commitment to Drinking Water Quality

WPW is committed to a comprehensive risk management approach to the safe provision of drinking water to its customers. This is achieved through the adoption of the framework for the management of drinking water quality outlined in the Australian Drinking Water Guidelines 2011, (ADWG) and implemented through continual review and improvement of WPW's Water Quality Risk Management Plan (WQRMP).

WPW's commitment to drinking water quality is highlighted in the foundation of its drinking water quality policy (endorsed by executive management and board). The policy demonstrates WPW's support and long-term commitment to the development and implementation of an effective system for drinking water quality management.

2018-19 Performance

WPW met all its obligations to provide water compliant with the *Safe Drinking Water Act 2003* and Safe Drinking Water Regulation 2015 throughout 2018-19.

Performance against drinking water quality standards outlined in the Safe Drinking Water Regulations 2015 (SDWR) are presented in section 5.

Major changes to the arrangements for water supply

There were no major changes to the arrangements for water supply in 2018-19.

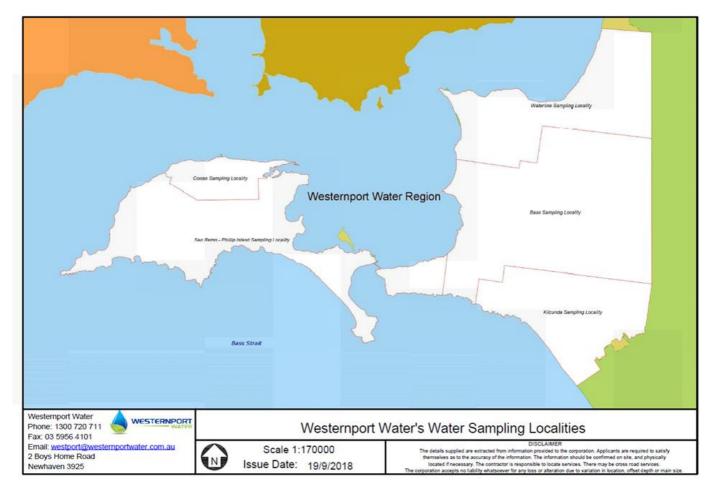


Figure 1 WPW supply region by water sampling localities

Characterisation of Westernport Water's Supply System

System Overview

WPW has a single water supply storage (Candowie Reservoir), which is an on-stream storage on Tennent Creek, located in the Bass Hills near Glen Forbes.

Water is treated at the Ian Bartlett Water Purification Plant (IBWPP) and then reticulated to communities through a single main supply line, with a number of smaller offtakes servicing each of the residential communities within WPW's area of supply.

Raw water quality is typical of water that is sourced from an unprotected catchment. Water quality is impacted by farming activities and runoff from cleared land within the catchment area. Before treatment, the raw water is high in nutrients and organics. Following treatment, the water complies with the ADWG and standards outlined in regulation 12 of SDWR.

Localities and population supplied in WPW region, water sources and the treatment process are outlined in Table 1.

Water Sources

Other sources of water are available to supplement Candowie Reservoir during low rainfall periods. These alternative sources are surface water from the Bass River and groundwater from bores constructed in the Corinella Groundwater Management Unit (GMU). Water from these alternative sources is pumped via a pipeline to Candowie Reservoir for centralised storage and treatment at the IBWPP. Table 1 lists where raw water is sourced and the treatment processes used to produce potable water to customers. WPW holds a Bulk Entitlement (BE) to the Greater Yarra system – Thompson River pool which can supply potable water from a delivery point to our distribution network.

Bass River

Westernport Water's pump station, located along the banks of the Bass River, is used to transfer water into Candowie Reservoir. This is licenced under the Bass River Bulk Entitlement. 428 Mega Litres (ML) of water was extracted from the river during the 2018-19 reporting period.

Ground Water

WPW have four bores licenced to take and use groundwater within the Corinella GMU. WPW has an entitlement of 490 ML/year. No groundwater was extracted during 2018-19 reporting period.

Melbourne Pool

WPW holds a BE to the Greater Yarra system – Thompson River pool. In 2018 the Retailers' Bulk Entitlement (Desalinated Water) Orders 2014 were amended to support WPW's access to water under its BE to access water through the delivery point. No water has been taken during the 2018-19 reporting period.

