

## 37. Oatlands STP

### 37.1 Activity and report details

Activity name	Oatlands STP		
Activity address	Church Street, Oatlands		
Permit number	Licence to Operate – 6254	Date of issue	4/03/1977
EPN	7972/1	Date of issue	7/03/2018
Treatment level	Secondary Treatment		
Authorised dry weather flows	136 kL/day		
Key influent source	Residential/Industrial 1 x Category 3 Customers		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2024		

**Figure 37-1: Oatlands Sewage Treatment Plant**



## 37.2 Monitoring and compliance summary

### 37.2.1 Flow data

**Table 37-A: Flow monitoring summary**

	Influent	Effluent	Reuse
<b>Location name</b>	Inlet	Dulverton Rivulet, via Reuse Storage Dam	Oatlands Golf Club and Bennett property
<b>Coordinates</b>	E 530366 N 5317462	E 530204 N 5317506	E 530244 N 5317394
<b>Method of measurement</b>	Level Sensor	Influent less Reuse	In line meter
<b>Date of last calibration/validation (if applicable).</b>	14/06/2024 (To be rectified)	NA – to be installed	16/06/2022

**Table 37-B: Annual flow and rainfall data**

Month	Average daily influent volume (kL/day)*	Rainfall (mm/month) BOM Station ID 93014	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2023	462	20.4	3.33	11.00
August 2023	464	18.2	0.00	14.39
September 2023	468	20.0	0.00	14.03
October 2023	437	76.6	0.00	13.55
November 2023	437	29.2	0.00	13.12
December 2023	437	53.5	0.00	13.55
January 2024	449	93.4	0.00	13.93
February 2024	665	2.2	0.00	19.29
March 2024	708	10.0	0.00	21.96
April 2024	743	44.8	0.00	22.29
May 2024	752	36.6	0.00	23.30
June 2024	795	32.8	0.00	23.85
Annual 2023–24	569	437.7	3.33	204.26
% of total discharge	--	--	1.6%	98.4%

\*Known Inlet Flow meter fault. To be rectified (approximately around 200kL)

2023–24 monthly flow data was submitted directly to the EPA.

## 37.3 Bypass events

There were no bypass events associated with the STP during the reporting period.

### 37.4 Discharge compliance with permit limits

**Table 37-C: Compliance summary**

Parameter	Ammonia	BOD5	Chlorine	Nitrogen	Oil and grease	pH	Phosphorous	E coli	Total suspended solids
Permit/EPN limit	mg/L	mg/L	mg/L	mg/L	mg/L	Units	mg/L	MPN/100mL	mg/L
Maximum	--	30	--	40.0	10.0	8.5	10.0	2000	40.0
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
<b>Samples analysed</b>									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	12	12	--	12	12	12	12	12	12
<b>Statistical summary</b>									
Maximum	1.9	40	--	32.6	6.4	9.0	6.2	5475	187.0
90th percentile	1.6	36	--	29.7	2.3	8.7	4.1	4695	163.2
50th percentile	0.6	19	--	10.6	1.0	7.6	2.5	112	44.0
Minimum	0.1	5	--	3.0	1.0	7.2	0.5	10	4.0
<b>EPN limit compliance</b>									
% compliance with maximum	--	83%	--	100%	100%	--	100%	75%	50%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	83%	--	--	--

**Table 37-D: Mass loads to the environment**

Parameter	EPN limit	Frequency	2023-24 result
<b>Nitrogen (kg)</b>	--	Annual	26.3
<b>Phosphorous (kg)</b>	--	Annual	2.3
<b>Method</b>	Time weighted/grab sample method		

No parameters had exceedances in the reporting period when discharging to water.

### 37.5 Reuse annual reporting

The Oatlands STP supplies treated effluent for irrigation purposes to the Oatlands recycled water scheme (RWS) which consists of two properties; Weedings Lagoon Golf Course (referred to as the Oatlands Golf Club) and Bennett property on Interlaken Road for emergency purposes. No recycled water has been supplied for emergency irrigation during the reporting period.

**Table 37-E: Reuse compliance summary**

Parameter	BOD5	pH	E coli
Permit/EPN limit	mg/L	Units	MPN/100ml
Maximum	50	9.0	10000
90th percentile	--	--	--
50th percentile	--	--	1000
Minimum	--	5.5	--
<b>Samples analysed</b>			
Number required	12	12	12
Number analysed	12	12	12
<b>Statistical summary</b>			
Maximum	40	9.0	5475
90th percentile	36	8.7	4695
50th percentile	19	7.6	112
Minimum	5	7.2	10
<b>Summary of results</b>			
% compliance with maximum	100%	--	100%
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	67%
% compliance with pH range	--	92%	--

**Table 37-F: Performance analysis (discharge to reuse)**

Reuse compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
pH	6/09/2023	Algae related	No specific actions

Note: Non-compliances only identified for the times STP has discharged to reuse

No other non-compliances were identified for the times the STP discharged to reuse.

