

59. Sisters Beach STP

59.1 Activity and report details

Activity name	Sisters Beach STP		
Activity address	Honeysuckle Avenue, Sisters Beach		
Permit number	7065	Date of issue	Unknown
EPN	7072/1	Date of issue	23 December 2004
Treatment level	Tertiary Treatment		
Authorised dry weather flows	585 kL/day		
Key influent source	Residential		
Contact person	Kate Westgate (Manager Environmental Performance)		
Report author	Jake Crisp (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 59–1: Sisters Beach Sewage Treatment Plant



59.2 Monitoring and compliance summary

59.2.1 Flow data

Table 59-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Plant Inlet	Bass Strait	No reuse scheme
Coordinates	E 379296 N 5469355	E 379142 N 5469887	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable).	07/07/2024	07/07/2024	NA

Table 59-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91364	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	129	152.4	5.75	--
August 2024	153	203	5.15	--
September 2024	154	169	7.66	--
October 2024	115	75.4	6.08	--
November 2024	101	69	3.72	--
December 2024	107	78	4.99	--
January 2025	95	22.1	3.53	--
February 2025	68	10.2	2.20	--
March 2025	63	24.9	2.12	--
April 2025	72	41.2	2.15	--
May 2025	57	55	1.91	--
June 2025	67	100.4	2.00	--
Annual 2024-25	99	1000.6	47.26	0.00
% of total discharge	--	--	100.0%	0.0%

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

59.3 Bypass events

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

59.4 Discharge compliance with permit limits

Table 59-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	5	20	--	15	5	8.5	5	750	30
90th percentile	2	15	--	10	2	--	3	500	20
50th percentile	1	10	--	5	1	--	1	200	10
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	61.3	136.0	7.2	94.8	18.6	7.6	9.9	24196.0	77.0
90th percentile	59.7	92.0	4.3	79.3	14.5	7.5	9.7	24196.0	74.0
50th percentile	16.7	5.0	0.1	26.5	1.0	7.3	6.5	408.5	9.0
Minimum	0.1	5.0	0.0	5.2	1.0	6.1	0.5	10.0	4.0
EPN limit compliance									
% compliance with maximum	33%	58%	--	25%	75%	100%	42%	50%	58%
% compliance with 90th percentile	33%	58%	--	8%	58%	--	25%	50%	58%
% compliance with 50th percentile	25%	58%	--	0%	58%	--	25%	50%	58%
% compliance with pH range	--	--	--	--	--	92%	--	--	--

Table 59-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	1708	Annual	1564.2
Phosphorous (kg)	470	Annual	205.6
Method	Time weighted/Grab sample method		

Table 59-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance			Reasons for non-compliance	Actions to improve performance
Phosphorus	26/11/2024 9/01/2025 6/02/2025	18/03/2025 10/04/2025 22/05/2025		Aeration failure occurred in one of the two sequence batch reactors (SBRs) due to malfunctioning impellers, likely caused by sudden sand ingress (not confirmed). The offline SBR disrupted secondary and tertiary processes, leading to reduced nitrification and denitrification (elevated ammonia and nitrogen), lower microbial activity in active sludge (elevated BOD and TSS), and reduced UVT, which in turn increased <i>E. coli</i> levels.	<p>In response to the non-compliances, TasWater implemented the following actions:</p> <ul style="list-style-type: none"> Installed a replacement aerator on 19 December 2025. Replacement impellers ordered. Increased operational monitoring for pathogen indicators. Liaised with Waratah-Wynyard Council's Environmental Health Officer (EHO) to monitor impacts to recreational and public health PEVs, with no impacts observed across weekly samples. Installed a new sludge pump on 28 January to improve sludge wasting and reduce organic loading while one SBR remains offline. Arranged for a truck to attend site three times per week to remove sludge buildup and assist in reducing organic loading.
Ammonia	9/07/2024 25/09/2024 16/10/2024 26/11/2024	5/12/2024 9/01/2025 6/02/2025 18/03/2025			
Nitrogen	9/07/2024 16/10/2024 26/11/2024 5/12/2024	9/01/2025 6/02/2025 18/03/2025 22/05/2025		A new impeller was installed and sludge re-seeding commenced in March. Although re-seeding takes several weeks, parameters have since stabilised and are now within acceptable limits.	
BOD	26/11/2024 5/12/2024 9/01/2025	6/02/2025 18/03/2025			
E. coli	26/11/2024	11/02/2025	18/03/2025		
	9/01/2025 22/01/2025 30/01/2025	6/02/2025 18/02/2025 6/03/2025	10/04/2025 22/05/2025		

59.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

59.6 Ambient monitoring program

Table 59-F: Program details

Program	Sisters Beach STP Ambient Monitoring Plan and EPN 7072/1.
Status	Triennial ambient water quality and biological monitoring (in accordance with recommendations within the last Ambient Monitoring Report) within the Bass Strait receiving environment.
Update	No ambient monitoring undertaken during the reporting period.
Comments	Triennial seasonal ambient monitoring is scheduled for FY 2025/26.

59.7 Groundwater monitoring

No groundwater monitoring program associated with the STP.

59.8 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 87 out of 108 in priority.

59.9 Sludge and biosolids

The latest revision to the Sewage Sludge Management Plan (SSMP) includes full details of the actions undertaken during the reporting period. This STP was assessed as compliant with the 2024-25 SSMP.

There are no sludge/biosolids dewatering facilities at this site, with sludge transferred via liquid sludge transport to the Wynyard STP for additional treatment. The total liquid sludge transfer volume for the reporting period was 1379kL.

No stockpiling occurs at this site.

Table 59-G: Liquid sludge transfers from Sisters Beach STP

Receiving STP	Volume (kL)
Wynyard STP	1379
TOTAL	1379

59.10 Non-compliance with other permit requirements

Table 59-H: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
40 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 59.4 Discharge compliance with permit limits and Performance Analysis

59.11 Complaints and incident reporting

Table 59-I: Complaints reporting

Date	Category	Details	Mitigation actions
07/02/2025	Odour	Sewer odour reported to be coming from network or STP.	Taswater investigated and found it to be internal plumbing issue.

Table 59-J: Incident reporting

Date	Category	Details	Mitigation actions
12/12/2024	Mechanical	Aerator in SBR offline.	Refer to Section 59.4 in Table 59-E for mitigation action specifics.

59.12 Any other relevant information

Table 59-K: Projects or significant operational events that occurred in FY24-25.

Project or significant operational event	Progress
North West Sewerage Master Plan	The North West Sewerage Regional Master Plan has been completed and outlines both short- and long-term considerations for the Sisters Beach STP with the STP retained long-term to service the catchment.
Sisters Beach PDG project	Completed the design, supply and install of an alum dosing system with the appropriate storage facilities. Replaced the sand filters, valving and actuators for maintenance purposes. Conducted maintenance to the sludge tank and decant basin floor.

For further information on Sisters Beach STP please contact TasWater on 13 6992

www.taswater.com.au