Source Water Protection

WPW is committed to supplying safe, high quality drinking water. Aligned with the framework for the management of drinking water quality is the catchment to tap approach. To demonstrate this approach for the catchment, WPW builds our understanding of the source water risks by:

- I. Undertake sanitary surveys of the catchment. A survey was undertaken in 2014.
- II. A comprehensive raw water monitoring program for pathogens, blue green algae, organic chemicals and radiological parameters.

- III. Continuous performance monitoring at the treatment plant.
- IV. Ongoing contractual partnership with Bass Coast Landcare and Melbourne Water on improving catchment health.

Water treatment and quality management systems

WPW operates a comprehensive water quality management system that complies with the *SDWA 2003* and SDWR 2015. The system is designed to ensure that customers receive drinking water that is safe and of good quality.

Water treatment

Raw water from Candowie Reservoir is treated using a combination of oxidation, adsorption, coagulation, flocculation, dissolved air flotation, filtration, pH correction, fluoridation and disinfection at the IBWPP. The following sections and Table 1 highlight the treatment process used at IBWPP.

Oxidation

Oxidation is used to remove iron and manganese from the water. Potassium permanganate is added to aid the removal process.

Adsorption

Adsorption is a process where a solid is used to remove a soluble substance from the water. WPW uses Powdered Activated Carbon (PAC) as the solid in water. Water is pumped through PAC and accumulates the soluble substances in the filter. The PAC is then removed from the process, subsequently removing the substance from the water. Adsorption is used to control potential taste and odour issues, and to remove algal toxins from the water.

Coagulation/flocculation

Coagulation is the process to remove fine suspended particles to aid the removal of colour and turbidity. Particles have a negative charge, repelling each other and allowing them to remain suspended in water as they will not clump together and settle out. Coagulation involves the addition of a coagulant (aluminium sulphate) with a positive charge that neutralises the negative charge enabling the fine

particles to merge to create larger particles. Flocculation involves gentle mixing of the water which causes the particles to collide increasing their size to visible suspended solids. The visible particles are called a 'floc'.

Dissolved air floatation and filtration (DAFF)

DAFF is a process of injecting air particles into water causing the floc to float to the surface. The floc is then removed to waste and the clear water is filtered through graded filter media. The purpose of DAFF is to produce water low in turbidity.

Over time filters become blocked with particles from the floc. To overcome the blockage, the filters are backwashed periodically to allow optimum production in the filters to produce consistently low turbidity results.

Fluoridation

Fluoride is added to treated water at a level that helps protect teeth against decay. Fluoride does not alter the taste or smell of water. Fluoridated water is delivered to all localities in WPW distribution system.

pH correction

To ensure treated water is within the ADWG desired range, caustic soda is added to raise pH.

Disinfection

a) Ultraviolet (UV)

UV light inactivates microorganisms by damaging their nucleic acid, thereby preventing them from replicating and disrupting their ability to infect hosts. UV disinfection can be used for the inactivation of chlorine resistant pathogens (e.g. Cryptosporidium and Giardia).

b) Chlorination

The final stage of treatment at IBWPP is chlorine disinfection. Disinfection is required to prevent the spread of waterborne pathogens and to retain an appropriate chlorine residual throughout the system.

c) Chloramination

WPW adopt the method of chloramination to address taste & odour issues and total chlorine residuals to the extremities of the distribution system. Chloramination is the process of adding chlorine to a small amount of ammonia. All localities (except Bass) receive chloraminated water.

Table 1 Source water and treatment processes

Table I Source water and treatment p								Treatment Process											
					Clarifi	cation	Filtration		Disinfection					Added sub	stance(s)				
Population Supplied 1	Source water ²	Storage	Treatment plant	Coagulation and flocculation	Dissolved air flotation	Granular Media Filter	Chlorination	Chloramination	Ultraviolet (UV)	powdered activated carbon (PAC)	Caustic soda	Aluminium sulphate	Potassium permanganate	Chlorine Gas	Sodium Hypochlorite	Ammonia	Sodium fluoride		
Bass (including Woolamai)	560					•	•	•			•	•	•		•				
Cowes (incorporating Silverleaves)	5050	Bass River,							•										
Kilcunda (incorporating Dalyston and Archies Creek)	1000	Connella	Candowie Reservoir	IBWPP	IBWPP	•	•	•	•	•		•		•		•			
San Remo/Phillip Island (incorporating San Remo, Newhaven, Cape Woolamai, Rhyll, Smiths Beach, Sunderland Bay, Sunset Strip, Ventnor, Wimbledon Heights, the penguin parade and the Nobbies tourist attractions)	13200	Bores			•	•	•	•	•		•		•		•	•	•	•	
Waterline (incorporating Corinella, Coronet Bay, Tenby Point, Grantville and Pioneer Bay)	2200					•													

