

68.Swansea STP

68.1 Activity and report details

Activity name	Swansea STP		
Activity address	Maria St, Swansea		
Permit number	6234	Date of issue	04/09/2002
EPN	8552/1	Date of issue	29/05/2019
Treatment level	Secondary Treatment		
Authorised dry weather flows	430 kL/day		
Key influent source	Residential		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 68-1: Swansea Sewage Treatment Plant



68.2 Monitoring and compliance summary

68.2.1 Flow data

Table 68-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Sewer Inlet	Saltwater Creek	Effluent Reuse Scheme - Ag Irrigation
Coordinates	E 586935 N 5335446	E 587392 N 5335439	E 586857 N 5335787
Method of measurement	In line meter	Influent less Reuse	In line meter (on Customer)
Date of last calibration/validation (if applicable)	20/02/2025	NA – meter to be installed	27/02/2023

Table 68-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 92148	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	257	59	7.95	0.00
August 2024	225	48	6.97	0.00
September 2024	253	38.2	7.59	0.00
October 2024	243	33.6	7.54	0.00
November 2024	260	56.4	3.90	3.90
December 2024	336	96.6	5.21	5.21
January 2025	316	30.6	4.90	4.90
February 2025	265	22.4	3.71	3.71
March 2025	255	31	3.95	3.95
April 2025	260	47.6	3.90	3.90
May 2025	209	29.6	6.46	0.00
June 2025	302	85.2	9.06	0.00
Annual 2024-25	265	578.2	71.14	25.56
% of total discharge	--	--	73.6%	26.4%

2024-25 monthly flow data was submitted directly to the EPA.

68.3 Bypass events

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

68.4 Discharge compliance with permit limits

Table 68-C: Compliance summary

Parameter	Ammonia	BOD ₅	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	16	50	--	33	3	8.5	8	2,000	50
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	12	12	--	12	12	12	12	12	12
Statistical summary									
Maximum	15.3	33.0	0.0	21.2	1.2	8.4	6.5	602.0	23.0
90th percentile	14.1	23.8	0.0	20.6	1.0	8.2	6.1	383.6	21.2
50th percentile	9.9	16.5	0.0	16.1	1.0	7.9	5.4	25.0	4.9
Minimum	0.1	5.0	0.0	7.9	1.0	6.9	4.4	10.0	4.0
EPN limit compliance									
% compliance with maximum	100%	100%	--	100%	100%	100%	100%	100%	100%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

No parameters had exceedances in the reporting period.

Table 68-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	1,079.2
Phosphorous (kg)	--	Annual	376.0
Method	Time weighted/grab sample method		

68.5 Reuse annual reporting

The Swansea STP supplies Class B recycled water for irrigation purposes to the Swansea recycled water scheme (RWS) which consists of one agricultural property located adjacent to the STP.

Table 68-E: Reuse compliance summary

Parameter	BOD5	pH	E. coli
Permit/EPN limit	mg/L	Units	MPN/100ml
Maximum	50	9.0	10,000
90th Percentile	--	--	--
50th Percentile	--	--	1,000
Minimum	--	5.5	--
Samples analysed			
Number required	12	12	12
Number analysed	12	12	12
Statistical summary			
Maximum	33.0	8.4	602
90th percentile	23.8	8.2	384
50th percentile	16.5	7.9	25
Minimum	5.0	6.9	10
EPN Limit Compliance			
% compliance with Maximum	100%	--	100%
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	100%
% compliance with pH range	--	100%	--

No exceedances in the FY period.

Annual soil sampling for the RWS was completed at two long term monitoring sites (Site 1 -2) in November 2024. The field component of the annual compliance audit was completed in conjunction with the soils sampling with follow up phone audit completed in January 2025. A summary of the findings of the program is provided in Table 68-F.

Table 68-F: Annual recycled water scheme compliance audit and soil monitoring summary.

