

26. Bridgewater (Green Point) STP

26.1 Activity and report details

Activity name	Bridgewater (Green Point) STP		
Activity address	Eddington St, Bridgewater, Hobart		
Permit number	Licence to Operate – 3447	Date of issue	17/10/1989
EPN	8844/1	Date of issue	05/03/2013
	7058/2		4/08/2020
Treatment level	Secondary Treatment		
Authorised dry weather flows	3500 kL/day		
Key influent source	Residential/Industrial 1 x Category 3 Customer		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 26–1: Green Point Sewage Treatment Plant



26.2 Monitoring and compliance summary

26.2.1 Flow data

Table 26-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Derwent River	Brighton Recycled Water Scheme
Coordinates	E 519522 N 5267820	E 519482 N 5267582	E 519574 N 5267757
Method of measurement	Level sensor	Level sensor	Level sensor
Date of last calibration/validation (if applicable).	14/03/2025	14/03/2025	14/03/2025

Table 26-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	2,535	60.8	38.45	43.69
August 2024	2,686	116.8	18.58	48.22
September 2024	2,898	104.4	41.68	24.07
October 2024	2,326	45.2	6.40	64.03
November 2024	2,264	27.4	12.41	61.85
December 2024	2,241	111.8	20.26	47.83
January 2025	2,188	34.4	0.00	72.94
February 2025	2,202	11.4	0.00	43.66
March 2025	2,297	16.8	0.00	86.54
April 2025	2,289	31.6	0.00	68.66
May 2025	2,356	56.2	0.00	73.04
June 2025	2,401	38.8	0.00	72.02
Annual 2024-25	2,391	655.6	137.79	706.54
% of total discharge	--	--	16.3%	83.7%

2025-24 monthly flow data was submitted directly to the EPA.

26.3 Bypass events

Table 26–C: Bypass events summary

Bypass ID:	GRPST01–OPSD				
Bypass description:	Trickling Filter Recirculation Pit overflow to the Chlorine Contact Tank				
Treatment bypassed:	Secondary Treatment (Activated Sludge)				
Treatment level of impacted effluent:	Screened, De-gritted, Primary Treated, Secondary Treated (Trickling Filter), and Disinfected (Chlorine)				
Flows exceeding:	110 L/s (Approximate)				
Discharge location:	River Derwent: 519539E, 5267705N (GDA94)				
Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
15/07/2024	15/07/2024	11.7 h	56 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.
16/07/2024	17/07/2024	17.4 h	72 kL	Rainfall Event	
28/08/2024	28/08/2024	3.0 h	14 kL	Rainfall Event	A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 17 out of 108 in priority (high). Works this period included a desktop assessment of sewer network to identify potential areas of concern
29/08/2024	29/08/2024	4.9 h	23 kL	Rainfall Event	
30/08/2024	30/08/2024	7.6 h	35 kL	Rainfall Event	
31/08/2024	31/08/2024	3.8 h	17 kL	Rainfall Event	
31/08/2024	31/08/2024	3.5 h	16 kL	Rainfall Event	
1/09/2024	2/09/2024	40.8 h	194 kL	Rainfall Event	

Bypass ID:		GRPST01-OPSD		
31/10/2024	31/10/2024	0.4 h	2 kL	Rainfall Event
7/12/2024	7/12/2024	10.2 h	49 kL	Rainfall Event
21/12/2024	21/12/2024	1.7 h	4 kL	Rainfall Event
22/12/2024	22/12/2024	1.3 h	4 kL	Rainfall Event
22/12/2024	22/12/2024	4.6 h	21 kL	Rainfall Event
23/12/2024	23/12/2024	2.9 h	3 kL	Rainfall Event
24/12/2024	24/12/2024	2.5 h	3 kL	Rainfall Event
25/12/2024	25/12/2024	1.3 h	5 kL	Rainfall Event
5/01/2025	5/01/2025	1.7 h	7 kL	Rainfall Event
12/01/2025	12/01/2025	9.2 h	29 kL	Rainfall Event
9/02/2025	9/02/2025	0.7 h	2 kL	Rainfall Event
10/02/2025	10/02/2025	1.4 h	3 kL	Rainfall Event
16/02/2025	16/02/2025	0.9 h	2 kL	Rainfall Event
27/03/2025	27/03/2025	2.4 h	10 kL	Rainfall Event
7/04/2025	7/04/2025	2.8 h	5 kL	Rainfall Event
18/04/2025	18/04/2025	1.2 h	4 kL	Rainfall Event
6/05/2025	6/05/2025	0.5 h	2 kL	Rainfall Event