[■] Treatment/Substance was applied regularly in 2018-19

[□] Treatment/Substance w as applied intermittently in 2018-19

¹ Population sourced from 2016 census data

² Water sources listed are used to augment supply to Candowie and subsequently supply all localities

Water quality improvements in 2018-19

Water quality improvements during 2018-19 were:

- Continuous vertical profiler was installed in Candowie Reservoir. This will provide real time continuous monitoring of our raw water supply allowing us to optimise treatment processes.
- Commenced planning a clear water storage tank at Wimbledon Heights.
- Installed analysers at the clear water storage tank at Grantville.
- Turbidity filter performance met the Health Based Target guideline of <0.2 NTU 95% of the time and not >0.5 NTU for 15 consecutive minutes throughout 2018-19.
- Annual air scouring of water mains continued as a routine program.
- Continuation of a backflow prevention project. This project will provide protection of the distribution system against contamination from private supplies.
- Commenced the implementation of the 5C's principle to ensure best practice is followed during repairs in the distribution system.

Issues

There were no issues during the 2018-19 reporting period that affected treatment processes which may of lead to potential or actual exceedances of drinking water quality standards.

Emergency, incident and event management

No Section 22 notifications or treatment issues occurred during 2018-19.

Analysis of Results

The quality of drinking water supplied to our customers was of good quality and met water quality standards detailed in regulation 12 of the SDWR 2015.

During the 2018-19 samples were not collected in accordance with WPW's sampling program which resulted in non-compliance with regulation 13(1) of the SDWR 2015. Samples missed are noted in relevant drinking water quality standards tables. The sample were missed due to scheduling errors from WPW's contracted 3rd party laboratory. WPW has met with the laboratory and are working with them to improve their procedures and processes to ensure scheduling errors are resolved.

For more information on the previous reporting periods please visit our publications page on our website:

http://www.westernportwater.com.au/learning-centre/resources-support/forms-publications/

The following tables depict the performance for 1 July, 2018 to 30 June, 2019.

Drinking Water Quality Standards

Table 2 E.coli

SDWR 2015 water quality standard: All samples of drinking water collected are found to contain no Escherichia coli per 100mL of drinking water, with the exception of any false positive sample.

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum detected (orgs/100mL)	Number of detections and investigations conducted (s. 22)	Number of samples where standard was not met (s. 18)
Bass	Weekly	52	0	0	0
Cowes	Weekly	108	0	0	0
Kilcunda	Weekly	104	0	0	0
San Remo - Phillip Island	Weekly	172	0	0	0
Water Line	Weekly	156	0	0	0

Cowes, Kilcunda, San Remo – Phillip Island and Water Line include additional samples of clear water storages. Cowes and San Remo-Phillip Island include additional samples due to population.

Table 3 Trihalomethanes (THM's)

SDWR 2015 water quality standard: 0.25mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Monthly	12	0.12	0.09	0
Cowes	Monthly	12	0.13	0.11	0
Kilcunda	Monthly ¹	11	0.12	0.09	0
San Remo - Phillip Island	Monthly	12	0.14	0.12	0
Water Line	Monthly	12	0.10	0.08	0

¹ Missed sample due to third party contracted laboratory scheduling error.

Table 4 Turbidity

SDWR 2015 water quality standard: the 95th percentile of results for samples in any 12 month period must be \leq 5.0 NTU

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum turbidity in a sample (NTU)	Maximum 95th percentile of turbidity results in any 12 months (NTU)	Number of 95th percentile of results in any 12 months above standards (s. 18)
Bass	Weekly	52	0.1	0.1	0
Cowes	Weekly	52	0.3	0.2	0
Kilcunda	Weekly	52	0.2	0.2	0
San Remo - Phillip Island	Weekly	52	0.4	0.2	0
Water Line	Weekly	52	0.4	0.2	0

Other algae, pathogen, chemical or substance not specified above that may pose a risk to human health

WPW regularly tests for other substances in the drinking water they supply to customers. The following sections detail the results for the 2018/19 reporting period.

