

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		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2023		

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).	31/10/2022	NA	NA

Table 29-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 91126	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2022	1,681	26.0	52.13	--
August 2022	1,695	95.9	52.55	--
September 2022	1,752	46.4	52.55	--
October 2022	2,128	147.0	65.97	--
November 2022	2,045	79.8	61.36	--
December 2022	1,544	10.8	47.85	--
January 2023	968	22.6	30.00	--
February 2023	986	24.0	27.61	--
March 2023	1,054	54.7	32.69	--
April 2023	1,098	44.9	32.94	--
May 2023	1,096	21.7	33.97	--
June 2023	1,469	116.8	44.06	--
Annual 2022-23	1,462	690.6	533.67	--
% of Total Discharge	--	--	100.0%	--

2022-23 monthly flow data was submitted directly to the EPA.

29.2.2 Bypass events

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

29.3 Discharge compliance with permit limits

Table 29-C: Compliance Summary

Parameter	Ammonia	BOD5	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	--	50	--	--	--	8.0	--	10000	--
90th percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	1000	--
Minimum	--	--	--	--	--	5.5	--	--	--
Samples analysed									
Number required	0	12	0	0	0	12	0	12	0
Number analysed	12	12	12	12	12	12	12	12	12
Statistical summary									
Max	94.3	118	3.90	120.2	10.5	8.0	7.2	24196	52.0
90th percentile	67.2	76	2.29	97.1	10.3	7.9	7.1	24196	50.5
50th percentile	39.3	58	0.70	55.5	7.8	7.7	6.3	24196	31.0
Min	5.9	15	0.06	15.5	3.9	7.1	1.6	581	9.5
EPN Limit Compliance									
% compliance with Maximum	--	42%	--	--	--	--	--	17%	--
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	8%	--
% compliance with pH range	--	--	--	--	--	92%	--	--	--

Table 29-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2022-23 result
Nitrogen (kg)	--	Annual	34072.0
Phosphorous (kg)	--	Annual	2805.5
Method	Time weighted/Grab sample method		

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

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
E. coli	28/07/2022 04/08/2022 15/09/2022 15/11/2022 12/12/2022 17/01/2023 09/02/2023 22/03/2023 9/05/2023 7/06/2023 12-month 50 th percentile limit exceeded	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.	No specific actions taken during the reporting period.
BOD	15/09/2022 12/12/2022 17/01/2023 09/02/2023 22/03/2023 12/04/2023 7/06/2023	The cause of the non-compliant BOD results is not known. Possible causes are nitrogenous oxygen demand due to presence of nitrifying bacteria in the BOD test bottle, and poor performance of the trickling filter.	

No other parameters had exceedances in the reporting period.

29.4 Reuse Annual Reporting

No Recycled Water Scheme associated with this STP.

29.5 Ambient monitoring program

Table 29-F: Program details

Program	NA – no requirement for ambient monitoring in the reporting period.
Status	Ambient monitoring was undertaken as part of the Pardoe AMP during the reporting period.
Update	Ongoing biannually every 2 years as part of Pardoe AMP.
Comments	Refer to Pardoe AER commentary.

29.6 Groundwater monitoring

No groundwater monitoring bores are associated with this STP.

29.7 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 2022 to prioritise I&I investigation and works state-wide. This catchment ranked 46 out of 79 in priority.

29.8 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 2022-23 SSMP.

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

29.9 Non-compliance with other permit requirements

Table 29-G: 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 29.3 Performance analysis (discharge to environment)
8 Operational Procedures Manual	No contemporary Operational Procedures Manual	New SharePoint based solution for OPMs currently being developed. First version to be implemented in FY24.

29.10 Complaints and incident reporting

Table 29H: Complaints reporting

Date	Category	Details	Mitigation Actions
20/02/2023	Odour	Strong odour from STP	Smoke testing was conducted in late 2022. Data from this was used to help explore/consider any viable minor capital works to aid with odour management. Investigations are ongoing and updates will be provided when more information arises. Major work may not be feasible given plans to rationalise the plant in the future.
20/03/2023	Odour	Strong odour from STP	
16/05/2023	Odour	Odour from sewerage network around caravan park in Latrobe	Investigated by the TasWater networks team. No attributable causes of odour were found in the area.

No incidents during 2022-23 reporting period.

29.11 Any other relevant information

Table 29-G: Projects or significant operational events that occurred in FY 2021-22:

Project or significant operational event	Progress
Pardoe Sewer Improvement Plan (PARSIP)	Latrobe is currently being investigated for rationalisation to Pardoe within PARSIP. The PARSIP Strategic Business Case and Strategic Options Report will be completed in FY 2023-24.

For further information on the Latrobe STP contact TasWater on 13 6992

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