Annual soil sampling was completed at two sites (Site 5 and 6) at the Oatlands Golf Club, and one site (Site 7) at the Bennett property in November 2023. The annual compliance audits at both properties were completed in conjunction with the soil sampling with additional phone audit in December 2023. A summary of the findings of the programs in Table 37-G

**Table 37-G: Annual recycled water scheme compliance audit and soil monitoring summary – Oatlands Golf Club**

Program	Compliance audit	Soil monitoring
Compliance status	Compliant With a potential non-compliance (see comments)	Soil salinity and sodicity remain within historical range at both properties. Increasing levels were recorded at one property with sites classified saline and sodic, and remained unchanged at the second property which remains non-saline and non-sodic.  Phosphorous (P) levels are elevated at both properties and are comparable or relatively unchanged to historical levels.
Comments	Potential non-compliance at Bennett property as no Site Irrigation and Environment Management Plan. No recycled water has been provided to the property in recent years and therefore is considered compliant.	The amount of phosphorous applied to recycled water is significantly less than soil factor loses at the typical recycled water applications rates.

RWS groundwater status: Amber

Oatlands RWS groundwater monitoring network consists of one bore (ID OATGW2) located at the Oatlands Golf Course. No sampling round was completed at Oatlands RWS. TasWater has put measures in place for the 2024-25 sampling program to address scheduling and resourcing delays experienced in recent years.

Previous monitoring found an increasing trend in phosphorous concentrations and although concentration decreased in the 2022-23 monitoring event remain slightly above the adopted guideline criterion. It was considered unlikely that recycled water is impacting the groundwater quality with concentrations based on the low irrigation rates at the golf course however additional monitoring is required and the installation of an additional monitoring bore has been recommended.

Annual sampling of the standard analytical suite is scheduled to continue at bore ID OATGW2 during the 2024-25 groundwater monitoring program.

### 37.6 Ambient monitoring program

**Table 37-H: Program details**

Program	Seasonal Discharge Program – Routine monitoring during discharge to water.
Status	Ambient monitoring completed during seasonal discharge events within the reporting period.
Update	Ongoing ambient monitoring during seasonal discharge events.
Comments	Ambient water quality monitoring occurred in Dulverton Rivulet during the discharge event in July 2023. Key findings from the ambient water quality data review were: <ul style="list-style-type: none"> <li>The Default Guideline Value (DGV) for ammonia was significantly exceeded at the downstream sample site during the July discharge event. The upstream site was less than laboratory detection. Effluent levels were well below the level recorded at the downstream site.</li> <li>Total nitrogen levels were elevated downstream compared to upstream during July.</li> </ul>

- Nitrate levels were below the DGVs at the upstream monitoring location but elevated downstream.
- The total phosphorous level downstream exceeded the upstream level during the discharge event. The downstream site significantly exceeded the DGV. The phosphorus level in the effluent was lower than the downstream site.
- High enterococci levels (959 MPN/100ml) were recorded in the downstream sample in July 2023 and low levels upstream. The levels in the effluent were also low so it is unlikely that the STP is the source of the contamination.

### 37.7 Groundwater monitoring

Site status: Green – (2022–23 report)

Oatlands STP groundwater monitoring network consists of one groundwater monitoring bore, OATGW1. Biannual sampling was completed the monitoring bore in March and June 2024.

Following delays, the 2023–24 report will be finalised and available in October 2024. Any actions to address identified potential issues will be determined following the hydrogeological review. Previous reports have recorded fluctuations of total phosphorous concentrations with an overall increase trend, but levels remain below adopted guideline criterion. Gaps in the monitoring network has been identified.

Biannual sampling at the standard analytical suite is scheduled to continue at bore ID OATGW1 during the 2024–25 groundwater monitoring program.

### 37.8 Inflow and infiltration (I&I)

The latest revision to the TasWater Inflow and Infiltration Management Plan includes details of the actions undertaken statewide to address I&I issues. Update to the actions completed will be provided in the next revision due September 2024.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 38 out of 108 in priority.

### 37.9 Sludge and biosolids

The latest revision to the Sewage Sludge Management Plan (SSMP) includes full details of the actions undertaken during the reporting period, the most recent sludge profiling results, and upcoming annual desludging program.

This STP was fully compliant with the 2023–24 SSMP.

No stockpiling occurs at this site.

**Table 37–K: Desludging status and comments**

Desludging status	Comments
Medium priority	Desludging scheduled to occur in 2027, as per the current prioritisation planning schedule.

### 37.10 Non-compliance with other permit requirements

**Table 37-L: EPN non-compliances**

EPN condition	Description of non-conformance	Future actions to be taken
EF1 Effluent Discharge Locations	Discharge to environment occurs into a stormwater drain with public access prior to Dulverton River.	No future actions underway.
EF3 Effluent quality limits for discharge to the Dulverton Rivulet	See section 37.4 Discharge compliance with permit limits.	See section 37-E Discharge compliance with permit limits and Performance Analysis.
Q1 Regulatory Limits	ADWF exceeds EPN limit.	No future actions underway.
M4 Flow Monitoring Equipment	Reuse flow meter requires repairs.	Works planned to rectify this issue in FY25.

### 37.11 Complaints and incident reporting

There were no complaints or incidents recorded in the 2023–24 reporting period.

### 37.12 Any other relevant information

For further information on Oatlands STP please contact TasWater on 13 6992

[www.taswater.com.au](http://www.taswater.com.au)