Bypass ID:		GRPST01-OPSD							
8/05/2025	8/05/2025	0.8 h	2 kL	Rainfall Event					
15/05/2025	15/05/2025	5.2 h	9 kL	Rainfall Event					

26.4 Discharge compliance with permit limits

Table 26-D: Discharge compliance with permit limits

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	30	30	--	45	10	8.5	10	200	30
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	37.8	58.0	1.5	54.0	4.4	7.1	8.4	24,196	29.0
90th percentile	36.7	46.5	1.5	50.0	3.6	7.1	7.3	18,489	22.1
50th percentile	18.8	19.0	1.0	42.3	2.2	6.6	6.5	1,615	17.0
Minimum	5.5	8.0	0.2	29.6	1.0	4.9	4.5	52	4.3
EPN limit compliance									
% compliance with maximum	83%	67%	--	67%	100%	100%	100%	17%	100%

Parameter	Ammonia	BOD ₅	Chlorine	Nitrogen	Oil and grease	pH	Phosphorous	E. coli	Total suspended solids
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	58%	--	--	--

Table 26-E: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	7,884	Annual	5,849.9
Phosphorous (kg)	1,752	Annual	777.3
Method	Flow weighted/composite method		

Table 26-F: Performance Analysis (Discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance	
Ammonia	9/07/2024 13/08/2024	The plant is a trickling filter process, not designed to remove nitrogen or ammonia.	No specific actions.	
Nitrogen	9/07/2024 13/08/2024		8/10/2024 13/05/2025	No specific actions undertaken.
ph	8/10/2024 12/11/2024 14/01/2025	11/03/2025 8/04/2025	Minor limit exceedance.	Requires MHL dosing system to increase alkalinity.
Chlorine	9/07/2024 8/10/2024	11/02/2025 10/06/2025	Instances of elevated E. coli typically correspond with lower effluent chlorine concentrations caused by limited control automation. The variability in effluent quality from the secondary treatment process is also believed to impact the consistency disinfection performance. Failure of high chlorine is a result of the limited automated control in the dosing system.	No specific actions undertaken.
E. coli	9/07/2024 13/08/2024 10/09/2024 12/11/2024 3/12/2024	14/01/2025 11/02/2025 11/03/2025 8/04/2025 13/05/2025		Minor improvements to the chlorine dose rate control.

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

No other parameters had exceedances in the reporting period.

26.5 Reuse annual reporting

The Green Point and Brighton STP's supply recycled water for irrigation purposes to twelve properties across the Bridgwater area.

Table 26-G: Reuse compliance summary

Parameter	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	12	12	12
Number analysed	12	12	12
Statistical summary			
Maximum	58.0	7.1	24,196
90th percentile	46.5	7.1	18,490
50th percentile	19.0	6.6	1,615
Minimum	8.0	4.9	52
Summary of results			
% compliance with maximum	92%	--	83%
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	33%
% compliance with pH range	--	83%	--

Table 26-H: Performance analysis (discharge to reuse)

Reuse compliance parameter	Date(s) of elevated parameter	Reasons	Actions to improve performance
E. coli	14/11/2023 28/11/2023 13/02/2024	See Table 26-F	See Table 26-F
pH (Field)	11/03/2025 9:30		
E. coli (MPN)	11/03/2025 9:30 12/11/2024 8:15		
BOD ₅	13/08/2024		

