39. Pardoe STP

39.1 Activity and report details

Activity name	Pardoe STP		
Activity address	Brooke St, East Devonport		
Permit number	Permit Conditions Environmental - 6084	**Date of issue**	18/02/1998
EPN	8857/1	**Date of issue**	13/03/2013
Treatment level	Primary Treatment		
Authorised dry weather flows	14000 kL/day		
Key influent source	Residential/Industrial/Tankered 2 x Category 3 Customers, 7 x Category 4 Customers		
Contact person	Kate Westgate (Manager Environmental Performance)		
Report author	Jake Crisp (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 39-1: Pardoe STP

39.2 Monitoring and compliance summary

39.2.1 Flow data

Table 39-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Bass Strait	No reuse scheme
Coordinates	E 449715 N 5441883	E 449255 N 5443071	NA
Method of measurement	In line meter	Estimate based on influent	NA
Date of last calibration/validation (if applicable).	19/11/2024	NA	NA

Table 39-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 2024	15,065	104.7	467.00	--
August 2024	19,065	139.7	591.00	--
September 2024	15,833	86.8	475.00	--
October 2024	12,323	86	382.00	--
November 2024	11,000	89.1	330.00	--
December 2024	15,129	73.9	469.00	--
January 2025	12,387	15.6	384.00	--
February 2025	10,571	6.2	296.00	--
March 2025	12,548	17.1	389.00	--
April 2025	11,267	30	338.00	--
May 2025	10,387	40.8	322.00	--
June 2025	11,400	58.5	342.00	--
Annual 2024-25	13,110	748.4	4,785.00	0.00
% of Total Discharge	--	--	100.0%	0.0%

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

39.3 Bypass events

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

39.4 Discharge compliance with permit limits

Table 39-C: Compliance summary

	Ammonia as N	BOD5	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	--	700	--	--	70	--	--	--	450
90th Percentile	--	550	--	--	40	--	--	--	300
50th Percentile	--	400	--	--	20	--	--	--	200
Minimum	--	--	--	--	--	--	--	--	--
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	29.7	1215.0	0.0	74.8	136.0	7.1	16.0	241960	318.0
90th percentile	23.5	744.7	0.0	47.3	77.8	6.9	9.6	241960	149.1
50th percentile	16.4	440.0	0.0	34.4	44.4	6.6	7.1	241960	111.5
Minimum	3.2	80.0	0.0	11.3	12.8	4.7	2.1	101120	45.0
EPN Limit Compliance									
% compliance with Maximum	--	87%	--	--	85%	--	--	--	100%
% compliance with 90th percentile	--	71%	--	--	42%	--	--	--	98%
% compliance with 50th percentile	--	44%	--	--	8%	--	--	--	98%
% compliance with pH range	--	--	--	--	--	--	--	--	--

Table 39-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	165174.7
Phosphorous (kg)	--	Annual	31801.0
Method	Flow weighted/Composite method		

Table 39-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance		Reasons for non-compliance	Actions to improve performance
BOD	2/10/2024 2/01/2025 8/01/2025 15/01/2025	19/02/2025 14/05/2025 4/06/2025	There is a base level concentration of soluble BOD due to trade waste discharges that cannot be removed by the installed treatment process (i.e. primary sedimentation). This means even if all solids were filtered from the effluent, the effluent would not comply with the licence conditions.	TasWater continues to work with trade waste customers to improve the quality of trade waste in accordance with the Trade Waste Improvement Plan. This plan was developed to encourage discussions and help to implement operational strategies that reduce the impact of contributing customers. A strategic business case is under development which includes rationalisation of several treatment plants to Pardoe STP and some upgrades to the plant.
Oil and Grease	30/10/2024 13/11/2024 20/11/2024 27/11/2024 15/01/2025	22/01/2025 19/02/2025 4/06/2025	The plant received significant amount of oil and grease from trade waste which cannot be removed by the installed treatment process (i.e. primary sedimentation).	

No other parameters had exceedances in the reporting period.

