

13. Campbell Town STP

13.1. Activity and report details

Activity name	Campbell Town STP		
Activity address	Harrison Street, Campbell Town		
Permit number	Licence to Operate - 3572	Date of issue	3/11/1988
EPN	9380/1	Date of issue	25/07/2016
Treatment level	Secondary Treatment		
Authorised dry weather flows	325 kL/day		
Key influent source	Residential		
Contact person	Kate Westgate		
Report author	Luisa Romero (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2024		

Figure 13-1: Campbell Town Sewage Treatment Plant



13.2 Monitoring and compliance summary

13.2.1 Flow data

Table 13–A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Elizabeth River	Ag Irrigation (Meadow Bank)
Coordinates	E540149 N5357660	E539901 N5357745	E540082 N5357806
Method of measurement	In line meter	Influent less Reuse	In line meter
Date of last calibration/validation (if applicable).	31/10/2023	NA – to be installed	31/10/2023

Table 13–B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 93033	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2023	220	36.9	0.00	6.81
August 2023	239	54.0	0.12	7.29
September 2023	237	14.8	0.00	7.11
October 2023	235	46.9	0.00	7.29
November 2023	190	25.2	0.00	5.70
December 2023	211	79.5	0.00	6.56
January 2024	214	61.7	0.00	6.63
February 2024	174	5.9	0.00	5.04
March 2024	167	18.6	0.00	5.18
April 2024	190	59.9	0.00	5.71
May 2024	180	31.3	0.00	5.59
June 2024	197	27.6	0.00	5.91
Annual 2023–24	205	462.3	0.12	74.80
% of total discharge	--	--	0.2%	99.8%

2023–24 monthly flow data was submitted directly to the EPA.

13.3. Bypass events

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

13.4. Discharge compliance with permit limits

Table 13-C: Discharge compliance with permit limits

	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	30.0	50	--	33.0	2.0	8.5	10.0	200	50.0
90th Percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	12	12	--	12	12	12	12	12	12
Statistical summary									
Max	6.9	92	--	18.7	1.5	9.8	9.6	987	182.0
90th percentile	4.9	53	--	18.2	1.1	9.5	9.1	926	118.4
50th percentile	1.4	45	--	14.3	1.0	8.6	6.4	159	42.5
Min	0.1	5	--	7.6	1.0	7.4	4.6	10	4.0
EPN Limit Compliance									
% compliance with Maximum	100%	83%	--	100%	100%	--	100%	50%	50%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	50%	--	--	--

Table 13–D: Mass loads to the environment

Parameter	EPN limit	Frequency	2023–24 result
Nitrogen (kg)	--	Annual	2.17
Phosphorous (kg)	--	Annual	0.73
Method	Time weighted/Grab sample method		

No parameters had exceedances in the reporting period when discharging to the environment.

13.5. Reuse annual reporting

The Campbell Town STP supplies treated effluent to the Campbell Town recycled water scheme (RWS) for irrigation purposes to one property "Meadowbank".

Table 13-E: Reuse compliance summary

	BOD5	pH	E coli
Permit/EPN limit	mg/L	Units	MPN/100ml
Maximum	50	10.0	10000
90th Percentile	--	--	--
50th Percentile	--	--	1000
Minimum	--	5.5	--
Samples analysed			
Number required	12	12	12
Number analysed	12	12	12
Statistical summary			
Max	92	9.8	987
90th percentile	53	9.5	926
50th percentile	45	8.6	159
Min	5	7.4	10
EPN Limit Compliance			
% compliance with Maximum	83%	--	100%
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	100%
% compliance with pH range	--	100%	--

Table 13–F: Performance analysis (discharge to reuse)

Reuse compliance parameter	Date(s) of elevated parameter	Reasons	Actions to improve performance
BOD	13/09/2023 15/05/2024	Algae is believed to be the primary reason for elevated BOD. Most of the non-compliant results follow spikes in lagoon pH, an indication of algae activity. Algae is a source of oxygen and is fundamental to lagoon treatment.	Investigate the feasibility of upgrading and relocation of the aerators closer to the inlet, and installation of scum baffles around the lagoon outlet risers.

