

50. Risdon Vale STP

50.1 Activity and report details

Activity name	Risdon Vale STP		
Activity address	Grass Tree Hill Road, East Risdon, Hobart		
Permit number	Licence to Operate – 3506	Date of issue	17/10/1990
EPN	9207/1 8535/1 (Ambient)	Date of issue	21/07/2017 05/03/2013
Treatment level	Secondary Treatment		
Authorised dry weather flows	1000 kL/day		
Key influent source	Residential/Industrial 1 x Category 4 Customer		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2024		

Figure 50-1: Risdon Sewage Treatment Plant



50.2 Monitoring and compliance summary

50.2.1 Flow data

Table 50-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Derwent River	No reuse scheme
Coordinates	E 526258 N 5259216	E 525930 N 5258575	NA
Method of measurement	In Line	In Line	NA
Date of last calibration/validation (if applicable).	31/01/2024	31/01/2024	NA

Table 50-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 94271	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2022	1,030	20.0	25.10	--
August 2022	1,006	14.2	32.89	--
September 2022	1,074	34.0	25.05	--
October 2022	1,114	62.6	27.41	--
November 2022	1,124	39.4	26.93	--
December 2022	1,128	46.2	28.47	--
January 2023	1,129	44.0	27.40	--
February 2023	997	4.6	24.15	--
March 2023	1,018	10.8	29.76	--
April 2023	1,121	38.6	26.46	--
May 2023	1,075	31.2	26.20	--
June 2023	1,090	45.2	26.71	--
Annual 2022-23	1,078	390.8	326.54	--
% of Total Discharge	--	--	100.0%	--

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

50.3 Bypass events

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

50.4 Discharge compliance with permit limits

Table 50-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	5.0	15	1.0	10.0	5.0	8.5	10.0	750	20.0
90th percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	12	12	12	12	12	12	12
Number analysed	12	12	12	12	12	12	12	12	12
Statistical summary									
Max	2.8	21	0.95	18.8	1.1	7.6	7.3	24196	10.1
90th percentile	2.5	5	0.92	15.8	1.0	7.5	6.5	638	7.4
50th percentile	0.9	5	0.44	6.6	1.0	6.9	2.9	10	4.0
Min	0.2	5	0.10	2.2	1.0	6.2	0.4	10	4.0
EPN Limit Compliance									
% compliance with Maximum	100%	92%	100%	58%	100%	--	100%	92%	100%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	92%	--	--	--

Table 50-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2023-24 result
Nitrogen (kg)	--	Annual	2976.9
Phosphorous (kg)	--	Annual	1079.2
Method	Time weighted/Grab sample method		

Table 50-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
Nitrogen	26/02/2024 7/03/2024 11/04/2024 14/05/2024 5/06/2024	Cause identified as over aeration.	Reduced by lowering level in oxidation ditch.
E. coli	14/05/2024	Chlorine system fault.	Rectified.
pH	26/02/2024	Unknown.	No specific action.
BOD	14/05/2024	Unknown.	No specific action.

No other parameters had exceedances in the reporting period.

50.5 Reuse Annual Reporting

No Recycled Water Scheme associated with this STP.

50.6 Ambient monitoring program

Table 50-F: Program details

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

50.7 Groundwater monitoring

No groundwater monitoring program associated with this STP.

50.8 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 31 out of 108 in priority. Actions in the period included:

- Stage 1-4 field investigations complete
- Defect resolution is ongoing into FY24/25

50.9 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 longer operational sludge/biosolids dewatering facilities at this site, with sludge transferred via liquid sludge transport to the POW and Macquarie Point STPs for additional treatment. Sludge volume produced for this site is captured as part of the production from POW and Macquarie Point STP.

No stockpiling occurs at this site.

50.10 Non-compliance with other permit requirements

Table 50-G: EPN non-compliances

EPN condition	Description of non-conformance	Future Actions to be taken
EPN 8535/1		
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.

50.11 Complaints and incident reporting

No complaints reported during the FY2023-24 reporting period.

Table 50-H: Incidents

Date	Category	Details	Mitigation actions
14/05/2024	Disinfection	An unusually high E. coli result was recorded. It was identified there was a chlorine system issue	Investigated and rectified

50.12 Any other relevant information

Table 50-I: Projects or significant operational events that occurred in FY 2022-23:

Project or significant operational event	Progress
Inflow and Infiltration work	Flow Monitoring of the entire catchment completed and cross connection rectifications underway
Road access upgrade	Completed

For further information on Risdon Vale STP please contact TasWater on 13 6992

www.taswater.com.au