

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	Date of issue	21/07/2017
	8535/1 (Ambient)		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 2023		

Figure 50-A: 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).	19/02/2023	19/02/2023	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	1,116	28.5	28.05	--
August 2022	1,116	94.0	40.94	--
September 2022	1,153	69.2	32.31	--
October 2022	1,116	116.0	45.97	--
November 2022	1,306	57.0	33.18	--
December 2022	1,190	84.4	35.49	--
January 2023	1,219	6.6	25.48	--
February 2023	1,350	32.6	22.99	--
March 2023	1,219	26.8	23.68	--
April 2023	923	17.3	23.60	--
May 2023	960	26.8	23.67	--
June 2023	1,033	52.2	27.92	--
Annual 2022-23	1,141	611.4	363.27	0.00
% of Total Discharge	--	--	100.0%	0.0%

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

50.2.2 Bypass events

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

50.3 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	15	1.0	10	5	8.5	10	750	20
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	9.1	6	0.74	16.2	1.0	7.8	7.2	331	6.5
90th percentile	4.3	5	0.66	12.0	1.0	7.3	4.8	240	5.9
50th percentile	1.2	5	0.45	4.4	1.0	6.9	2.3	10	4.0
Min	0.4	5	0.11	2.7	1.0	6.8	0.1	10	4.0
EPN Limit Compliance									
% compliance with Maximum	92%	100%	100%	83%	100%	--	100%	100%	100%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

Table 50-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2022-23 result
Nitrogen (kg)	--	Annual	2433.0
Phosphorous (kg)	--	Annual	814.8
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	1/09/2022 22/11/2022	The brush aerator was experiencing mechanical issues around this time which required operational setpoints of the aerator run time to be adjusted to compensate. This may have impacted both Nitrogen and Ammonia compliance.	No specific action
Ammonia	22/11/2022		No specific action

No other parameters had exceedances in the reporting period.

50.4 Reuse Annual Reporting

No Recycled Water Scheme associated with this STP.

50.5 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

50.6 Groundwater monitoring

No groundwater monitoring program associated with this STP.

50.7 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 was ranked 58 out of 79 in priority.

Works this FY included:

- Flow monitoring of Risdon/Risdon Vale catchment
- Detailed property investigations recommended for 227 properties

50.8 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 Sewage Sludge Management Plan.

All sludge from Risdon Vale is now transferred via liquid sludge transport to Cameron Bay treatment plant, no stockpiling occurs. The sludge volume produced for this site is captured at the end use/dewatered STP.

Table 50-G: Biosolids sludge classification summary

Month	Number of Samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant Classification
Arsenic	12	3.9	2.6	1.6	4.2	A
Cadmium	12	1.7	1.0	0.4	1.8	B
Chromium	12	39.5	22.7	7.6	41.0	A
Copper	12	283.0	168.1	61.0	284.7	B

Month	Number of Samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant Classification
Lead	12	30.2	20.5	8.1	34.4	A
Mercury	12	0.9	0.3	0.13	0.8	A
Nickel	12	29.4	19.1	6.7	32.2	A
Zinc	12	833.0	598.3	263.0	966.5	B

50.9 Non-compliance with other permit requirements

Table 50-H: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
EPN 8535/1		
Discharge Management Plan	Discharge Management Plan overdue.	Plan in development for DMP submission dates following on from agreed format between TasWater and EPA.
EPN 9207/1		
OP2 Operational Procedures Manual	No contemporary Operational Procedures Manual	New SharePoint based solution for OPMMs currently being developed. First version to be implemented in FY24.

50.10 Complaints and incident reporting

No complaints reported during the FY2022-23 reporting period.

Table 50-I: Incidents

Date	Category	Details	Mitigation Actions
12/07/2022	Spill	The rising main into the Risdon STP failed. As a result, raw sewerage discharged into the environment at Bowen Park Lagoon. Discharge from the main ceased at midday.	The main was fully repaired the same day. No further leaks detected after the repair.

50.11 Any other relevant information

Table 50-J: 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.

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

www.taswater.com.au