Note: Non-compliances only identified for the times STP has discharged to reuse

Annual soil sampling was completed in April 2024 at three sites, *Clover, Barn and Strainers*. Changes to the sampling sites include the adding of "Strainers" site to the program following recommencement of recycled water irrigation since 2021. The field component of the annual compliance audit was completed in conjunction with the soil sampling with a follow up phone audit in May 2024. A summary of the findings is found in Table 13–G.

Table 13–G: Annual recycled water scheme compliance audit and soil monitoring

Program	Compliance audit	Soil monitoring
Compliance status / summary	Minor non-compliance. Inadequate signage	All sites recorded elevated ESP, with Clover now considered borderline sodic and Strainers and Barn categorised as sodic. Phosphorous (P) and potassium (K) levels are elevated at the site Clover, although comparable to historical levels across property. Site Barn recorded elevated P levels and slightly elevated sulphur (S) levels. Whilst site Barn recorded elevated P levels.
Comments	Following field component of audit, repair and maintenance work was completed on recycled water storage. Median electrical conductivity is slightly elevated and requires on going surveillance.	From a stock risk perspective, the Grass Tetany Risk is considered excessive at site Clover and high at site Barn. Elevated P levels and or K levels at Barn and Clover sites are likely attributed to supplementary fertiliser use though recycled water may be a contributing factor. P and K levels supplied in recycled water is less than expected annual removal rate for livestock grazing.

Groundwater Status: Amber

Campbell Town RWS groundwater monitoring network consists of four groundwater monitoring bores ID numbers CTGW1, CTGW2, CTGW9 and CTGW10. Bore ID's CTGW9 and 10 were installed in 2020. Groundwater monitoring bore CTGW1 is located downslope of the on-farm recycled water storage dam. One round (6-monthly) of

sampling was completed at bore ID's CTGW9 and 10 in May 2024. The second (annual) sampling round was not completed. TasWater has put measures in place for the 2024-25 sampling program to address scheduling and resourcing delays experienced in recent years.

The 2023-24 groundwater monitoring report identified no, or minor issues associated at bore ID CTGW9. Bore ID CTGW10 recorded total phosphorous and nitrate concentrations remained above the adopted groundwater guideline criterion. Data analysis has not identified any increasing trends at the site.

Biannual sampling is scheduled to continue at bore ID's CTGW9 and CTGW10 at the extended analytical suite to expand the dataset of the newly installed bores in the 2024-25 groundwater monitoring program. Annual sampling at the standard analytical suite for CTGW1 and CTGW2.

13.6. Ambient monitoring program

Table 13-H: Program details

Program	Not applicable
Status	No ambient monitoring conducted during the reporting period.
Update	Ambient monitoring not required under EPA permit variation.
Comments	Not applicable

13.6.1. Groundwater monitoring

Site Status: Green - (2022-23 report).

Campbell Town STP groundwater sampling network consists of four monitoring bores, ID numbers CTGW5-8 and were installed in December 2019. One round of sampling was completed in May 2024 across the network. The second (annual) sampling round was not completed. TasWater has put measures in place for the 2024-25 sampling program to address scheduling and resourcing delays experienced in recent years.

Following delays, the 2023-24 report will be finalised and available in October 2024. Any actions to address identified potential issues will be determined following the hydrogeological review.

Biannual sampling at the standard analytical suite is scheduled to continue at all bores during the 2024-25 groundwater monitoring program.

13.7. 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 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 74 out of 108 in priority.

13.8. 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.

No stockpiling occurred at this site.

Table 13–I: Desludging status and comments

Desludging status	Comments
Low Priority	Desludging is outside of the current priority planning schedule.

13.9. Non-compliance with other permit requirements

Table 13–J: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
EF2 Effluent discharge limits for discharge to a reuse scheme	See section 13.5 Reuse Annual Reporting and Performance Analysis	See section 13.5 Reuse Annual Reporting and Performance Analysis

13.10. Complaints and incident reporting

No complaints received during 2023–24 reporting period.

There were no incidents during the 2023–24 reporting period.

13.11. Any other relevant information

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

www.taswater.com.au