

11. Cameron Bay STP

11.1 Activity and report details

Activity name	Cameron Bay STP		
Activity address	Cameron Bay, Berridale, Hobart		
Permit number	Licence to Operate – 3539	Date of issue	18/04/1990
EPN	8845/1	Date of issue	5/03/2013
	7061/2		7/04/2020
Treatment level	Secondary Treatment		
Authorised dry weather flows	6000 kL/day		
Key influent source	Residential/Industrial/Tankerred 1 x Category 4 Customers		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 11-1: Cameron Bay Sewage Treatment Plant



11.2. Monitoring and compliance summary

11.2.1. Flow data

Table 11-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Derwent River	Effluent Reuse Scheme - Claremont Golf Club
Coordinates	E521123 N5260214	E521387 N5260379	E521251 N5260232
Method of measurement	In-line flow monitor	Level sensor	In-line flow monitor
Date of last calibration/validation (if applicable)	29/01/25	29/01/25	29/01/25

Table 11-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 94258	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	4,906	60.8	152.08	-
August 2024	6,104	116.8	184.50	4.71
September 2024	7,419	104.4	222.58	-
October 2024	4,462	45.2	131.67	6.64
November 2024	4,108	27.4	112.64	10.60
December 2024	4,968	111.8	149.19	4.80
January 2025	5,264	34.4	163.17	-
February 2025	3,518	11.4	98.55	-
March 2025	2,992	16.8	92.69	19.84
April 2025	4,011	31.6	98.87	7.76
May 2025	4,321	56.2	117.99	4.33
June 2025	4,506	38.8	123.76	-
Annual 2024-25	4,721	655.5	1,647.72	58.67
% of total discharge	--	--	96.6%	3.4%

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

11.3. Bypass events

Table 11-C: Bypass events summary

Bypass ID:	CABST01-OND				
Bypass description:	Pumped overflow from the primary pump station wet well into the chlorine contact tank				
Treatment bypassed:	Secondary Treatment				
Treatment level of impacted effluent:	Screened, De-gritted, Primary Treated and Chlorinated				
Flows exceeding:	270 L/s (Approximate)				
Discharge location:	Cameron Bay STP outfall: 521387E, 5260379N (GDA94)				
Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
15/07/24 08:17	15/07/24 16:00	7.7 h	1,492 kL	Rainfall Event	To help reduce bypass events state-wide, during FY2024-25 TasWater has spent \$1.2 million on the identification, reification and monitoring of inflow and infiltration (I&I) within our systems. During FY2025 -26 we will be spending a further \$0.8 million on I&I works. Refer to 11.8 for specific actions.
16/07/24 23:47	17/07/24 04:07	4.3 h	1,126 kL	Rainfall Event	
24/08/24 23:43	25/08/24 00:07	0.4 h	23 kL	Rainfall Event	
27/08/24 22:27	28/08/24 02:16	3.8 h	841 kL	Rainfall Event	
28/08/24 06:25	29/08/24 13:23	31.0 h	8,526 kL	Rainfall Event	
30/08/24 04:32	30/08/24 19:21	14.8 h	3,385 kL	Rainfall Event	
31/08/24 06:27	31/08/24 14:08	7.7 h	2,213 kL	Rainfall Event	

Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
31/08/24 19:28	31/08/24 23:24	3.9 h	1,001 kL	Rainfall Event	
01/09/24 10:07	03/09/24 04:48	42.7 h	11,362 kL	Rainfall Event	
19/09/24 13:44	19/09/24 14:18	0.6 h	109 kL	Rainfall Event	
19/09/24 23:45	20/09/24 00:08	0.4 h	23 kL	Rainfall Event	
01/12/24 03:52	01/12/24 06:14	2.4 h	475 kL	Rainfall Event	
07/12/24 05:59	07/12/24 17:36	11.6 h	3,385 kL	Rainfall Event	
22/12/24 20:07	22/12/24 20:27	0.3 h	11 kL	Rainfall Event	
28/12/24 07:53	28/12/24 07:58	0.1 h	23 kL	Rainfall Event	
28/12/24 13:48	28/12/24 13:49	0.0 h	6 kL	Rainfall Event	
05/01/25 18:35	05/01/25 19:12	0.6 h	29 kL	Rainfall Event	
12/01/25 12:41	12/01/25 13:37	0.9 h	172 kL	Rainfall Event	
15/01/25 18:39	15/01/25 20:18	1.7 h	383 kL	Rainfall Event	
24/05/25 06:31	24/05/25 13:36	7.1 h	1,441 kL	Rainfall Event	