Program	Compliance audit	Soil monitoring
Outcomes	Minor non-compliance Inadequate signage	Soil salinity and sodicity levels increased at both sites and remain within historical ranges. Potassium levels remain elevated and are not attributed to the application of recycled water in the past 12 months.
Comments	Irrigation and stock management remains a challenge due to BGA blooms which impacts recycled water usage.	

RWS Groundwater Status: Amber

Swansea recycled water groundwater monitoring network consists of two bores (ID's SWGW2 and 3) and are located to the north and north-east of the irrigation area respectively. Annual sampling at the standard analytical suite was completed in February 2025.

The 2024-25 groundwater monitoring event continued to record elevated concentrations of Total Nitrogen and Nitrate (as Nitrogen) above adopted guideline criteria across the groundwater monitoring network. A monitoring network gap has been identified downgradient of the recycled water irrigation area.

Annual sampling at the standard analytical suite is scheduled to continue at all monitoring bores during the 2025-26 groundwater monitoring program.

68.6 Ambient monitoring program

Table 68-G: Program details

Program	Seasonal ambient monitoring as required under EPA permit variation 18/01/2024.
Status	Ambient monitoring completed during discharge events within the reporting period.
Update	Ambient water quality monitoring from July - December 2024 and May – June 2025 completed during the reporting period.
Comments	<p>Discharge to waters occurred in every month. Ambient monitoring was undertaken downstream in Duck Park (no suitable upstream monitoring location) in July – December and again in May and June. It should be noted that the Duck Park sample point is a significant distance from the effluent discharge but has been selected as it is the closest location where public recreation can occur. The effluent discharges into Saltwater Creek and runs through private property receiving run-off before entering Duck Park so it is difficult to differentiate between effluent or other impacts.</p> <p>The results from Duck Park shore:</p> <ul style="list-style-type: none"> • Ammonia results were less than laboratory detection or low except in July where it was above the toxicant Default Guideline Value (tdGV). This aligns with a large rain (31.4 mm) event on the previous day. • Total nitrogen exceeded the DGVs during all sampling events except May 2025. • The nitrate levels were elevated in July and September, both aligning with rainfall events. • Total phosphorus results were all above the DGV except in May 2025. • Enterococci levels at the downstream monitoring location exceeded the recreational guideline values on all but one sampling occasion (August). The September result was particularly high (6,678 MPN/100mL) and this correlates with a large rain event. Effluent levels were low (highest result 286 MPN/100mL) suggesting the effluent discharge is not the main source of contamination in Duck Park.

68.7 Groundwater monitoring

Site status: Green

Swansea STP groundwater monitoring network consists of one monitoring bore, ID number SWGW1, and is located directly east of the STP. Annual sampling at the standard analytical suite was completed in February 2025 as scheduled.

2024-25 monitoring program recorded exceedance of one analyte (total phosphorous). No increasing trends in any other key analyte concentrations were recorded. Overall, the risk to groundwater uses and the receiving environment are considered low based on the results of bore SWGW1.

Annual sampling at the standard analytical suite will continue during the 2025-26 groundwater monitoring program.

68.8 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.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 28 out of 108 in priority (high).

Works this FY:

- Targeted field investigation completed
- Defect inspections completed

68.9 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 assessed as compliant with the 2024-25 SSMP.

Sludge at this STP is captured within the two treatment lagoons, which will be periodically desludged as required. No stockpiling occurs at this site.

Table 68-H: Desludging status and comments

Desludging status	Commentary
High Priority	Desludging of lagoon 1 scheduled to occur in 2025-26, as per the current prioritisation planning schedule.

68.10 Non-compliance with other permit requirements

Table 69-I: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
Flow meters	No recent reuse flow meter validations.	Scheduled for rectification

68.11 Complaints and incident reporting

No complaints or incidents reported during the reporting period.

68.12 Any other relevant information

Table 70-J: Projects or significant operational events that occurred in FY 2024-25

Project or significant operational event	Progress
East Coast Sewerage Regional Master Plan	The East Coast Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Swansea STP.

For further information on the Swansea STP please contact TasWater on 13 6992

www.taswater.com.au