

29 Latrobe STP

29.1 Activity and report details

Activity name	Latrobe STP		
Activity address	River Road, Latrobe		
Permit number	Licence to Operate - 3614	Date of issue	22/02/1989
EPN	7454/1	Date of issue	13/09/2007
Treatment level	Secondary Treatment		
Authorised dry weather flows	1000kL/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 2024		

Figure 29-1: Latrobe Sewage Treatment Plant



29.2 Monitoring and compliance summary

29.2.1 Flow data

Table 29-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Bass Strait (via Pardoe STP outfall)	No reuse scheme
Coordinates	E 449028 N 5436123	E 449255 N 5443071	NA
Method of measurement	In line meter	Estimate based on influent	NA
Date of last calibration/validation (if applicable).	28/09/2023	NA – to be installed	NA

Table 29-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91107	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2023	2,065	70.6	64.00	--
August 2023	1,987	65.2	61.61	--
September 2023	1,555	27.1	46.66	--
October 2023	1,469	37.9	45.53	--
November 2023	1,382	16.4	41.47	--
December 2023	1,555	60.8	48.22	--
January 2024	1,469	78.2	45.53	--
February 2024	1,382	10.6	40.09	--
March 2024	1,382	6.7	42.85	--
April 2024	1,469	60.2	44.06	--
May 2024	1,382	29.9	42.85	--
June 2024	1,555	54.4	46.66	--
Annual 2023–24	1,560	518.0	569.54	--
% of total discharge	--	--	100.0%	--

2023–24 monthly flow data was submitted directly to the EPA.

29.3. Bypass events

Table 29-C: Bypass events

Bypass description:	Overflows from chlorine contact tank 4				
Treatment bypassed:	Secondary Treatment				
Treatment level of impacted effluent:	Partial treatment (screening, primary and secondary treatment, with limited disinfection)				
Flows exceeding:	30L/s or 2.5ML/d (Approximate)				
Discharge location:	Overflow to Mersey River				
Start date	End date	Duration (hours)	Volume estimate	Cause	Response actions
11/06/2024	11/06/2024	19	696	Wet weather event	*No specific actions.
2/04/2024	2/04/2024	22	1017	Wet weather event	*No specific actions.
17/01/2024	17/01/2024	18	236	Wet weather event	*No specific actions.
8/09/2023	8/09/2023	11.5	189	Wet weather event	*No specific actions.
22/08/2023	23/08/2023	25.48	953	Wet weather event	*No specific actions.
8/07/2023	9/07/2023	47.27	1701	Wet weather event	*No specific actions.

*Overflow monitoring and alarm detection from chlorine contact tank 4 recently found at Latrobe STP, following an internal investigation into overflow/bypasses at this site. Telemetry will be added to future wet weather event reporting for EPA/EHO notifications.

29.4 Discharge compliance with permit limits

Table 29-D: Discharge compliance with permit limits

Parameter	Ammonia	BOD5	Chlorine	Nitrogen	Oil and grease	pH	Phosphorous	E coli	Total suspended solids
	mg/L	mg/L	mg/L	mg/L	mg/L	Units	mg/L	MPN/100mL	mg/L
Permit/EPN limit									
Maximum	--	50	--	--	--	8.0	--	10000	--
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	1000	--
Minimum	--	--	--	--	--	5.5	--	--	--
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	202.1	118	--	207.5	9.2	8.2	9.3	24196	45.0
90th percentile	80.7	99	--	104.5	8.6	8.1	7.5	24196	44.8
50th percentile	36.3	28	--	51.2	5.7	7.7	6.6	24196	30.0
Minimum	23.6	13	--	34.2	2.7	7.4	2.5	75	24.8
EPN limit compliance									
% compliance with maximum	--	58%	--	--	--	--	--	25%	--
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	17%	--
% compliance with pH range	--	--	--	--	--	83%	--	--	--

Table 29-E: Mass loads to the environment

Parameter	EPN limit	Frequency	2023-24 result
Nitrogen (kg)	--	Annual	39510.2
Phosphorous (kg)	--	Annual	3444.8
Method	Time weighted/grab sample method		

Table 29-F: Performance Analysis (Discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
BOD	16/11/2023 14/12/2023 1/02/2024	7/03/2024 14/06/2024	The cause of BOD exceedances is not known. Possible causes could be attributed to an increase in catchment loading.
E. coli	6/07/2023 21/09/2023 12/10/2023 16/11/2023 14/12/2023 12-month 50 th percentile limit exceeded	24/01/2024 1/02/2024 7/03/2024 14/06/2024	Instances of elevated E. coli typically correspond with lower effluent chlorine concentrations caused by limited control automation or gas locking within the dosing unit.
pH	7/03/2024 14/06/2024	The exceedances are likely attributed to tradewaste leachate input.	

No other parameters had exceedances in the reporting period.

29.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

29.6 Ambient monitoring program

Table 29-G: Program details

Program	Ongoing biennial, seasonal (winter/summer) ambient monitoring as part of Pardoe AMP
Status	No requirement for ambient monitoring within the reporting period
Update	No ambient monitoring undertaken within the Bass Strait receiving environment during the reporting period.
Comments	NA

29.7 Groundwater monitoring

No groundwater monitoring bores are associated with this STP.

29.8 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. Update to the actions completed will be provided in the next revision due September 2024.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 21 out of 108 in priority. Actions in the period included:

- CCTV undertaken
- Manhole remediation completed
- Relining and sewer renewals completed.

29.9 Sludge and biosolids

The latest revision to the Sewage Sludge Management Plan (SSMP) includes full details of the actions undertaken during the reporting period, the most recent sludge profiling results, and upcoming annual desludging program.

This STP was fully compliant with the 2023-24 SSMP.

There are no sludge/biosolids dewatering facilities at this site, with sludge transferred via liquid sludge transport to Pardoe STP. Sludge volume produced for this site is captured at the end use/dewatered STP. The volume of sludge transferred to Pardoe STP during this reporting period was 4140kL.

29.10 Non-compliance with other permit requirements

Table 29-H: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
29 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 29.4 Performance analysis (discharge to environment)

29.11 Complaints and incident reporting

No complaints or incidents reported during the period.

Table 29-I: Complaints reporting

Date	Category	Details	Mitigation actions
22/12/2023	Odour	Odour reported to be coming from the STP.	TasWater investigated and determined that there were no process upsets attributable to explain elevated odour. No further complaints received.

Table 29-J: Incident reporting

Date	Category	Details	Mitigation actions
8/02/2024	STP pump failure	Effluent pump 1 and 2 failed to start, resulting in an 2kL overflow into the Mersey River.	TasWater promptly restored full function to both pumps within an hour of failure. Issue logged with electrical teams to further investigate. EPA and EHO notified.
1/02/2024	STP dosing tank	Broken outlet fitting and pipework on the hypochlorite tank. Pumps turned off to prevent further drainage.	Confirmed no spill to environment. Tank was drained for repairs. EPA notified.

29.12 Any other relevant information

Table 29-K: Projects or significant operational events that occurred in FY 2023-24

Project or significant operational event	Progress
Pardoe Sewerage Improvement Plan (ParSIP)	Latrobe is currently being investigated for rationalisation within the ParSIP. A ParSIP Strategic Business Case has been completed identifying preferred options and priorities. Work package Detailed Business Cases for specific prioritised options will be developed within PSP4/5 period.

For further information on Latrobe STP please contact TasWater on 13 6992.

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