11.4. Discharge compliance with permit limits

Table 11-D: Discharge compliance with permit limits

	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	15	15	--	40	10	8.5	15	1,000	20
90th percentile	10	10	--	35	--	--	10	500	15
50th percentile	5	5	--	30	--	--	--	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	32.4	580.0	2.1	99.3	14.9	7.7	10.8	24,1960	564.0
90th percentile	11.2	17.9	1.4	44.5	1.8	7.4	6.7	73.8	20.6
50th percentile	2.2	6.5	0.8	30.3	1.0	7.0	5.8	10.0	6.0
Minimum	0.1	5.0	0.0	9.8	1.0	6.2	1.9	10.0	4.0
EPN limit compliance									
% compliance with maximum	92%	87%	--	79%	98%	100%	100%	96%	88%
% compliance with 90th percentile	88%	67%	--	58%	--	--	98%	94%	83%
% compliance with 50th percentile	81%	44%	--	50%	--	--	--	92%	71%
% compliance with pH range	--	--	--	--	--	98%	--	--	--

Table 11-E: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	72,270	Annual	49,945.3
Phosphorous (kg)	23,000	Annual	8,986.7
Method	Flow weighted/composite method		

Table 11-F: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
Ammonia	30/07/2024 17/12/2024 4/02/2025	10/06/2025	<p>The exact reason for a number of these non-compliances has not conclusively been determined, however, increased catchment loading may have been a contributing factor.</p> <p>In December 2024 and January 2025, a significant process upset occurred due to a shock load of trade waste. All parameters were impacted during this time.</p>
Nitrogen	30/07/2024 17/12/2024 21/01/2025 4/02/2025 25/02/2025 4/03/2025	1/04/2025 15/04/2025 20/05/2025 3/06/2025 3/06/2025	
BOD ₅	9/07/2024 30/07/2024 3/09/2024 17/12/2024	23/12/2024 25/02/2025	

Effluent compliance parameter	Date(s) of non-compliance		Reasons for non-compliance	Actions to improve performance
Chlorine	23/12/2024 11/03/2025 25/03/2025	27/05/2025 3/06/2025 10/06/2025		
E. coli	17/12/2024	25/02/2025		
TSS	6/08/2024 13/08/2024 3/09/2024 17/12/2024	23/12/2024 3/06/2025 3/06/2025		
pH	2/01/2025			
Oil and Grease (total)	17/12/2024			

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

No other parameters had exceedances in the reporting period.

11.5. Reuse annual reporting

Cameron Bay STP supplies Class B recycled water, for irrigation purposes to one customer, Claremont Golf Club.

Table 11-G: Reuse compliance summary

	BOD ₅	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	52	52	52
Number analysed	52	52	52
Statistical summary			
Maximum	580.0	7.7	24,1960
90th percentile	17.9	7.4	74
50th percentile	6.5	7.0	10
Minimum	5.0	6.2	10
EPN Limit Compliance			
% compliance with Maximum	98%	--	98%
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	96%
% compliance with pH range	--	100%	--

Table 11-H: Performance analysis (discharge to reuse)

Reuse compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
BOD ₅	17/12/2024	See Section 11.4	See Section 11.4
E. coli	17/12/2024		

No other parameters had exceedances in reporting period when discharging to reuse.

The annual soil sampling was completed at the two long term monitoring sites in December 2024. The annual compliance audit field component was also completed in December 2024 with a follow up correspondence in January 2025.

Table 11-I: Annual recycled water scheme compliance audit and soil monitoring

Program	Compliance audit	Soil monitoring
Outcomes	<p>Non-compliant:</p> <p>IEMP does not reflect current site conditions</p> <p>Recycled water was supplied to an unapproved second dam to the west of the current approved storage dam.</p> <p>Inadequate signage</p>	<p>Recycled water median salinity levels and SAR quality data suggests there is no risk of soil permeability loss from recycled water irrigation.</p> <p>The phosphorous application rate to soils through irrigation of recycled water exceeds the soil factor losses at the typical recycled water application rates. Careful irrigation to ensure that over irrigation is avoided to prevent any risk of runoff and water logging is essential.</p>
Comments	<p>Due to significant process upset all recycled water supply ceased in December 2024 until late January 2025.</p>	

Notes: SAR = Sodium Adsorption Ratio

Raw soil monitoring data and all recommendations have been provided to the recycled water customer through the annual auditing and soil monitoring program.

Previous advice from NRE provided by the customer confirmed there is no requirement from the dam regulator to register the second dam. TasWater will ensure that the signage non-compliance will be addressed in 2025.

