

33. Macquarie Point STP

33.1 Activity and report details

Activity name	Macquarie Point STP		
Activity address	Macquarie Point, Hobart		
Permit number	Licence to Operate – 3514	Date of issue	14/12/1988
EPN	8880/1 8539/1	Date of issue	20/11/2013 05/03/2013
Treatment level	Secondary Treatment		
Authorised dry weather flows	18,000 kL/day		
Key influent source	Residential/Industrial/Tankered 5 x Category 3 Customers, 2 x Category 2 Customers		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 33-1: Macquarie Point Sewage Treatment Plant



33.2 Monitoring and compliance summary

33.2.1 Flow data

Table 33-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Derwent River	No reuse scheme
Coordinates	E 527701 N 5252668	E 527848 N 5252730	NA
Method of measurement	Level sensor	Level sensor	NA
Date of last calibration/validation (if applicable)	15/04/2024	15/04/2024	NA

Table 33-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 94029	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	12,517	94.4	388.03	--
August 2024	12,075	90.4	374.33	--
September 2024	15,988	81.2	479.65	--
October 2024	10,739	40.2	332.90	--
November 2024	10,416	25	312.47	--
December 2024	12,695	126.4	393.54	--
January 2025	11,019	28.4	341.58	--
February 2025	10,633	14.6	297.72	--
March 2025	10,378	11	321.71	--
April 2025	9,975	28	299.26	--
May 2025	10,961	56.8	339.78	--
June 2025	11,337	42.6	340.12	--
Annual 2024-25	11,565	639	4,221.10	0.00
% of total discharge	--	--	100.0%	0.0%

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

33.3 Bypass events

No bypass event recorded in the period.

33.4 Discharge compliance with permit limits

Table 33-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	23.0	59.0	--	38.0	10.0	8.5	8.0	1000.0	56.0
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
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	22.6	56.0	1.4	63.1	9.8	7.7	8.7	24,196	59.0
90th percentile	19.5	49.0	1.1	45.9	7.3	7.2	7.5	504.3	36.6
50th percentile	14.0	37.0	0.8	39.2	5.6	7.0	6.7	101.5	27.5
Minimum	4.7	26.0	0.1	21.4	3.9	6.5	2.5	10.0	10.1
EPN limit compliance									
% compliance with maximum	100%	100%	--	35%	100%	100%	98%	92%	98%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	98%	--	--	--

Table 33–D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024–25 result
Nitrogen (kg)	--	Annual	166,105.2
Phosphorous (kg)	--	Annual	26,841.6
Method	Flow weighted/composite method		

Table 33–E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date		Reasons for non-compliance	Actions to improve performance
Chlorine	15/04/2025	8/10/2024	The chlorine contact tank is small, requiring accurate control of chlorine residual within a tight band to ensure both disinfection compliance. Occasionally the effluent chlorine limit is exceeded due to the online analyser underreading (fouling) or wet weather.	Disinfection control improvements have been implemented to automatically adjust the chlorine dose, thereby maximising disinfection performance throughout the entire day and reducing the likelihood of exceeding the maximum total chlorine limit.
	16/07/2024	15/10/2024		
	3/09/2024	22/10/2024		
	10/09/2024	29/10/2024		
	17/09/2024	10/12/2024		
E. coli	28/01/2025			
	4/03/2025			
	15/04/2025			
Nitrogen	2/07/2024	18/02/2025	High volumes of tankered waste are believed to contribute non-compliant BOD, ammonia, nitrogen and oil and grease concentrations. Higher effluent TSS results have also been recorded, as well as increased effluent turbidity. The process is not capable of nutrient removal. Nitrification is affected by cooler temperature and high organic loading rates	No specific actions undertaken in reporting period. This STP will be decommissioned following flow transfers to an upgrade Selfs Point STP in 2026.
	9/07/2024	4/03/2025		
	23/07/2024	11/03/2025		
	6/08/2024	18/03/2025		
	30/07/2024	25/03/2025		
	13/08/2024	1/04/2025		
	20/08/2024	8/04/2025		
	17/09/2024	15/04/2025		
	8/10/2024	23/04/2025		
	15/10/2024	29/04/2025		
	26/11/2024	6/05/2025		
	3/12/2024	13/05/2025		
	2/01/2025	20/05/2025		
	7/01/2025	27/05/2025		