Table 5 Cadmium

The ADWG health value is 0.002mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Annually	1	<0.0002	<0.0002	0
Cowes	Annually	1	< 0.0002	< 0.0002	0
Kilcunda	Annually	1	< 0.0002	< 0.0002	0
San Remo - Phillip Island	Annually	1	< 0.0002	< 0.0002	0
Water Line	Annually	1	< 0.0002	< 0.0002	0

Results with a less than qualifier (<) are below the laboratory detection limit.

Table 6 Copper

The ADWG health value is 2mg/L

The ADWG aesthetic value is 1mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Quarterly	4	0.03	0.01	0
Cowes	Quarterly	4	0.03	0.01	0
Kilcunda	Quarterly	4	0.01	0.007	0
San Remo - Phillip Island	Quarterly	3 ¹	0.01	0.008	0
Water Line	Quarterly	4	0.04	0.02	0

¹ Missed sample due to third party contracted laboratory scheduling error.

Table 7 Cyanide

The ADWG health value is 0.08mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Annually	1	<0.005	<0.005	0
Cowes	Annually	1	<0.005	< 0.005	0
Kilcunda	Annually	1	<0.005	< 0.005	0
San Remo - Phillip Island	Annually	1	<0.005	<0.005	0
Water Line	Annually	1	<0.005	< 0.005	0

Results with a less than qualifier (<) are below the laboratory detection limit.

Table 8 Fluoride

Code of practice for fluoridation of drinking water supplies water quality standard: 1.5mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Target optimum operating fluoride concentratio n (mg/L)	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Monthly	17	0.9	0.82	0.75	0
Cowes	Monthly	12	0.9	0.76	0.70	0
Kilcunda	Monthly	11 ¹	0.9	0.80	0.68	0
San Remo - Phillip Island	Monthly	12	0.9	0.78	0.71	0
Water Line	Monthly	12	0.9	0.79	0.70	0

¹ Missed sample due to third party contracted laboratory scheduling error.

Table 9 Lead

The ADWG health value is 0.01mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Quarterly	4	<0.001	<0.001	0
Cowes	Quarterly	4	<0.001	< 0.001	0
Kilcunda	Quarterly	4	< 0.001	<0.001	0
San Remo - Phillip Island	Quarterly	3 ¹	<0.001	<0.001	0
Water Line	Quarterly	4	<0.001	< 0.001	0

¹ Missed sample due to third party contracted laboratory scheduling error. Results with a less than qualifier (<) are below the laboratory detection limit.

Table 10 Manganese

The ADWG health value is 0.5mg/L

The ADWG aesthetic value is 0.1mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Quarterly	4	0.001	0.001	0
Cowes	Quarterly	4	0.004	0.002	0
Kilcunda	Quarterly	4	0.01	0.004	0
San Remo - Phillip Island	Quarterly	3 ¹	0.004	0.003	0
Water Line	Quarterly	4	0.004	0.003	0

¹ Missed sample due to third party contracted laboratory scheduling error.

Table 11 Nickel

The ADWG health value is 0.02mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Annually	1	<0.001	<0.001	0
Cowes	Annually	1	<0.001	< 0.001	0
Kilcunda	Annually	1	< 0.001	< 0.001	0
San Remo - Phillip Island	Annually	1	<0.001	<0.001	0
Water Line	Annually	1	<0.001	< 0.001	0

Results with a less than qualifier (<) are below the laboratory detection limit

Table 12 Nitrate

ADWG health value: 50mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Cowes	Fortnightly	52	0.62	0.18	0
Kilcunda	Fortnightly	51 ¹	0.83	0.13	0
San Remo - Phillip Island	Fortnightly	52	0.74	0.11	0
Water Line	Fortnightly	26	0.8	0.11	0

¹ Missed Sample due to third party contracted laboratory scheduling error.

Bass locality not sampled as it is a chlorinated supply.

Distribution system inlets sampled at Kilcunda, San Remo-Phillip Island and Cowes.

