

34 Midway Point STP

34.1 Activity and report details

Activity name	Midway Point STP		
Activity address	Lake View Parade, Midway Point		
Permit number	Licence to Operate – 3298	Date of issue	10/01/1992
EPN	9412/2	Date of issue	14/02/2019
Treatment level	Secondary Treatment		
Authorised Dry Weather Flows	810 kL/day		
Key Influent Source	Residential/Industrial		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2023		

Figure 34-1: Midway Point Sewage Treatment Plant



34.2 Monitoring and compliance summary

34.2.1 Flow data

Table 34-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location Name	Inlet	Pitt Water via Sorell STP	Penna Reuse Scheme
Coordinates	E 543929 N 5261611	E 546102 N 526002	E 546060 N 5262122
Method of Measurement	Level sensor	Estimate based on influent	Estimate based on influent
Date of last Calibration/Validation (if applicable).	24/05/2023	NA	24/05/2023

Table 34-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 94248	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2022	625	22.6	19.39	0.00
August 2022	452	76.6	14.03	0.00
September 2022	468	56.4	23.72	0.00
October 2022	742	84.9	21.25	0.00
November 2022	769	83.1	23.08	0.00
December 2022	709	68.0	0.00	21.99
January 2023	578	4.6	0.00	17.91
February 2023	571	36.0	0.00	15.98
March 2023	553	24.2	0.00	17.14
April 2023	573	40.7	0.00	17.20
May 2023	563	20.5	0.00	17.46
June 2023	576	36.0	2.30	14.96
Annual 2022-23	599	553.6	103.77	122.63
% of Total Discharge	--	--	45.8%	54.2%

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

34.2.2 Bypass events

No bypass events in the reporting period.

34.3 Discharge compliance with permit limits

Table 34-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	11	35	1	24	5	8.5	9	750	21
90th percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	12	12	12	12	12	12	12
Number analysed	8	8	8	8	8	8	8	8	8
Statistical summary									
Max	17.7	77	1.14	24.8	2.6	7.2	5.6	85	157.0
90th percentile	16.0	48	0.72	20.9	2.6	7.2	5.1	36	80.7
50th percentile	2.2	25	0.22	6.9	2.1	7.0	3.3	10	13.2
Min	0.8	9	0.00	3.5	1.0	6.9	2.2	10	9.3
EPN Limit Compliance									
% compliance with Maximum	75%	88%	88%	88%	100%	--	100%	100%	63%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

This STP discharges either to the Penna Reuse Lagoons or to environment via the Sorell STP outfall. As the Sorell STP outfall is a combined discharge specific compliance sampling is not undertaken for Midway Point STP. See Sorell STP for environmental discharge performance.

Table 34-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2022-23 result
Nitrogen (kg)	--	Annual	793.9
Phosphorous (kg)	--	Annual	357.4
Method	Time weighted/Grab sample method		

No other parameters had exceedances in the reporting period.

34.4 Reuse Annual Reporting

As this STP discharges to the Penna Reuse Lagoons for reuse, no compliance sampling is taken. Refer to Penna STP Annual Environmental Review for performance to reuse.

34.5 Ambient monitoring program

Table 34-E: Program details

Program	None
Status	NA
Update	NA
Comments	Discharges to Sorell Rivulet from Midway Point (& Sorell) occurred in July-November 2022 and June 2023. No ambient monitoring conducted in the reporting period.

34.6 Groundwater monitoring

Site status: Red – highly likely STP impacts

Midway point STP groundwater monitoring network consists of two groundwater monitoring bores, ID numbers MPG1-2. Biannual sampling was completed at both monitoring bores September 2022 and annual sampling at bore ID MPG2 in March 2023. Monitoring bore ID MPG1 was unable to be sampled in March 2023 due to access constraints.

Groundwater at MPG1 and MPG2 remains elevated above trigger values for total nitrogen, total phosphorus, EC, ammonia, and nitrate, as well as showing bacteriological counts. This is consistent with the previous monitoring observations. This year's results indicate evidence of potential STP impact to the groundwater which requires further investigation. The main risks posed are to the ecosystems and any recreational water users in the immediate down gradient vicinity (Orielton Bay).

Biannual sampling at extended analytical suite, prioritising biological sampling is scheduled for both bores and STP lagoons during the 2023-2024 monitoring program. This will further assist in the determination of the source concentrations and assess more accurately the main driver of the elevated nutrient levels in the monitoring bores.

34.7 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 29 out of 79 in priority (high).

34.8 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 is fully compliant with the 2022-23 SSMP.

Biosolids are removed regularly from site, no stockpiling occurs. The sludge lagoon has been taken off-line and is no longer operational. Sludge is wasted to tanks and then transferred via tanker to Macquarie Point STP where it receives further treatment.

34.9 Non-compliance with other permit requirements

Table 34-FF: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
OP1 Operational Procedures and Maintenance Manual	No contemporary Operational Procedures Manual	First revision has been completed and will be implemented in FY2024 (finalisation pending EPA approval).
EF2 Effluent Quality Limits	Environmental compliance limits	See section 34.3 Environment Compliance

34.10 Complaints and incident reporting

No incidents or complaints reported during the FY2022-23 reporting period.

34.11 Any other relevant information

Table 34-GG: Projects or significant operational events that occurred in FY 2022-23:

Project or significant operational event	Progress
<p>Penna Reuse Expansion Project</p> <p>Expansion of the current recycled water scheme to full reuse with no discharge to the marine environment via the Sorell outfall.</p>	<p>The Penna Reuse Expansion Project has been prioritised to expand the Penna recycled water scheme (RWS) to Flexmore Park and to facilitate cessation of effluent discharges into Sorell Rivulet & Pittwater.</p> <p>Penna Environmental Management Plan to include Flexmore Park is being finalised and detailed design, costings and procurement activities are being progressed in line with TasWater commitment to cease discharges by October 2023.</p>

For further information on Midway Pointy STP please contact TasWater on 13 6992

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