4. Blackmans Bay STP

4.1 Activity and report details

Activity name	**Blackmans Bay**		
Activity address	Tinderbox Rd, Blackmans Bay		
Permit number	Licence to Operate - 3326	**Date of issue**	18/11/1997
EPN	9057	**Date of issue**	14/02/2017
	10231/1		12/08/2021
Treatment level	Tertiary Treatment		
Authorised dry weather flows	8,530 kL/day		
Key influent source	Residential/Industrial 3 x Category 3 Customers		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 4-1: Blackmans Bay Sewage Treatment Plant

4.2 Monitoring and compliance summary

4.2.1 Flow data

Table 4-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Derwent River	No reuse scheme
Coordinates	E 526646 N 5237412	E 526770 N 5237330	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable)	17/03/25	17/03/25	NA

Table 4-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM station ID 94222	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	6,993	25.8	229.69	--
August 2024	6,322	29.2	203.93	--
September 2024	8,474	30.1	269.99	--
October 2024	5,689	41.2	188.46	--
November 2024	5,461	74.6	173.82	--
December 2024	7,281	66.1	240.37	--
January 2025	5,450	25.8	177.25	--
February 2025	5,413	29.2	159.37	--
March 2025	5,308	30.1	174.80	--
April 2025	5,345	41.2	169.62	--
May 2025	5,684	74.6	186.05	--
June 2025	6,459	66.1	206.43	--
Annual 2024-25	6,160	534.0	2,379.78	0.00
% of total discharge	--	--	100.0%	0.0%

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

4.3 Bypass events

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

4.4 Discharge compliance with permit limits

Table 4-C: Compliance summary

	Ammonia as N	BOD_5	Chlorine	Nitrogen	Oil and Grease	pH	Phosphorus	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	--	--	--	--	8.5	--	750	--
90th percentile	2	15	--	10	--	--	12	500	20
50th percentile	1	10	--	7	--	--	10	200	10
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	52	52	--	52	52	52	52	52	52
Number analysed	52	52	--	52	52	52	52	52	52
Statistical summary									
Maximum	11.4	202.0	0.0	18.1	13.7	7.9	17.8	987.0	580.0
90th percentile	0.8	8.9	0.0	8.3	1.0	7.3	5.1	63.4	13.5
50th percentile	0.2	5.0	0.0	5.3	1.0	7.1	3.6	10.0	4.0
Minimum	0.1	5.0	0.0	3.2	1.0	6.8	0.2	10.0	4.0
EPN limit compliance									
% compliance with maximum	98%	--	--	--	--	100%	--	98%	--
% compliance with 90th percentile	96%	94%	--	94%	--	--	98%	96%	92%
% compliance with 50th percentile	92%	90%	--	77%	--	--	98%	90%	87%
% compliance with pH range	--	--	--	--	--	100%	--	--	--

Table 4-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	14,298.9
Phosphorous (kg)	--	Annual	9,083.9
Method	Flow weighted/Composite method		

Table 4-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
E. coli	17/12/2024	Wet weather impact to the treatment process	Operations staff monitor process and effluent parameters following event to ensure levels return to normal
Ammonia	18/03/2025		

No other parameters had exceedances in the reporting period.

4.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

4.6 Ambient monitoring program

Table 4-F: Program details

Program	Triennial ambient monitoring as required by EPN
Status	Not required in this reporting period.
Update	Kelp monitoring and associated report is next due on 31 December 2026.
Comments	-

4.7 Groundwater monitoring

There are no groundwater monitoring programs in place for Blackmans Bay STP.

4.8 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 23 out of 108 in priority. Desktop analysis to understand performance within the sewer network was completed in the reporting period.

4.9 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. Biosolids are removed regularly from site, no stockpiling occurs.

Despite additional testing, TasWater was unable to demonstrate compliance with Grade B stabilisation requirements as per Tasmanian Biosolids Reuse Guidelines (2020). Design limitations of this STP means stabilised biosolids are unlikely to be produced without significant capital upgrades. Biosolids will therefore continue to be sent to Plenty Composting facility for the foreseeable future.

Table 4-G: Biosolids and sludge classification

Month	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant Grade
Arsenic	12	3.6	2.7	1.5	4.0	A
Cadmium	12	1.5	1.0	0.7	1.4	B
Chromium	12	31.8	21.6	14.4	31.7	A
Copper	12	595.0	501.8	347.0	649.0	B
Lead	12	19.5	14.9	10.1	20.2	A
Mercury	12	0.8	0.6	0.3	0.9	A
Nickel	12	37.9	29.7	22.0	40.1	A
Zinc	12	707.0	541.7	413.0	714.4	B

Table 4-H: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
379.0	16.6	Aerobic digestion	Unclassified	B	Unclassified	Plenty Composting facility
6.6	16.6	Aerobic digestion	Unclassified*	B	Unclassified*	Whitemarsh Farm

Notes:
DST = Dry solid tonne.
BACC = Biosolids Adjusted Contaminant Concentration
*Deemed as Grade B at the time of being sent to farm.

4.10 Non-compliance with other permit requirements

Table 4-I: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EF1 Effluent quality limits for discharge to water	See section 4.4 Discharge compliance with permit limits	See section 4.4 Discharge compliance with permit limits
G6 Complaints register	During an EPA audit it was identified that there was inadequate information in relation to complaints, the manner it was resolved and any mitigation measure taken.	Improved record keeping system in relation to complaints.
Section 51B EMPCA 1994	Breach of a condition of the Permit (Condition WM2: Sewage Sludge Management Plan) by failing to complete a stabilisation verification report for BB WWTP by 31 December 2022, as required by section 10.1.2 of the FY2022-23 Sewage Sludge Management Plan (FY2022-23 SSMP) approved by the Director. Formal warning issued to TasWater 5/8/2024	Submit a revised Stabilisation report by 30 November 2024. Revised stabilisation report not submitted as additional testing was unable to demonstrate adherence to requirements of biosolids guidelines. Biosolids from Blackmans Bay are now sent to Composting.

1.1. Complaints and incident reporting

No complaints or incidents reported to the period.

1.2. Any other relevant information

Table 5-J: Projects or significant operational events that occurred in FY 2024-2025

Project or significant operational event	Progress
Recycled Water Scheme	Ongoing design and construction of a third party recycled water treatment plant above the existing plant that will provide tertiary treatment of Class B effluent from the STP to the to produce Class A irrigation water. The South Arm Pipeline, a 14km pipe network between Blackmans Bay STP, has been installed across the River Derwent to the South Arm Peninsula.

For further information on Blackmans Bay STP please contact TasWater on 13 6992

www.taswater.com.au