Table 13 Nitrite

ADWG health value: 3mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Cowes	Fortnightly	52	0.22	0.03	0
Kilcunda	Fortnightly	51 ¹	0.16	0.01	0
San Remo - Phillip Island	Fortnightly	52	0.18	0.008	0
Water Line	Fortnightly	26	0.003	0.002	0

¹ Missed Sample due to third party contracted laboratory scheduling error. Bass locality not sampled as it is a chlorinated supply.
Distribution system inlets sampled at Kilcunda, San Remo-Phillip Island and Cowes.

Aesthetic Characteristics

The SDWR 2015 refers to aesthetic water quality and states the annual report must include the steps taken by a water supplier to manage aesthetic characteristics of drinking water supplied. Along with verification monitoring of colour and pH, WPW undertake jar testing for optimum coagulant dosing. Other steps taken to manage aesthetics are reactive maintenance programs: annual air scouring of the distribution pipe network and reactive flushing. The ADWG sets the aesthetic based guideline values for aluminium, true colour, iron and pH. Those parameters sampled throughout the distribution system, indicating compliance, are presented in tables below.

Table 14 Aluminium, acid soluble

The ADWG aesthetic value is 0.2mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Bass	Quarterly	4	0.01	0.01	0
Cowes	Quarterly	4	0.01	0.01	0
Kilcunda	Quarterly	4	0.02	0.01	0
San Remo - Phillip Island	Quarterly	3 ¹	0.01	0.01	0
Water Line	Quarterly	4	0.01	0.01	0

¹ Missed sample due to laboratory scheduling error.

Table 15 Colour, true

The ADWG aesthetic value is 15HU

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum	Average	Number of samples where standard was not met
Bass	Monthly	12	2	2	0
Cowes	Monthly	12	4	2	0
Kilcunda	Monthly	11 ¹	4	2	0
San Remo - Phillip Island	Monthly	12	2	2	0
Water Line	Monthly	12	4	2	0

¹ Missed sample due to laboratory scheduling error.

Table 16 Hardness

The ADWG aesthetic value is 200mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Bass	Quarterly	4	94	90	0
Cowes	Quarterly	4	120	104	0
Kilcunda	Quarterly	4	110	98	0
San Remo - Phillip Island	Quarterly	3 ¹	130	107	0
Water Line	Quarterly	4	110	96	0

 $^{^{\}rm 1}\,{\rm Missed}$ sample due to laboratory scheduling error.

Table 17 Iron

The ADWG aesthetic value is 0.3mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Bass	Monthly	12	0.03	0.01	0
Cowes	Monthly	12	0.05	0.02	0
Kilcunda	Monthly	11 ¹	0.02	0.01	0
San Remo - Phillip Island	Monthly	12	0.02	0.01	0
Water Line	Monthly	12	0.13	0.03	0

¹ Missed sample due to laboratory scheduling error.

Table 18 pH

The ADWG aesthetic range is 6.5-8.5pH

Water Sampling Locality	Frequency of Sampling	Number of Samples	Minimum	Maximum	Aesthetic operating range
Bass	Weekly	53	6.8	7.5	6.5-8.5
Cowes	Weekly	89	6.7	7.9	6.5-8.5
Kilcunda	Weekly	92	6.8	7.7	6.5-8.5
San Remo - Phillip Island	Weekly	135	6.7	7.8	6.5-8.5
Water Line	Weekly	135	6.8	7.6	6.5-8.5

Cowes, Kilcunda, San Remo – Phillip Island and Water Line include additional samples of clear water storages. Cowes and San Remo-Phillip Island include additional samples due to population.

Table 19 Zinc

The ADWG aesthetic value is 3mg/L

Water Sampling Locality	Frequency of Sampling	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met (s. 18)
Bass	Quarterly	4	0.01	0.008	0
Cowes	Quarterly	4	0.02	0.010	0
Kilcunda	Quarterly	4	0.01	0.006	0
San Remo - Phillip Island	Quarterly	3 ¹	0.001	0.006	0
Water Line	Quarterly	4	0.01	0.007	0

¹ Missed sample due to laboratory scheduling error.

Complaints relating to water quality

Summary of complaints

The number of customer complaints to WPW regarding drinking water totalled 37 for 2018/19. This was an increase of 7 from 2018/19. Table 20 details the type of customer complaints.