39.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

39.6 Ambient monitoring program

Table 39-F: Program details

Program	Pardoe STP Ambient Monitoring Plan as per PCE 6084 variation.
Status	Ongoing biennial, seasonal (winter and summer) ambient water quality and biological monitoring in the Bass Strait receiving environment.
Update	Seasonal ambient water quality and biological monitoring was completed during the reporting period.
Comments	Ambient water quality and biological monitoring within the Bass Strait receiving environment was completed in winter (August and September 2024) and in summer (December 2024). An Ambient Monitoring Report (AMR) detailing the results of ambient monitoring has been provided to the EPA. The summarised findings of the AMR are provided below: • Field water quality monitoring found no major impacts on the broader receiving environment across sampling events in September and December 2024. Minor localised impacts on salinity were observed at depth in September, and minor localised impacts on turbidity were observed in December. Otherwise, no clear patterns associated with distance relative to the outfall were observed. Variations in most field parameters appeared to be predominantly driven by depth, season, and/or position of the sites (SW compared to the NE) rather than distance from the outfall. • Water quality monitoring found elevations in ammonia, total nitrogen, and total phosphorus in the vicinity of the outfall. Significant levels of pathogen concentrations were recorded across both sampling events, with elevations exceeding the EPA low risk guideline values for recreational waters at multiple sites. This poses a potential risk to recreational activities and/or the taking of edible fish, shellfish and crustaceans around the outfall and receiving environment. • The benthic habitat surrounding the outfall continues to be comprised of loose rock and cobble, with intermittent ascidian, sponge and algal coverage. A dense coverage of the common kelp *Ecklonia radiata* persists surrounding the diffuser ports, which is consistent with previous monitoring events. • There was a notable elevation in algal coverage in the summer monitoring event compared to in winter, with filamentous forms significantly increasing at many sites. Increases in filamentous algae were likely driven by broadscale seasonal influences. There were no other discernible impacts on flora or fauna in the receiving environment The AMR findings indicate that the Pardoe (and Latrobe) STP effluent discharge is having some localised impacts on the marine environment with continuing impacts associated with elevated pathogen indicator organisms surrounding the outfall that are likely impacting the Protected Environmental Values for primary contact, secondary contact, and harvesting of marine organisms within the Bass Strait receiving environment. Results from ambient monitoring were generally in line with prior monitoring events.

39.7 Groundwater monitoring

No groundwater monitoring program associated with this STP.

39.8 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 15 out of 108 in priority. Works this period included:

- Desktop analysis to understand performance within the sewer network

39.9 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 Sewage Sludge Management Plan.

Biosolids are removed offsite continuously, no stockpiling occurs at this site.

A dewatering equipment failure in March 2025 resulted in reduced biosolids production from this site. To stay on top of sludge levels, frequent liquid sludge transfers to Ulverstone STP were undertaken. In total 795kL of liquid sludge was transferred from Pardoe STP to Ulverstone STP during the reporting period.

During the reporting period Pardoe STP also received liquid sludge transfers from Latrobe and Port Sorell STPs totalling 10291kL.

Table 39-G: Biosolids sludge classification

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	2.1	1.7	1.3	2.2	A
Cadmium	12	1.1	0.5	0.3	0.9	A
Chromium	12	339.0	136.6	61.7	272.7	B
Copper	12	143.0	90.5	60.3	142.2	B
Lead	12	39.1	19.5	9.5	39.4	A
Mercury	12	0.5	0.3	0.1	0.6	A
Nickel	12	35.7	20.5	9.6	35.2	A
Zinc	12	535.0	357.8	217.0	548.5	B

Table 39-H: Volume and disposal destination

Quantity (DST)	Average solids content	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
532.3	25.6	None	U/C	B	U/C	Dulverton compost

Notes:
DST = Dry solid tonne. U/C = Unclassified
BACC = Biosolids Adjusted Contaminant Concentration

Table 39-I: Liquid sludge transfers received at Pardoe STP

STP transferred from	Volume received (kL)
Latrobe STP	2975
Port Sorell STP	7316
TOTAL	**10291**

Table 39-J: Liquid sludge transfers from Pardoe STP

Receiving STP	Volume (kL)
Ulverstone STP	795
TOTAL	**795**

39.10 Non-compliance with other permit requirements

Table 39-K: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
E1 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 39.4 Discharge compliance with permit limits and Performance Analysis
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.

39.11 Complaints and incident reporting

Table 39-L: Complaints Reporting

Date	Category	Details	Mitigation actions
20/02/2025	Odour	Strong odour emanating from the STP	There were no other known process upsets attributable to odour at the STP.

Table 39-M: Incident reporting

Date	Category	Details	Mitigation actions
13/03/2025	Mechanical	Rotary fan press at Pardoe STP failed. As a result of the failure, sludge processing capacity for biosolids was reduced by up to 50%. To mitigate any impacts, TasWater transferred 25 kL of sludge per day from Pardoe to Ulverstone STP for processing.	Replacement parts ordered to be installed.

39.12 Any other relevant information

Table 39-N: Projects or significant operational events that occurred in FY 2024-25:

Project or significant operational event	Progress
Mersey Central Coast Sewerage Regional Master Plan	The Mersey Central Coast Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Pardoe STP. Long-term considerations include potential rationalisation of Latrobe, Port Sorell, Railton and Sheffield flows under the Pardoe Sewerage Improvement Plan (ParSIP).
Lime Silo Removal	Completed

For further information on Pardoe STP please contact TasWater on 13 6992

www.taswater.com.au