11.6. Ambient monitoring program

Table 11-J: Program details

Program	Cameron Bay STP Ambient Monitoring Program 2024–25
Status	<p>Biennial water quality and biological monitoring. Although not an EPN requirement, the monitoring was completed to understand the risks associated with the STP effluent discharges into the Derwent Estuary.</p>
Update	<p>Water quality and biological monitoring (underwater habitat surveys, seagrass monitoring and intertidal surveys) events completed in spring and autumn.</p>
Comments	<p>An ambient monitoring report for the Cameron Bay STP 2024–2025 surveys has been submitted separately to this AER. Notable findings of the study include:</p> <ul style="list-style-type: none"> Ammonia was elevated at the outfall and upstream near in comparison to other sites during spring but remained low during autumn. No results exceeded the toxicant default guideline value (tDGV) Nitrogen concentrations were elevated at the outfall during both monitoring events. In autumn high total nitrogen persisted in the receiving environment, especially far upstream. Phosphorus and dissolved reactive phosphorus were also elevated at the outfall and exceeded the EPA DGVs for surface waters on both sampling occasions. Enterococci levels exceeded the low-risk guideline value for recreational waters at the outfall in spring, indicating a potential influence of the discharge on the receiving environment during that event. The benthic habitat surveys revealed downstream algal growth, with both effluent discharge and stormwater inputs as contributing nutrient sources. <p>The Cameron Bay STP is considered to have a moderate effect on the PEVs in the receiving environment of the outfall and biennial monitoring will continue.</p>

11.7. Groundwater monitoring

No groundwater monitoring program associated with the STP or RWS.

11.8. 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 5 out of 108 in priority. Works this period included a desktop analysis to understand performance within the sewer network.

11.9. 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.

During the reporting period, liquid sludge was received from Green Point STP. The total sludge volume received at this STP for the reporting period was 148 kL.

Biosolids are removed regularly from site, no stockpiling occurs at this STP.

Table 11-K: Biosolids sludge classification

Month	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	3.9	3.0	2.1	4.1	A
Cadmium	12	2.0	1.4	0.9	2.1	B
Chromium	12	57.4	30.1	20.8	48.5	A
Copper	12	535.0	414.5	329.0	534.6	B
Lead	12	29.3	24.1	20.0	31.3	A
Mercury	12	0.9	0.6	0.4	0.9	A
Nickel	12	37.9	27.7	21.8	36.4	A
Zinc	12	1090.0	824.2	650.0	1126.2	B

BACC = Biosolids adjusted contaminant concentration

Table 11-L: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
202.0	14.4	Anaerobic digestion	B	B	2	Whitemarsh Farm, Blue Hills Farm, Coronation Hotel, Thorpe Farm

Notes: DST = Dry solid tonne.

Table 11-M: Liquid sludge transfers received at Cameron Bay STP

STP transferred from	Volume received (kL)
Green Point STP	148
TOTAL	148

11.10. Non-compliance with other permit requirements

Table 11-N: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
A1 Odour Management	Odour exceeds 2 OU limits on occasions at the site boundary.	Capital project to further reduce the odour impact. TasWater has submitted an Odour Abatement Plan which is being progressed. Refer to Section 11.12 for more details.
EF3 Effluent quality limits for discharge to water	Discharge compliance with permit limits.	See section 11.4 Discharge compliance with permit limits and Performance Analysis.
EF4 Effluent quality limits for discharge to reuse	Discharge compliance with permit limits.	See section 11.5 Discharge compliance with permit limits and Performance Analysis.
(EPN 8845) EM1, EM2 & EM3 Effluent Management, Reuse Feasibility Study and Discharge Management Plan	Reuse Feasibility Study and Discharge Management Plan overdue.	TasWater acknowledges the non-compliance associated with the DMP condition. We are working towards the intent of the EPN condition to prioritise discharge risk reduction projects in line with our EPA endorsed Wastewater Risk Management Plan and Price and Service Plan process.

11.11. Complaints and incident reporting

No complaints received during the reporting period.

Table 11-O: Incident reporting

Date	Category	Details	Mitigation actions
21/11/2024	Mechanical	Primary clarifier went offline due to a mechanical failure.	Rectification project required to bring clarifier back online.
19/12/2024	Process	Treatment capability significantly deteriorated due to trade waste.	Ambient monitoring at sites around the River Derwent. The STP required reseeding from Self Point STP to become operational again. TasWater prepared a breach notification letter to require customer comply with their Trade Waste Agreement limits or cease discharge.
28/01/2025	Process	The aeration tanks experienced significant fouling which reduced Dissolved Oxygen levels in the tanks. This was linked to the significant process issue associated with trade waste in December.	Tanks drained and cleaned before coming back online.

Date	Category	Details	Mitigation actions
3/06/2025	Process	High turbidity identified. Potentially a process upset not related to tradewaste on this occasion.	Ongoing monitoring and investigation.
30/06/2025	Mechanical	Groundwater ingress was identified in Digester 2. The digester was bypassed. No impact the process or production of biosolids.	A vacuum truck was used to clean out the digester sludge and then it was cleaned and inspected to determine the root cause. Digester leak was sealed.

11.12. Any other relevant information

Table 11-P: Projects or significant operational events that occurred in FY 2024-2025

Project or significant operational event	Progress
Derwent Hobart Sewerage Regional Master Plan	The Derwent Hobart Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Cameron Bay STP.
Cameron Bay STP odour dispersion model update	The updated odour dispersion model completed in FY2025. Future upgrades are to be based on the findings of this report and discussions with the EPA.

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

www.taswater.com.au