Table 21 details water quality complaints by sampling locality.

Table 20 Customer[^] complaints relating to water quality

	Numb	Number of complaints		Comparison with previous reporting	
Type of Complaint —	2018-19	2017-18	2016-17	periods	Comments
Discoloured water	12	15	10	Decrease from previous year	Air scouring program to maintain system cleanliness and quick response to bursts and leaks can be attributed to the reduction from previous years.
Taste/odour	21	8	2	Increase from previous years	To adress the increase a more regular flushing program will be introduced to reduce water age and maintain chlorine residual.
Other*	4	7	8	Decrease from previous years	Nil
Total	37	30	20	19% increase from previous year	The increase from previous years was attributed to taste and odour complaints. Continuing work to achieve a more stable chlorine residual will improve taste.

Table 21 Complaints by water sampling locality

La caller	Туре				
Locality	Discoloured water	Discoloured water Taste/odour		Total complaints	
Bass	0	1	0	1	
Cowes	4	3	0	7	
Kilcunda	3	1	0	4	
San Remo - Phillip Island	3	7	3	13	
Water Line	1	9	2	12	

'for the purposes of this section, the term 'customer' has the same meaning as that used by the Essential Services Commission, that is, a customer = a connection.

32% of complaints were for discoloured water, 57% taste/odour and 11% for other.

The majority of complaints were due to taste and odour. These complaints were isolated incidents and were resolved with flushing. Although there were a higher numbers of complaints in the San Remo/Phillip Island and Water Line localities there was no correlation between complaints. The routine air scouring program and reactive maintenance from bursts and leaks can be attributed to the discoloured water complaints.

^{*}includes any contact related to alleged illness.

Response to complaints

WPW is committed to providing its customers with ongoing quality water and services. Our Customer Service division manages customer complaints and each complaint is lodged using an entry form in WPW customer request management (CRM) system. Depending on the nature of the complaint, the details are electronically forwarded to the Water Quality and Sustainability Officer for water quality complaints; the Maintenance group for bursts and leaks.

After a complaint is lodged, depending on the nature of the complaint, one or a combination of the following actions may be performed:

- Contact the customer who lodged the complaint to determine the seriousness of the issue.
- Discuss with the complainant the possible causes of the poor water quality i.e. temporary changes to normal operation or high manganese and/or iron in raw water.
- Explain to the complainant the multiple barriers and rigorous sampling and testing regime employed to provide a safe and aesthetically acceptable water.
- Proceed with remedial action such as water sample testing, mains flushing and occasionally water sampling testing after flushing.
- Give feedback to customer in terms of water quality information and links to further information regarding regulatory obligations.

Findings of the most recent risk management plan audit

There were no regulatory risk management plan audits conducted in the reporting period. The most recent audit was held in May 2018 and WPW was fully compliant with obligations under the *SDWA*, SDWR and audit guidelines.

Undertakings under section 30 of the Act

WPW currently has no section 30 undertakings.

Regulated Water under section 6 of the Act

No regulated water was supplied during the reporting period.

Exemption under section 20 of the Act

WPW has no exemptions under section 20.

Variations of aesthetic standards under section 19 of the Act

No variations of aesthetic standards in place under section 19.

Glossary of Terms

Term	Meaning
ADWG	Australian Drinking Water Guidelines
CRM	Customer Request Management System
DAFF	Dissolved Air Flotation and Filtration
DHHS	Department of Health and Human Services
E.coli	Escherichia coli
GMU	Groundwater Mangaement Unit
IBWPP	Ian Bartlett Water Purification Plant
mg/L	Milligram per litre
NTU	Nephelometric Turbidty Unit
PAC	Powdered Activated Carbon
SCADA	Supervisory Control and Data Acquisition
SDWA	Safe Drinking Water Act 2003
SDWR	Safe Drinking Water Regulations 2015
THM	Trihalomethanes
WPW	Westernport Water
RMP	Risk Management Plan

Section 23 of the Act requires Westernport Water to make water quality monitoring information publicly available. Customers and members of the public may access drinking water quality data by contacting Westernport Water on the details provided below:

Email: westport@westernportwater.com.au, Website: www.westernportwater.com.au,

Phone: 1300 720 711