

## 17 Currie STP

### 17.1 Activity and report details

Activity name	Currie STP		
Activity address	Light House Street, Currie		
Permit number	NA	Date of issue	NA
EPN	6259	Date of issue	10/09/2003
Treatment level	Secondary Treatment		
Authorised Dry Weather Flows	290 kL/day		
Key Influent Source	Residential/industrial		
Contact person	Kate Westgate		
Report author	Jayden Taylor		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2023		

Figure 17-1: Currie STP



## 17.2 Monitoring and compliance summary

### 17.2.1 Flow data

Table 17-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location Name	Inlet	Bass Straight	No reuse scheme
Coordinates	E230107 N5575062	229820E 5574880N	NA
Method of Measurement	Estimate based on historical flow volumes	Estimate based on water consumption	NA
Date of last Calibration/Validation (if applicable).	NA	NA	NA

Table 17-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 98011	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2022	305	83.2	9.45	--
August 2022	305	135.2	9.45	--
September 2022	315	97.2	9.45	--
October 2022	305	130.6	9.45	--
November 2022	315	66.4	9.45	--
December 2022	305	22.2	9.47	--
January 2023	305	17.4	9.47	--
February 2023	338	41.2	9.47	--
March 2023	305	51.6	9.47	--
April 2023	316	65.6	9.47	--
May 2023	305	89.8	9.47	--
June 2023	316	141.0	9.47	--
Annual 2022-23	311	941.4	113.49	0.00
% of Total Discharge	--	--	100.0%	0.0%

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

### 17.2.2 Bypass events

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

### 17.3 Discharge compliance with permit limits

Table 17-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	--	50	--	40	10	8.5	10	2000	50
90th percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	0	12	12	12	12	12	12
Number analysed	12	12	0	12	12	12	12	12	12
Statistical summary									
Max	31.6	96	--	43.1	5.6	10.3	9.6	24196	136.0
90th percentile	30.8	64	--	37.7	3.0	8.3	8.7	24196	44.6
50th percentile	21.5	35	--	32.6	1.1	7.3	6.6	5806	22.8
Min	4.8	20	--	18.0	1.0	7.2	5.6	546	6.8
EPN Limit Compliance									
% compliance with Maximum	--	83%	--	92%	100%	--	100%	42%	92%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	92%	--	--	--

Table 17-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2022-23 result
Nitrogen (kg)	--	Annual	3515.5
Phosphorous (kg)	--	Annual	797.9
Method	Time weighted/Grab sample method		

Table 17-E: Performance Analysis (Discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance	
E. coli	12/07/2022 09/08/2022 13/12/2022 28/02/2023 14/03/2023	12/04/2023 9/05/2023	Non-compliant E. coli is likely due to reduced hydraulic retention time from sludge accumulation and vegetation growth.	Continue to investigate feasibility of regular desludging of the lagoons, revegetation, and removal of rotting vegetation Investigate the feasibility of improving aeration efficiency in lagoon 1
TSS	28/02/2023	Sludge accumulation and algae are likely to be the main reasons for non-compliant BOD and TSS.		
BOD	09/08/2022 28/02/2023	Sludge accumulation and algae are likely to be the main reasons for non-compliant BOD and TSS.	No specific action	
Nitrogen	14/03/2023	Marginal exceedance, likely due to inadequate dissolved oxygen levels to provide treatment.	No specific action	
pH	14/03/2023	Algae is believed to be the primary reason for elevated pH. Algae is a source of oxygen and is fundamental to lagoon treatment. The non-compliant result was in warmer months when algal blooms occur.	No specific action	

No other parameters had exceedances in the reporting period.

#### 17.4 Reuse Annual Reporting

No recycled water scheme at this STP.

#### 17.5 Ambient monitoring program

Table 17-F: Program details

<b>Program</b>	Routine quarterly ambient water quality monitoring.
<b>Status</b>	Ongoing
<b>Update</b>	Routine quarterly ambient water quality monitoring was undertaken at 100m north and 100m south of the STP outfall. All results were below the recreational guideline value of 40 CFU/100mL Enterococci.
<b>Comments</b>	The effluent has elevated levels of <i>E. coli</i> and Enterococci, which does not usually correspond to elevated levels in the receiving environment. There was one exception in January 2022 when the 100m north site recorded an E coli result of 170 MPN/100ml. This corresponded with a high <i>E. coli</i> result in the effluent 8,664 MPN/100ml.

#### 17.6 Groundwater monitoring

There is no groundwater monitoring program in place for Currie STP.

#### 17.7 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 ranked 43 out of 79 in priority.

#### 17.8 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 17-G: Desludging status and comments

<b>Desludging Status</b>	<b>Comments</b>
Low Priority	De-sludging occurred in 2022-23, with the removal of 124.5 dst to Pearshape Quarry. Desludging is outside of the current prioritization planning schedule.

## 17.9 Non-compliance with other permit requirements

Table 17-1: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
SW2 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 17.3 Discharge compliance with permit limits and Performance Analysis.
LO1 Site security	STP boundary is not fully fenced.	Security gates to be constructed through the Project Delivery Team, scheduled for delivery in FY 2023/24.
M5 Flow monitoring equipment	No inlet flow meter.	Inlet flow meter installed in winter 2021, followed by flooding event within the same month due to inlet blockage (spill contained on-site). Flow meter and switchboard to be replaced. Timeframe TBC.
G5 Operational Procedures Manual	No contemporary Operational Procedures Manual.	New SharePoint based solution for OPMMs currently being developed. First version to be implemented by FY24.
VM1 & VM2 Vegetation and Weed management	Lagoon vegetation overgrown and degraded in areas due to lack of maintenance.	WMP for lagoon maintenance and revegetation to be investigation in FY 2023/2024.
C8 Linear construction	Rotting vegetation, dominant bullrush in final lagoons, thick stems through lagoon walls impacting lagoon lining integrity	To be investigation in FY 2023/2024.

### 17.10 Complaints and incident reporting

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

### 17.11 Any other relevant information

For further information on the Currie STP contact TasWater on 13 6992  
[www.taswater.com.au](http://www.taswater.com.au)