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

Annual soil sampling was completed at nineteen sites on eleven properties across the Brighton RWS in July 2024. The distribution of the sampling sites was based on the established sampling program and consideration of the irrigation application rates for the past irrigation and proposed coming irrigation season. One site was removed from the program as no application of recycled had been or is planned on this site. A new sample site was established based on an increase in volume of recycled water to this

area. Annual compliance audits were completed at twelve properties in July, August and September 2024. Mostly completed by phone, field observations were conducted in conjunction with the soil sampling in July. Annual sampling of the nine privately owned customer recycled water storage dams supplied by the scheme was completed in September 2024. This sampling was completed as part of the annual sampling program implemented in 2016, on direction from the EPA. A summary of the findings of the programs is provided in the below table.

Table 26–I: Annual recycled water scheme compliance audit and soil monitoring

Program	Compliance audit	Soil monitoring	Dam sampling
Outcomes	<p>Overall compliance Rating: 89% 25% properties fully compliant</p> <p>67% properties recorded minor – non compliances (inadequate signage on property entrance, boundaries and taps) .</p> <p>One property had no IEMP however operated in accordance with relevant guidelines.</p> <p>Major non-compliances: Irrigation within buffer zones, in proper use/ management recycled water within storages. Stock not adequately excluded from recycled water storage. Potential inadequate stock withholding times (grain crop).</p>	<p>Average soil salinity and Chloride levels ranged from non-saline (63% sites) to low-level saline (16% slightly saline and 21% saline). With 2024 monitoring program recording slightly higher average soil salinity levels and a decrease in chloride levels. No long-term trend identified.</p> <p>Average ESP levels remain similar to previous years, ranging from non-sodic (95% sites) to borderline sodic (5% sites). No long-term trend identified.</p> <p>Average phosphorous levels remain excessive, potassium levels remain high, and average Sulphur levels remain moderate. Average phosphorous and potassium levels continue to show an increasing long-term trend.</p>	<p>Recycled water quality in all customer dams (as sampled on 26 September 2024) was generally compliant with class B recycled water standards, with exception of one storage that recorded slightly elevated level of BOD. No impact on the landowner is anticipated.</p> <p>Water quality indicators were considered generally satisfactory with nutrient concentrations considered typical of recycled water and soil sodicity risk indicators acceptable</p>
Comments	<p>Outside formal audit stock where accessing land drip irrigated with recycled water and irrigation within buffer zones.</p> <p>Aspects of original Site Management Plans are outdated for numerous properties. Review of Brighton EMP was undertaken during 2024–25 reporting period with provision to EPA for feedback. TasWater will work with customers to address updating customer IEMPs following the EMP review.</p> <p>Recycled water customer of major non-compliance</p>	<p>Overall soil health and fertility do not appear to be adversely impacted through recycled water irrigation.</p> <p>Long-term trends in average Phosphorus and potassium continue to be attributed to sources other than recycled water application. Average levels are strongly influenced by excessive levels at a few sites where known nutrient inputs are significant.</p>	

	has been advised of requirements.		
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Notes: K = Potassium; P=Phosphorous; S = Sulphur; SAR=Sodium Absorption Ratio, ECse = Electrical conductivity at saturation extent; Cl=Chloride; ESP = Exchangeable sodium percentage.

Brighton RWS Site Status: Amber

The Brighton RWS groundwater monitoring network consists of ten monitoring bores located across eight properties. Five bores (BR–THGW1, BR–HWGW3, BR–STGW1, BR–STGW3 and BR–RIGW1) are associated with recycle water storage dams.

6-Monthly sampling was completed across eight bores in July–August 2024 and January–February 2025. Bore ID numbers BR–ROGW3 and BR–ROGW4 could not be located and where not sampled.

