

25 George Town STP

25.1 Activity and report details

Activity name	George Town STP		
Activity address	Old Bell Bay Road, George Town		
Permit number	License to Operate - 3952	Date of issue	3/12/1991
EPN	7933/1	Date of issue	17/09/2015
Treatment level	Secondary Treatment		
Authorised Dry Weather Flows	3600 kL/day		
Key Influent Source	Residential/Industrial/Tankered 3 x Category 3 Customers, 2 x Category 4 Customers		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2023		

Figure 25-1: George Town Sewage Treatment Plant



25.2 Monitoring and compliance summary

25.2.1 Flow data

Table 25-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location Name	Inlet	Tamar River	No reuse scheme
Coordinates	E 486967 N 5446819	E 485467 N 5446223	NA
Method of Measurement	In line meter	In line meter	NA
Date of last Calibration/Validation (if applicable).	13/07/2022	26/09/2022	NA

Table 25-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 91286	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2022	2,224	42.4	68.96	--
August 2022	3,220	90.8	99.81	--
September 2022	1,266	31.3	37.98	--
October 2022	2,692	176.8	83.44	--
November 2022	2,908	99.0	87.25	--
December 2022	2,012	17.9	62.36	--
January 2023	1,691	49.0	67.55	--
February 2023	1,671	34.2	52.17	--
March 2023	1,181	52.1	62.46	--
April 2023	1,641	60.4	61.32	--
May 2023	1,523	70.5	65.45	--
June 2023	2,815	100.2	98.68	--
Annual 2022-23	2,073	824.6	847.41	--
% of Total Discharge	--	--	100.0%	--

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

25.2.2 Bypass events

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

25.3 Discharge compliance with permit limits

Table 25-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	20	50	--	40	10	10.0	8	1500	100
90th percentile	5	30	--	25	--	--	6	750	--
50th Percentile	3	15	--	15	5	--	4	200	40
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	12	12	12	12	12	12	12
Number analysed	12	12	0	12	12	12	12	12	12
Statistical summary									
Max	0.2	79	--	10.4	1.6	10.2	5.3	683	113.0
90th percentile	0.2	65	--	10.3	1.5	9.7	4.5	313	96.7
50th percentile	0.1	36	--	7.6	1.1	9.4	4.0	86	53.0
Min	0.1	14	--	5.1	1.0	8.0	1.8	10	13.7
EPN Limit Compliance									
% compliance with Maximum	100%	75%	--	100%	100%	--	100%	100%	92%
% compliance with 90th percentile	100%	42%	--	100%	--	--	100%	100%	--
% compliance with 50th percentile	100%	17%	--	100%	100%	--	67%	58%	17%
% compliance with pH range	--	--	--	--	--	92%	--	--	--

Table 25-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2022-23 result
Nitrogen (kg)	--	Annual	6829.5
Phosphorous (kg)	--	Annual	3007.0
Method	Flow weighted/Composite method		

Table 25-E: Performance Analysis (Discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
BOD	09/11/2022	Algae is believed to be the primary reason for elevated BOD, TSS and pH. Algae is a source of oxygen and is fundamental to lagoon treatment. Most of the non-compliant results were in warmer months when algal blooms occur.	No specific actions
	20/12/2022		
	15/02/2023		
	12-month 90 th percentile limit exceeded		
	12-month 50 th percentile limit exceeded		
pH	09/11/2022		
TSS	09/11/2022	Algae growth directly contribute to increasing pH, the site also receives considerable trade waste which contains elevated pH and alkalinity.	No specific actions
	12-month 50 th percentile limit exceeded		

No other parameters had exceedances in the reporting period.

25.4 Reuse Annual Reporting

No Recycled Water Scheme associated with this STP.

25.5 Ambient monitoring program

Table 25-F: Program details

Program Required	NA – no requirement for ambient monitoring in the reporting period.
Status	NA
Update	NA
Comments	NA

25.6 Groundwater monitoring

Site status: Limited STP impact (2022 report).

George Town groundwater monitoring network consists of eight bores, ID numbers CTGW1-8. Annual sampling was completed at all bores in June 2023.

The 2022-23 report, complete with hydrogeological review will be available by October 2023. Any actions required to address identified potential issues will be determined following the review.

Annual sampling at the extended analytical suite is scheduled for all monitoring bores during the 2023-24 groundwater monitoring program.

25.7 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 61 out of 79 in priority.

25.8 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.

Table 25-G: Desludging status and comments

Desludging Status	Comments
Medium Priority	Desludging scheduled to occur in 2026, as per the current prioritisation planning schedule.

Table 25-H: Stockpile comments

Stockpile onsite	Volume of stockpile (estimated m ³)
Yes	Residual sludge in a storage area. Volume not yet estimated.

25.9 Non-compliance with other permit requirements

Table 25-I: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
EF2 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 25.3 Discharge compliance with permit limits and Performance Analysis
OP2 Operational Procedures and Maintenance Manual	No contemporary Operational Procedures Manual	New SharePoint based solution for OPMMs currently being developed. First version to be implemented in FY24.

25.10 Complaints and incident reporting

No complaints or incidents recorded during 2022-23 reporting period. Note that one odour complaint was received on 17/02/2023 regarding the sewerage network around Wellington Street. TasWater investigated and found no issues.

25.11 Any other relevant information

For further information on George Town STP please contact TasWater on 13 6992

www.taswater.com.au