Effluent compliance parameter	Date		Reasons for non-compliance	Actions to improve performance
	28/01/2025	3/06/2025		
	4/02/2025	3/06/2025		
	11/02/2025	17/06/2025		
pH	11/02/2025			
Phosphorus	4/03/2025			
TSS	16/07/2024			

No other parameters had exceedances in the reporting period.

33.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

33.6 Ambient monitoring program

Table 33-F: Program details

Program	NA – No requirement for ambient monitoring in the reporting period
Status	NA
Update	NA
Comments	NA

33.7 Groundwater monitoring

No groundwater monitoring for this STP.

33.8 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 9 out of 108 in priority. Works this period included:

- Monitoring performance of previous I&I actions for effectiveness and network storage upgrades.

33.9 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.

Liquid sludge was received from the six STPs listed in table 33-I. The total sludge volume received at Macquarie Point STP for the reporting period was 11,002.7kL.

Table 33-G: Biosolids sludge classification

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	3.9	2.7	1.9	3.9	A
Cadmium	12	2.6	1.9	1.1	2.6	B
Chromium	12	118.0	40.7	22.7	91.0	B
Copper	*11	928.0	744.5	578.0	957.2	B
Lead	12	58.3	45.1	28.5	63.2	A
Mercury	12	3.7	1.9	0.5	3.6	B
Nickel	12	24.3	19.7	15.5	26.7	A
Zinc	12	1,500.0	1266.3	966.0	1609.9	B

*No Copper result for February 2025 due to lab testing error. BACC = adjusted biosolids contaminant concentration

Table 33-H: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
339.6	21.4	Anaerobic digestion	B	B	2	Whitemarsh Farm, Blue Hills Farm, Coronation Hotel, Thorpe Farm

Notes: DST = Dry solid tonne.

Table 33-I: Liquid sludge transfers received at Macquarie STP

STP transferred from	Volume received (kL)
Cygnets STP	699.4
Dover STP	203
Geeveston STP	419
Midway Point STP	2,066.5
Risdon Vale STP	2,312.8
Turriff Lodge STP	2,338
Green Point STP	2,964
TOTAL	11,002.7

33.10 Non-compliance with other permit requirements

Table 33-J: EPN non-compliances

EPN condition	Description of non-conformance	Current and future actions to prevent non-compliance
EPN 8880/1		
EF3 Effluent quality limits for discharge to River Derwent	Discharge compliance with permit limits	See section 33.4 Discharge compliance with permit limits and Performance Analysis
EPN 8539/1		
EM3 Discharge Management Plan	Discharge Management Plan overdue	Has not been formally resolved during FY2025. The EPA Board approved the Macquarie Point Sewage Pump Station

EPN condition	Description of non-conformance	Current and future actions to prevent non-compliance
		(SPS) Environmental Impact Statement (EIS). Construction of the SPS commenced in October 2024 and is due for commissioning in 2027.

33.11 Complaints and incident reporting

No complaints or incidents recorded in the period.

33.12 Any other relevant information

Table 33-L: Projects or significant operational events that occurred in FY 2024-25:

Project or significant operational event	Progress
Macquarie Point STP Relocation	The construction of the new sewage pumping station (SPS) and emergency storage commenced in September 2024 and is ongoing. Work to date has mainly included piling, excavation of the SPS and dewatering. Project commissioning expected in 2027.

For further information on Macquarie Point STP please contact TasWater on 13 6992

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