The 2024–25 groundwater monitoring event report continued to highlight the bore of concern recording an increasing trend of total nitrogen, with concentrations above the adopted guideline criterion although concentrations have decreased. Chemical characterisation has indicated that the recycled water is chemically different from groundwater, additional monitoring is required. All other properties recorded no or minor issues. In general, the impact from recycled water irrigation on groundwater quality is likely to be low due to the use ratio of recycled water to other alternate water sources to meet the typical average irrigation demand of the region.

6-monthly sampling across the network is scheduled to continue in the 2025–26 groundwater monitoring program. One private recycled water storage associated will be sampled so that chemical characterisation can be completed to investigate and verify any trends.

Further information regarding groundwater monitoring is provided in section **Error! Reference source not found.**

26.6 Ambient monitoring program

Table 26–J: Program details

Program	Green Point STP Ambient Monitoring Program
Status	Biennial monitoring in winter and summer. No ambient monitoring required in the reporting period.
Update	Next monitoring events scheduled for July 2025 and January 2026
Comments	Monitoring was last completed in 2022 and then paused because of the Bridgewater Bridge project. The contractor advised that there would be sediment disturbance in the environment which would impact the ambient results and recommended postponing the monitoring until completion of the bridge project.

26.7 Groundwater monitoring

The Green Point STP groundwater monitoring network consists of monitoring the under-liner drainage system, located underneath the Recycled water storage lagoon (RSL) HDPE liner (ID monitoring number: GPGW1) against the contents of the RSL (ID monitoring number GPGW2).

Quarterly monitoring of both locations was completed in August and November 2024 and February and March of 2025 as scheduled.

The 2024–25 groundwater monitoring event did not indicate any obvious evidence the Recycled water storage lagoon liner is impacting on groundwater quality.

Quarterly sampling across the groundwater monitoring network is scheduled to continue during the 2025–26 monitoring program.

26.8 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 17 out of 108 in priority. Works this period included a desktop analysis to understand performance within the sewer network.

26.9 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 FY2024–25 reporting period no biosolids were produced from this STP due to ongoing upgrades to anaerobic digesters and dewatering system. Liquid sludge was instead transferred to Macquarie Point, Prince of Wales Bay and Cameron Bay STPs. The total volume of sludge removed during the reporting period was 9040kL.

No stockpiling occurs at this site.

Table 26–K: Liquid sludge transfers from Bridgewater (Green Point) STP

Receiving STP	Volume (kL)
Macquarie Point STP	2,964
Prince of Wales STP	5,928
Cameron Bay STP	148
TOTAL	9,040

26.10 Non-compliance with other permit requirements

Table 26–L: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EM4 Discharge Management Plan	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.

EPN condition	Description of non-conformance	Future actions to be taken
EF2 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 26.4 Discharge compliance with permit limits and Performance Analysis
EF3 Effluent quality limits for discharge to a reuse scheme	Discharge compliance with reuse permit limits	See section 26.5 Reuse Annual Reporting and Performance Analysis

26.11 Complaints and incident reporting

No complaints during the period.

Table 26-M: Incident reporting

Date	Category	Details	Mitigation actions
24/12/2024	Mechanical	The trickling filter recirculation control valve failed.	To mitigate this, the valve was operated manually at a fixed position and one of the recirculation pumps was turned off.
12/11/2024	Mechanical	The chlorine line had a failure. Effluent to the River Derwent is not receiving disinfection.	Operations rectified the line in the afternoon.

26.12 Any other relevant information

Table 26-N: Projects or significant operational events that occurred in FY 2024-25:

Project or significant operational event	Progress
Biosolids Handling and Treatment Upgrade. The project resulted in renewal of the following infrastructure at the site: <ul style="list-style-type: none"> Anaerobic digesters and biogas system. Biosolids handling system. Electrical and control system. 	Completed in May 2025.
50-kilowatt rooftop solar system installed at STP. Part of TasWater's broader target to self-generate at least 30 per cent of electricity demand by 2050	Completed June 2025.

For further information on Bridgewater (Green Point) STP please contact TasWater on 13 6992

www.taswater.com.au